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Asserting our right "…to petition the Government for redress of grievances."
Amendment 1, U.S. Constitution, Dec. 15, 1791

LESSONS FROM MAJOR OFFSHORE SUPPLY VESSEL ACCIDENTS

[Editorial note: The name of the Gulf Coast Mariners Association (GCMA) was changed to National Mariners Association (NMA) on Jan. 1, 2008. This report consolidates and updates three earlier reports and their references.]

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INCIDENT #1 – COLLISION OSV BASS RIVER and OSV C-CAPTAIN

[Publication History: This report originally was published as GCMA Report #R-328, Oct. 2002. *Our comments and emphasis appear in **bold italics**.*]

Two Offshore Supply Vessels Collide, One Sinks, Three Men Die, and One Man is Injured

The collision between the OSVs BASS RIVER and C-CAPTAIN occurred during the early evening hours of Mar. 15, 1998 in the Gulf of Mexico just offshore of Port Fourchon, a major offshore oilfield supply base in southeast Louisiana. The National Transportation Safety Board (NTSB) conducted the investigation and hearing while the Coast Guard was designated as ñparty in interestò and assisted the NTSB with the investigation. The owner and operator of the OSV BASS RIVER was Trico Marine Assets, Inc. of Houma, LA while the owner of the OSV C-CAPTAIN is Alpha Marine Services and its operator is Edison Chouest Offshore, Inc. of Galliano, LA.

Our Association through its agents made inquiry of the Coast Guard on Mar. 15, 1998 under the Freedom of Information Act and received a reply dated Sept. 11, 2000. We requested further information from the NTSB and eventually purchased copies of the entire public record consisting of approximately 1,250 pages. Later, and separately, we received a copy of the NTSB ñMarine Accident Briefò adopted on July 17, 2002 reprinted below. The Coast Guard marine casualty narrative supplement states in part: ñCoast Guard administrative action may be initiated against the licensed mariners in this case upon final review of the NTSBôs formal report.ò We do not know whether this has occurred more than four years after the accident.

We publicize this report in hopes that our mariners can learn from the experiences of others. We believe that many of the lessons are self-evident from either the NTSB report or from other documents gleaned from the public record. Our comments are <u>not</u> part of the public record and are identified and separate. In the process of editing, we emphasized certain points by <u>underlining</u>.

National Transportation Safety Board
Marine Accident Brief No. DCA98MM024, Adopted: 07/17/2002

Vessel #1 – Offshore Supply Vessel (OSV) C-CAPTAIN, O.N. 1047947. Vessel data: 202.3 feet long, 56.0 feet wide, 15.8 foot draft, 1,699 gross tons, built in 1996; inspected

Vessel #2 – OSV BASS RIVER, O.N. 603111. Vessel data: 162.0 feet long, 44.0 feet wide, 12.5 foot draft; 206.0 gross tons, built in 1979; inspected

Accident Type:	Collision and Sinking
Location:	Gulf of Mexico at South Timbalier Block 26 (Latitude 28º 57.2' N, longitude 90º 10.7' W), about 8 miles south of Belle Pass, Louisiana
Date:	Mar. 15, 1998
Time:	About 1928 CST (+6 UT)
Owner/Operator:	OSV C-CAPTAIN ï Alpha Marine Services, L.L.C., Galliano, LA 70354/Galliano Marine Services, L.L.C., Galliano, Louisiana 70354
Owner/Operator	OSV BASS RIVER ï Trico Marine Assets, Inc., Houma, Louisiana 70363/Trico Marine Operators, Inc., Houma, Louisiana 70363
Property Damage:	OSV C-CAPTAIN, $40,000; OSV BASS RIVER, $5,600,000 (constructive total loss; insured loss)
Complement:	OSV C-CAPTAIN 14 (crew); OSV BASS RIVER, 7 (6 crew and 1 passenger)
Injuries:	OSV C-CAPTAIN, None; OSV BASS RIVER, 3 deaths, 1 injury

Description of the Accident

About 1900 on Mar. 15, 1998, the OSV C-CAPTAIN, with 14 crewmembers on board, was in the Gulf of Mexico returning to Port Fourchon, LA, at a speed of 12 knots and on an ***automatic pilot course*** of about 310ºT. It was about 8 to 10 miles from the Belle Pass sea buoy to Port Fourchon and about 1.3 miles southeast of the Shell platforms in South Timbalier Block 26.

About the same time, the OSV BASS RIVER with 6 crewmembers and an oil field mud engineer on board, was returning to Grand Isle, LA, at a speed of 8 knots on an ***automatic pilot course*** of about 050ºT. The BASS RIVER was about 4.7 miles southwest of the Shell platforms in Block 26. Visibility was reported to be about 10 miles and clear in darkness with no moon.

As the two OSVs neared the Shell platforms, their track lines had them in a crossing situation as described in Rule 15 of the *International Regulations for Prevention of Collisions at Sea, 1972*. The *C-CAPTAIN* mate ***(alone on watch in the wheelhouse)*** said that, about 1915, he observed a vessel later determined to be the BASS RIVER*)* just forward of his port beam and visually estimated the vessel's range at about 3 to 3½ miles. The BASS RIVER mate ***(also alone on watch)*** said that he saw the C-CAPTAIN about 3 to 5 miles away. "He'd have to see my green lighté because that would have meant that he had the right of way, which he did."

According to recordings of radio transmissions by the U.S. Coast Guard Group in New Orleans, LA, radio contact between the mates was established at 1922:19. The C-CAPTAIN mate said that, he would soon change course to the right and head toward the Belle Pass sea buoy. The BASS RIVER mate stated that he would maintain his course and speed and stay out of the C-CAPTAINôs way. After the C-CAPTAIN changed course, the vessels were heading toward each other at about a 90º angle. The BASS RIVER mate then radioed the C-CAPTAIN mate and wanted him to slow down. After the C-CAPTAIN mate agreed, no other communication occurred between the mates before the collision, which was about 3 minutes later at about 1928.

The C-CAPTAIN's bow struck the BASS RIVERôs starboard side, aft of the vessel's forward deckhouse, at about a 90º angle. The impact penetrated the BASS RIVERôs hull below the waterline. The C-CAPTAIN then backed away from the BASS RIVER, which immediately began to flood. The BASS RIVER quickly capsized to starboard. The *C*-CAPTAIN's master arrived in the wheelhouse within 10 seconds of the collision and notified the Coast Guard of the accident.

The 4 crewmembers in the BASS RIVER wheelhouse after the collision either jumped or were washed overboard as the vessel capsized. The C-CAPTAIN's crew rescued the BASS RIVER's crewmembers within 10 to 30 minutes. The 4 BASS RIVER crewmembers were wearing lifejackets and were uninjured, although the mate subsequently became hypothermic.

The inverted BASS RIVER sunk with its stern resting on the seabed and with its bow bobbing on the water's surface. The Coast Guard immediately commenced a search by water and air for the missing people, which lasted until 1230 on Mar. 18. On the evening of Mar. 20, after sea conditions had abated, divers entered the overturned BASS RIVER and recovered the bodies of the three missing people.

The C-CAPTAIN sustained minor damage to its bow, was repaired and returned to service on Mar. 21, 1998. The BASS RIVER was raised on Jan. 11, 1999, and examiners found that the starboard side had a 3' by 8" wide hole extending from the cargo deck to the vessel's bottom at the turn of the bilge. The hole penetrated 3' 7" into the vessel. The cargo deck also separated from the starboard side shell for about 13' aft of the impact point. The vessel was a total loss.

Probable Cause

The National Transportation Safety Board determines that the probable cause of the collision between the BASS RIVER and the C-CAPTAIN was ***the failure of both mates to closely monitor the movements of each other's vessel and to take appropriate action to avoid collision***. Contributing to the accident was the ***inadequate use of radiotelephone communications by both mates*** to clarify each other's navigation intentions and their ***decision to keep their vessels on automatic pilot in a close maneuvering situation***.

Other Lessons

The public record contains attempts by lawyers representing both parties to make recommendations (i.e., ñProposed Findings of Factò) to influence the National Transportation Safety Board in its report. Of these two submissions, our Association determined after reviewing the entire file that one submission was more instructive than the other. Consequently, we present edited portions of proposed findings in our report.

Proposed Findings of Fact

Preliminary Statement: This investigation and report focuses on a collision involving two offshore supply vessels, the OSV BASS RIVER and the OSV C-CAPTAIN, occurring on March 15, 1998 in the Gulf of Mexico offshore Louisiana. A four-man investigation team was convened by the chairman of the National Transportation Safety Board, James E. Hall, to investigate the casualty. Hearings were conducted in Houma, LA on Mar. 18-20, 1998. Designated as Parties in Interest were the following:

- Jerry Wayne Capps, mate of the BASS RIVER;
- Matthew Carinhas, mate of the C-CAPTAIN;
- Trico Marine Assets, Inc. and Trico Marine Operators, Inc., owner and operator, respectively, of the BASS RIVER;
- Alpha Marine Service, LLC and Galliano Marine Service, LLC, owner and operator, respectively, of the C-CAPTAIN;
- The United States Coast Guard.

Testimony and documentary evidence were received before, during and after the hearing. The following individuals testified in this order:

Matthew Carinhas (Mate aboard C-CAPTAIN)
Larry Washington (Chief Engineer aboard C-CAPTAIN)
Larry St. Pierre (Deckhand aboard BASS RIVER)
David Cason (Master aboard BASS RIVER)
Jerry Capps (Mate aboard BASS RIVER)
Glenn Duet (Master aboard C-CAPTAIN)
Edward Jacobs (Assistant Engineer aboard BASS RIVER)

Summary: Findings of Fact

: On Mar. 15, 1998 at approximately 1927 hours, the BASS RIVER collided with the C-CAPTAIN approximately eight statute miles south of a lighted buoy which marks the entrance to Belle Pass, south of Port Fourchon, LA. The location of the collision is best determined by a VHF transmission from C-CAPTAIN within minutes of the collision as it stood by on location where the BASS RIVER sank. That reported position was 28º 57.2' N and 90º 10.69' W.

None of the 14 crewmen aboard the C-CAPTAIN sustained injury. The BASS RIVER had a crew complement of six and was transporting one passenger, a mud engineer employed by an independent oilfield drilling fluid contractor. Rescued on the scene were the BASS RIVER's captain, mate, trainee engineer and deckhand. The bodies of the passenger, the vessel's engineer and the vessel's other-deckhand were discovered by divers in the hull of the. BASS RIVER on Mar. 19, 1999.

Vessel Damage

The bow stem of the C-CAPTAIN penetrated the starboard shell plating and a starboard passage tunnel of the BASS RIVER leading to the engine room, causing the vessel to roll initially to part, then to starboard and to sink within a matter of minutes. The C-CAPTAIN sustained only minimal damage and was never in danger of sinking.

Damage to the OSV C-CAPTAIN: The C-CAPTAIN was sent to North American Shipbuilding, LLC in Larose, Louisiana for repairs to its bow area, which were completed on Mar. 20, 1998. It was returned to service at

14:00 hours on Mar. 21, 1998. Total repair costs were approximately $40,000.

Damage to the OSV BASS RIVER: During the collision, damage was inflicted primarily on the starboard side of the vessel where the bow of the C-CAPTAIN penetrated a passage tunnel leading along the starboard side of the vessel from the galley area to the engine room of the BASS RIVER. The only watertight door securing this tunnel was forward of the impact area where the tunnel connects to the galley. Significantly, ***the tunnel was not equipped with a watertight door aft.*** Moreover, it was observed that ***several watertight doors were left open during transit, contributing to the rapid sinking of the BASS RIVER*** (Carinhas, pp. 26, 72 and 99-100). At the request of the Board, divers determined that the watertight door leading from the accommodation house to the main deck was "dogged in the open position," and that the watertight door leading to the second deck of the accommodation house was not latched, and "the dogging bar was still on the door on the bottom peg of the holder."

Initially, Trico awarded the salvage operation to Salvage Technologies International, Inc., which attempted to raise the BASS RIVER with a 500-ton derrick barge in conjunction with the ballasting of various compartments of the BASS RIVER by the injection of air. These salvage attempts failed and reportedly resulted in additional physical damage to the hull. Eventually, Salvage Technologies abandoned the job, and Trico subsequently awarded a salvage contract to Bisso Marine Company of New Orleans, LA. On Jan. 11, 1999, the BASS RIVER was finally raised from approximately 60 feet of water and transported, still in the slings of two derrick barges, to Fourchon, LA. Having pounded in the surf for nearly one year, the wheelhouse of the BASS RIVER no longer existed and the remainder of the hull was badly damaged. The BASS RIVER had an insured value of $5,600,000.

*[**NMA Comment:** The vessel's Certificate of Inspection shows the owner and operator of the OSV BASS RIVER (ex/Jeanne Candies) as Otto Candies, Inc. The build date was Jan. 4, 1979.]*

The BASS RIVER was heavily laden with cargo at the time of the casualty, including a large amount of drilling equipment, fluid and supplies loaded in bulk, in internal and external tanks, on pallets and in drums. This cargo had a reported value of $1,038,864. Following the casualty, the recovered tanks and cargo had a reported value of $834,771.55.

Salvage costs and miscellaneous expenses were reported to exceed $2,000,000.

OSV C-CAPTAIN Vessel Information

The C-CAPTAIN, Official Number 1047947, is owned by Alpha Marine Services, L.L.C. of Galliano, LA, and operated by Galliano Marine Services, L.L.C. of Galliano, LA. It is an inspected offshore supply vessel built in 1996. It has two aft-positioned directional propulsion units (steerable, no rudders, "Z-Drives") for propelling and steering the vessel with at 1,600 horsepower diesel on each propulsion unit. It also has two bow thrusters: a 1,200 horsepower "drop-down" directional thruster Z-Drive" and a 500 horsepower tunnel thruster (with controllable pitch propellers).

The C-CAPTAIN was issued a Coast Guard Certificate of Inspection on Feb. 5, 1997, for a period of two years to carry a maximum of 40 persons and to operate on "oceans limited to the Gulf of Mexico within 200 miles of land while engaged in the support of exploration, or exploitation, or production of offshore mineral or energy resources, not on an international voyage." The C-CAPTAIN is equipped with navigation and communication devices found on OSVs, including radar, radiotelephone equipment, and searchlights. It has full pilothouse control of engines and steering. According to the master and the engineer on watch, the vessel did not lose power or experience a steering gear failure at any time on the day of the accident. The C-CAPTAIN's principal characteristics are: Length 202.3 feet; Beam 56.0 feet; Max. Draft 15.8 feet; Gross Tons 1,699 (International Tonnage Convention); Horsepower 3,200.

OSV C-CAPTAIN Crew Information

The C-CAPTAIN was certificated to carry 40 persons, with a minimum of five in the crew and a maximum of 32 persons in addition to the crew (see Certificate of Inspection). ***On the date of the accident there were fourteen persons on board – all crewmen.***

*[**NMA Comment:** The C-CAPTAIN, a 1699 ton vessel as measured under the international tonnage convention, was authorized to sail in domestic service with a total of only 5 crewmembers. **Many of the other crewmen on the vessel were there for training purposes. Yet, of the 14 persons on board, only one man was in the pilothouse at the time of the accident.**]*

The deck and engineering officers held valid Coast Guard licenses. Carinhas, the mate on watch, age 39, obtained his first license in April 1983 as third mate oceans of unlimited tonnage, upon graduation from Texas A&M Maritime Academy. He currently holds a chief mate oceans of any gross tons, master freight and towing vessels of 1,600 gross tons, and master of uninspected fishing vessels of not more than 5,000 gross tons. He has

been working in the offshore industry since 1983.

Carinhas was also experienced as a master, and had served in that capacity on supply vessels in the offshore oil patch. He was serving as mate on the C-CAPTAIN, working under one of the company's most senior and experienced captains to become indoctrinated with the company's policies, procedures, and client relation expectations. He was also familiarizing himself with the detailed and demanding procedures involved in working around and mooring to a tension leg platform ("TLP"). All the time, he was earning captain's pay (Carinhas, pp. 48-49, 51-52 and 106). He had served as captain previously on offshore supply vessels, utility vessels and anchor handling vessels in the Gulf of Mexico during his employment with Seacor International and Seahorse Marine (p. 105-06). He had also served as a licensed officer on supply/research vessels performing classified United States government research projects in the Atlantic Ocean, the Bahamas and the Gulf of Mexico (p. 51-52). Additionally, he had served as a navigation officer aboard oceangoing vessel that maneuvered through oil platform fields (p. 53).

Aboard the C-CAPTAIN, Carinhas had made approximately ten voyages to and from Shell's MARS TLP, along the same route on which the accident occurred (p. 110).

OSV BASS RIVER Vessel Information:

The BASS RIVER, Official Number 603111, was owned by Trico Marine Assets, Inc. of Houma, LA, operated by Trico Marine Operators, Inc. of Houma, LA and crewed by Otto Candies, Inc. ("Candies") of Des Allemands, LA. It was an offshore supply vessel built in 1979. It had two main engines of 1,300 horsepower each, two propellers and two rudders. It also had a 300 horsepower tunnel bow thruster. It was issued a Coast Guard Certificate of Inspection on May 6, 1997, for a period of two years to carry a maximum of thirteen persons and to operate on "oceans while engaged in the support of exploration, or exploitation, or production of offshore mineral or energy resources." According to the master and the mate on watch, the vessel did not lose power or experience a steering gear failure while underway on the day of the accident. The BASS RIVER's principal characteristics are: Length: 162.0 feet; Beam 44.0 feet; Draft 12.5 feet; Gross Tons 206 (Domestic Tonnage Law); Horsepower 2,600.

OSV BASS RIVER Crew Information

The BASS RIVER was certificated to carry thirteen persons, a maximum of seven in the crew and six persons in addition to the crew. On the date of the accident there was a crew of six: master, mate, able seaman, ordinary seaman, chief engineer, and an engineer in training. Also on board was an oilfield mud engineer who was to be transported to ENSCO Rig 89, which was drilling for Exxon on one of its platforms in South Timbalier Block 172 in the Gulf of Mexico. The required crew held valid Coast Guard licenses.

Jerry Capps, the mate on watch, age 53, started working on vessels as a deckhand and has been in the marine industry for about 22 years. He obtained his first license as master of steam and motor vessels of not more than 100 gross tons upon near coastal waters in 1984. In 1994, he raised his license to master of steam and motor vessels of not more than 500 gross tons upon near coastal waters. He attended marine training to obtain his 100 ton ocean operator's license, attended marine training again when he first attempted to obtain his 500 ton master's license, and, after failing the 500 ton master's license exam, returned for further training (Capps, pp. 7-8). He also attended radar training and obtained a radar endorsement as part of his 500 ton master's license accreditation (Capps, pp. 8-9).

In contrast to Carinhas' familiarity with the route being traveled (as he had made the same voyage approximately ten times previously), Capps was charting an unfamiliar course. The BASS RIVER had not been to ENSCO Rig 89 previously, as it normally serviced ENSCO Rig 99 for the last three to four years. However, it was called on by Exxon to go there this day (Cason, pp. 14-15 and 22-23), and Capt. David Cason took the vessel out to the rig while Capps slept (Capps, pp. 57-58).

Weather Conditions

Weather conditions in the vicinity of Belle Pass and the casualty at 1925 hours on Mar. 15, 1998 were dark (a moonless night) with clear skies and 12 knot winds from about 110ºT. Visibility was 10-12 nautical miles, and there was no opposing swell. Seas were in the 3-4 foot range (Carinhas, p. 19). Air temperature was 65ºF, and the sea temperature was 60ºF.

Waterway Information

The Gulf of Mexico coast of the United States from Key West, Florida to the Rio Grande, Texas, is low and mostly sandy. Shoal water generally extends well offshore. Harbor entrances are marked by buoys that are the chief guides along the coast. There is also extensive oil exploration along the coast. Offshore platforms are

required to be well marked and lighted, and extend up to 125 miles offshore.

Belle Pass is the entrance from the Gulf of Mexico to Bayou Lafourche and Pass Fourchon. Port Fourchon encompasses Pass Fourchon, Belle Pass, and Bayou Lafourche for about four miles above its entrance. The Federal project depth in Belle Pass is twenty feet. Port Fourchon is a port for fishing vessels, offshore oil exploration and production vessels and facilities, Louisiana Offshore Oil Port ("LOOP") operations, and other shipping interests. LOOP is a deep water oil terminal about twenty miles offshore. Large deep draft tankers moor to one of three single point moorings to pump their cargo to shore. The terminal also monitors and records VHF-FM communications.

OSV C-CAPTAIN Watches and Duties,

: The C-CAPTAIN had three licensed captains aboard. Because of this, the vessel's master, Glenn J. Duet, did not stand a particular watch, but rather was on call to assist the other relief captains serving as mates aboard the C-CAPTAIN. Additionally, he would often relieve them so that they could eat, use the restroom or take a break. Further, he would typically, assume the conn of the vessel when approaching a platform destination, port or congested waters (Duet, pp. 9, 19, and 23).

The relief captains and mates, including Carinhas, ***stood 12-hour watches***, with rest periods as stated above. According to Duet, the navigators aboard the C-CAPTAIN averaged approximately ten hours sleep per 24 hour period, sometimes with 12-14 hours uninterrupted and available for rest (Duet, p. 23). ***The remainder of the crew aboard C-CAPTAIN stood 12-hour watches as well***, and none complained of fatigue (Duet, p. 25).

OSV BASS RIVER Watches and Duties

: According to Capt. Cason of the BASS RIVER, ***the vessel's navigators did not maintain a standard watch schedule***. ***Cason testified before the Board that if the mate on watch is tired or feels he should be relieved from the wheel, then Cason will relieve the mate at his request***, or he would go and relieve the mate on his own. The same applied for the mate if Cason was tired (Cason, p. 68). Cason confirmed that he and his mate "basically just worked until you felt like it's timeé to go get some rest" (Cason, p. 68).

The deckhands on board BASS RIVER were on an 8 hours on, 8 hours off schedule, and the engineer worked on an as needed basis, with assistance from Cason and the mate (Cason, pp. 68-69).

Transit of the OSV C-CAPTAIN

The C-CAPTAIN departed Shell's MARS TLP located in Mississippi Canyon Block 807 to return to Fourchon at approximately 1400 hours on Mar. 15. It proceeded along a standard route traveled by the vessel several times each week, as it primarily was assigned to service the MARS TLP from its base in Fourchon.

The vessel proceeded inbound at approximately 12 knots. It maintained this speed until shortly before the collision. A chronological summary of events from the testimony can be set forth as follows:

- 1200 (March 13) ï Vessel departed the semi-submersible drill vessel RATHER and headed to the MARS TLP.
- 1300 ï Vessel arrived at MARS (L 28º 52.50' N, Long. 89º 13.00' W) and tied up to the northeast side of the platform.
- 1300 (March 13) to 0130 (March 14) ï Vessel remained on stand-by awaiting instructions.
- 0130 (March 14) ï Vessel commenced discharge of pipe to MARS.
- 1400 ï C-CAPTAIN shifted and moored alongside southeast side of MARS.
- 1400 (March 14) to 1000 (March 15) ï Vessel remained on station awaiting orders.
- 1000 ï Commenced pumping 310 bbls. of calcium chloride to rig and backloaded a small quantity of deck cargo.
- 1230-1245 ï Vessel conducted a fire drill. During the drill, the vessel's crew exercised the #4 and #9 fire monitors. Training in the use of high velocity fog application and a demonstration in the proper use of self-contained breathing apparatus (SCBA) also conducted.
- 1400 ï C-CAPTAIN departed MARS and headed back toward Port Fourchon. The rhumb line course and distance between MARS and the Belle Pass sea buoy is 315ºT and 76.1 nm, respectively. At the conn was the vesselôs master. Shortly after leaving the rig, Carinhas (mate on watch) relieved the master. Carinhas testified the vessel was proceeding at 12 knots on a heading of 310ºT. The course of 310º was taken off of the vessel's GPS. The vessel was briefly diverted to a nearby Shell location. The order was rescinded by Shell within approximately twenty minutes, and the vessel resumed its inbound voyage to Port Fourchon via the SW LOOP Buoy.
- 1650-1730 ï Master relieved Carinhas for supper.
- 1900 ï C-CAPTAIN was approaching Shell Platform South Timbalier 26 about 7 miles south of the Belle Pass sea buoy. South Timbalier 26 consists of two satellite platforms connected by a catwalk, as well as a nearby

flare pipe. The mates on watch aboard both the BASS RIVER and the C-CAPTAIN indicated these two platforms were well lit on the night of the accident. According to Carinhas, it was his intention to pass about 0.2 nm west of South Timbalier 26's adjacent flare pipe and, once free and clear of the adjacent flare pipe, to alter course slightly to starboard and head for the Belle Pass sea buoy.

- About 1915 ï Carinhas visually observes the masthead light, range light and green sidelight of the BASS RIVER about 1-2 points forward of his port beam (relative bearing 270 to 292½º) at a range of between 3-3½ nm. He was about to call the BASS RIVER when it shined its spotlight in his direction. Carinhas also testified that his observations of the BASS RIVER's starboard running light and its two masthead lights led him to believe the two vessels to be in a crossing situation.
- 1922:19-1925:19 ï A series of radiotelephone conversations occurred between the two vessels. These conversations (see below) were recorded by the United States Coast Guard and LOOP. Carinhas stated that, at the time, he believed the BASS RIVER and the C-CAPTAIN were in a crossing situation and that the two vessels would soon be following similar courses toward the Belle Pass sea buoy.
- During these radio communications (between 1922:19 and 1924:45), the C-CAPTAIN cleared the flare pipe and altered course to between 318-20º toward the Belle Pass sea buoy. It was during this period of time the mate, concerned the BASS RIVER was not altering course and staying clear as it had previously agreed, became concerned about the risk of collision.
- 1924:49 ï The BASS RIVER calls the C-CAPTAIN a second time and asks whether the vessel intends to slow down. C-CAPTAIN repeats that he intends to keep his present speed as previously agreed, but asks the BASS RIVER if it wishes for the C-CAPTAIN to slacken speed to assist BASS RIVER's maneuvering. The BASS RIVER replies affirmatively. At the request of the BASS RIVER, the C-CAPTAIN agrees to and does reduce speed to clutch speed.
- 1925:19 ï Last radio communication between the BASS RIVER and C-CAPTAIN, wherein Carinhas advises BASS RIVER that he has effected the reduction to clutch speed as requested by BASS RIVER.
- 1925:20-1928:11 ï C-CAPTAIN, observing that the BASS RIVER is failing to maneuver to comply with their radio agreement of 1922 hours, goes full astern when it becomes apparent that the give-way vessel (BASS RIVER) is not taking sufficient (i.e., "early and substantial') action to avoid collision required under Rules 15 and 16, and that action now is needed by both vessels to avoid collision. ***Still yet, BASS RIVER takes no action – in fact, the vessel remained on autopilot and at speed through collision – a violation of both Rule 15 and the vessels' previous agreement.***
- 1926:49 ï One and a half minutes after their last communication, the bow of the C-CAPTAIN contacts the starboard side of the BASS RIVER at a point located aft of the vessel's deck house.

Transit of the OSV BASS RIVER

The BASS RIVER departed ENSCO Rig 89, located in South Timbalier Block 172, at 15:30 hours bound for Exxon's base in Grand Isle, LA. ENSCO Rig 89 was working for Exxon, and it was not the rig the BASS RIVER normally serviced. In fact, this was its first and only transit to ENSCO Rig 89. The vessel had been sent to the rig with cargo, but rough seas prevented the cargo from being offloaded. Accordingly, the vessel was ordered to return to shore. The BASS RIVER was heavily loaded with fuel, ballast water, liquid mud, and deck cargo, including a large 500 barrel mud tank chained down on the cargo deck (Cason, p. 19).

At the helm of the BASS RIVER on the return trip to Grand Isle was her mate, Jerry Capps. Capps is 53 years old and holds a 500 ton master's license (near coastal). He had this license only 2 years, and had never served as a master under this license.)

A chronological summary of the BASS RIVER's transit follows:

- 0345 (March 15, 1998) ï BASS RIVER departed Grand Isle, LA, entered the Gulf of Mexico, and headed for ENSCO Rig 89 which was located on an Exxon oil platform in South Timbalier Block 172 (about 55 miles southwest of Grand Isle). As stated, this was not the rig normally serviced by the BASS RIVER.
- 1000-1130 ï BASS RIVER arrives on scene at the rig. Due to rough seas, efforts to transfer cargo to the platform, as well as efforts to transfer the mud engineer, were determined to be unsafe under the circumstances for that vessel. As a result, the vessel was directed by Exxon to return to Grand Isle.
- 1600 ï Because of rough sea conditions, BASS RIVER departs ENSCO Rig 89 and heads for Grand Isle at a speed of 8 knots on a course of 037-38ºT over the ground. At the conn was the vessel's master.
- 1630 ï Master relieved by Capps, who remained at the conn up to the time of the accident. Master goes below, reads for about 15-20 minutes, and goes to sleep. He does not return to the bridge until after the collision.

- Due to the set of the current, Capps testified that the vessel was steering a heading of 050º in order to make good a course of 037-38ºT over the ground (i.e., 12-13º of leeway). Capps also stated the BASS RIVER remained on the 050º heading until the accident.
- Between 1800-1900, Capps observed one masthead light of a vessel (later identified as the C-CAPTAIN) off his starboard side at a range of about 3-5 miles (6 miles as reflected on radar) (Capps, p. 15). Shortly thereafter, the vessel's range light came into view. It was about this time Capps shined his spotlight in the direction of the C-CAPTAIN and called the vessel in an effort to attract the other vessel's attention (the Coast Guard recording of radio transmissions indicates the sighting of the range light and subsequent call occurred about 1922:19).
- Capps testified that, based on his observations of the C-CAPTAIN, the two vessels were "running almost a parallel course" (Capps, p. 16, L.3, p. 26, L. 4-25, p. 70, L. 14 (within 10º)). He also stated that because the C-CAPTAIN was exhibiting a red sidelight, it ï and not the BASS RIVER ï had the right of way (p. 26, L 13-19). ***When asked if he had used his radar to monitor the movements/distance of the C-CAPTAIN before the accident, he replied that he could not recall. He stated that he relied primarily on visual observations to keep track of the C-CAPTAIN*** (Capps, p. 23, 1-25, p. 26. L. 1-3).
- Capps also stated that his conversations with the C-CAPTAIN had led him to believe the C-CAPTAIN intended to slow down and let the BASS RIVER pass ahead of it (Capps, p. 16-17, L. 19-25, 1-4, p. 18, L. 15-25, p. 19, L. 4-9, p. 26, L. 4-25, p. 27, L. 1-7, p. 30 L. 4-20, p. 55, L. 5-23). When asked whether he had altered his course and speed before the accident, he replied: "No. I had no reason to." (Capps, p. 18, L. 11-12).
- ***Capps testified he knew the C-CAPTAIN was going into Belle Pass, and so acknowledged this information when hailing the C-CAPTAIN for their second conversation. However, he never communicated his destination, or his intended course, to the C-CAPTAIN*** during any of their conversations.
- Capps stated the BASS RIVER was being operated using its autopilot before the accident and that the ***vessel remained on autopilot up to the time of the accident***.
- At no time did Capps slacken speed of the BASS RIVER, even as the vessel ventured into ***extremis*** with the C-CAPTAIN.
- ***Capps indicated that, before the accident, he was unaware of the distance to or the bearing of the C-CAPTAIN*** (Capps, p. 56, L. 20-25). He did state that he believed the C-CAPTAIN was moving at a greater rate of speed than he was before the accident (Capps, p. 62, L. 19-22).
- Between 1922:19 and 1925.19, the BASS RIVER called the C-CAPTAIN on two separate occasions for the purpose of clarifying each other's intentions.
- 1926:49 ï Approximately 1½ minutes after their last communication, the bow of the C-CAPTAIN contacts the starboard side of the BASS RIVER at a point located aft of the vessel's deck house.

The Collision

The navigators aboard each vessel testified they visually observed the other vessel by at least 1900 hours at distances between 3-6 miles away. It is clear that the vessels were approaching each other in a crossing situation as defined under the International Regulations for the Prevention of Collisions at Sea ("the COLREGS" or "the Rules") which applied in this location.

As the vessels neared, they communicated by way of two distinct sets of VHF transmissions, which were recorded by the U.S. Coast Guard and LOOP on VHF Channel 16. The mental impression each mariner was operating under was clearly apparent to the Board once they testified. It is therefore useful and necessary to review their transmission in the context of the mental impression which each mariner had in his mind at the time. After the fact, having received testimony and evidence from both mates, and having carefully reviewed the VHF transcript, it is clear that **Mate Capps conning the BASS RIVER had a completely distorted appreciation of the navigation situation that confronted him. Compounding the inattentiveness on the part of Capps was his deficient knowledge of and practical application of the Rules of the Road, his inability to determine the direction of travel of the C-CAPTAIN by correctly interpreting the aspect of her navigation lights, the use of ineffective communications on his part and a complete inattentiveness to C-CAPTAIN's communications to him and its navigation.**

The C-CAPTAIN was sailing on a north-northwesterly course of 310º and then 318-320º as it made steady progress to the sea buoy. The BASS RIVER had an easterly heading of 050º and was making good 037-38º over the ground while ***heading for Exxon's Grand Isle base to the east of Belle Pass***. ***Inexplicably, Capps thought the C-CAPTAIN was also on an easterly course*** (approximately 10º off his) and to the south of his vessel. He testified he was aware the C-CAPTAIN was going into Belle Pass, and he even mentioned this at the beginning of his second conversation with the C-CAPTAIN. Since Belle Pass was to the north of his vessel, and since he thought

the C-CAPTAIN was on an almost parallel course south of BASS RIVER, he was under the erroneous impression the C-CAPTAIN would be turning left, or to port (pp. 70-71) (contrary to what he was specifically told by Carinhas in their first conversation), which would presumably take it across the generally easterly path of the BASS RIVER. However, Capps' appreciation of the situation was incorrect, as reflected in Figure 1 below which depicts the situation actually presented to the mariners, along with each mariner's individual appreciation of the situation.

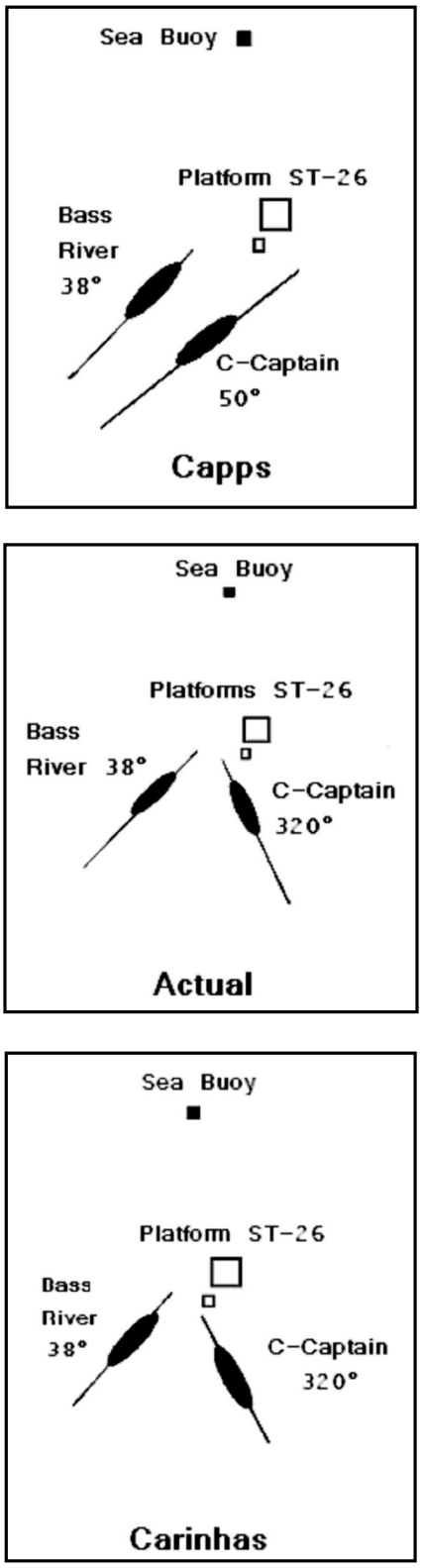

Figure 1
(Representative only)

The first exchange between the BASS RIVER and C-CAPTAIN occurred at 1922 hours. Inasmuch as the arrangement of the vessels presented a crossing situation, under Rules 15 and 16 ***the BASS RIVER was the give-way vessel which was required to take "early and substantial" action to alter course and/or speed to avoid a collision*** with the C-CAPTAIN, which was the stand-on vessel having an obligation under Rules 15 and 17 to maintain course and speed. As is evident from the transmission, ***Carinhas aboard the C-CAPTAIN properly appreciated this situation and indicated he intended to maintain his course and speed***. Capps seemingly indicated he would honor his obligation to give-way under Rule 15 so as to avoid the C-CAPTAIN, indicating he would "stay out of [C-CAPTAIN's] way one way or the other":

> BASS RIVER to this supply vessel I'm shining my spotlight in your general direction.
> Yeah, captain. This is C-CAPTAIN. Go ahead.
> This is the BASS RIVER back. Uh, you want me to cut your stern or are you going just, uh, let me get by? Over.
> Well, I'm gonna swing over here to the right and get myself lined up on the sea buoy, cap, uh. Over.
> Roger on that. Uh, well, I'll hold my course and speed there. I guess I'll stay out of your way one way or the other. Over.
> Yeah. We should end up on a parallel course here soon. Uh. I'm just, uh, getting some room between me and this little piece of pipe over here on my starboard side.
> Roger on that. Uh, have a nice evening. This is BASS RIVER.
> Yeah. Thank you, cap, uh. We'll be standing by 16.

At this stage, Capps kept the BASS RIVER on autopilot ï in fact, it was never taken off of autopilot through impact with the C-CAPTAIN. Despite telling the C-CAPTAIN that he would honor his obligation to give way to the C-CAPTAIN under Rule 15 and "stay out of [C-CAPTAIN's] way one way or the other," he did anything but "stay out of the way." He continued proceeding at eight knots right at the converging C-CAPTAIN. ***He took absolutely no action to honor his obligations under Rule 15 and as agreed upon. Worse yet, he did this armed not only with a lack of information, but with erroneous information and an incorrect mental impression of the navigation situation caused by his lack of attention to radar and visual observation. This was a violation of Rule 7(c), which states that assumptions concerning risk of collision "shall not be made on the basis of scanty information, especially scanty radar information.***" It was night, he was presented with a red light from C-CAPTAIN but somehow thought the C-CAPTAIN was on a parallel course to his and off to his starboard side, and he was ***making ineffective use (or no use) of his vessel's radar***. He testified he could not recall if he used his radar to monitor the movements and distance of the C-CAPTAIN before the collision (Capps, pp. 23 and 26). Had he used the radar effectively, he would have been able to make a determination from the radar itself of the course being traveled by and the speed of the C-CAPTAIN, and he would have been able to use radar plotting as an aid to avoid the risk of collision as required under Rule 7(b).

Again, inexplicably from the VHF recording or the actual orientation of the vessels, Capps was mistakenly under the impression after his first VHF conversation with Carinhas as to the following significant points:

- He observed the C-CAPTAIN's red light out of his last pilothouse window at the back of the pilothouse on the starboard side (recall also the BASS RIVER had a heading of 050º) (pp. 15, 25, 1 8 and 31);
- The vessels' were running an almost parallel course (pp. 15, 25 and 70);
- He thought the C-CAPTAIN would be reducing its speed and letting BASS RIVER go ahead of C-CAPTAIN's bow (pp. 16 and 27);
- He claims he had told C-CAPTAIN where his destination was (pp. 17 and 24);
- He did not change course or speed "because he had no reason to" (p. 18);
- He claims that during the first conversation, Carinhas had agreed to pass astern of BASS RIVER, meaning C-CAPTAIN's speed would decrease (pp. 18 and 51). Otherwise, Capps "would have done something different." (p. 55);
- Carinhas would do whatever he needed to do *to avoid the BASS RIVER* (p. 18);
- He was more worried about the C-CAPTAIN visually than he was by radar (p. 23);
- He did not know what C-CAPTAIN's relative bearing was or, in fact, what a relative bearing was generally (pp. 25-26);
- ***After the first conversation, he no longer monitored C-CAPTAIN and went about his "own business***" (pp. 18, 27, 30, 31, 44 and 71);
- He never once deviated thereafter from his course and speed, despite having agreed to stay out of C-CAPTAIN's way "one way or the other" (p. 34);
- He remained on autopilot until collision (p. 50);
- He could see C-CAPTAIN's red side light, so C-CAPTAIN had to be "a little bit ahead of [BASS RIVER]" (p. 54);

- He did not recall telling C-CAPTAIN that he would stay clear (p. 56);
- He intended from the first call to cross the bow of C-CAPTAIN in direct violation of Rule 15 (p. 55);
- He had no knowledge of C-CAPTAIN's speed (pp. 56-57); and
- He expected C-CAPTAIN to come left from its easterly heading rather than continue going east, contrary to the statement by Carinhas during that first conversation that he would swing slightly to the right to line up on the sea buoy, confirming he erroneously interpreted C-CAPTAIN's north-northeasterly heading (p. 70).

Although unaware of the C-CAPTAIN's heading and the danger which might have confronted him, Capps surely must have been aware that his vessel was closing quickly toward a collision with the C-CAPTAIN. Having now failed to take "early and substantial" action to honor his obligations under Rules 15 and 16 and his agreement set forth in the transmission above, Capps again contacted the C-CAPTAIN in an effort to find out the intentions of the C-CAPTAIN:

BASS RIVER to this vessel I just, uh, talked to on the radio that, uh, going into Belle Pass.
Yeah, C-CAPTAIN. Go ahead.
Are you slowing down or are you gonna keep at your present speed? Over.
Uh, I'm a keep at my present speed. You want me to slow down for you?
Yeah, if you would and let me get by because I'm almost, uh, up with you anyway.
Eleven-second delay during throttle down:
Okay, SEA RIVER, I've come down to clutch for you, captain.
Thank you there. This'll be BASS RIVER.

After this second discussion, Capps testified he no longer monitored the C-CAPTAIN and kept his course and speed (p. 67).

Again, it is obvious after hearing the testimony of Capps to determine exactly what he thought the navigation scenario was. He was still under the impression that the C-CAPTAIN was to the south and slightly ahead of his vessel on a parallel course. Since he believed the C-CAPTAIN had to come to port to reach the sea buoy (which was north of both vessels), he was mistakenly under the impression that it would be easiest if the C-CAPTAIN would simply slow down, let BASS RIVER pass ahead and then turn to port and "cut the stern" of the BASS RIVER to reach the Belle Pass sea buoy.

Carinhas again indicated he intended to hold his present speed as he was obliged to do under Rule 17, but he asked if it would assist the BASS RIVER's maneuvering for him to bring C-CAPTAIN down to idle or clutch speed. Capps asked him to do so, and Carinhas executed the only action that he proposed to Capps ï he slowed his vessel. After an eleven second delay while reducing power, he then indicated to BASS RIVER that he had slowed down, or come down to clutch, as agreed.[(1)] *[[(1)]Legal counsel for the BASS RIVER interests suggests that the above transmission constituted an agreement by C-CAPTAIN to allow the BASS RIVER to cross the bow of the C-CAPTAIN, thereby taking the navigation situation out of Rule 15 and into an agreement as to the manner of crossing. This after-the-fact legal maneuvering by legal counsel for the BASS RIVER is clearly misplaced for three distinct reasons. First, in the second set of transmissions, Carinhas indicated he would hold his present speed per Rule 17, but asked Capps if he wanted him to throttle down. Capps requested same, stating: "Yeah, if you would and let me get by because I'm almost, uh, up with you anyway." The C-CAPTAIN did reduce propulsion, and responded only by acknowledging this to the BASS RIVER after reducing propulsion by stating: "Okay, SEA RIVER, I've come down to clutch for you, captain." Carinhas carried out the only action he proposed and agreed to do. At no time did he agree to allow the BASS RIVER to cross his bow as legal counsel for the BASS RIVER interests contends after the fact. This is borne out by actual transmission of the parties. Second, and related to the above, any assertion that the BASS RIVER requested the C-CAPTAIN to allow it to cross its bow is an attempt to turn the actual facts of the navigation scenario on their head in a vacuum. That is, it ignores the fact that Capps thought the C-CAPTAIN was on a parallel course to that of BASS RIVER. It is an attempt merely to take the words on written paper, distort them and consider the distorted words only, while ignoring the audio recording, the testimony of both Capps and Carinhas, and the facts. Third, it ignores the fact that Capps, as the conning officer on board BASS RIVER, had no knowledge of the position, speed or distance of the C-CAPTAIN, or the actual orientation of the vessels. That is, Capps certainly had no knowledge that he was somehow agreeing to a passage now being suggested by his attorneys.]*

Carinhas, realizing the BASS RIVER still was making no effort to avoid steering across his bow ï and realizing

action was now required of both vessels (per Rule 17(b)) ***in extremis*** to avoid collision ï then placed the azimuthing nozzles of the C-CAPTAIN in the full astern position. He did not turn his vessel as he had a satellite platform to starboard and BASS RIVER to port. Shortly thereafter, the collision occurred, with BASS RIVER continuing on autopilot into the path of the stand-on vessel C-CAPTAIN. BASS RIVER neither reduced speed nor turned. ***Carinhas stated C-CAPTAIN was full astern for approximately 10-20 seconds prior to impact, but that forward way had not yet ceased.***

The C-CAPTAIN struck the BASS RIVER at an approximate 90º angle on her starboard side (approximately mid-ship), just aft of her forward-positioned accommodation house. As the C-CAPTAIN was full astern at the time of impact, she backed away from the BASS RIVER shortly after the impact.

Captain Duet was in the bathroom at the time of collision. Noticing the impact, he ran to the bridge, assessed the situation, sounded the general alarm and then assumed control of the vessel. Approximately 1½ minutes after the collision impact and after performing all of the above activities, he issued a mayday call on VHF 16. Later, the position of the C-CAPTAIN was reported over the VHF to be 28º, 57.2' N, 90º, 10.69' W.

The BASS RIVER began sinking rapidly by the stern, and her starboard side began to slide under. By most accounts, she sank completely within approximately 4-5 minutes.

Captain Duet immediately maneuvered the C-CAPTAIN for search and rescue, and ordered the vessel's lifesaving platform/rescue ladder to be positioned by the vessel's crew.[1] All crewmen aboard the C-CAPTAIN reported to the U.S. Coast Guard that only four survivors were ever seen in the water (all with life jackets), and all were rescued by the C-CAPTAIN. *[[1]Refer to our Report #R-230. The rescue ladder employed by C-CAPTAIN was designed and fabricated by the owner of the C-CAPTAIN. It is an aluminum ladder that contains a rescue platform that allows someone in the water to have a base to stand on as they are picked up by the vessel and brought aboard. Line plans for the rescue ladder were provided to the Board during its investigation at the Board's request. Its design proved very efficient and was critical to a quick rescue of all survivors by the C-CAPTAIN within minutes of the collision. The innovative design of the rescue ladder was hailed by all involved in the collision to be a very useful tool.]*

Analysis

The vessels were in a crossing situation under Rule 15. Under the orientation of the vessels, the ***BASS RIVER was the give-way vessel***, having an obligation to maneuver so as to avoid passing ahead of and/or colliding with the C-CAPTAIN. The ***C-CAPTAIN was the stand-on vessel***, having an obligation, absent an agreement to the contrary, to hold course and speed. During the first set of communications, both vessels seemingly had a full appreciation of this fact, inasmuch as the C-CAPTAIN correctly noted that it would hold course and speed, and the BASS RIVER indicated it would stay out of the way "***one way or the other***"[1] of the C-CAPTAIN. In essence, the parties merely reiterated and confirmed their obligation under Rule 15 during this first set of transmissions.

[[1]NMA Comment: A statement like this is misleading and clearly required immediate clarification. Since only two people were tending to the progress of both vessels, "two heads would have been better than one" in this challenging situation.]

Unfortunately, ***Capps aboard the BASS RIVER was gravely mistaken in his appreciation of the navigation picture and as to the contents of the conversation he had just had, and he did nothing thereafter to honor his obligation and his agreement.*** He left the BASS RIVER in autopilot, and he continued holding his course and speed. He did not take early and substantial action, or any action, to alter course or speed to fulfill his obligation to avoid a collision with the C-CAPTAIN.

Still confused by the situation, he contacted the C-CAPTAIN again to determine its intentions ï notwithstanding that he had already agreed to honor his obligation under Rule 15 by agreeing to stay out of the C-CAPTAIN's way one way or the other. The second radio conversation injected further confusion into a routine crossing of the vessels. The C-CAPTAIN offered to reduce speed to assist BASS RIVER in its maneuvering obligations under Rules 15 and 16, and Capps requested that it do so. ***Still, Capps continued on autopilot making eight knots, barreling recklessly ahead into an in extremis situation***. His action shocked Carinhas aboard the C-CAPTAIN, who then went full astern per his obligation under Rule 17 to do so when action by the BASS RIVER alone (as give-way vessel) would be insufficient to avoid collision. ***Had the BASS RIVER taken any action when the C-CAPTAIN did so, the collision likely would have been averted*** (Carinhas, p. 25). While Capps had agreed to avoid the C-CAPTAIN, he was doing anything but avoiding the C-CAPTAIN.

Capps' confusion as to the configuration of the vessels was compounded by his other violations of the COLREGS. ***He violated Rules 5 and 7 when he failed to use his radar effectively*** to determine the specifics about the vessels' navigation in respect of the other (speed, distance, course, etc.). ***He did not maintain an effective lookout either visually or by radar***. At best, he only glanced at the radar when he initially saw the C-CAPTAIN, and acknowledged he thereafter did not monitor the C-CAPTAIN (p. 66) and no longer worried what the C-CAPTAIN was going to do (p. 71).

[NMA Comment: We recommend that our mariners read and study NMA Reports #R-207, #R-207-A, and #R-207-B dealing with all aspects of training and posting lookouts.]

Capps clearly violated Rule 2 – Responsibility – by failing to properly study and analyze the C-CAPTAIN's navigation lights and their orientation, a neglect of precautions required by the ordinary practice of seamanship. Had he done so, in conjunction with proper radar observation, such would have clearly demonstrated that the C-CAPTAIN was never on an easterly course "parallel" to the BASS RIVER. It also would have allowed him to properly evaluate risk of collision.

The Board also questions Capps' knowledge of the possible effects of navigation light orientation, as he testified that anytime a navigator sees a red and maybe one white light, the other vessel necessarily is the stand-on vessel. Clearly, this is incorrect, as the same could present a port-to-port meeting situation depending on the orientation of the mast lights.

The BASS RIVER likewise violated Rule 6 – Safe Speed – by failing to reduce speed as it closed with the C-CAPTAIN and entered into an in extremis situation on autopilot.

The Board also believes ***poor seamanship was demonstrated by the BASS RIVER by allowing the vessel to transit with open watertight doors, including the watertight door leading to the cargo deck*** (Carinhas, pp. 99-100 and divers' notes provided to the Board). ***This condition also was a violation of company policy, it rendered the BASS RIVER unseaworthy***, and, combined with the heavily laden condition of the vessel, undoubtedly contributed to the speed at which the vessel sank. It also would have decreased the available time for those inside to escape from the vessel after collision.

Equally important, Capps set a course for the Grand Isle sea buoy from ENSCO Rig 89, and stuck to that route notwithstanding that same would take his vessel very near the heavily transited and admittedly congested "funnel" area near the Belle Pass sea buoy (Capps, pp. 18 and 33). ***This had the effect of having BASS RIVER traverse across a busy traffic zone of vessels generally heading in and out of the pass on roughly north-south courses***. Though permissible, one undertaking such a maneuver must be particularly vigilant and fully oriented with all particulars of the navigation picture. Capps was not. Alternatively, ***he should have charted a course which would have taken him well to the south of this convergence area***, where he would have had fewer vessels and platforms with which to contend.[(1)] ***His decision to take the "short cut" near the Belle Pass entrance buoy and across the traffic pattern generally appears to have overloaded Capps' navigational skills and capacity, with the obvious result***. *[(1)Interestingly, Capps testified that he intended to pass approximately one to one-and-a-half miles to the south of the Shell South Timbalier 26 complex, and keep it on his port side en route to Grand Isle (Capps, p. 37). The Board questions whether Capps was oriented even as to his position in the Gulf of Mexico, as he claims he intended to cross the bow of the C-CAPTAIN and still keep the Shell complex on his port side. Inasmuch as the C-CAPTAIN was already north of the flare pipe associated with the South Timbalier 26 complex, it would have been impossible for the BASS RIVER to pass ahead of the C-CAPTAIN and also keep the structures associated with South Timbalier 26 to port, yet alone to keep these structures one to one-and-a-half miles to port.]*

Outstanding Issue

(It is proposed that) the Board has yet to fully address the issue of vessel stability concerning the BASS RIVER.

As noted above, the vessel was heavily laden with liquid cargo, deck cargo loaded in bulk on the deck of the vessel, and liquid cargo loaded in the 500 bbl. tank on the cargo deck. The BASS RIVER left the dock with only 21ò-22" of freeboard on the stern according to the vessel's master (Cason, p. 61). Further, the BASS RIVER intended to pump drilling fluids from the external cargo tank on deck to ENSCO Rig 89, rather than have the tank lifted by crane from the cargo deck of the vessel to the rig.

It is noted that a Candies port captain approved the loading and stability of the BASS RIVER prior to its departure from Grand Isle as per the company's usual practice (Capps, p. 39). Although the C-CAPTAIN interests have attempted through formal discovery in pending litigation to obtain documents concerning the laden condition

of the BASS RIVER, same has not been forthcoming as yet. However, the Board has authority to and hereby requests that the Trico and Candies interest provide the following documentation in order that the Board may properly analyze the stability of the BASS RIVER at the time of the casualty (particularly considering the rapid nature in which the vessel sunk, albeit with one or more of its watertight doors left open by the vessel's crew) and in order that the Board may determine whether the BASS RIVER was in compliance with U.S. Coast Guard regulations concerning stability:

- All documents pertaining to the cargo aboard the BASS RIVER and the position of same on the deck;
- Any documentation addressing stability of the BASS RIVER prior to and following its departure from Exxon's Grand Isle base on Mar. 15, 1998;
- Any and all correspondence and/or documents exchanged prior to or following the accident between the U.S. Coast Guard, Trico and/or Candies concerning stability of the BASS RIVER, including but not limited to any documentation pertaining to requests for amendments to the stability plan of the BASS RIVER in light of the fact that an external cargo tank was positioned aboard the BASS RIVER, which tank presumably would have required an amendment to the vessel's stability plan on file with the U.S. Coast Guard;
- Any documentation pertaining to the weights, amount and distribution of cargo in and aboard the BASS RIVER prior to and following the casualty; and
- Any rules, regulations or procedures of Trico, Candies and Exxon pertaining to stability and the use of external cargo tanks of vessels owned, operated, crewed or chartered by these companies for the period 1990 through the present.

[NMA Comment: *The Coast Guard accident report furnished us on Sept. 11, 2000 states in part (with abbreviations explained): "**Vessel was operating in violation of its stability letter** which called for cargo vertical center of gravity of less than 3 feet and maximum height of less than 6 feet. Vessel was carrying a loaded mud tank with 6-foot vertical center of gravity and 12 foot maximum height."]*

Proposed Recommendations

- That Trico and Candies review their internal procedures to confirm that their navigation personnel are properly trained in the proper and effective use of radar to determine risk of collision.
- That Trico and Candies review their watertight door policies and rigidly enforce same.
- That the U.S. Coast Guard consider recommendations for the use of rescue ladders/platforms aboard commercial vessels, as same proved extremely useful in effecting a quick recovery of survivors in this instance.

[NMA Comment: *The NTSB did not make any of the proposed recommendations.]*

INCIDENT #2 – LOSS OF THE OSV CHERAMIE BOTRUC 26 WITH TWO FATALITIES

[Publication History: This report was last published as GCMA Report #R-311, Rev. 2, Mar. 26, 2003.]

Our Association is Concerned When Any Vessel or Mariner is Lost

"Lower-level" mariners is what we are. The term is the Coast Guard's and not ours! It reflects one thing that a vast majority of the nation's commercial mariners have in common whether we work on inland waters or offshore. We all serve on vessels that are less than 1,600 gross register tons (GRT). . We call them "boats" rather than "ships"é tugboats, towboats, supply boats, charter fishing boats, or simply "workboats" to use a general term. Until 2008, our Association spoke on behalf of "lower-level" mariners in the far-flung reaches of the Eighth Coast Guard District covering parts of 22 states. We now speak for the health, welfare, and workplace issues on behalf of approximately 126,000 ñlimited-tonnageò merchant mariners.

When a boat sinks, it is a major occurrence but does not always attract much attention ï especially when it goes down in international waters. The Coast Guard often issues a press release that may or may not be picked up by the news media. Our Association first heard about the CHERAMIE BOTRUC 26 accident "through the grapevine." Although there may have been a story in the local papers, we never saw or received a copy. Within a day or so, the story was no longer "news." Even traces of the accident quickly vanished from the Eighth Coast Guard District web site. What happened to cause the sinking soon became a matter of speculation that quickly faded into silence.

The sinking occurred on Nov. 6, 2000. On November 17th, our Association filed a formal Freedom of Information Act (FOIA) request(1) asking for a copy of the final accident report. In the same letter we informed the Investigations Office at MSO Morgan City that "é our Association representsé mariners who live and/or work in your Marine Inspection Zone and have an interest in major events taking place around them. The sinking of

CHERAMIE BOTRUCK #26 is no exception. Consequently, we would appreciate it if you would notify us of these events[2] by FAX as shown in our letterhead. We reserve the right to attend or not attend (hearings) as members of the public. *[[1]FOIA #201/2000. [2]i.e., hearings are open to the public.]*

"Since we did not know of the óOne-Man Boardô (hearing), we respectfully request a copy of the complete accident report at such time as it is fully prepared for release to the public. We do not request items that are prohibited under the provisions of the Privacy Acté "

We received the report more than two years later on Mar. 4, 2003. However, by that time we were allowed to review the hearing transcripts as public documents and knew the full story of how and why the boat sank several weeks after the event. It is quite a story and many lessons abound for those mariners who choose to heed them! We were very interested to learn how the Coast Guard interpreted the events that are so clearly presented in the hearing transcripts and whether it puts the blame where it really belongs. The story that follows was edited from the Coast Guard report.

Coast Guard Accident Report – Incident Brief

*[**Editoral Note**: Our comments and emphasis appear in **bold italics.** We did not reproduce **p**arts of the original 52-page report but it is available in our File #M-216.]*

Nov. 6, 2000: Between the hours of 02:00 and 03:00, the OSV CHERAMIE BOTRUC No. 26 sank in the Gulf of Mexico approximately 83 nautical miles south of the mouth of the Atchafalaya River in approximately 300 feet of water.

The offshore supply vessel (OSV), with a crew of six had been moored to an anchor buoy on standby to service the Apache Oil Platform, PRIDE 653, for the preceding 48 hours. The crew consisted of one master, one mate, two documented Able Seamen (ABs) serving as deckhands, and two documented Ordinary Seamen (OS) serving as ñunlicensed engineers.ò

During the daylight hours of Nov. 5, 2000 the weather was mild and partly cloudy with winds blowing from the southeast at 10 mph, with seas of two to three feet. Visibility was estimated to be seven to eight miles. At 05:12 that morning, a weather projection was issued by the National Weather Bureau, warning of a cold front moving through later in the evening which would worsen conditions, producing seas of 10 to 12 feet, and winds of up to 40-50 knots. The dispatcher at L&M Botruc Rental, Inc, Vincent Kiger, sent fax notices of the warning to the vessel. Caution was advised "for the potential of strong to severe thunderstorms developing ahead of the front. Storm movement ENEï NE" *[Exhibit #12]*

The master of the vessel, Leroy Jack Bourg, was relieved of the watch by the mate, James Ray, around 2100. The master immediately retired to his cabin for the evening, while the AB Greg Reyburn, remained on watch in the wheelhouse with the mate. Before OS Juan Bermudez relieved the AB of his watch, AB Scott Bourg (the master's son) arrived in the wheelhouse stating be couldn't sleep. This provided an opportunity for AB Greg Reyburn to retire for the evening. AB Scott Bourg acted as watch stander while OS Juan Bermudez remained below in the galley. At approximately 2300, the weather deteriorated and swells increased to around eight to nine feet with occasional 10 and 11-foot waves. At 0100, 06 NOV 2000, another 200 feet of line were added to the bow line to allow for a smoother ride of the vessel without nj poppingnjthe line. OS Mark Jaubert was awakened by the vessel's engines engaging and went to the bridge to see if everything was okay and to find out why the engines had been engaged, afterwards returning to his cabin. The mate left the engines idling so as to enable quick maneuvering of the vessel. Testimony reflects that sometimes the vessel swung freely in the trough, but at other times the mate engaged the engines and placed the vessel stern-to the seas. AB Scott Bourg testified that immediately prior to the beginning of the sinking of the vessel, that the CHERAMIE BOTRUC No. 26 was actually starboard to the seas and took a series of high waves over the bulwarks causing the vessel to shake and strain. In his chronology provided to Coast Guard investigators and L&M Botruc Rentals, Inc. representatives immediately following his rescue and return to the mainland, AB Bourg stated that waves were coming over the stern of the boat. *[Appendix 5; Exhibit #4]*

Shortly after 01:00, AB Scott Bourg returned to the wheelhouse, and OS Juan Bermudez returned to the galley, while Mate James Ray remained at the wheel. ***No one made a visual inspection of watertight doors to ensure the integrity of the vessel***. OS Jaubert returned to his rack, while the Master, Leroy Jack Bourg, and AB Greg Reyburn had remained in their racks.

At 02:00, as waves of 10 to 12 feet broke over the stern, AB Scott Bourg observed from the wheelhouse that the water on the starboard quarter was not draining from the deck. Instead it was pooling up between the cargo and the bulwarks. The arrangement of the cargo on the deck, from the superstructure back to and equal with the stacks

[Appendix 1] effectively created a pseudo-wall. This "wall" along with the bulwarks and wave action was such that it caused a pooling effect of water on the stern of the vessel.

The exhaust stacks are of the "Gulf Coast" variety, configured with a watertight door in the engineroom that led into the stack, a ladderway up, and then a watertight door angled toward the stern that exited onto the deck. The freeing ports were unable to keep up with the amount of water coming over the bulwarks due to large waves breaking over the starboard stern. The pooling water eventually reached a level higher than the sill height (25 inches) of the starboard stack deck door. ***The water took the path of least resistance, which was through the open starboard stack door at deck level, then down the ladderway, and through the open door leading into the engineroom***. The water intrusion caused the vessel to list toward the starboard stern quarter. AB Scott Bourg noted the listing o£ the vessel to the starboard stern quarter after hearing cargo chains either snap or move across the deck. AB Bourg also noted that ***the deck cargo shifted***. He and OS Mark Jaubert went to check the engineroom and start pumps. ***When the engineroom doors were opened, water immediately rushed through the opening knocking the men back***. The AB noted that water was already up to the breathers on the motors approximately five feet from the engineroom floor. *[Exhibit transcript for 14 Nov 2000, pg. 201 line 13–pg. 202 line 10]*. An attempt was made to shut the door; however, there is conflicting testimony as to whether AB Scott Bourg actually managed to secure the door with only one dog (lever) or if the door was left open due to the pressure of the increasing water against it. ***Whether the door was partially closed or left open is inconsequential in that this situation compromised the vessel's watertight integrity in that there were no other watertight doors leading from the engineroom, as water began flowing down the passageway and into the rest of the vessel.***

At this point, Captain Leroy Bourg assembled the crew in the galley and ordered preparations for and abandonment of the vessel. Mate James Ray and AB Greg Reyburn were ordered to activate the EPIRB and deploy the life rafts. Both crewmen ascended to the bridge with life vests in their arms. As the rest of the crew prepared to abandon ship, the vessel capsized, rolling to the starboard side, throwing the crew about. The vessel then settled stern down, bobbing in the water allowing the four crewmembers (Captain Leroy Bourg, AB Scott Bourg, OS Mark Jaubert, and OS Juan Bermudez) to climb up the stairwell using the handrail as a ladder to the bridge and egress through a cabin window. The crew noticed that the life rafts were deployed but there was no sign of Mate James Ray or AB Greg Reyburn. The four crewmembers swam to the life rafts.

At approximately 03:00, the CHERAMIE BOTRUC No. 26 sank. At 03:09, USCG Group New Orleans received notification of the 406 MHz EPIRB signal registered to the CHERAM1E BOTRUC No. 26. The company, L&M Botruc Rentals Inc., was contacted and a Coast Guard helicopter from ATC Mobile was dispatched at 03:30. The M/V CECELIA C rescued the surviving crewmembers at approximately 05:30.

Nov. 10, 2000. At 2100 divers made their first dive on the CHERAMIE BOTRUC No. 26 to videotape the vessel in order to record and determine salvageability of the vessel. Videotape reveals that the ***starboard stack door was open and that a hole had been torn in the deck of the vessel***. A part of the divers report noted: ñDiver inspecting vessel. Starboard stack door open on vessel. Port stack door closed on vessel. Could not see stern on vessel. Diver noticed hole in the deck; from centerline to port. Hole right behind the houseé As per diver communication there appears to be a 15ô to 20ô hole in the deck, located on the port half, just abaft of the superstructure.ò *[Exhibit 5, pg. 6]*

Nov. 11, 2000, at 1755 the body of the mate, James Ray, was found tangled in cables on top of the after control station. The divers retrieved the body, but AB Greg Reyburn's body was not found and he is presumed dead.

Executive Summary

This investigation was twofold, focusing on the marine casualty (the events surrounding the loss of the vessel) and the personnel casualty of the death of a crewmember and presumed death of another. It was conducted within the confines of 46 CFR §4.07 and MSM Volume V, Chapter 3.[(1)] The focus of the investigation was to determine the cause of the accident, and to make recommendations to prevent a recurrence. *[[(1)]MSM = Marine Safety Manual, Investigations and Enforcement, Vol. 5, .]*

Based upon the five factors of 46 CFR §4.07-1(c), it was determined that:

1) ***The primary cause of this accident was that the starboard stack doors were left open on the vessel during inclement weather***. The engineer, OS Mark Jaubert testified that it was the custom of the vesselôs crew to leave the stack doors and rudder room door open when not underway and tied to a mooring buoy. *[Transcript of testimony by OS Mark Jaubert on 15 Nov 2000, pgs.33-39.]*

   The fact that it is a common practice to leave lower doors in the engineroom and rudder room open was

further documented by the testimony of the regular OS (unlicensed engineer) David Wayne Macks during his sworn testimony. ***This condition allowed for the initial flooding of the engine and rudder rooms. Flooding of the vessel was aggravated when the crew opened the forward engineroom door leading from the hallway to the galley, compromising the rest of the vessel's watertight integrity,*** allowing multi-compartment flooding and ultimately the loss of the vessel.

[NMA Comment: Leaving stack doors open for ventilation is a common practice on most OSVs with "Gulf Stacks." Closing these doors makes servicing the engineroom difficult because the high residual heat.]

2) The evaluation of physical evidence was limited to the testimony of crewmembers, documents, divers, and personnel familiar with the construction, procedures, and maintenance of the vessel. Due to ***an inability to salvage the vessel, the determination of the vessel's condition was based upon the video footage*** and the survey report from the divers. The vessel was lost in 300 feet of water and required 48 hours of dive operations to complete the survey. Based on the evidence presented, it was determined that the ***audible and visual alarm that serviced the water day tank, the stack doors, and the bilges had most likely been permanently disabled***. ***The purpose for permanently disabling the alarms is to allow the stack doors to remain open for engineroom ventilation, while simultaneously eliminating the need to frequently reset the alarms***. A leak in a day tank had set the alarm off just 24 hours previous to the sinking; therefore, it is probable that the leaky day tank, coupled with the desire to leave the stack doors open for ventilation, prompted the crew to disable the alarm. This would also account for the ***bilge alarm's failure to sound in the engineroom and galley*** when flooding began to occur.

3) Testimony and review of documentation showed that the crew did not follow L&M Botruc Rental, Incôs operations and procedures policies. ***The company's Operations and Safety Manual requires the bridge watch to check the watertight integrity of the vessel, but this did not happen***. ***Nor was the Certificate of Inspection of the vessel complied with in regards to the Self-Inspection Program (SIP)***. ***The vessel was also in violation of its stability letter***, in that Category Operation Restrictions, paragraph number 5 statesï ñHull Openings: Any openings that could allow water to enter into the hull or deckhouse should be kept closed when rough weather or sea conditions exist or are anticipated.ò *[Appendix 1; Exhibit #7]*.

As to cargo loading and stowage on the vessel, evidence was limited to the crew's recollection since the stowage plan *[Appendix 1; Exhibit #14]* had been lost with the vessel. Further complicating the ability of the crew to accurately recollect is the fact that ***the cargo arrangement changed on a daily basis since cargo was routinely taken off or placed on the vessel by the Apache Oil Platform***, PRIDE 653. After review of crew testimony as to the percentages of cargo in mud tanks, fuel tanks, and what was on deck, we have determined that the vessel was is compliance with Stability Letter, except for the aforementioned hull openings being left open. *[Appendix 1]*

4) Post casualty drug testing showed that the ***OS Mark Jaubert who served as one of the vessel's "unlicensed engineers" was guilty of misconduct, a violation of company policy and regulation, in that he was under the influence of THC, marijuana metabolite*** ï one of the five chemicals required for DOT testing by 49 CFR §40.21 (2000 edition), while serving under the authority of his Merchant Marinerôs Document.

5) The actions of the Coast Guard from the initiation of the Search and Rescue phase, to the pollution response phase, and marine casualty investigation were proper. The Coast Guard responded promptly using appropriate assets and manpower to ensure that all possible resources and venues were utilized. It was determined that no actions of the Coast Guard were responsible for the marine casualty, the events leading up to the accident, loss of life, or pollution resulting from the casualty. The Coast Guard responded quickly and adequately to ensure that all possibility of recovery of crewmembers, vessel, and property were maximized.

6) A one-person formal (investigation) was conducted. The Eighth Coast Guard District assigned a member of the Investigations Department of the Marine Safety Office (MSO) Morgan City, LA. as the lead investigator in this formal board. Depositions commenced on Nov. 14, and 15, 2000, with a final deposition being recorded on Dec. 1, 2000. Parties of Interest (POI) were designated and represented by counsel. Witnesses were called and interviewed by both the Coast Guard and the POIs. The sessions were open to the public and recorded by a certified court transcriptionist, records of which, including all exhibits entered, are included with this document.

[NMA Comment: As per 46 CFR §4.03-10, our Association representing "limited tonnage" mariners working in the offshore oil industry sought status as a "party at interest" which we were not granted. However, this report reflects our interest in informing our mariners of unsafe working conditions.]

Ultimately, the underlying cause of the marine casualty resulting in the loss of life and the missing crewmember is human error/factor in nature. ***The ingress of water into the vessel, the disabling of the alarms, and the progressive flooding of compartments all have either negligence or error by the crew as the cause***.

Safety recommendations from the investigation point to the human capacity, to practices of the crew and company, and to the integration of the alarm system for the stack doors and the bilge.

[NMA Comment: Most maritime accidents are caused by "human factors" rather than mechanical failures.]

Suspension and Revocation (S&R) actions are recommended against the MMD of the OS Mark Jaubert, serving as the engineer. S&R was recommended for consideration and review against the license of the Master, Leroy Jack Bourg, for possible misconduct and negligence. A S&R hearing was held and the Masterôs license was suspended for two years.

Finally, an information bulletin to all Gulf of Mexico offshore supply vessels cautioning against mariners leaving the doors open on "Gulf Stacks" operating in the Gulf of Mexico was recommended.

Conclusions and Causes of the Incident

The OSV CHERAMIE BOTRUC NO. 26 was unprepared for the inclement weather that overtook the vessel while it was moored at a buoy located in Eugene Island Block #354. The vessel's crew had been performing general maintenance on the vessel while in standby at Pride PLATFORM 653. It is the determination of this board that though the ultimate cause of the loss of life and vessel is due to the flooding of compartments by water ingressing through the starboard stack's doors, the conditions leading up to the capsizing and eventual sinking of the vessel are human factor related. More specifically:

- ***There was no watch designated for ensuring the watertight integrity of the vessel as outlined in the company's operation manual*** *[Exhibit #32]*. All crewmembers are required to read and sign the Operations Manual. The SIP manual designated a licensed officer as being responsible far this task *[Exhibit 30]*. The Master, Leroy Jack Bourg, states that he assumed that the unlicensed engineers (OS) would do it. The unlicensed engineers (OS) assumed that the duty section would do it. The watch standers for the night, AB Scott Bourg and OS Juan Bermudez, were unaware of the Operations Manual instructing that they would perform that task.

[NMA Comment: Based on the Coast Guard's "Newman Report" that pointed out the limited education of many mariners in southeast Louisiana, signing that you have read and understood an operations manual has very little practical value. This is particularly true where a crewmember lacks proficiency in English.]

- There is evidence documented by a certified Medical Review Officer (MRO) that OS Mark Jaubert was under the influence of THC. In phone discussion with the MRO, it was pointed out that the level of marijuana metabolites was such and that considering the half-life ratio per day in the system of a user, that either OS Mark Jaubert had consistently smoked marijuana for the three days he was on shore leave prior to his boarding the vessel two days before the incident, or he was smoking marijuana while onboard.
- The crew had operated the vessel's alarms during its Streamlined Inspection Program (SIP) audit for the Certificate of Inspection (COI) in August. Following this audit, sometime preceding the casualty, the audible alarm that was shared by the doors, bilges, and water-day tank had been disabled to allow for the stack doors to remain open for ventilation and due to the fact that the day tank had a leak in it. Based upon testimony by the OS David Wayne Macks *[Testimony 01 Dec 2000]* and interviews with the Operations Manager for L&M Botruc, Mike Curole, the only way that there wouldn't be both audible and visual lights signaling the breach of integrity is that someone was resetting the alarm continuously or that there had been tampering with actual alarms. The fact that the visual and audible alarms are independent of each other, with each system sharing only an integrated audible alarm but independent visual alarms on the bridge, would further indicate ***human interference with the system***.
- Due to the watertight doors in the starboard stack being open for ventilation, watertight integrity was

compromised. The open stack allowed for ingress into the engineroom.

- The watertight door between the rudder room and engineroom was left open. This allowed for progressive flooding into the rudder room that was located at the aft of the vessel.

[NMA Comment: All watertight doors must be dogged shut except when actually being used for passage.]

- The water from waves 10 to 12-feet high broke over the three-foot tall bulwark and pooled along the 33 feet of length of the aft deck. The arrangement of the cargo on the deck, from the superstructure back to and equal with the stacks. *[Appendix 1]*, effectively created a pseudo-wall. This "wall" along with the bulwarks and wave action was such that it caused a pooling effect of water on the stern of the vessel. The freeing ports were unable to keep up with the amount of water coming over the bulwarks due to the breaking of the waves over the starboard stern. The pooled water took the path of least resistance through the open watertight door on the main deck in the starboard stack, then down the stack stairway and into the engineroom through the open watertight door at the bottom of the starboard stack stairway. The vessel began to list to the starboard stern quarter due to the water intrusion.
- Because the audible alarm was disabled, the crew was unaware that watertight integrity had been compromised allowing the engineroom and rudder room to flood.

[NMA Comment: The bilge alarm, <u>if operable</u>, would have warned the crew when the <u>first</u> water entered the engineroom.]

- Because the bilge alarm and door alarm are not independent of each other, the bilge alarm was disabled, thus preventing the warning of flooding in the engineroom.
- When the crewmembers realized that the vessel was listing to starboard and was down by the stern, ***<u>they opened the interior engineroom door, further compromising the watertight integrity of the vessel. This action was instrumental in the flooding of the rest of the vessel</u>***. The crewmembers were unable to secure the engineroom door due to the backpressure from the water flowing out of the engineroom into the now-breached passageway.

[NMA Comment: The Master is responsible for training and/or checking the competency of his crew on properly approaching a watertight door with a head of water on the other side.]

- It was this final compromise of watertight integrity that caused the vessel to progressively flood, capsize, and finally sink. *[MSC Report, Appendix 1]*
- It is not known whether the missing crewmembers deployed the life rafts or EPIRBs manually, or whether the equipment deployed automatically. Considering the short amount of time that transpired from the departure of Mate James Ray and AB Greg Reyburn and the capsizing of the vessel, the location of the life rafts and EPIRB, and the fact that both life rafts and EPIRB were deployed, it is likely that the hydrostatic releases worked as they were designed and intended for such incidents and the equipment deployed automatically.
- ***<u>The lack of training in a competent and concise manner as to duties of crew by master and company, coupled with weather, tampering with vessel safety alarms, and violation of watertight integrity resulted in the death of one crewmember and the missing and presumed death of another and the loss of the vessel</u>***.

Latent Unsafe Conditions in the Workplace

Although the L&M Botruc Rental, Inc, Operations and Safety Manual *[Exhibit #32]* requires ***<u>crew training, the company had no system in place to ensue that training is, in fact, occurring.</u>***

- There was disregard aboard this vessel for the company's policy for maintaining watertight integrity.
- ***<u>There is no clear teaching of duty responsibility even with the Streamlined Inspection Program (SIP) program in place.</u>***
- There is a practice of disabling or securing the door alarms of the hatches so that they may be left open for ventilation.
- The audible-door alarms and bilge alarm are not independent of each other; thus, when one is disabled, both are disabled.
- ***<u>No one took responsibility for performing tasks ensuring watertight integrity.</u>***
- There was a false assumption by L&M Botruc Rentals, Inc. and by the Master, Leroy Jack Bourg, that

appropriate information was being passed during training of the relief crew by the off-going crewmembers as to the duties and requirements of the vessel per the company's operation manual.

- There was ***no established watch routine as to what was to be checked on deck or in the engineroom during standby operations or during inclement weather***.
- ***Because the alarms never sounded on this voyage, it could not be ascertained with certainty whether the alarms were, in fact, functional at all***. It is probable that the stack-door alarms had been disabled in order to allow the stack doors to remain open. Had the alarms not been disabled, they would have sounded until being manually reset, but only to sound again every 15 minutes.

Human Errors and Violations

- ***There were no rounds made to visibly ensure that watertight integrity was maintained on deck or in the engineroom***. Alarms were disabled by crew to allow for engineroom ventilation. Though no one was identified as the source of the disabling, ***all testified as to knowing that the alarm had to be secured in order for the stack doors to remain open***. All further testified that ***it was only during the Coast Guard SIP audit that any ever heard the alarm sound***. OS Mark Jaubert was under the influence of THC.

Equipment Failures

- Alarm system failed due to system relay being interrupted at either the circuitry panel or at the audible alarm itself. L&M Botruc Rentals, Inc. advises that the pulling of a circuitry board or the disconnecting of the wire at the alarm itself could do this. ***It has been noted by a Coast Guard Inspector that some OSV crews on other vessels have installed a toggle switch behind the circuitry panel to allow disabling of the audible alarm and thus bypass the continual resetting of an alarm***. Without recovery of this vessel, the exact method of disabling cannot be determined. Past practice, however, was to leave the stack doors open.

Human Errors and Violations in Defensive Systems.

- As the weather reports arrived and the weather began to worsen, the Mate, James Ray, notified Captain Bourg as to the status of the weather and the impending front; however ***the master did nothing to ascertain the status of the vessel for the possible inclement weather***.
- The Mate, James Ray, ensured that line was added to the mooring line to aid in a smoother ride and prevent popping of the line; however, ***he did not ensure that the watertight integrity of the vessel had been secured***.
- ***Although AB Scott Bourg was not officially on watch, he had assumed the duties of the watch, allowing the off-going AB, Greg Reyburn, to retire early without determining what rounds or duties had been performed***, as well as allowing the oncoming watch stander, OS Juan Bermudez to remain below in the galley without checking cargo stability or watertight integrity of deck entrances.
- ***OS Juan Bermudez checks his bilges and starts engines prior to the arrival of the inclement weather, but fails to secure watertight doors in the engineroom.***
- AB Scott Bourg checks the day-tank water level, entering through the engineroom and ***fails to secure the water tight doors; focused on the task at hand, he does not consider the overall engineroom environment or the open stack doors.***

[NMA Comment: In reviewing the hearing transcript there was no mention that any officer or crewmember ever walked completely through the engineroom in the two days preceding the accident.]

Equipment Failures in Defensive Systems

- As water began to pool on the stern deck and rise above the sill of the open starboard deck stack door (25 inches), it traveled down the stack and through the open stack door in the engineroom. The disabled alarm failed to notify the crew that the door was open.
- As the water began to fill the bilges and the rudder room, ***the disabled bilge alarm failed to warn the crew of flooding.***

Unsafe Conditions in People Leading to Defensive System Failures

- ***OS Mark Jaubert is under the influence of THC and thus when he is "awakened" by the starting of the engines, even though he does venture to the bridge to ascertain as to why the starting of the engines, he is not***

concerned with anything more than returning to his rack. Thus, he fails to ensure the watertight integrity of the engineroom also.

Analysis of Human Errors Reviewed by the Board

Conclusions drawn by the board are:

- There had developed a lackadaisical attitude by the crew due to the following elements. ***Captain Bourg had not instituted a specific program of ensuring training and performing of watch duties aboard his vessel, nor did he see to it that the Streamlined Inspection Program was followed or the operational procedures of watches as defined by the Operations Manual. Thus there had developed an idea that watertight integrity was anyone's job and not specifically tasked to a single crewmember/position. The crew was complacent as to watch schedules***, due to their being in a standby status, awaiting tasking from the PRIDE 633.
- ***For convenience, the OSs serving as unlicensed engineers had chosen to violate the company policy and Stability Letter, leaving watertight doors open for ventilation and easy entrance/exit to deck even though it was clearly stenciled on the doors not to leave them open.***
- There is enough circumstantial evidence to conclude that ***for the convenience of the unlicensed engineers that the audible alarm for stack doors, bilges, and day-water tanks had been disabled*** so as to not continually reset alarm which was on a fifteen minute delay/reset, thus negating their having to consistently return to the engineroom to stop the alarm from sounding.
- ***OS Mark Jaubert was under the influence of THC to the point of being impaired in performing his duties***. This was indicated by him frequently remaining in his room and the infrequent tending of engineroom duties; his sleeping through the only audible alarm event recorded even though the alarm was located close to his quarters; and the significant level of marijuana metabolites noted in his DOT drug test.

[NMA Comment: This paragraph describes the effect of drugs used by one crewmember responsible for securing the vessel's engineroom and in this case, for the lives of the two crewmembers lost in this tragedy. Our Association supports the fair enforcement of existing drug regulations and consistently publicized its positions in our Reports #R-315 (series).]

Review of fatigue factor showed that this was not an element at the time of the marine casualty. Based on the testimony of the crew, the shifts were light due to standby status, and that the Mate, James Ray had approximately eight hours of sleep prior to his watch.

COAST GUARD ISSUES WATERTIGHT INTEGRITY SAFETY ALERT

*[**Editorial Note:** This Eighth District Coast Guard issued this safety bulletin on Apr. 22, 2002.]*

The Coast Guard is currently investigating two recent sinkings, one involving an Offshore Supply Vessel and one involving a commercial fishing vessel. Preliminary findings have identified a breach in watertight integrity as a possible contributing factor to the both sinkings. Although these investigations are not complete and acknowledging the fact that other factors such as navigation error, human error, or equipment failure may have played a part in the sinkings, the Eighth Coast Guard District believes it is imperative to alert the maritime public of what we have already learned.

Both incidents involved progressive down flooding of the enginerooms and other below deck compartments. Open engineroom deck doors may have caused the down flooding in both eases. In the case of the OSV, the aft exhaust stack doors appeared to have been left open. Heavy rainsqualls caused standing water on the aft deck, which entered the engineroom through these open doors. Additional water intruded through these open stack doors as the vessel rolled in heavy seas. Progressive down flooding occurred. ***The situation on the OSV may have been exacerbated when a crewmember opened the hallway door to the engineroom, thus initiating progressive flooding into many forward compartments.*** The vessel eventually capsized and sank.

The fishing vessel may have sunk in a similar fashion. A main deck door to the fish-processing compartment may have been left open while fishing. This space provided open access to the engineroom trunk by way of the next compartment forward. It appears the door to that compartment was also open. Heavy rains and pounding seas were a factor of this vessel sinking also. Preliminary findings suggest that water intrusion into multiple below deck compartments detrimentally changed the vessel's stability. One possible theory is that the vessel lost stability,

rolled and didn't recover, subsequently capsizing and sinking. The stability booklet for this vessel required that these doors always remain shut.

Companies are urged to review stability booklets and stability letters, and enforce company policy to prohibit watertight doors from intentionally being left open. Mariners are urged to keep watertight doors closed at all times when underway. ***Mariners must remain vigilant to this issue. Your life depends on it***.

THE STREAMLINED INSPECTION PROGRAM

*[**Editorial Note:** This vessel operated under the Streamlined Inspection Program (SIP) as authorized by 46 CFR Part 8, Subpart E. The program was authorized in August 1998 and is described in NVIC #2-99. This is a voluntary alternative to a full inspection program as described below. After its initial popularity, the program has fallen into disuse.]*

PURPOSE. NVIC #2-99 provides guidance on the implementation and enforcement of the Streamlined Inspection Program (SIP) as promulgated in Title 46, Code of Federal Regulations, Part 8.

DISCUSSION. The Streamlined Inspection Program (SIP) is a voluntary alternate method of inspecting a vessel to ensure regulatory compliance. Instead of the traditional Coast Guard inspection by a marine inspector, the ***SIP allows onboard and shoreside vessel operating personnel to conduct the majority of inspections required by the CFRs, and to have the adequacy of these inspections verified by Coast Guard marine inspectors on a regular basis***.

It is the intent of the SIP to raise the overall safety of a vessel by actively empowering the vessel's support personnel.

[NMA Comment: Mariners are supposed to be trained to understand existing regulations and to apply them to their vessel 365 days a year. Therefore, in theory, the vessel will always be maintained to its full inspection standards. Unfortunately, the quality of Coast Guard inspections deteriorated during the past decade as reported by VADM James Card (USCG, Ret.) as published in NMA Report #R-401-E]

The main focus on the establishment of this program is to develop, under Coast Guard supervision, a process by which the ***inspection of the vessel is carried out by qualified company personnel*** with approved test procedures in a self-perpetuating, self-correcting format.

The SIP may not be suited for every company. This program is intended for companies, regardless of size, which have an absolute commitment to safety and which employ capable and dedicated vessel operating personnel.

[NMA Comment: It is clear that these conditions did not exist on this vessel.]

The initial time and effort necessary to establish this program is considerable. However, the long-term benefits of establishing the program outweigh the initial cost. Initial pilot SIPs have proven highly successful. ***Reductions in Coast Guard inspection time were realized*** allowing marine inspector resources to be concentrated on higher risk activities.

[NMA Comment: This accident shows that working aboard some offshore supply vessels is a high-risk activity and that mariners on this vessel were not properly protected by the blizzard of paperwork created by the Streamlined Inspection Program.]

Companies experienced reductions in both time and moneys required to maintain regulatory compliance. ***An additional advantage realized was that crews became more familiar with safety equipment and vessel systems, resulting in higher crew morale and opportunities for professional advancement.***

[NMA Comment: Although the Streamlined Inspection Program has many good points, few of these anticipated advantages were evident in reviewing the performance of the officers and crew on the OSV Cheramie Botruc No. 26.]

Additionally, a substantial safety dividend was realized when the level of vessel safety was both increased and maintained over time.

A FAMILY TRAGEDY

*[**Source**: Norman, B., Answers Elude Family of Crewman Lost at Sea Coast Guard Probe Could Show He Died a Hero, Pensacola News Journal, Dec. 4, 2000. Reprinted with permission.]*

No one saw Greg Reyburn die.

Officially lost at sea, his body is likely entombed in the twisted wreckage of the Cheramie Botruc 26, a supply boat now resting some 300 feet beneath the surface of the Gulf of Mexico.

Without body or grave to mourn, Reyburn's Pensacola family waits for the U.S. Coast Guard to finish its investigation into why the 166-foot ship went down in the middle of a stormy early November night.

The findings won't be available for months, but testimony from Coast Guard hearings indicate that a hatch was left open by someone onboard, allowing water to pour into the vessel. Two alarms that should have alerted the crew to the problem failed to sound.

Explanations of negligence and mechanical malfunction offer the family little comfort. They face the prospect that Reyburn's body will never be recovered.

ñWhat we want known is what Greg did,ò said Tim Reyburn, father of the lost seaman. He was told by the surviving crew that they would not have made it if it hadn't been for his son. Reyburn and another crewman, struggling against roaring seas, fought their way along a rolling, sinking ship to release life rafts.

ñIf there is any, that's our consolation, that's what we're proud of,ò the father said.

Boat in Trouble

Hired by Apache Oil Co., the Botruc 26 had been ferrying supplies to and from oil rigs off the coast of Louisiana. The 198-ton vessel, one among a fleet owned by L&M Botruc Rentals Inc., was awaiting its next call to action early Nov. 6, tethered to a buoy amid a vast field of rigs about 70 miles south of Marsh Island.

A squall churned the seas to more than 12 feet high, and an unsuspecting crew found their boat listing hard astern. In the chain of events that followed, Able Bodied Seaman Greg Reyburn and acting First Mate James Earl Ray perished. Four others survived.

Details of the sinking emerged at a Coast Guard hearing one week after the incident: Because no one routinely monitored faxed weather updates, the crew was unaware of the oncoming storm and was passing the night moored to a buoy about one mile from the nearest rig. As seas rose, the boat began to toss ï nothing unusual ï until about 2 a.m., when a series of large waves broke over bulwarks at the stern of the vessel.

Though the automatic bilge pump alarms had not sounded, when the rear deck didn't resurface, seaman Scott Bourg knew he had a problem. He woke his father, Leroy "Captain Jack" Bourg ï commander of the vessel ï and the remainder of the crew not already on watch.

Scott Bourg and Mark Jaubert dashed below to fire up the bilge pumps in the engineroom at the rear of the vessel, beneath two exhaust stacks.

As the two approached the room's latched entry, they noticed water steadily seeping around the door's seal.

Bourg turned the handle, and ñthe door flew open on its own with a rush of water behind it. Sparks were flying, the generator was winding down, everything was dimming out, bulbs were popping, water coming out on usò.

The two clung to corridor walls against a rush of water.

Both were terrified by a blue arcing of electricity shooting across the water's surface.

Bourg and Jaubert forced the door shut as emergency power kicked in.

Running to the wheelhouse at the bow of the vessel, they reported they had not been able to activate the pumps in the flooded engineroom.

The captain ordered Reyburn and Ray outside to activate the homing beacon and launch the life rafts.

The crew was told to put on their life vests and prepare to abandon ship.

The BOTRUC 26 was going down.

Greg's Niche

After three years as a yeoman in the Navy, Greg Reyburn decided it was time to leave. It was a decision he came to regret, his father said.

ñHe got along great in the Navy ï all sorts of commendations,ò said Tim Reyburn. ñBut when he was on shore, well, he wasn't a real social guy. He was just happier when he was out to sea.ò

After leaving the military, the younger Reyburn worked odd jobs around Pensacola, never settling into anything.

When he eventually decided to go to captain's school, his parents were happy for him.

ñMy wife and I really thought he had found his niche,ò said Tim Reyburn, a retired Captain from the Uniformed Service of Public Health.

Greg Reyburn got his Able Bodied Seaman certificate and found his first work crewing for L&M Botruc Inc., one year ago. Reyburn usually worked two-week hitches. This time, however, he stayed on a while longer to pack away money to put toward upgrading his license. He recently applied for a passport but hadn't put his signature to it when his boat went down.

ñHe eventually hoped to get his captain's license,ò Tim Reyburn said. ñHe loved the job and was a real workhorse. He needed to be at sea.ò

At 38, Greg Reyburn had turned his life around.

The elder Reyburn said that although his son ï socially speaking ï was rough around the edges, ñhe always stuck up for those he loved. In a pinch, he would come through.ò

The surviving crewmates' testimony bore that out.

'Figured it Was Over'

Shortly after Reyburn and Ray left the wheelhouse to launch the life rafts, the crew's plight turned disastrous. The vessel, already listing, was flipping upside down.

ñYou didn't have a chance to even scream, and it was over, the boat was already rolled. It happened that fast,ò Scott Bourg recalled at the hearing.

Bourg and the others found themselves disoriented and standing on the ceiling of the wheelhouse, which was underwater.

ñI felt a lot of pressure, like diving to the bottom of the pool. Blood started coming out of my left ear. I felt something running. I couldn't hear anymore,ò Bourg said. ñI figured it was over, we were stuck, that was it. We couldn't go up or down.ò

The four crewmates trapped inside the wheelhouse looked at one another, not knowing what could possibly come next. They began praying together.

And then suddenly, ñwe had flipped, turned around and came back up.ò The crew said it was a miracle.

They found a window and cranked it down. And there were the life rafts that Reyburn and Ray had released, maybe 50 feet from the boat.

The crew jumped ship and struggled through the seas to a raft.

When they climbed in, they were surprised Reyburn and Ray were not there.

They looked over to the second raft. It, too, was empty.

ñI was thinking they had made it,ò Bourg recalled. ñWe went down with the boat and came back up. I thought we were the ones going to die.ò

The surviving mariners were picked up by a nearby vessel that saw their flares. They searched through the night for their crewmates.

The Coast Guard continued the search by helicopter and plane for the next three days in vain. Rescue efforts were suspended Nov. 9.

Probe Might Take Year

Between the cargo and vessel, initial estimates of monetary losses exceed $3 million, said Lt. Ruby Collins, chief of the Coast Guard's investigations department for the Morgan City, LA, (Coast Guard Marine Safety Office).

Last year she had five "major marine accidents" to investigate in her zone, which covers a portion of the Gulf off the Louisiana coast.

The investigation into the sinking will take from six months to a year, Collins said.

The Botruc Company contracted a $116,000 diving expedition to recover the bodies of the downed seamen, to check for salvage value and to tape off any fuel or oil leakage.

The diving company videotaped the survey of the sunken ship.

ñIt was eerie to see,ò Tim Reyburn said. ñThe other fellow's body was wrapped up in cables outside the boat.ò

What's Ahead

When the boat went down, Greg Reyburn's duffle bags were packed for a crew change the next day. His father had purchased an open-ended plane ticket so his son could join the family for the holidays.

Greg Reyburn already had bought Christmas gifts for his family before his final tour at sea. He left them at his Pensacola residence.

Now, ñwe don't even have a death certificate,ò Tim Reyburn said. ñIt's a good thing his mother made him pose for pictures last Christmas, otherwise we'd have nothing.ò

William Porteous III, the lawyer who has represented the family-owned L&M Botruc Rentals Inc. since the early 1960s, said the Botruc 26 was the first boat the company lost in more than 25 years.

Porteous said it is unlikely the Botruc 26, and with it any hope for recovering Greg Reyburn's body, will be raised. Because the boat was severely damaged in the sinking and poses no threat to underwater oil lines, it will probably be left to lie on the bottom, a new addition to the ocean floor.

At a depth of 315 feet, where the vessel came to rest, there is about a one-knot current blowing silt and sand along the floor.

ñIn six months she'll probably be an indistinguishable mound on the bottom,ò Porteous said.

Lacking concrete memorial options, Tim Reyburn and his other son, Tim Reyburn Jr., are planning a helicopter trip over the site of the sinking in the spring.

The family has had sporadic contact with lawyers to inquire what they might expect out of a settlement with the company, whichï they are quick to addï will continue to pay Greg Reyburn's salary through the end of the year and has been very supportive of them so far.

The settlement may depend on the outcome of the Coast Guard investigation, which won't be known for months. If there is any liability, it is hard to assign at this point.

The Botruc 26 was certified as seaworthy Aug. 31 following an annual inspection by the Coast Guard.

ñAlthough none of the crewmembers admitted to it at the hearing, indications are that a 26-inch by 56-inch hatch was left open below deck at the bottom of one of the engine stacks,ò Porteous said.

The crew did concede that they did not conduct routine inspections of the hatches.

One question the family and Coast Guard investigators have in common: What happened to the alarms?

Both the open hatch that is thought to be the culprit and the bilge pumps that should have been pumping water out are wired with automatic alarms audible from anywhere on the vessel.

No one knows why they didn't alert the crew to the danger. No one may ever know. About the only thing the family is sure of is, as the father says, ñthe consensus of the crew is that if it weren't for Greg, they wouldn't be here.ò

For the Reyburn family, that means a lot.

The Settlement Process

The question will ultimately arise as to how much is a mariner's life worth. It is the point where the real world intrudes after a mind-numbing tragedy. Nevertheless, it is a question that every mariner needs to consider. It is a burden any mariner serving in a dangerous occupation places on his loved ones if he or she never returns. Our mariners need to understand that "***going to sea" is a dangerous occupation whether "sea" is servicing oil rigs in the Gulf of Mexico, running the Intracoastal Waterway or pushing tows on the 6,000-mile western river system***. Our Association often reviews regulations where the U.S. Department of Transportation calculated the value to the public of saving one human life at $2,700,000 in regulatory proposals. Employers have different ideas.

In the case of Greg Reyburn, the boat company initially offered a lump-sum payment of only $50,000ï grossly insignificant when compared to the $3,000,000 loss of a 20-year old boat and its cargo, prudently covered by insurance from Lloyd's of London. The amount offered was an affront to Greg's family not because of its monetary paucity. There was no body to bury and never would be. There was no death certificate to settle his affairs. Worst of all, there was no closure. The loss to Greg's parents was overwhelming and the grief remains.

How the accident was allowed to happen was particularly galling. Greg previously spoke of his experiences working in the Gulf of Mexico to his family ï and did so in detail. The family's attendance at the Coast Guard hearing at MSO Morgan City filled in many of the blank spaces and faces they had heard about.

Recommendations From the Reyburn Family Touch Other Mariners

Greg's older brother, Tim, is a Maryland businessman used to making reasonable business decisions. While glowing in his praise for the care and concern offered by the Coast Guardsmen conducting the search for his lost brother's body, ***he was less than enthusiastic about the bureaucratic treatment he encountered from other officials***.

After the Coast Guard hearing in Morgan City following the sinking, Tim became increasingly uncomfortable with the concept behind the Coast Guard's nStreamlined Inspection Programnj (SIP). ***He pointed out that "streamlined inspection" cuts corners and gives free reign to boat owners to inspect their own boats and to certify that their vessels are safe when they may not be***. Consequently, these vessels undergo only minimal Coast Guard oversight inspection. In a letter to Senator Barbara Mikulski (D., MD.), Tim requested a legislative review of the Eighth District's Streamlined Inspection Program. ***He believed the hearing showed the program may compromise rather than improve the safety of the vessels***. He cited the facts that the bilge alarms did not go off and that the door on the exhaust stack was left open with its alarm disabled ï as supported by eyewitness testimony. He pointed out that the engineer, who should have been most familiar with the boat's safety systems, was under the influence of marijuana. ***He also questioned WHY existing Coast Guard regulations do not require trained or licensed engineers on a vessel of that size purpose–built just under the 200 gross ton limit that was operating a hundred miles offshore in the Gulf of Mexico***.

As a businessman, ***Tim could not understand why every mariner is not provided with a minimal life insurance policy because of the dangers inherent in this type of work***. He pointed out to our Directors that providing basic life insurance coverage is routine in many less dangerous occupations. He suggested in letters to Senators Mikulski and Hollings that Congress should protect mariners by requiring employers to provide a minimal term life insurance policy equal to one year's pay unless the mariner signs a statement declining coverage. He opined to our Association Directors in a National Offshore Safety Advisory Committee (NOSAC) meeting held in March 2002 that this insurance should be furnished at no cost to each marine employee with an option to purchase additional term life insurance at reasonable rates.

Family Submits "Proposed Findings" to Coast Guard and Congress

*[**Editorial Note:** The Reyburn family continued to correspond with the Coast Guard and urged it to complete its investigation and release the findings to the public. On Sept. 27, 2002 they were informed that the case was still under review at the Eighth District. As a result of these delays, the Reyburn family released "proposed findings" based upon what their presence at the Coast Guard hearing following the accident and in their subsequent lawsuit. We reprint the letter, addressed to Coast Guard officials and to Members of Congress, with the permission of the Reyburn Family.]*

Dearé

On Nov. 6, 2000 my son Gregory Reyburn perished when the offshore supply vessel on which he was a crewmember sank without warning in a storm in the Gulf of Mexico. I attended the two-day formal hearings on the sinking at the Marine Safety Office in Morgan City, LA, on Nov. 14, and 15, 2000. I heard all the testimony and recorded most of it. Ever since that hearing, my wife, my son Tim, Jr., my daughter and I have sought closure on the matter so that we can move on with our lives.

nClosurenjfor our family has been a source of great frustration starting with putting a npricenjon my sonôs life. We were offered such a pittance that it was an insult; we were forced to fight for more simply as a sign that he, as a seaman, was more than a ndisposablenjquantity to his employer. ***He wrote and spoke with us often about the sloppy working conditions he found on the oilfield supply boats he worked on***. He spoke as a veteran with service in the U.S. Navy and had an excellent basis to make these comparisons. One of the last things my son Greg told me was: ñDad, I donôt want to die inside one of these boats.ò My wife and my son agree that the final report should be a very significant document and will mark the closure of Gregôs final days on earth and just the beginning of our acceptance that he died for a reason.

The Coast Guardôs final report has now become a bone of contention. My son, Tim, spoke before the National Offshore Safety Advisory Committee in Washington on April 25, 2002 to try to move the report off top dead center. To do so, we trust, will mean that Coast Guard officials will recognize the enormity of what happened. We believe they must draw conclusions as to what they could and should have done not only to prevent this tragedy but also to attend to business and draw valuable lessons from this disaster and apply them throughout the industry.

I have little doubt that the formal hearings brought forth honest testimony as the hearings were not adversarial in nature. ***The fact that the revelations in the hearings were virtually unchallenged does not explain why they should be allowed to remain hidden from the general public***.

Two years have passed since the accident, and the accident report still languishes in the Coast Guard office in Morgan City. ***I believe that both the industry and the Coast Guard prefer to ignore or even cover-up what has happened because it demonstrates a well-established pattern of laissez-faire and lax supervision that many of the***

offshore oil industry's boat companies and the Coast Guard share the blame for. If there is no blame (e.g., treating it as njust another tragic accidentnj), there is no problem for either the Coast Guard or industry.

It is clear that this company did not follow scientifically based work-hours. There is no way of learning how many hours the licensed officers or unlicensed crewmembers worked aboard these boats because there are no requirements to keep track of the hours. On the OSV CHERAMIE BOTRUC 26 at the time of the accident ***there was no sensibly established watch system or division of labor***. Fast food chains like Taco Bell do a much better job of tracking their employeesô hours and outlining their duties than this company ever did. ***In the end, it seems that what is everybody's business was nobody's business in that nobody even thought about the vulnerability of open watertight stack doors***. Although testimony showed that each crewmember did as ordered, somebody forgot to give the order to close the watertight doors?

A change is needed. Because of the risky nature of the work in the Gulf of Mexico, ***boat companies should be required to provide accidental death and dismemberment or term life insurance policies to the mariner's next of kin to cover him at work or en route to or from the job***.[(1)] The policyôs language should be clear and cover all eventualities. If a seaman is lost at sea and his body is not recovered, there only should be a short waiting period to collect for the loss of a familyôs breadwinner. Knowing that you have insurance is reassuring while you are alive. ***However, after a tragedy at sea, a seaman's estate should not be faced with waiting between one and seven years before the insurance company pays the claim***.[(2)] If Congress can change the law to provide for victims of airliner crashes, why donôt mariners have equal consideration? *[(1)Although we agree with the "insurance" proposal, this idea has not made much headway. (2)Following the April 2010 Deepwater Horizon explosion and oil spill, we have seen considerable efforts to amend the Death on the High Seas Act. Refer to Rights of Seamen and Their Families in NMA Newsletter #71 and follow H.R. 5503, 111th. Congress.]*

The Captain of the ship has the ultimate responsibility for the safety of his crew. The companies that hire these captains must share the responsibility for the safety of their boat crews. When selecting their personnel, the ***companies should be held accountable for verifying a worker's ability to read and speak English on an American-flag ship. If a worker is not at least proficient in English as a second language, how can the Coast Guard, his employer, or anyone else expect him to follow safety procedures in an emergency?***

Here are some of the deficiencies in the maintenance and operation of the OSV Cheramie Botruc 26 that my son Tim and I heard revealed in testimony at the public hearing one week after the accident. I am forwarding a copy to the Coast Guard as **proposed findings** in this accident since no report has been made available to us for almost two years:

- ***The Captain of the vessel never bothered to establish a fixed watch schedule for himself or his crew***. As a direct consequence, nobody was sent out on the after cargo deck for over two days to check on the condition or lashings of the deck cargo or to determine whether the watertight doors leading directly to the engineroom were open or closed. The vessel sank because water flooded through these doors.

- Although the vessel had two licensed masters because it was in 24-hour service, ***the designated Captain with twenty-five years service in the industry had no clear idea of his responsibility to manage the vessel***. With this much service in this industry, he should have been well aware of the propensity of this type of oilfield supply vessel with after exhaust stack doors to flood through these doors in rough weather. ***The Captain believed that whichever of the two officers happened to be up and awake at the time was in charge of the vessel***. Although the Coast Guardôs administrative law system is established to permit the agency to take remedial action against licensed officers for incompetence or misconduct through suspension or revocation proceedings, it appears that no action, even admonishment, was ever taken following this hearing to remind this officer of the responsibilities of that go along with command. I further question what specific literature or directives the Coast Guard uses to instruct or evaluate merchant marine officers serving on this type or size of vessel in their responsibilities to perform their job to meet Coast Guard licensure standards if any. In failing to make such an important correction in a timely manner, I believe the Coast Guard officers through the chain of command were seriously deficient in carrying out their responsibilities.

- ***Although the boat was equipped with a weather fax, the Captain was not in the habit of using it. He also reported that he seldom paid much attention to the boat's alarm panel***. If he had, he might have questioned why the alarm that was supposed to indicate an open engineroom door apparently did not work and had not worked for a period of time before the accident. ***This also appears to be a shortcoming of the local Coast Guard's***

Streamlined Inspection Program that allows important discrepancies to go uncorrected.

- ***The Captain left no standing orders to be called in case of bad weather or an emergency***. In fact, he did not appear to even know what njstanding ordersnjwere.

- Although the Captain thought his njengineernjshould have closed the engineroom hatches in stormy weather, ***he never took the time to instruct or train the engineer to do so although this was only the second time that "engineer" had served on the vessel. In fact, the Captain stated "Its not my department to train them.***ò I see this as an attempt to avoid responsibility.

- Although the OSV Cheramie Botruc 26 was a large, inspected vessel, ***the Coast Guard neither examined nor licensed the vessel's engineer; nor did either the company, nor the Coast Guard require that the engineer receive any type of formal training before assuming his duties***. In fact, the man assigned as njengineernjheld a rating as an njordinary seamannjand only served on this vessel once before it sank, receiving only cursory njon the jobnjtraining.

- ***The Engineer reportedly was never instructed to close the engineroom doors leading to the main cargo deck***. Further, he testified he never closed or dogged these doors while he was on the boat. ***Nor was he ever instructed about micro-switches on those doors or about the functioning of any part of the alarm system*** on the boat although it would have been his on-board job to maintain it. He never heard the high-water bilge alarm go off if it ever did function properly. Aside from leaving the exterior doors open, an interior watertight door leading aft to the rudder room reportedly was left open as well. This allowed the aftermost compartment to flood through the engineroom and lose the buoyancy that possibly might have kept the vessel afloat or prevented it from capsizing a few minutes longer and saved the lives of my son and James Ray. ***In his testimony, the "engineer" stated that he had no idea whether the engineroom doors were open or closed as he had no reason to go through them while he was on the boat.*** He had always entered the engineroom through the galley and not through the watertight door on the vesselôs cargo deck. He pointed out that it was the whole crewôs job to dog the doors. ***He also pointed out that there was no specific assigned engineroom watch established.***

- One crewmember, an ordinary seaman, spoke only broken English. When the storm that eventually sank the boat first broke, this man was sent to the engineroom for the specific purpose of starting the engines even though he was not the engineer. Aside from starting the engines, he checked nothing else in the engineroom. When he returned to the pilothouse he reported the engineroom was njOKnj He was never specifically instructed to walk through the engineroom and close the watertight doorsé and never did so. In addition, an able seaman reported going into the engineroom to check the engine expansion tanksé but nothing elseé twenty minutes before the boat sank. These were the last opportunities to seal the hatches before flooding occurred through the open doors.

My son and I have repeatedly asked the Coast Guard to complete this accident report with no results. Before speaking before the federal advisory committee, the head of the offshore industryôs trade association made remarks to us that we considered threatening. Because of the close relationship that exists between senior Coast Guard officers and this industry, our family respectfully requests that your Congressional Committee look into this matter to prevent future loss of life in this poorly regulated industry.

Respectfully yours,
s/Timothy V. Reyburn, Sr.
Captain, U.S. Public Health

INCIDENT #3 – OSV SEABULK GEORGIA STRIKES JACK-UP RIG

[Publication History: This report was last published as GCMA Report #R-299, Rev. 1, April 30, 2002. ***Emphasis is ours!***]

The "Official" Coast Guard Report[(1)]

*[(1)**Source:** USCG Case #MC 00009757.]*

On Aug. 1, 2000, the OSV Seabulk Georgia, a 180 foot offshore supply vessel built in 1984 was underway en-

route to the offshore platform at Vermilion 267A on a course of 226 degrees at a speed of approximately 10 knots. The mate, Ronnie Chambers, was on watch. At approximately 02:00, the OSV Seabulk Georgia had an allision with the Mobile Offshore Drilling Unit (MODU) Dolphin 105. The Dolphin 105 was jacked-up alongside the platform at Eugene Island 095-17 doing work to the well. Initial impact with the MODU was at the port quarter of the MODU and the starboard bow of the OSV Seabulk Georgia.

After the initial impact, the OSV Seabulk Georgia continued underneath the MODU, completely tearing off the entire pilothouse. Ronnie Chambers, at the helm, was dragged with the entire pilothouse to the deck below. ***Both Ronnie's legs were crushed and had to be amputated***.

The OSV Seabulk Georgia was on a course of 226 degrees and was being maintained by the vessel's ***auto pilot***. Visibility was at least 1 mile. Ronnie Chambers was on watch and had been on watch for about 6 hours. He had 6 hours of sleep prior to his watch. According to his statement and the QMED's[(1)] statement, Ronnie had gone down to the galley to make a sandwich and get a cola. The QMED stood by for Ronnie on the bridge. They both said Ronnie was gone for about 5-10 minutes. After he returned, the QMED stated that he stayed with Ronnie on the bridge for another 5 minutes and then went below to make his rounds. The QMED stated that he was gone about 10-15 minutes and was on the way back to the pilothouse when the allision happened. *[(1)**Vocabulary: QMED** = Qualified Member of the Engine Department; an unlicensed rating hired to assist the vessel's engineer perform his duties.]*

In talking with the mate after the incident, he stated the following: He was on watch. The auto pilot was on. He didn't have any problems with the auto pilot and heard and saw no alarms. He said visibility was at least 1 mile. He had gone down to the galley for a sandwich and a cola. When asked if night vision was a problem when coming back to the bridge from the galley, he stated he didn't think so. ***The last thing he remembers was standing by the weather machine getting the updated weather.***

After all the interviews and a visual inspection of the damaged vessel, the investigating officer concludes that mate, Ronnie Chambers, was in the pilothouse at the time of the allision and in charge of the safe navigation of the vessel. Ronnie's exact position in the pilothouse can't be proved, but he may have been at the helm at the time of the allision. His shoe and leg were found lodged between the overhead and the center window forward of the helm. The investigator's theory is that upon initial impact with the MODU, the pilot house's forward edge of the overhead and forward windows folded back against the inner pilot house overhead trapping Ronnie's foot; and as the vessel continued under the MODU, the entire pilot house overhead peeled back and fell onto the deck below. Once the vessel cleared the MODU, Ronnie fell to the 01 deck, tearing away from his leg, which had been torn while the pilot house was peeling back.

The Coast Guard investigation concluded that (the mate) was negligent in the performance of his duties as mate while on watch by inattentiveness to the navigation of the vessel through a congested area.

There is More to This Story

Although the Coast Guard report established the principal events and provided a theory of what may have occurred, it just touched the surface. Many other theories abound.

Our Association brings to marinersô attention that very few accidents involving our "limited tonnageò mariners[(1)] are ever widely reported. Where the story is sensational or unusual or if there is some public impact, a brief local newspaper account immediately after the event is all you may ever see. Most mariners seldom see the results of a formal Coast Guard investigation of an accident because a long time often elapses before these reports are available to the public even under the Freedom of Information Act. For example, on occasion we waited up to three years for the results of some Coast Guard investigations that apply our mariners. By that time, they are no longer news and lose much of their interest for mariners not directly affected.[(2)] *[(1)**Vocabulary: "Limited-tonnage" mariner** = a mariner working on a vessel less than 1,600 gross register tons (GRT). [(2)]For a broad view of the shortcomings in Coast Guard investigations, read our reports #R-429 (series) with emphasis on NMA Report #R-429-M.]*

Our Association has much more than a passing concern for limited-tonnage mariners who are injured on the job and subsequently are dumped on the industry's scrap-heap. We join our friends and mentors in the labor movement to try to look after our own. In this case, in the words of Attorney Philip Cossich, "We were able to turn a bad situation into a positive one for a seriously-injured young man."

What follows is a story about a single father of a beautiful young daughter who was abandoned by the system to navigate through life after he lost both his legs in a terrible workplace accident. It is a story of a mariner, his brave parents and other family members, and a team of lawyers willing to face down one of the largest boat companies in the offshore industry to reach a fair and just settlement.

Whatever our readers may choose to speculate, the trauma of the accident completely erased all Ronnie's memory of

the immediate events leading up to the crash. But, why speculate? Even the company's Safety Manager determined that the cause of the accident remains "unknown."[1] Did Ronnie fall asleep on watch? Perhaps, but Ronnie does not accept any such assumption, and we see no need to speculate. *[[1]Safety Manager's deposition, p.116.]*

The OSV Seabulk Georgia and Oilfield "Tradition"

I had the opportunity to review hundreds of pages of depositions that were taken from "expert" witnesses[1] as well as crewmembers, company shoreside personnel, and other concerned parties after this horrendous accident. *[[1]**Vocabulary: Expert witness** = A person not directly involved in an event but may have expertise in one or more pertinent areas.]*

In the depositions there was no "finger-pointing" by members of the crew who lived through that gruesome night. It was clear that the Captain and other crew members interviewed had only respect and affection for Ronnie Chambers. Although he had only been assigned to the OSV Seabulk Georgia for about 10 days, it was clear that Ronnie was readily accepted as part of the crew and was working among friends.

This was a hard-working crew whose Captain reported that he didn't sleep much and often put in 20-hour days. The QMED, who was on lookout duty with Ronnie, had already put in 17½ hours in the past 24 hour period. The QMED made it very clear in his deposition that nobody had forced him to work those long hours. He stated that he worked extra hours voluntarily and was not under duress. The picture emerges of a close-knit, hard-working crew that came together to do a job that lasted far beyond the number of hours legally available yet effectively mustered following the disaster to save Ronnie's life in the few moments available to them following impact. In the course of preparing this report, I plan to review the pertinent transcripts and make recommendations to commend the mariners involved for their heroic actions that saved the life of Ronnie Chambers.

A picture clearly emerges of a crew that simply had too many tasks to accomplish, too few hours to accomplish that work, and too little effective shoreside support. Of course, those who work in the offshore industry probably will yawn and say, "So what else is new!"

One of the most common problems that mariners on offshore supply vessels face is that their vessels are perpetually undermanned for the jobs they are expected to do. The boat owners, represented by their trade association, the Offshore Marine Services Association (OMSA), vehemently disagree in forums like the National Offshore Safety Advisory Committee where we often meet. ***The boat owners have worked for many years to keep manning levels reflected on their vessels' Certificates of Inspection at the lowest possible level. Seamen manning these vessels have never had a voice in setting vessel manning levels — only the vessel owners have direct access to the Coast Guard when it comes to setting industry-wide manning policies***. Between industry and the Coast Guard, they have "leveled the playing field" so that most vessels in the industry are insufficiently manned to engage in 24-hour service. The situation on uninspected towing vessels is even worse since they are not even issued a Certificate of Inspection and what regulations exist are almost incomprehensible to the average mariner.

Yet, in many ways, the seamen are their own worst enemies. Although the Captain of OSV Seabulk Georgia was assigned an extra man, he still believed the vessel was undermanned.[1] Yet, by working beyond the legal 12-hour limit and allowing his QMED to do so as well, the Captain virtually guaranteed that the company would never be under any pressure to assign the number of men necessary to operate the vessel safely and also to maintain it at the level the company apparently expected. *[[1]Captain's deposition, p.50.]*

What motivated the QMED to work these hours? In his own words: "...even though I've been up 10 or 12 hours, if I'm not tired and there's something going on, I'm going to help. I mean, that's part of the industry. And, if you do that, captains want you to come back. They call the office. You get good reports. And that helps you towards your license and progress and moving up and making ratings and stuff like that."[1] *[[1]QMED deposition, p. 126.]*

Although the Coast Guard overlooked these individuals violations of the 12-hour rules, ***the company's Safety Manager became "concerned" after the accident that his QMED, who accepted the lookout assignment that night, worked 17½ hours in the 24 hours preceding the accident***.(1) He reportedly "discussed it with management" several days after the accident.[2] Although the QMED may deserve an "E" for effort, he is now earning it for another employer. *[[1]Refer to our reports #R-207, #R-207-A & #R-207-B on the training and posting of lookouts. [2]Safety Manager's deposition, p. 122.]*

Both the Safety Manager and Seabulk's unlimited Master expert witness with years of deep-sea shipping and managerial experience, considered the Captain at least partially at fault for not managing his crew members properly. The company Safety Manager went even further and stated that this was why the Captain forfeited his safety bonus.[1] ***The expert witness stated: "...if he honestly believed that the vessel was undermanned...you should do something about it***. You shouldn't take it away from the dock. You should report it to the Coast Guard. If the Coast Guard

doesn't agree, you should report it to a federal judge, which you're required to do. And he didn't do so..." [(2)]Following the accident, the Captain took a job with another major boat company. *[[(1)]Safety Manager, deposition, p.122. [(2)]Master expert witness, deposition, p. 43.]*

"Maintenance and Cure" Compared to Workmen's Compensation

A seaman injured while serving on his vessel is entitled to receive maintenance[(1)] benefits from his employer in addition to medical treatment called "cure."[(2)] Under most ***workers' compensation programs, which do not apply to seamen***, a person who is not a seaman may continue to receive compensation benefits after he/she reaches a point of "maximum medical improvement." On the other hand, a seaman is owed maintenance and cure only until he reaches a point of "maximum cure." Maximum cure is the point of medical treatment where it appears that no improvement in the seaman's condition will result from further medical care. Seabulk saw >maximum medical cureò happening shortly after Ronnie left the hospital and was fitted with two artificial limbs. This might have been adequate in the days of Pegleg, but the world has changed since then. In reality, as evidenced by medical experts, care, refitting and replacing prostheses, and professional medical care will have to continue throughout his expected life span. Provision must be made for this care. *[[(1)]**Vocabulary: Maintenance** = normal shoreside living expenses. [(2)]**Cure** = adequate and complete medical treatment. For additional information, refer to our Report #R-344-A.]*

An employer's duty to pay **maintenance and cure is not fault based**. A non-negligent, fault-free employer owes benefits to its injured seamen. In most cases that do not involve seamen, an employer who pays workers' compensation benefits is immune from civil suits brought by its non-maritime employees. The worker's only recourse against his employer is to recover his worker compensation and medical benefits. In contrast, a seaman's employer does not enjoy tort immunity. ***The seaman can sue his employer and recover monetary damages if he can establish that his injury was caused by the legal fault of his employer, i.e., negligence, unseaworthiness or strict liability. In this case, undermanning a vessel or working its crew beyond legal limits (e.g., the 12-hour rules) are all very serious considerations.***

The amount of benefits workmen's compensation offers a shoreside worker is different than those an injured seamen might receive from maintenance and cure. Typically, "worker's comp" is set by a wage-based formula according to state statute while a seaman's maintenance rate is unrelated to his earnings. ***Maintenance benefits are supposed to pay an injured seaman for food and lodging equivalent to those aboard the vessel...one often interpreted by employers as a rented room in a flophouse***. Further, a vessel owner's maintenance and cure obligation is not set out in any statute. The duty to pay such benefits is a matter of uncodified general maritime law. This leaves it up to the employer to determine what is fair and reasonable for an employee who (for whatever reason) no longer contributes his labor to the company. Such payments tend to be small and of short duration since there is no universal maintenance formula.

Herculean Labors

Since undertaking Herculean tasks without great concern for their human costs is a tradition in this industry, let's reflect on the uneasy relationship between these traditions, workplace safety, and the law.

The OSV Seabulk Georgia appears to have been run in a "***traditiona***l" manner reflecting the way things always have been done in the oil patch. ***Tradition in the offshore industry often involves cutting corners, especially at the expense inconvenient rules and regulations***. Of these regulations, the 12-hour rules[(1)] appear to be the most ignored and abused by both limited-tonnage shipôs officers and their employers. *[[(1)]Refer to our #R-370 series of reports on 12-hour rule violations.]*

When industry leaders or their trade association are unable to sidetrack a new regulation during the rulemaking process, they simply ignore or "interpret" unwelcome portions they believe the Coast Guard cannot easily enforce. Considering the Coast Guard's traditionally lax enforcement of maritime laws and regulations affecting limited-tonnage mariners, the chance of being caught is very limited; the chance of being punished is remote; and the opportunity to make a great deal of money is enhanced. Our Association would like to see OSV operations carefully scrutinized by an independent federal agency such as the National Transportation Safety Board with a broad view of work-hour regulations in all modes of transportation. Until that happens, the Coast Guard needs to listen carefully to and verify mariner work-hour complaints and then ***effectively*** enforce existing laws and regulations. In light of the widespread use of the two-watch system, proposed legislation[(1)] would prescribe meaningful logbook regulations that would allow officials to audit each marinerôs ñon-dutyò hours. In addition, our Association asserts that new statutes are necessary to limit ñon dutyò hours of all ñratingsò to 12 hours in any 24-hour period *[[(1)] H.R. 3619, 111th. Congress.]*.

This is Dangerous Work

Limited-tonnage mariners who work on offshore supply vessels and uninspected towing vessels perform dangerous work. How dangerous it is may never be known because the Coast Guard was inattentive to deficiencies in accident reporting procedures over the years.[1] Although we have reported this in our newsletters, the Coast Guard stonewalls us and shows no intention of cleaning up its act. As a result, we have now formally addressed the matter of accident reporting shortcomings with the Department of Transportation Inspector General's Office. *[(1)Refer to our Report #R-429-A, Rev. 1 and #R-429-B, Rev. 1*

Every mariner should reflect on this question: If I am seriously injured on the job, who will take care of me? Care may be required for weeks, months, or in the case of Ronnie Chambers and in spite of his most courageous efforts, for the rest of his life.

Consider this: If I cannot go back to work, where will my next paycheck come from? Or my next meal? Or my family's? If I am not able to work and need medical care, prescriptions or treatment, who will provide them or how can I survive without them?

The truth in this case, as in cases with a number of other mariners we encounter, is simply this – when you are seriously injured and cannot return to work, your employment is terminated, your paycheck is no longer in the mail, and you must manage to make payments for your own health care and that of your dependents or you won't be cared for. If you are a mariner accustomed to bringing home a steady paycheck, you certainly have good reason to be alarmed with such treatment. If you are a union member, at least you and your co-workers will have an opportunity to bargain collectively with your employer to ensure that your needs are taken care of by your employment contract following a serious accident. But, as an employee "at-will"[1] you have no contract your employer must live up to, and you are left to find your own way. This means that you must hire an attorney and prepare to fight for your future in court. You must do this at a time when you are injured, often resentful, maybe depressed and without hope, and generally vulnerable to accepting a "quick settlement." As an Association of concerned mariners, NMA condemns the corporate practice of simply cutting loose an injured mariner. Unfortunately, this practice is widespread in this industry and is by no means limited to this particular employer. *[(1)An "at-will" employee has no employment contract that guarantees him/her any rights or benefits. Employment can be terminated at any time for any reason whatsoever by either party – employer or employee.]*

Standing Up to Corporate Giants

The prospect of standing up to a corporate giant that owns over many vessels around the world and with international interests is daunting. The prospect in this case appeared even more hopeless when the Coast Guard pronounced its collegial judgment in unforgiving terms like "negligence" and "inattentiveness." Making the blow a little less crushing, the Coast Guard mercifully allowed Ronnie to surrender his license for medical reasons without dragging him through a formal hearing process.

Meeting the high costs of rehabilitation, lifetime care, vocational counseling, retraining to provide future income, and assistance with day-to-day living were all matters that had to be examined and then somehow financed. ***By cutting Ronnie loose at the earliest possible date, the company was determined to divorce itself from responsibility for what happened.*** In effect, Seabulk assumed that they were blameless, distanced themselves from the accident, and went about their business. Any problems an injured, unemployed, and penniless seaman might generate could be handled easily by the company attorneys.

The "Real" Investigation

Proving that Seabulk shared the blame for the accident was a major problem considering the fact that the trauma of the accident totally erased Ronnie's memory of the accident itself. Following the Coast Guard's investigation released in March 2001, the "real" investigation was conducted by Ronnie's attorneys Les Martin and Phil Cossich.[1] *[(1)The law firm of Cossich, Martin, Sumich & Parsiola, L.L.C., 8056 Highway 23, Suite 200, P.O. Box 400, Belle Chasse Highway, LA 70037. (504) 394-9000]*

The attorneys' examination of how Seabulk Offshore, Ltd. operated the OSV Seabulk Georgia was at the heart of the investigation. This investigation had many facets we will examine in some detail so our mariners may examine issues pertinent to their own future.

The investigation would consume the better part of a year and required hundreds of hours of legal preparation and produced over three-hundred pounds of documentation. Up until the day of the trial on Dec. 17, 2001, Seabulk was unwilling to make anything that could be considered a reasonable settlement considering his projected expenses to compensate Ronnie for the injuries he received as an employee on their vessel. Furthermore, no settlement would

result if Seabulk had not been at fault for their practices. What they were willing to admit and the exact amount it cost the corporation was not made available. However, the settlement was reported to be considerable. Fair and reasonable are terms that could be applied to the final settlement whereas "charitable" could not!

During the time following the accident, Ronnie exhibited tremendous courage and perseverance in his attempt to put his life back together and arise above his pain and conquer his disabilities. After release from the hospital, he underwent rehabilitation and was examined by medical experts that advised him as to his medical prognosis. He received vocational counseling that centered on how he could ***retrain to make a living in a completely new occupation***. Financial estimates for the cost of this care had to be carefully prepared and were subjected to close scrutiny. During this period, an exceptionally heavy burden for his care and maintenance fell upon his parents and upon other care givers.

To gain their attention and to convince them they were serious in pursuing a settlement, Ronnie's attorneys sued Seabulk Offshore Ltd. in Federal District Court for $28,000,000. That amount and a recent jury verdict in Federal District Court in Lafayette, LA, in the case of an injured oilfield worker that also lost both legs, made the point that Seabulk's practices would be closely scrutinized.

To generate as full and complete a picture of the accident as possible, most of the vessel's crew was "deposed." ***A "deposition" is a method of pre-trial discovery*** which consists of a statement of a witness under oath, taken in question and answer form as it would be in court, with opportunity given to the adversary (in this case, Seabulk) to be present and to cross-examine. All depositions were reported and transcribed by a Court Reporter and became part of the official public record. In addition to crewmembers, a number of Seabulk shoreside employees were deposed at length as were several expert witnesses Seabulk hired to provide their opinions of what had happened.

PROLOGUE TO THE ACCIDENT

On the day before the accident, the OSV Seabulk Georgia spent the day alongside the dock in Berwick, LA. The vessel had six assigned crew members, one more than the minimal number its Certificate of Inspection called for. The crew included the Captain, one Mate, one licensed engineer, one QMED (qualified member of the engine department), one Able Seaman and one Ordinary Seaman.

The vessel's two seamen were set to work chipping and painting the colorful red, white, and blue vessel to keep it standing tall in the best oilfield ***tradition***. This would probably be the most expensive paint job the vessel ever received because these two seamen put in their full day's work in the hot summer sun and were not available for duty later that night. Every mariner knows how a poorly maintained boat reflects poorly on its Captain, its crew, and its company...one of those unsinkable traditions.

The Captain and the Mate

The Captain was a 25-year veteran of the oil-patch. He was also a very handy person to have around any boat. He was concerned with vessel maintenance and knew enough about cutting and welding to help the engineer replace a pair of valves in the pipe tunnel during the day. In mid-summer, this was hot and tiring work.

It would stretch the truth to say that the company did not know all this activity was taking place. After all, they were called and even brought at least one of the new replacement valves to the boat. ***However, there is no evidence that a hot-work permit was ever sought or obtained for welding repairs on this inspected vessel*** ï a fact that, more than likely, would dismay the local Coast Guard Marine Safety Office across the river had they encountered the work in progress. While this work was underway, the QMED, the "extra" man on the boat, was also busy at other tasks throughout the long, hot day taking only a brief nap during the late afternoon. The QMED was also one of those persons who "knew his stuff." In fact, the company lucked-out in having an excellent boat crew in the best oilfield tradition. Why then, less than 24-hours later did following these same traditions contribute to a devastating accident that cost the company and its insurers many millions of dollars?

Knowing that the boat would have to make a long run that night, the Captain wisely let his mate, Ronnie Chambers, rest during the day. Ronnie did not participate in the strenuous work schedule with the rest of the crew because he would have to take the boat out on its night run to Vermilion 267A. When the time came, Ronnie was expected to prepare the boat to get underway, maneuver it away from the dock, and take it on a 40-mile run down the winding and congested Atchafalaya River, across Atchafalaya bay and out the dredged channel into the Gulf of Mexico ï all tasks that Ronnie performed flawlessly and up to his Captain's expectations. Ronnie also knew his stuff.

The Captain, with his many years experience, had worked with Ronnie for the past ten days. He developed a favorable opinion of his mate who was also almost ready to sit for his Master's license. The Captain decided Ronnie

was a good boat handler and could be trusted to make the night run. In this industry, trust must be earned. When offered by a veteran Captain, it is a compliment carrying an obligation a conscientious mariner does not take lightly.

It is traditional in this industry for the Captain to handle his vessel around the dock, take her out the channel to the sea buoy, and then turn her over to his mate. The mate runs to the destination and then hands the vessel back to the Captain to maneuver around the rig; when the mate then goes out on deck to play the role of chief deckhand. Following this particular tradition makes it very difficult for a mate to obtain much practical boat-handling experience. This particular tradition also violates the "12-hour rules" that govern OSVs on voyages under 600 miles as well as for all uninspected towing vessels.(1) *[(1)USCG Headquarters clarified the "12-hour rule" in G-MOC Policy Letter #04-00, Change 1 available in our Report #R-370, Rev. 3.]*

Ronnie is the sort of person that seeks responsibility and was rewarded by a Captain that trusted him and offered him real boat-handling experience. In return, he looked up to his Captain with respect for giving him the opportunity to prove himself. Whatever happened in the hours that followed, the mutual respect remains between these two men. In interviewing Ronnie Chambers, terms like "negligent" and "inattentive" are strangely out of place and beg a definitive explanation for the events that changed his life forever. Unfortunately, the record and the man provide no explanation ï only theories.

Our Association believes the assignment of blame falls in large measure on some of the traditions that still exist within the industry. Clearly, some traditions must change and change quickly to meet changed requirements such as the International Safe Management (ISM) Code as well as STCW and ILO requirements.

Relinquishing Command of the Vessel

After the OSV Seabulk Georgia passed the sea buoy and into the Gulf, Ronnie asked his assigned lookout, the QMED, to hold the wheel for a few minutes while he ducked below to get some sandwich fixings and a cola. With no cook assigned to the boat, the crew is left to raid the refrigerator at will to scrounge up a meal or a snack. Removing the cooks traditionally assigned to OSVs was an austerity measure dating back to the oilfield "bust" of the mid-1980s. While not paying a cook may cut expenses, the real cost is borne the expense of crew's comfort and nutritional well-being.(1) *[(1)Refer to NMA Report #R-455, Rev. 3.]*

The simple act of a watch officer ducking out for a quick snack when all is clear ahead clashes with Coast Guard legal precedents(1) that a licensed officer must never turn the watch over to an unlicensed crew member, not even for a minute. The company Safety Manager(2) blasted Ronnie for this transgression although this is traditional oilfield practice. *[(1)Refer to our Report #R-405. (2)Safety Manager deposition, p. 106.]*

Handing over control to go below for a call of nature is also a common practice. This tradition is so ingrained that OSVs are still built without plumbing in the pilothouse. How does tradition explain human necessities for those on watch to answer calls of nature? The thought of installing a flush-toilet on the bridge would be laughable if it were not a common fixture aboard some (but not all) line-haul river towboats.(1) *[(1)One mariner, who relieved himself in a metal can that he subsequently dumped into the Ohio River, was admonished for polluting the river by Coast Guard interviewers for this act. Also significant at the same time, was the fact his tow collided with a moored barge dumping 85,568 gallons of gasoline into the river. Refer to our File #M-113.]*

When Ronnie returned to the pilothouse, the QMED soon announced that he was going to make his rounds in the engineroom, which also, is traditional. Although most companies have "automated" enginerooms that allow them to operate the vessel with only one person assigned to the engine department, some person must be available to answer and investigate engine alarms 24 hours a day while the vessel is underway or standing by at an offshore rig or platform. ***A functional job analysis performed by the Coast Guard in 1980 shows the OSV engineer as the most overworked person on a supply boat since he is not only responsible for maintaining the engineroom but also for pumping all the vessel's bulk cargo***. Aside from answering alarms, it is also sensible to check the engines periodically to see that all is running smoothly. Before leaving the pilothouse, the QMED glanced at the radars and saw that the OSV Seabulk Georgia was on a course that safely would bring it midway between two obstructions ahead. The QMED had previous experience at sea in the U.S. Navy. He expressed no real concern in leaving the pilothouse for a few minutes (later estimated to be between 15 and 18 minutes) to check the engines...nor did Ronnie. While below, the QMED did his "rounds," closed several deck plates as the chief engineer had requested, picked up some tools, and then grabbed some milk and cookies in the galley. It was then, as he prepared to mount the stairs to the pilothouse that the OSV Seabulk Georgia struck the rig and plowed underneath it as the pilothouse was crumpled and torn off the upper deck, dragged aft with Ronnie in it, and deposited on the cargo deck aft of the galley. It was the QMED and the Captain, who picked through the wreckage, found Ronnie, applied tourniquets, summoned help and saved his life.

Who Was On Watch?

Soon the question arose as to how the watch was established. Here ***the law[1] specifies that the watches be set by the vessel's master.*** In addition, according to law,[2] ***the watch schedule must be posted where it is easily accessible***. *[[1]46 CFR 15.1109 states: "Each master of a vessel that operates beyond the Boundary Line shall ensure observance of the principles concerning watchkeeping set out in STCW Regulation VIII/2 and Section A-VIII/2 of the STCW Code." Section A-VII/2 contains 106 separate and specific guidelines that must be observed. [2]STCW Code, Section A-VIII/2.5.]*

Tradition, at least as practiced in the oil patch, discourages putting things that are routine or easily understood into writing ï watch schedules included. Consequently, ***setting the watch that evening was done informally with the vessel's master pretty much leaving it up to the mate to arrange for his own lookout***. Since the QMED "volunteered" to stay on duty at night, the Captain, the Chief Engineer and the two seamen rested from their hard day's workof shipôs maintenance at the dock as the boat headed down river. Everything looked rosy: Ronnie describes himself as a night person, and the QMED volunteered for the duty. Such an ideal arrangement seemed to cover both the deck and the engineroom ï or at least so they believed. However, ***the law and regulations simply are not written that way and clash with tradition***![1] *[[1]46 U.S. Code §8104(e), that applies to merchant vessels over 100 gross tons states that a seaman may not be engaged to work alternately in the deck and engine departments or be required to work in the deck department if engaged for engine department duty (or vice versa). The oiler should not have been used as a lookout.]*

Seabulk assigned an extra person to work on the vessel that was not required by the Certificate of Inspection, in this case a person hired as a QMED-Oiler. Our Association, [1] urged the Coast Guard to "Review and set safe manning standards for offshore supply vessels and uninspected towing vessels." Work in revising manning standards for vessels under 1,600 gross tons is a project that is long overdue. ***Re-evaluating manning is not something that boat companies encourage because solving obvious manning shortcomings will cost them money***. *[[1]Refer to our Report #R-279, Rev. 8.]*

In each of these cases, tradition clashed with the law. One of SEABULK's "expert" witnesses, an unlimited master, repeatedly invoked the word "traditional" to try to justify most aspects of Seabulk's flawed operation. He even pointed out that the Coast Guard's accident investigation did not cite any of these legal shortcomings as "violations."

Unfortunately, such omissions are characteristic of many Coast Guard casualty investigations that are often hurried and may often do little more than scratch the surface.[1] Aside from providing an outline of what happened and a preliminary tally of the damages, the Coast Guard report became irrelevant in the months following the accident. In any event, their accident report cannot be used in court. *[[1]The Coast Guard investigation and report took a total of 30 hours to prepare.]*

We continue to take great pains to warn our readers about shortcomings in the Coast Guard investigative process. In 1994, the Coast Guard contracted with the Human Factors and Systems Analysis Unit, Idaho National Engineering Laboratory to produce a report titled U.S. Coast Guard Marine Casualty Investigation and Reporting: Analysis and Recommendations for Improvement.[1] This report, coupled with the heavy investigations workload[2] that many Marine Safety Offices face, explains why mariners are not always protected with balanced enforcement of laws and regulations designed to protect them. *[[1]Report #R-429-A, Rev. 1. . [2]At the time, the investigations workload at MSO Morgan City was reported to number over 300 "open" cases.]*

The Vessel's "Fast Rudder" Steering Problem

The OSV Seabulk Georgia had a steering problem that the Captain called a "fast rudder." This describes a condition where ***the rudders suddenly and unexpectedly go hard over without warning and without any steering command. The problem was reported to the company's Port Engineer on June 28, 2000, a month before the accident***. From repair reports, there were indications that hydraulic cylinder failures in January and June did require corrective action and were repaired. Still, the Captain recalled this condition occurred again just a few days before the accident. The main question seems to be whether or not a hard-over rudder command may have occurred on the night of the accident.

The Captain testified that this same condition occurred even after repairs were made just a few days before the accident. Unfortunately, Seabulk could offer no records of this service call for the repair work. Ronnie independently experienced a similar "fast rudder" problem while tied stern-to a rig with the engines working slow ahead within the short time he served on OSV Seabulk Georgia.

The Captain reported twice in June that the "repeater needs to be relocated due to magnetic flux." Although Seabulk's expert witness on steering claims to be baffled by this report, ***it is clear that the Captain knew something***

was wrong with the steering system and thought the problem was electrical rather than hydraulic. ***However, technicians did repair some obvious hydraulic problems, while possible electrical problems were not looked into***.

An NMA steering consultant with years of commercial hydraulics experience who discussed pertinent parts of the case with us at our request stated that the rudders would not go hard-over without an electrical command to do so. Such a command might be random and generated by two contacts coming together on their own. The difficulty was that such a problem, whatever its cause was intermittent. It is both expensive and problematic to hire a technician to stay aboard the vessel to wait for such a random problem to recur. Nevertheless, whatever caused the problem was likely electrical rather than hydraulic.

The Gyrocompass

The OSV Seabulk Georgia was fitted with a Sperry gyrocompass, autopilot, and magnetic compass. Sperry builds fine top-of-the-line equipment that usually serves for many years of trouble-free service. The fact that it had been installed on the vessel for 17 years was not as important as the fact that ***the gyrocompass reportedly did not function***. The law[1] does not require that a gyrocompass be installed on a vessel of less than 1,600 gross tons.[2] However, Coast Guard inspectors require that inoperable equipment either be repaired or removed from the vessel.[3] ***At the time of the accident, the vessel was operating on autopilot using direction input from the Sperry magnetic compass because the gyrocompass did not work and apparently had not worked for a long time***. *[[1]33 CFR 164.35(d). [2]The OSV Seabulk Georgia is 290 gross tons. [3]As per discussion at USCG MSU Houma.]*

Expert testimony provided by Seabulk followed the vessel's "trajectory" from the sea buoy to the site of the accident only a few miles away. The scenarios presented in the depositions provided theories in which course changes of fractional parts of a degree were argued over. ***However, the accuracy of the magnetic compass never appears to have been questioned even after it was picked from the wreckage set on 226 degrees***. ***However, Ronnie pointed out that the compass course was rarely within 15 degrees of the true course and that using the GPS with its off-track error as he had done was more reliable than relying solely on the magnetic compass***. The deviation table, if it existed for OSV Seabulk Georgia, was never mentioned in any testimony and never appears to have been presented as evidence of the compass calibration or accuracy.

What haunts the discussion is the Captain's statement of a month earlier: "(the) repeater needs to be relocated due to magnetic flux." Repeater, of course, refers to the gyrocompass' display unit. The Captain suspected that something was wrong with it and that the repeater or its wiring might have caused the "fast rudder" problems that plagued the vessel. Of course, this was only a theory and, as such, was based on an incomplete knowledge of the electrical end of the complex Sperry steering system. But, it was based on many years of oilfield know-how that often tends to be easily dismissed. Was the vessel's autopilot set on a magnetic collision course with the rig? ***Did the vessel suddenly swerve off course because of its recurring and unsolved "fast rudder" problem? Or, did the vessel gradually drift off a course that had been set to skirt the rig safely?*** There is no answer to these questions, only theories.

Questionable Shoreside Support

If you have a good crew that is interested in performing maintenance on a boat, some companies take advantage of the situation by stretching their shoreside support by hiring fewer supervisory personnel. An intelligent Port Engineer is key to getting major problems fixed in a timely and complete manner. Lacking that, any Port Engineer standing on the dock when an OSV arrives from offshore is a welcome sight. ***Previously, and for approximately six months, the OSV Seabulk Georgia was not assigned a regular Port Engineer.[1] That, coupled with constant crew changes, makes it difficult to have any continuity in major repair work***. Caring for six or seven large supply boats presents a major juggling act that is a challenge to any supervisor's "span of control." ***It is also clear from testimony that the Port Engineer who took the Captain's report about the "fast rudder" in late June didn't understand the nature of the problem even though he signed the report that recorded the complaint***. ***The Port Engineer even stated that the autopilot is "the Captain's thing" displaying his ignorance of this equipment for all to see***.[2] The Port Engineer stated in his deposition that he did not know in which direction the vessel would turn if hit with a hard starboard rudder command.[3] With such responses, it is not hard to see why equipment such as the vessel's complex steering system and gyrocompass never were successfully repaired. *[[1]Port Engineer deposition, p.16. [2]Ibid., p.59. [3]Ibid., pgs. 59, 60.]*

Rebuilding the Wreck

Although the steering system was operational but in questionable condition before the accident, its performance

has now probably improved. Without knowing the details, the old OSV Seabulk Georgia was not sent to the scrap heap but was resurrected to run another day. If there were any electrical problems with the steering, there was no damage to the boat's two steering motors. All wiring problems that may have existed in the pilothouse were solved instantly by the accident that smashed most of the navigation equipment and controls and tore out all the wiring. Pictures of the reconstructed pilothouse show a shiny new (or reconditioned) gyro display unit. It is clear that the company (or its insurer) spared no expense repairing the boat and returning it to service and up to Coast Guard standards. Yet, the company sought to shuck their most important responsibility to care for their injured former employee. In the long run, failing to address Ronnie's future cost the company much more than repairing the boat. We want to point out that the time has come for both marine industry and the Coast Guard to consider that restoring damaged human beings is at least as important as repairing damaged equipment. This is one consequence of "human factors" accidents both the Coast Guard and the industry can no longer ignore. If Seabulk believed it could simply wave a magic wand and absolve themselves from blame, they now know otherwise.

The OSV Seabulk Georgia Was Undermanned

"Administrations[(1)] must establish and enforce rest periods for watchkeeping personnel and require watches onboard seagoing ships to be so arranged as to avoid any impairment of the efficiency of watchkeeping personnel because of fatigue. They must also require their watch systems to be so organized that, on proceeding to sea, the first and all subsequent watches are sufficiently rested and fit for duty." These requirements contained in the regulation itself[(2)] apply to all watchkeeping personnel. Administrations must also include in their legislation a requirement for watch schedules to be posted where they may easily be seen and read by all watchkeeping personnel."[(3)] *[(1)"Administrations" includes the U.S. Coast Guard. In 2000, our Association pushed the Coast Guard to clarify certain existing work-hour regulations. The Coast Guard addressed this in policy letter G-MOC #04-00, change 1. Their "interpretation" serves to clarify existing regulations informally called the 12-hour rules. (2)STCW Regulation VIII/1. Although STCW and the International Labour Organization require 10 hours of rest in a 24-hour period, U.S. regulations limit merchant marine officers to working no more than 12 hours in any 24 hour period except in genuine emergencies. (3)Morrison, W.S.G., Competent Crews = Safer Ships: An Aid to Understanding STCW '95. 1997, Malmo, Sweden. World Maritime University, p.170, #6.]*

Several months after the accident, Seabulk "clarified" its watchstanding procedures so that they now required the vessel masters to post their watch schedules. This was called a "clarification" of previous procedures so that the company could claim it had always followed the law. At least by making this paper gesture, tradition began to show some hopeful signs of being altered to follow the law. However, the law was clearly violated at the time of the accident and, to quote an old saying, "ignorance of the law is no excuse." Although the Captain escaped Coast Guard scrutiny on this point, and few scraps of paper from the boat survived the accident and a brief rain shower, the matter of establishing and conducting the watch played an important role in the lawsuit that followed.

The Coast Guard believes that a vessel like the SEABULK GEORGIA can successfully operate on a 24-hour schedule on a voyage of less than 600 miles with a minimum complement of only 5 mariners. Consequently, this is the number the Coast Guard placed on OSV Seabulk Georgia's (and hundreds of other OSV's) Certificate of Inspection. The owner of the vessel may use additional crewmembers if it so desires, but may not operate with fewer than 5. Where the "600-mile" figure came from is something the Coast Guard refused to divulge to our Association even under the Freedom of Information Act routed through a Member of Congress several years ago. This provision has been on the books for many years, probably placed there as one of many concessions given to the owners of oilfield vessels. Whereas oilfield vessels must carry extra crew members on voyages over 600 miles, even this small safeguard does not exist for mariners who work on uninspected towing vessels.

In a deposition after the accident, the Captain was questioned about the manning on the OSV Seabulk Georgia. He stated: "I always thought vessels were undermanned. Because you cannot hold your watches like you want, like a professional captain would want...With all the activities going on running to rigs you get to the rigs, and you need your men up to help you tie up. Then you need someone on the watch. Then you have your engineering crew on the watch. We're doing all our pumping, never enough men."[(1)] *[(1)Captain's deposition, p. 48]*

The QMED independently believed that the OSV Seabulk Georgia was short handed when he said: "It wouldn't hurt to have more people on. I agree. I mean, that's every company out there is the same way. It ain't just – that's not just Seabulk. That's through the whole industry."[(1)] The Coast Guard always seems to find it easy to ignore individual mariners. However, it will be more difficult for the Coast Guard, Congress, and industry to continue to ignore the crisis of undermanning that continues to plague our limited-tonnage mariners as the retention rate for mariners willing to work under existing conditions continues to lag. *[(1)QMED deposition, p.113.]*

In his deposition, the Captain and Seabulk's expert witness, both with years' of experience, demonstrated a basic lack of understanding the statutes separating engine department from deck department duties. The Captain commented on his QMED as follows: "You take (name) ð he shares duties, he's just an oiler right there. Officially he's a deck hand. He can work in the engine room or if I assign him to go chip and paint, or sweep, or mop he can do this. He's a "Q" mate, he's a qualified mate of the engine room department, but he's still an oiler. They can divide (duties) among themselves, because when he's tired or the engineer's tired, either (of the two deckhands) is going to help him. They're going to do engineroom checks."[1] *[[1]Captain's Transcript, p. 54.]*

On undermanned oilfield vessels as well as uninspected towing vessels, the natural instincts of crew members helping one another has become a matter of survival. As a result of operating short-handed, these vessels become more vulnerable to being overwhelmed by either the sea or fatigue from overwork!

The Company's Lookout Policy

The fact that the existing company policy allowed the mate to stand watch alone in the pilothouse for about 18 minutes before the accident led to an abrupt revision in its safety policy after the accident.

Seabulk's new policy breaks with oilfield tradition and more closely follows STCW Section A-VIII/2.15 that states: "The duties of the look-out and helmsperson are separate and the helmsperson shall not be considered to be the look-out while steering, except in small ships[1] where an unobstructed all-round view is provided at the steering position and there is no impairment of night vision or other impediment to the keeping of a proper look-out. The officer in charge of the navigational watch may be the sole look-out in daylight..."[2] *[[1]Although Seabulk's "expert" witness justified the one-man bridge watch saying the SEABULK GEORGIA was a "small ship," nowhere in the rules does STCW define a "small ship." [2]The accident occurred just after two o'clock at night, not during daylight!]*

Yet, even the revised company policy still allows the lookout to leave his post for a reduced period of up to 10 minutes to perform engine checks. While it is to the company's benefit to periodically check an "automated" engineroom, such a policy still reflects tradition and leaves a gaping and insupportable gap in lookout coverage.

Even more telling than its policy "clarification" (attempting to show that no fault existed the traditional system), is the fact that the pilothouse of the rebuilt OSV Seabulk Georgia contains two pilot chairs. I have always wondered how a person could stand lookout for endless hours on his feet at night in addition to working all day without resorting to sitting and eventually reclining on a traditional settee inconveniently set below the level of the windows in the pilothouse.

This accident illustrates why maintaining an effective watch has always been important. ***STCW's "Standards Regarding Watchkeeping" lays down definitive guidelines consisting of 106 steps.*** Maintaining a proper lookout is only one part of effective watchkeeping. In response to this accident in May 2001, our Association provided its mariners with 45 Musts for Effective Watchkeeping[1] based largely upon previous court decisions. We believe that a watchstander must be instructed in all these points before standing an effective watch. *[[1]Refer to NMA Report #R-207, Rev. 1.]*

"Crew Endurance"

Both the industry and the Coast Guard have had their heads in the sand far too long. At Coast Guard Industry Day in New Orleans on May 15, 1996 the speaker, Mr. William Sirois of Circadian Technologies spoke on the topic Alertness Assurance: The Key to Reducing Fatigue and Human Error in the Marine Industry. He prepared an excellent and descriptive set of materials that and distributed them to the 500 registered attendees from the ranks of industry management. Much of what he covered in very dramatic fashion seems to have missed its mark since fatigue and violation of the 12-hour rules continue to plague both the offshore oil and towing sectors of the marine industry.

On the OSV Seabulk Georgia, the QMED worked over 17½ hours in the 24 hour period before the accident...and most likely put in many additional hours in the wake of the accident.

Our Association protested the unconscionably frequent violations of the 12-hour rules that are supposed to protect our mariners. We note that this problem does not exist with upper-level mariners protected by union contracts and provided overtime pay for their work. Our protests originally appeared in our book titled Mariners Speak Out On Violation of the 12-Hour Work Day issued in June 2000.[1] Our protests are not limited to situations where mariners are forced to work over 12 hours in a 24 hour period. Our protests include those mariners who choose to work beyond 12 hours voluntarily and thereby make a mockery out of existing manning regulations. In his deposition, the QMED admits that there is at least a possibility that he could have prevented the accident if he had been acting as full-time lookout in the pilothouse for the mate.[2] Even the company Safety Manager believed the new policy of requiring a lookout during hours of darkness was safer than the old policy that left assigning a lookout up to the Captain.[3] After

all, a lookout has a definite function to perform and must not be detailed to perform other duties. *[(1)Our Report #R-201. (2)QMED deposition, p.102. (3)Safety Managre's deposition, pgs. 65-68.]*

The Coast Guard also has its head firmly planted in the sand. On May 15, 2000, less than three months before this accident, Rear Admiral Pluta, then Eighth District Commander and afterwards the Assistant Commandant for Marine Safety and Environmental Protection wrote to Congressman Billy Tauzin in part: "I am writing in response to your letter of April 20, 2000 addressing the concerns raised by your constituent...regarding vessel operator fatigue and work hour limitations on commercial vessels...Although we receive very few complaints, either anonymous or attributed, of 12-hour rule violations, we strongly encourage...his colleagues to report these incidents to the nearest Coast Guard Marine Safety Office...Recently my staff conducted an informal phone survey of a cross section of the Eighth Coast Guard District Marine Safety Offices to get a feel for the volume of 12-hour rule complaints we receive. This survey indicated...(we)...received very few complaints involving mariners being forced to work more than 12 hours."

Shortly after we received a copy of this letter, we provided Admiral Pluta a copy of our "Yellow Book" with letters from 57 mariners with 12-hour rule complaints. ***The Coast Guard has never investigated any of these complaints***! It doesn't take a rocket scientist to explain why mariners working on an "at will" basis hesitate to report 12-hour rule violations to the Coast Guard. Unfortunately, the Coast Guard is inclined to ignore such complaints if they receive them from individual mariners just as they ignored the complaints our Association gathered and carefully placed in their hands. In fact, the Coast Guard has never taken any meaningful action to require our mariners to maintain accurate logbooks that would record their hours on duty.(1) Admiral Pluta never took any meaningful action to solve a problem he denied even existed ï a policy followed by his successors. His letter to Congressman Tauzin has done inestimable harm to all of our overworked limited-tonnage *[(1)As reported to Congress in our Report #R-429-F.]*

Our Association also provided copies of our book Mariners Speak Out On Violation of the 12-Hour Work Day to three federal advisory committees, MERPAC, TSAC, and NOSAC that advise the Coast Guard on matters that concern lower-level mariners. Of the three committees, only NOSAC even addressed the problem by tasking the job to its "Prevention Through People" (PTP) subcommittee. The subcommittee chairman formed a working group including our Associationôs President Penny Adams that read and reviewed a number of studies on fatigue. When the subcommittee met on Nov. 7, 2001, a recent Coast Guard report titled U.S. Coast Guard Guide for the Management of Crew Endurance Risk Factors(1) surfaced and became a key part of the discussion. The report goes a long way toward explaining why the Coast Guard itself has such a serious problem retaining its own personnel. The parallel between the Coast Guard's own experiences with overworking its own seagoing personnel and problems faced by lower-level mariners is unmistakable. *[(1)NMA Document #A771C.]*

While we believe that the Coast Guard clarification of the 12-hour rules went a long way to outlining the responsibilities of mariners, employers, and the Coast Guard, we make these points:

- ***If a vessel works over 12 hours a day and is allowed to operate under the two-watch system, it should be provided with two complete and trained crews***. The only other acceptable alternative is a three-watch system for both the deck and engine department.
- Watchstanders, including lookouts, must be trained before standing watch.
- Each crew must be fully trained to operate the vessel without calling out the other crew except in a true emergency. Anchoring, mooring or cargo handling should not be justified as an "emergency" measure. This ensures that meaningful assistance can be called upon and will be available in a true emergency.
- Mates must be employed as watch officers not as deckhands or oilers. Employers should be certain that Mates/Pilots are adequate boat handlers before sending the vessel out on a voyage.
- Any boat contracted for 24 hour service should have a trained cook.
- All events including watch changes and actual working hours should be accurately logged.