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GCMA REPORT #R-413, Revision 1
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A DIRECT APPEAL TO CONGRESS TO REFORM THE TWO-WATCH SYSTEM:

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RELATED GCMA RESEARCH REPORTS

The two-watch system poses a multi-faceted dilemma that affects thousands of "lower-level" merchant mariners serving on a large variety of vessels including tugs, towboats, and offshore supply vessels. The dilemma includes issues of fatigue, crew endurance, adequate vessel manning, establishing a watch schedule, standing a watch, violating long-established statutes, and the apparent inability or unwillingness of the Coast Guard to deal with this problem.

Our Association tried diligently to work with the Coast Guard through the structure of established Federal advisory committees, especially the Towing Safety Advisory Committee (TSAC) and the National Offshore Safety Advisory Committee (NOSAC). Failing to make any substantial progress after five years of effort, we asked for Congressional assistance in GCMA Research Reports #R-401 and #R-417 (below) and in a number of visits to Congressional offices. **Each of the reports cited below is available on our internet website** and deals with one or more aspects of this dilemma:

The problem:

- R-417. Request for Congressional Oversight on the Towing Safety Advisory Committee.
- R-401. Crew Endurance and the Towing Vessel Engineer – A Direct Appeal to Congress.
- R-375. Crew Endurance: The Call-Watch Cover-up.
- R-362 Fatigue and Crew Endurance.
- R-316. USCG Closes Eyes to Real Fix for Fatigue.
- R-322 Mariner Fatigue is an Accident Waiting to Happen.
- R-405 Relinquishing Control of Your Vessel. (USCG vs. Michael J. Barrios (appeal).
- R-279. Engineroom Manning on Offshore Supply Vessels.
- R-258 Watchkeeping and Work-Hour Limitations on Towing Vessels, Offshore Supply Vessels (OSV) and Crew Boats Utilizing a Two Watch System.

The results:

- R-412. Towboat Engineer's Death Points to Need for Changes in the Law.
- R-366 The Plight of Towing Vessel Personnel.
- R-299 The M/V Seabulk Georgia Accident.
- R-369 12 Hour Rule Violations: The Winkler Case.
- R-370 12 Hour Rule Violation: The Verret Case.
- R-308 Violation of the 12-Hour Rules; The Lake Washington Bridge Allision.
- R-406. Coast Guard Assesses Civil Penalty Against Company for Violating 12-Hour Rule.

WHAT IS GCMA?

Founded in April 1999**, t**he Gulf Coast Mariners Association (GCMA) is a "lower-level mariner" based advocacy association that works to protect the safety, health, and welfare of thousands of "lower-level" mariners who work on the nation's commercial vessels.

WHO ARE "LOWER-LEVEL MARINERS"?

The term "lower-level" as used by the U.S. Coast Guard (USCG) refers to an estimated 50,000 mariners who serve in both licensed and unlicensed positions on vessels of less than 1,600 gross register tons – including thousands who carry no Coast Guard credentials whatsoever.

GCMA's work supports mariners who serve on tugboats, towboats, offshore support vessels, and small passenger vessels that primarily engage in domestic operations. We are

an independent membership organization and are not a labor union that deals with wage and salary issues. Our principal goal is to improve safety in a very dangerous workplace.

WHAT IS THE TWO-WATCH SYSTEM?

The Master of a commercial vessel is the Coast Guard-licensed officer responsible for managing his vessel on behalf of its owner or operator. The Master is in charge of safe loading, maneuvering, navigation, and directing the activities of the vessel's licensed and unlicensed crewmembers.

"Watch" Defined

The Master is specifically responsible for establishing (i.e., scheduling) the "watch." The Coast Guard defines[(1)] **Watch** "as activity related to the direct performance of vessel operations, whether deck or engine, where such operations would routinely be controlled and performed in a scheduled and fixed rotation. The performance of maintenance or work necessary to the vessel's safe operation on a daily basis does not in itself constitute establishment of a watch. However, the latter does count towards the number of hours of **work** that can be required by an employer." *[(1)USCG Policy Letter #G-MOC-04-00, Rev. 1, paragraph 2.e]*

In managing his crew, the Master has the sole authority and responsibility to establish watches according to statutes enacted by Congress. The Master also must ensure that he observes laws regarding maximum work hours enacted by Congress and regulations, policies, and guidelines promulgated by the Coast Guard to explain and enforce those laws.

The principal laws that govern setting the watches appear in Title 46 U.S. Code, Section 8104. For **example**:

46 U.S.Code §8104(g) states: "On a towing vessel, an offshore supply vessel, or a barge to which this section applies, that is engaged on a voyage of less than 600 miles, **the licensed individuals and crewmembers** (except the coal passers, firemen, oilers, and water tenders) **may not work for more than 12 hours in a consecutive 24-hour period** except in an emergency." This law outlines the basic pattern of rotation of crewmembers that is supposed to take places in a "two-watch" system.

The "Two-Watch" System Governs Many Lower-Level Mariners

The two-watch system applies to most of the tugboats, towboats, offshore support vessels, and many of the small passenger vessels where our "lower-level" mariners work.

Twelve hours of work in every twenty-four hours is the equivalent of an 84-hour workweek that exceeds the hours of most shoreside jobs. Unfortunately, the twelve-hour work limit for licensed officers does not apply to unlicensed crewmembers on inland waters including the western rivers. Consequently, many unlicensed mariners can literally be "worked to death."[(1)] *[(1)Refer to GCMA Reports #R-375 & #R-412, cited above]*.

Coast Guard regulations in Title 46, Code of Federal Regulations, Part 15 further explain the intricacies of the statutes. Coast Guard Policy Letter #G-MOC-04-00, Rev. 1[(1)] also defines, explains, and clarifies the meaning of the terms used in these laws and regulations so mariners and their employers can understand them more easily. *[(1)This document is available in GCMA Report #R-258.]*

THE COAST GUARD REGULATES VESSEL MANNING

While the Master assigns his crewmembers to perform their duties, he generally does not have the authority to select, hire, or fire his crewmembers. Consequently, the "company" that operates the vessel provides the crew for the vessel.

Until September 2004, most vessels were either "inspected" by the Coast Guard or remained "uninspected." Small passenger vessels and offshore supply vessels were "inspected" while the nation's 5,200 towing vessels remained "uninspected." This division led to significant differences in "manning requirements."

The Coast Guard issues an inspected vessel a Certificate of Inspection that specifies the minimum number and necessary qualifications of each crewmember on that vessel. The vessel's operating company must fulfill those requirements when crewing their vessels.

On September 9, 2004, Congress added all of the nation's 5,200 "towing vessels" to the list of inspected vessels. Regulations eventually will establish the qualifications and number of licensed and unlicensed crewmembers towing vessels must carry. However, until that happens, the only work-hour requirements are that the Master and Mate ("Pilot" on inland waters) be properly licensed and work no more than 12 hours in a consecutive 24-hour period.

COAST GUARD AND INDUSTRY IGNORE LAWS AND ABUSE OUR MARINERS

A number of GCMA reports document that maritime employers openly abuse our "lower-level" mariners by working them beyond the statutory limits set by Congress. Where Congress never set reasonable statutory limits for unlicensed mariners, employers frequently work them up to and often beyond the limits of endurance.

The Coast Guard is responsible under 46 U.S. Code §2103 for superintending the merchant marine. Nevertheless, at the highest levels, Coast Guard officers – including some of their top Admirals – openly and willfully ignored reports that we gave to them.

Starting in May 2000, GCMA presented written statements from over 50 lower-level mariners to the Eighth Coast Guard District Commander, Rear Admiral Paul Pluta, alleging frequent and longstanding abuse of the 12-hour statutes. These reports were bound and reprinted in our book titled Mariners Speak Out on Violation of the 12-Hour Workday.

The Coast Guard never investigated our allegations at District level. Nor did Admiral Pluta or his staff respond appropriately when we pursued the issue to Headquarters after his promotion to the position of Assistant Commandant for

Marine Safety, Security, and Environmental Protection.

GCMA also followed up the exploitation of our lower-level mariners in other research reports listed above. Each research report cited above documents rampant and longstanding violations of statute, regulation, and policy. We tried not to duplicate the information contained in these reports here!

NTSB IGNORED WORK-HOUR ABUSE IN OKLAHOMA BRIDGE ACCIDENT INVESTIGATION

Preamble: Congress, in its "Joint Explanatory Statement of the Committee Conference" released as part of Report #108-617 cites the May 26, 2002 accident at Webbers Falls, OK, in reference to §409 "Hours of Service on Towing Vessels" as part of the Coast Guard and Maritime Transportation Act of 2004. We also address the same accident, but from a slightly different mariner's perspective.

Mariners who violate existing "Hours of Service" regulations are just as serious a threat to public safety as the companies that demand, cajole, threaten, or reward their employees to do so.

[Source: GCMA Newsletter #27, Jan. 2005. The National Transportation Safety Board (NTSB) investigated the disaster at Webbers Falls, OK, in May 2002 where two barges in the tow of the M/V ROBERT Y. LOVE brought down the Interstate 40 bridge taking 14 lives. The Coast Guard also investigated the same accident but only for the limited purpose of determining whether laws were broken –and determined they had been broken. Our letter of Jan. 1, 2005 to Mrs. Ellen Engleman Conners, Chairman, National Transportation Safety Board (below) expresses our disappointment with the NTSB report released to the public.]

Dear Mrs. Conners,

The Gulf Coast Mariners Association is voluntary membership organization deeply involved in and concerned with the interests of thousands of "lower-level" mariners who crew vessels under 1,600 gross register tons on rivers, inland waters, coastwise and in the offshore oil industry. Our concern includes the safety, health, and welfare of over 30,000 mariners employed in the towing industry.

Our representatives met on several occasions with your Marine Department at your offices in Washington, and we conveyed our concerns to them.

While your M/V Robert Y. Love report goes into considerable detail on the history of bridge allisions involving ships and barges, forgive us if we focus on the interaction between the towboats, where our mariners live and work, and the bridges they occasionally strike. Since the American Waterways Operators (AWO) conveniently blames "human factors" for most of these accidents, this is our focus in this letter. We are particularly upset with the following excerpt from your accident report:

> [Page 37, "Factual Information," *Licensed Operators' Hours of Service*
>
> "The hours of service or hours "on watch" per day for the licensed towboat wheelhouse watch personnel (the captain and the pilot) are specified at 46 U.S.Code 8104(h), which states that "an individual licensed to operate a towing vessel may not work for more than 12 hours in a consecutive 24-hour period except in an emergency." A licensed operator on a towing vessel can work any combination of hours, as long as that person is not on watch for more than 12 hours in any 24-hour period.
>
> "Not included in the 12-hour work period is standby time, for example, when the vessel is underway, but not moving or waiting to move through a lock or waiting for a tow to be formed. Also not included in the 12-hour work period is the operator's commuting time to a vessel. No regulation or requirement specifies the hours of rest a licensed, uninspected towing vessel operator must have before reporting on board to assume or relieve a watch.
>
> "According to MMT,(1) the company complies with the hours-of-service law limiting licensed wheelhouse personnel (captain and pilot) to 12 hours of work in a consecutive 24-hour period. The company does not limit a captain's or pilot's pre-voyage commuting distance or time. Inland towing companies normally provide the crew with vehicles to use for their commute, but they do not provide drivers." *[Vocabulary: MMT = Magnolia Marine Transportation, owners of the M/V Robert Y. Love.]*

We believe you are mistaken in your belief that: "No regulation or requirement specifies the hours of rest a licensed, uninspected towing vessel operator must have before reporting on board to assume or relieve a watch." 46 U.S.C. §8104(a) clearly states: "An owner, charterer, managing operator, master, individual in charge, or other person having authority may permit an officer to take charge of a deck watch on a vessel when leaving or immediately after leaving port only if the officer has been off duty for at least 6 hours within the 12 hours immediately before the time of leaving." We are concerned that the Coast Guard effectively fails to enforce this statute.

? Here is some "institutional history:" In 2000, GCMA petitioned the Coast Guard to clarify the work-hour conflicts based on 57 letters from our mariners that we reported in our book titled Mariners Speak Out on Violations of the 12-Hour Work Day. The Coast Guard published G-MOC Policy Letter #04-00 on September 11, 2000 **[Enclosure #1]**(1) and discussed it in detail at the Towing Safety Advisory Committee meeting in Memphis, TN, several days later. The Coast Guard accident investigation of the M/V ROBERT Y. LOVE accident correctly cites a work-hour violation by both the Company and the Master of that vessel based upon G-MOC Policy Letter #04-00. The Coast Guard currently is addressing the company's violation in civil penalty proceedings. GCMA went out of its way to keep your Marine Department fully informed on this important subject. We

are distressed that your report fails to reflect this information. *[(1)Available as GCMA Report #R-258.]*

? Crew change on the M/V ROBERT Y. LOVE took place at Lock 13 near Van Buren, AR, at 1840 hours, and the Captain took over the watch shortly thereafter at 1910. (p.14). He had just completed driving a 368-mile leg of a trip that exceeded one thousand miles for the purpose of making crew change. Did he undertake this odyssey on his own volition or was he paid to do this? While en route, the Master may not have been "on watch" but he was clearly performing "work" on behalf of the company. The Coast Guard defines "work" in paragraph 2.f of Coast Guard Policy Letter G-MOC #04-00 that your report failed to consider. He assumed the watch at Van Buren, AR, without the required rest. While this may be a common practice, it is forbidden by law.

? The NTSB "Also (has) not included in the 12-hour work period is the operator's commuting time to a vessel." *(p.36)* We believe that you are in error on this important point as well. Your opinion certainly does not square with the Coast Guard accident report excerpt that we furnish as **[Enclosure #2]**.(1) The general public should expect that two Executive Branch agencies, the NTSB and the USCG, to show more coordination in investigating the same accident. Since the "scope" of the Coast Guard's activity in this investigation was to "…determine whether there was any violation of law or regulation associated with this casualty and prosecute enforcement activities accordingly," they are in a better position to state whether the Master or Magnolia Marine violated statute, regulation, or agency policy. However, when two Executive Branch agencies cannot agree on something as basic as "work-hours," then Congress needs to address the issue. We believe we are justified in asking them to do so since interpreting the statute may be in question! *[(1)Available as USCG Investigation Activity #1635967, pgs. 23-25, released on Sept. 8, 2004; GCMA File #M-275.]*

In regard to "commuting time" (your term) to the boat, our Association formally petitioned the Coast Guard on this issue on April 18, 2002 even before the date of this accident. Our petition was assigned Docket #USCG-2002-13694 on October 11, 2002 and was farmed out to the Towing Safety Advisory Committee (TSAC) as Task Statement #03-01 the following Spring. **[Enclosure #2A].** This "task statement" reflects our mariners' great concern with the ambiguous term "neutral time" used in Policy Letter G-MOC-#04-00 and the confusion it causes as regards the issue of "commuting time." Since TSAC made little progress on this issue over the past 20 months other than to simply question towing companies on their internal policies, we requested, based on Coast Guard findings in the M/V ROBERT Y. LOVE accident, that the Coast Guard revise policy letter G-MOC #04-00 to specifically clarify that travel time is "on-duty" time. This information is contained in **[Enclosure #3]** to which we have not yet received a reply**.**

Our mariners are concerned, in spite of the Safety Board's previous "Hours of Service" recommendations to every DOT modal administration extending back to 1989, that your M/V ROBERT Y. LOVE accident report ignores the well-documented problem of **work-hour abuse** that leads to crew fatigue. We note that "Reducing Human Fatigue in Transportation Operations" was high on the NTSB's list of "Most Wanted" transportation safety improvements until July 30, 2003 after you became Chairman of the agency. We note that the Court of Appeals has acted on truck-driver hours of service that have implications for our mariners as well. **[Enclosure #4].** According to a press release on that date, this topic (fatigue) is no longer on the Safety Board's "Most Wanted" list.

We express our concern about the constant **abuse** of the statute that limits licensed towing vessel officers to 12-hours work per day. We ask why the Safety Board gave Magnolia Marine's self-serving statement in the excerpt above the aura of your approval in your report: "According to Magnolia Marine, the company complies with the hours-of-service law limiting licensed wheelhouse personnel (captain and pilot) to 12 hours of work in a consecutive 24-hour period." Why did you not cite the Coast Guard's findings?

The Coast Guard, in its accident report, clearly does not agree with them and currently seeks an "Administrative Civil Penalty" for this violation. No matter the amount of the civil penalty a Coast Guard hearing officer assigns them, this action hardly rises to address the magnitude of the problem of work-hour abuse that the Coast Guard ineffectively monitors in the towing industry.

Up to July 2003 it appeared that the Safety Board took the "hours of service" issue very seriously. Our Association followed the History of work-hour abuse carefully over the years and shared our information with your Marine Department. We also shared the same information with Congress and published it on the internet!

The Tulsa World(1) quoted Safety Board Member Deborah A.P. Hersman as saying: "It's almost amazing that he could function" due to his lack of sleep. However, our mariners understand exactly what the problem is because it happens to them every day while the Coast Guard simply turns its back on the matter. We regret that your agency now appears to turn its back on the problem, too. Although the time-line showing the Master's hours of service *(p.14)* was impressive, we believe the following simple statement reported in "The Oklahoman" on May 30, 2002 sums up the problem best. "The captain who piloted the tugboat and barges that struck the Interstate 40 bridge had slept for less than 10 hours during the 41½ hours preceding the accident, a National Transportation Safety Board investigator said Thursday." By using any other yardstick such as 72-hours or even 24-hours, you clearly dilute the impact of this statement. *[(1)Rod Walton, Tulsa World, Sept. 1, 2004, p. A1]*

The Gulf Coast Mariners Association hereby files a formal protest on the excerpt of the report we cited above and respectfully requests that you change it in light of this letter. We regret that we find your report unbalanced and biased in that it accepts seemingly without question information provided by the American Waterways Operators, an industry trade group, without soliciting information from the mariners who have years of hands-on experience operating towing vessels.

We direct your attention to GCMA's report on bridge allisions **[Enclosure #5]**(1) that presents the issues from the mariners' point of view. We note that the Safety Board appears to derive comfort in relying only on the "corporate"

view. Also, from the mariner's point of view are three reports on one significant bridge allision that occurred in Seattle **[Enclosure #6]**[2] **& [Enclosure #7]** [3] that the Coast Guard investigated**.** That accident exposed how a company's interpretation of the Responsible Carrier Program led directly to work-hour abuse. This, in turn, led to a AWO-USCG Quality Action Team report that had critical flaws. *[[1]Available as GCMA Report #R-373. [2]Available as GCMA Report #R-306. [3] Available as GCMA Report #R-408.]*

We further submit for the Safety Board's consideration **[Enclosure #8]**[1] that recites the work-hour abuses attendant to the "call watch" system in use on western rivers towboats. We previously furnished this information to your Marine Department and to members of Congress as well as to the general public that accesses our website. We believe that the Safety Board under your leadership will discredit itself by continuing to ignore our mariner's views. *[[1]Available as GCMA Report #R-375.]*.

Every licensed mariner must serve two masters – his employer and the Coast Guard that licenses him to use the public waterways. The American taxpayer, who paid the most of the bill for the Webbers Falls accident, deserves to read the whole story. This story is rampant with work-hour abuse that apparently only Ms. Hersman was the only the Safety Board member to recognize it. While we appreciate and recognize the expertise of the medical doctors and professional engineers you called upon to elucidate the details that virtually exonerated the Master of the towboat, it is incredible that your report completely missed the much larger issue of reducing human fatigue in transportation operations previously examined by the Safety Board. Your predecessor understood that a much larger issue of work-hour abuse lurked behind many problems blamed on seemingly inscrutable "human factors."

While our Association supports Crew Endurance Management (CEMS) training, we do not believe it is a magic bullet that can or will cure "work-hour" abuse. Consider that our lower-level licensed mariners already work an 84-hour workweek. Then consider that employers abuse that 84-hour workweek. Now consider that AWO's Responsible Carrier Program suggests that even a 105-hour workweek for unlicensed mariners is permissible. They also abuse the 105-hour figure. Our mariners are fed up and are leaving the industry in droves. The Safety Board needs to consider that mariners (and other transport workers) live in the twenty-first century and not the nineteenth century and have homes, families and loved ones.

Our Association encourages CEMS training. However, we understand that "work-hour abuse" is based upon "greed" – both individual and corporate. Seeking to install some mechanical device that seeks to obviate the presence of a second mariner serving in the traditional role as "lookout" glosses over the issue of safe manning. The Coast Guard ignored this problem for years and continues to ignore it! We offer the suggestion that the Coast Guard adopt adequate manning standards when they finally promulgate the regulations that will finally "inspect" the nation's towing vessels and not simply play dead when industry complains about the cost. s/Richard A. Block, Master #1014425, Issue #8, Secretary, Gulf Coast Mariners Association

NTSB REPLY

[Source: GCMA Newsletter #28Feb.-Mar. 2005.]

Dear Mr. Block:

Thank you for your letter dated January 1, 2005, concerning Safety Board report NTSB/HAR-04/05, Towboat ROBERT Y. LOVE Allision with Interstate 40 Highway Bridge Near Webbers Falls, Oklahoma, May 26, 2002. In your letter, you disagree with a statement made on page 36 of that report' and appear to raise two different points. Each of these points is addressed separately below.

First, you state the Board is mistaken when it makes the following statement:

"No regulation or requirement specifies the hours of rest a licensed, uninspected towing vessel operator must have before reporting on board to assume or relieve a watch. [emphasis added] To support your contention, you cite 46 United States Code §8104(a), which states:

"An owner, charterer, managing operator, master, individual in charge, or other person having authority may permit an officer to take charge of a deck watch on a vessel when leaving or immediately after leaving port only if the officer has been off duty for at least 6 hours within the 12 hours it immediately before the time of leaving."

The Board believes the quoted statement to be factually correct. The regulation you cite specifies time off-duty, but does not specify rest. A crewmember could be engaged in any number of activities unrelated to his or her employment (therefore being "off-duty") that would not be considered "rest."

Second, you believe the Board erred by excluding the Captain's travel to the vessel ("commuting time") from his working "on-duty" time. You offer a number of documents in support of this belief, including Coast Guard Policy Letter G-MOC 04-00, Coast Guard investigation report MISLE Case 156409, and others.

You believe the Board's exclusion of this time to be at odds with the conclusions of Coast Guard investigation report MISLE Case 156409. As a party to the investigation, the Coast Guard was invited to comment on the factual information developed by the Board and agreed with this exclusion; the MISLE case to which you refer had not been released and did not reflect the position of Coast Guard at the time NTSB report NTSB/HAR-04/05 was adopted.

In your general discussion of fatigue, you note that fatigue is no longer on the Board's "Most Wanted" list. This is incorrect; fatigue remains an item on the intermodal "Most Wanted" list, and can be found on the Internet at: http://www.ntsb.gov/Recs/mostwanted/intermodal issues.htm.

The Safety Board continues to aggressively address the issue of fatigue in all modes of transportation.

Thank you for your commitment to transportation safety.

s/ Ellen Engleman Conners, Chairman

[GCMA Comment: We appreciate the NTSB's continued interest in the fatigue issue. Greater attention to this subject will improve the safety, health, and welfare of our mariners.]

[GCMA Comment: GCMA discussed the Coast Guard's investigative findings at the September TSAC meeting. Based upon those findings, we asked the Coast Guard to change its policy letter G-MOC-04-00 and its mention of "neutral time" – a term it never defined. The Coast Guard placed "neutral time" or "deadhead time" on the TSAC agenda.]

WEBBERS FALLS: TWO YEARS AND COUNTING

A report in the May 31, 2004 issue of the Daily Oklahoman filled in some of the details of the aftermath of the May 2002 bridge allision between the tow of the M/V ROBERT Y. LOVE and the Interstate 40 bridge at Webbers Falls that killed 14 unsuspecting highway travelers.

In May 2004, the State of Oklahoma settled its lawsuit out of court for $4,500,000 of which the state may receive about $1,500,000 after legal expenses.

"With $28 million already promised from the federal government, the state will 'more or less' break even on the $30 million cost of the bridge collapse" according to a spokesman for the Oklahoma Attorney General's Office"

A State Transportation Department spokeswoman agreed but said she is still disappointed tax dollars paid for most of the cost. "The fact is, the maritime laws are very antiquated and do need to be updated," she said.

Both the Oklahoma Transportation Department and the National Transportation Safety Board are expected to release reports later this summer.

[GCMA Comment: American taxpayers paid the $30,000,000 bill on the Webbers Falls accident. AMTRAK, a taxpayer-supported public corporation, suffered $20,000,000 in equipment loss in the Bayou Canot accident in 1993. Tax dollars continue to subsidize unsafe practices in the towing industry. Laws governing the limitation of liability dating from 1851 need revision to better protect the public.]

EMPLOYERS DEMAND WORK BEYOND LEGAL LIMITS

The Coast Guard Defined "Work" for Our Mariners

The Coast Guard defined[(1)] **Work** as "any activity that is performed on behalf of a vessel, its crew, its cargo, or the vessel's owner or operator. This includes standing watches, performing maintenance on the vessel or its appliances, unloading cargo, or performing administrative tasks, whether underway or at the dock."

This definition is crystal clear as is the law that governs the number of hours a licensed officer on a towing vessel is allowed to work. The law[(1)] states: "On a vessel to which section 8904 of this title applies (i.e., a towing vessel"), an individual licensed to operate a towing vessel may not work for more than 12 hours in a consecutive 24-hour period except in an emergency." The Coast Guard must enforce the law more effectively. *[(1) 46 U.S. Code §8104(h)]*

The Responsible Carrier Program (RCP)

The American Waterways Operators (AWO), a towing industry trade association, established the Responsible Carrier Program in response to criticism of the industry following the Amtrak Sunset Limited bridge-allision accident north of Mobile, AL, that took the lives of 47 passengers and crewmembers in 1993.

The Responsible Carrier Program (RCP) headed off a threatened move to bring towing vessels under vessel inspection statutes in 1994. The RCP is a business plan that, in theory, assures that member companies will police themselves and voluntarily follow all existing Coast Guard regulations.

In the decade following implementation of the RCP, many companies took voluntary steps to improve their management practices and compliance with existing Coast Guard regulations. These were positive and reasonable steps in line with Safety Management Systems put into effect internationally at the same time. However, only about 200 of approximately 1,100 towing entities follow the RCP. Regrettably, some of the largest, most influential, and politically connected companies are still tempted to "cut corners" to seize business opportunities. By 2004, Congress witnessed so many serious towing vessel related accidents that they finally called for the mandatory inspection of all towing vessels.

One of the "problems" associated with the RCP is that it only addresses existing regulations that govern towing vessels. Unfortunately, none of those regulations require vessel inspection and few are enforced by a regular boarding or voluntary "examination" programs.

New "vessel inspection" regulations still need to be developed, although the outline of the issues that such regulations must include already appear in existing statutes.[(1)] This means that the RCP will grow in complexity in the future and its equivalent, generically known as a Safety Management System (SMS) may spread to every towing company, not only to AMO member-companies. *[(1)Refer to GCMA Report #R-276, Revision 9 that describes the task that lies ahead in towing vessel inspection.]*

Another problem associated with the Responsible Carrier Program (RCP) is the amount of paperwork involved at all levels of the towing and barge business. Considering the existing work-hour abuse, the nature of the work, the noise, activity, and environment, the imposition of extra administrative burdens have become progressively more onerous and falls almost entirely on the Master of the vessel. Working days became longer; and active mariners without a background of administrative skills resent greater pressures to dump more administrative burdens on their vessels. This "shift of responsibility" from the office to working vessels became more noticeable on vessels whose companies attempted to comply with the requirements of the Responsible Carrier Program. Aside from calls to end the work-hour abuse by going to the "three-watch" system used on deep-sea ships, there are officers who now feel they need some sort of administrative assistant to handle the blizzard of paperwork they confront daily.

Add to this a third and more recent issue that dates back to September 11, 2001. The Coast Guard, reacting to its new role in the Department of Homeland Security, simply dumped new duties of Vessel Security Officer upon our licensed mariners.

While the concept of assigning "collateral duties" is a well-accepted military practice, its time-consuming nature is adding one more straw to break the licensed officer's back. Unlike the military, many mariners have chosen to retire or quietly withdraw from an industry that overloaded them.

OVERWORKED TOWING VESSEL OFFICERS

[Source: GCMA received this letter from an East Coast tugboat Master in December 2005. The letter outlines the administrative tasks he is responsible for on a 5-man boat. These tasks often force him to break the law and operate his vessel in a fatigued condition. Thankfully, this letter did not report an accident.]

Dear ¢ ,

This is a list of the duties, drills, and meetings required by the Responsible Carrier Program (RCP) and by my employer as normal boat business.

We like many things about the American Waterways Operators' Responsible Carrier Program (RCP). RCP has helped promote safety. However, as you can see, this has become more a safety maintenance system than a physical inspection system in design.

"As Captain, I do not appreciate the shift of responsibility (SOR) from management to crew. I do not think RCP should be used as a substitute or a model for a physical inspection of towing vessels for the following reason. The RCP does not take into account the time needed to conduct drills, hold meetings, and do the required paper work. The crew off-watch must participate on its own time in this additional work.

"As Captain, I am not left in a position to make the RCP a priority over my boat's performance. The real world comes first! If there is not enough time in a hitch to complete the REC requirements they simply remain unfinished.

I have been pressured to complete documents with a "satisfactory" report when weather or other factors; prevented us from actually conducting drills or holding meetings. It forced me to work over the 12-hour work rule many times.

I say this in confidence. All the enclosed documents would no doubt be considered sensitive proprietary materials to AWO and others including my employer. However, I need to show them to you in hopes they help you understand the paperwork required by the RCP and will bring to light some of the hidden problems it causes for working mariners."

Oh, yes not to mention five men, 24 hours per day, 365 day a year must operate and maintain a very active towing vessel. This includes engine and deck maintenance, shopping for food and boat supplies, carrying them back to the boat, traveling, and – of course – all the administrative work.

Thank You. [Name redacted].

Enclosures:

- Docunent # 1 - Declaration of Security.
- Document #2 - Ballast Water Reporting Form. (This is a running log and daily reporting requirement.)
- Document #3 - Voyage Plan. (Required before each sailing.)
- Document #4 - Report due before each crew change. I consider this to be a shift in responsibility. (SOR)
- Document #5 - Request for money for food rations before each crew change. (SOR)
- Document #6 - Monthly tow wire report. (SOR)
- Document #7 - Daily billing log. (Not an "RCP" item).
- Document #8 - Company accident report. (Completed as needed. Not an RCP item.)
- Document #9 - Line inventory. (Due before each crew change. Not an RCP item).
- Doc. 10 - Release and indemnity agreement. Completed for each visitor,
- Document #11 - Radio Log. A running log record.
- Document #12 - New crewmember orientation checklist.
- Document #13 - Post orientation performance eval-uation. (This report caused many problems.)
- Document #14 - New crewmember drug and alcohol policy.
- Document #15 - Repair request report. (SOR).
- Document #16 -Towing Investigation Report. Each incident.
- Document #17 - Reporting & Chemical Testing Requirement (Procedures).
- Document # 18 - Parts Requisition. Weekly.
- Document #19 - Supply List Inventory & Requisition. Monthly (SOR)
- Document #20 - Overall Checklist for an Uninspected Towing Vessel. Due at Crew change.88 items. (SOR)
- Document #21 - Ice Report (Winter season only.)
- Document #22 - Safety Meeting Report. Weekly.(SOR).
- Document #23 - Fire & Boat Drill and Safety Meeting 23. Weekly. (SOR)
- Document #24- A running trash log record book.
- Document #25 - Local Notice to Mariners. This requires the time to down load the document. It takes additional time to correct and update the charts.
- Document #26 - U.S. Army Corps of Engineers. Vessel Operations Report is a running log and reporting requirement.

Also include time I spend for:

- Daily Navigation Equipment & Communications Check.
- Weekly test of the general alarm system.
- Time to prepare minutes for weekly safety meeting and fire drill and then execute my plans.
- Weekly abandon ship drill.
- Weekly steering failure or loss-of-power drill.
- Bi-weekly man-overboard drill.
- Weekly test of emergency lighting and power.

Fatigue is a Well Documented Danger

Fatigue must always be an important factor when operating heavy equipment. It is not only a danger when towing oil barges, dangerous chemicals, or liquefied gases such as chlorine and ammonia but also in other transportation modes such as driving intercity buses, tractor-trailer trucks, railroad locomotives, or flying airplanes. Fatigue **grabs the headlines** when "passengers" or "innocent civilians" are involved.

FATIGUE BLAMED IN ALASKA FERRY ACCIDENT

[Source: USCG Misle Activity #2064493; Misle Case #174049 Released on Mar. 16, 2005. GCMA Newsletter #30, May 2005 – Article by Capt. Richard A. Block. GCMA File #M-475.]

Because of the area's low population density, remote location, insular nature, rugged terrain, and overall lack of paved highways, many communities in Southeast and South Central Alaska are served by the Alaska Marine Highway System (AMHS) rather than by paved highways.

Over 25 years ago, I taught license and Able Seaman/Lifeboatman classes in Juneau and Seward. In the process of teaching and learning, I received a full local waters orientation on the ferry M/V MATANUSKA on the inside passage between Seattle and Juneau in mid-winter. Consequently, I am familiar with the AMHS system and came away with a deep and lasting respect for the merchant mariners that serve these local communities.

Consequently, in talking with wives and crewmembers, it was very easy to understand why this accident became a true disaster to all concerned. As with all accidents, it carries with it lessons for all our mariners.

[GCMA Comment: One of the goals of our Association is to inform and instruct lower-level mariners. Several members of our Board of Directors are teachers.]

The Grounding

The 217-foot, 4300 hp passenger ferry M/V LECONTE grounded on Cozian Reef while transiting Peril Strait at a speed of 15.8 knots en route from Angoon to Sitka, Alaska, in mid-morning May 10, 2004 in near-perfect weather conditions.

[GCMA Comment: Although manned by "upper-level " licensed officers, this vessel is comparable in size to many offshore supply vessels manned by our "lower-level" mariners. The lessons learned apply equally to our mariners.]

The Master, Chief Mate, and helmsman were on the bridge at the time of the accident. The Chief Mate had the conn. The bridge crew was attempting to navigate an uncommon course inside of Otstoia Island as a scenic route for passengers. The weather was clear and calm and no equipment failures contributed to the casualty.

Just prior to the incident the Master had come to the bridge and, in discussion with the Chief Mate, made the decision to transit the passage inside Otstoia Island.

A tug and one-barge tow, the M/V WESTERN MARINER, was outbound from Deadman's reach, a passage between Otstoia Island and Elovoi Island. The tug with a dry cargo barge on a short tow passed port to port with the M/V LECONTE thereby delaying a turn onto their route inside of Otstoia Island.

Neither the Chief Mate nor the Master noticed they were significantly right of course of the day marker marking the reef. The vessel grounded on the north side (wrong side) of the day marker. The correct route lay to the other side of the day marker.

The M/V LECONTE immediately experienced significant flooding from extensive damage to the hull. The master ordered the evacuation of passengers in two lifeboats until Good Samaritan vessels were able to pick them up for transfer to Sitka, AK. Hull damage was forward of frame 47 and in the #5 void along frames 56 to 73. Because of the influx of water in all damaged compartments, the vessel was unable to re-float at high tide.

The M/V LECONTE remained in this position through duration of the nine-foot tide cycle with the crew evacuated at the high tide immediately following the grounding because of stability concerns about the wrecked vessel. The LECONTE's fuel and vehicles later were lightered and salvage efforts commenced to remove the vessel from the reef. The initial estimate of damage was $3,000,000.

Salvaging the Ferry

[Source: Excerpt from Professional Mariner, Aug./Sept. 2004, pgs 35, 36.]

"…Once the evacuation was complete, salvage operations began. Crowley Marine Services under contract to AMHS, made internal and external surveys and found two 50-foot gashes in the bow on either side of the hull.

"The extent of the damage and the vessel's position on the reef made stabilization efforts tricky. Lightering and temporary repairs were made, and a week after grounding, M/V LECONTE was refloated. After what may best be described as a delicate extrication, the re-floated ferry was towed to drydock at Alaska Ship and Drydock in Ketchikan for repairs…"

Dedication to the Job; Worry at Home

[Source: GCMA received this E-mail on June 8, 2004 with portions redacted and re-directed as necessary. We also fielded a number of calls from crewmembers.]

Dear Gulf Coast Mariners:

I am not sure if you are who I need to chat with. I am ¢ ¢ ¢ , one of the many "Alaskan Water-Widows" whose husband works on the Alaska Marine Highway System.

As you know, the LECONTE grounded and sank in shallow waters on May 10, 2004. This ship is my husband's second wife. I understand that. He has worked on her for the past 8 years and loves her almost as much as he loves me. He had just gotten off his 84-hour shift (plus 21 hours of overtime) as ¢ ¢ ¢ , on Friday the 7th of May. After being home for only 2 days, word came out to him, at our house at 10 am of the grounding. This was even before the AMHS main office heard of the wreck due to the satellite phone being down when it happened. He received word via cell phone from another shipmate who heard it on the VHF radio in Tenakee.

All that being beside the point, with the rest of our communities in panic mode and grateful that the grounding "didn't happen on their watch," my husband

was beside himself ready to get out there to HIS sinking ship to help in anyway he could. He begged to go out that evening, stating the fact that "nobody knows that ship like he does" and his willingness to get in the midst of the crisis and toxic waste to do his part to "save his ship." Commendable or crazy, who is to judge... as I drove him out to the waiting catamaran vessel taking only 4 others out to the grounding site I am in tears... he asks me "you understand why I am doing this, don't you?" My only response was simply "no." Who in their right mind would jump on board a sinking ship. They don't call it Peril Strait for nothing... out in the middle of nowhere, no phone contact for who knows how long? But I trusted him, and I knew there would not be a better man out there at the site.

You've got to understand that this was "life and death" for the first 4 days. They did not have food, water, sleeping, or bathroom facilities for the first 2 days of it. My husband organized, ordered, cooked, figured out, demanded, transported, welded, fixed, inventoried, supplied, planned to the detail much of what took place while the "powers that be" scratched their heads... identified protocol ... implemented rules or regulations and basically cost the State hundreds of thousands of dollars for their indecisions! He risked his life to save HIS ship. He made decisions that saved the Department of Transportation and the State of Alaska huge amounts of money. He would have done this all for nothing. That is the kind of guy that he is. I however am not so gracious or so generous. I already share him 26 weeks per year that he is away from home while on duty and or months while he is in the shipyards with his boat….*[GCMA put Mrs. ¢ ¢ ¢ in touch with the appropriate union officials to handle the problem (redacted) she presented in her e-mail.]*

The Accident Report

One of the problems with the existing Coast Guard accident report format is that it often fragments events to help computers store them to better glean accident statistics – just another concession that allows computers to run our lives. Here are some outstanding fragments that help to explain the accident: Later in the report, two of the licensed ship's officers analyze the causes of the accident.

1. Visual fixes. Prior to the accident, AMHS had an established policy that clearly describes Officer of the Watch duties to take visual fixes. *(Accident report, p.16).*

In an interview conducted the day following the grounding, the Master expected to execute turns by use of turn ranges and/or bearings. This is a piloting skill. He had no real expectation for plotting fixes, just using the radar from the center position on the bridge to pilot the vessel. *(Interview, item 20).*

The Coast Guard recommended that AMHS should enforce the policy that requires the crew to take proper fixes during all transits. *(Investigating Officer's Recommendation #3)*

However, the construction of the bridge did not provide the proper layout to safely take a fix of the vessel position and also maintain a lookout with the current watch staffing. When plotting a fix, the person conning the vessel must be away from his station and with his back to the bow. There is no one posted as lookout since the helmsman's duties do NOT include being a lookout. The manning requirements of the vessel did not address this problem. (*Investigating Officer's Observation #7).*

[GCMA Comment: This is an example of the "Real World" confronting the "Perfect World."]

The Coast Guard recommended that AHMS improve the bridge layout **or** the bridge team composition to allow for proper fix taking while at the same time allowing for monitoring visual references by having a chart plotting station that faces forward when relying upon the conning officers to take the fixes. *(Investigating Officer's Recommendation #3).*

[GCMA Comment: Many "recommendations" made as a result of USCG and NTSB accident investigations are never implemented. Without adequate enforcement, "recommendations" may be of limited value.]

2. Administrative burdens, duties and fatigue. The Master, who was on the bridge for a few minutes before the accident) is required to be on the bridge of the vessel for all day and night landings and for restricted waters navigation. In addition, the Master carries a large administrative workload. Frequent landings make continuous sleep beyond 4 hours unlikely. *(Ibid, p.19)*

The Chief Mate, who was conning the vessel at the time of the accident, stood a 6 hours-on-duty/6 hours-off-duty watch. In addition, he also carried a large administrative burden and was unable to get more than 5 hours continuous sleep due to watch rotation and frequent landings and port calls. He admitted to being "slightly fatigued but did not feel unusually so." (*Ibid, p.20, and Investigating Officer's Observation #3).*

[GCMA Comment: USCG research shows that mariners require 7 to 8 hours of uninterrupted sleep. Yet the Coast Guard investigator states (in Conclusion #3) that: "Fatigue did not play a significant role in the Helmsman's, Mate's and Master's performance during the incident." This evaluation is not consistent with the need for 7 to 8 hours of "uninterrupted sleep."]

The Coast Guard report recommended that AMHS examine the manning of the bridge team. *(Investigating Officer's Recommendation #3).*

[GCMA Comment: The Coast Guard issues every inspected vessel's Certificate of Inspection (COI). The COI controls vessel manning. If the Coast Guard finds vessel manning is inadequate for the task at hand, they should investigate, and if necessary, change the requirements. In practice, it is easier for the Coast Guard to ignore the problem.]

[GCMA Comment: The 84-hour workweek (6-on/6-off) in addition to the administrative burdens in running a 24-hour operation demands the Coast Guard's immediate attention not only on ferries but on OSVs and towing vessels as well.]

3. Voyage planning. The LE CONTE failed to follow the

preplanned track line and route. The Chief Mate who was conning the vessel and the Master (who arrived on the bridge a few minutes before the accident) decided at the last minute to take an alternate route.

No advance preparation went into making that decision and changes in navigation information were not analyzed. They based their decision to change course on visual references alone without having the true knowledge of the vessel's position for making the decision. Neither officer detected the fixed day board marking Cozian Reef that would have indicated the vessel's incorrect position in relation to its intended track. The vessel grounded on the reef after going on the wrong side of the day mark. *(Ibid, pgs.21-24).*

Both the Master and Chief Mate admit to losing situational awareness and were unaware of what course they needed to steer the Otstoia Island passage correctly. *(Investigating Officers Observation #3).*

4. Bridge Resource Management. The helmsman, an able seaman, had been on watch since 0600 and on helm watch for approximately 52 minutes in an hour-long helm watch. Although he had significant knowledge of southeast Alaska waters, he was not familiar with Peril Strait. He told Coast Guard investigators that he performed his duties as required which was only to maintain a course and follow conning commands. He stated it was not his duty to be familiar with the waters, maintain a lookout, or participate in basic bridge resource management skills. *(Investigating Officer's Finding of Fact #5 and Observations #3).*

The Importance of Drills

[Source: Statement by the off-duty Second Mate.]

On the morning of the LECONTE's grounding (May 10, 2004), I was properly relieved by Mate ¢ at about 0530, and signed the ship's log "… as normal. The weather was very good and full daylight. The vessel was steaming along nicely on our way to Angoon, southbound in Chatham Strait. After signing the log, I left the bridge and did not return there until immediately after the grounding.

I was asleep in my 2nd Mate's room when, about 1000, I awoke suddenly to the ship's shaking hard. I realized the vessel was "climbing upward" as she shook so I knew she must be running aground. She felt as if she was "skidding" over something.

I got dressed as quickly as possible, grabbed my lifejacket and two hand-held radios and went to the bridge. The Chief Mate and Captain were there. I glanced at Otstoia Island and knew we were hard aground on Cozian Reef. The Chief Mate grabbed the radio and gave a MAYDAY on Channel 16 VHF.

The Chief Mate and Captain were calm, professional, and "systematic"; going about the business that needed to be done step by step. The order was given to drop the anchor to hold the vessel in position. One of the sailors "dropped the pick" immediately.

We then began the process of mustering crew and passengers. The Captain ordered the passengers mustered forward in the Purser's Foyer with lifejackets on. This was done immediately and everyone involved was very calm and efficient.

[GCMA Comment: The evacuation involved preparing, loading, and launching the ferry's two 50-passenger lifeboats and its rescue boat.]

All 23 of LE CONTE's crewmembers performed their duties very well, very quickly, and with very little supervision. They all knew what to do and did it calmly and quickly without any confusion. The whole process of leaving the vessel (and doing what we could to secure the; vessel) was very well executed because the Captain and Chief Mate "took charge" and gave good commands to the crew. There was never any indecision. All members of the crew communicated very well from "top to bottom."

Coast Guard Imposes Penalties

Both the Master and Chief Mate had accumulated years of experience in the waters of southeast Alaska. It is a region of great natural beauty at every season of the year and, for mariners, a region of great potential danger. One of the reasons for taking the "shortcut" was to provide a more scenic experience for the passengers. The savings in time would have only been 5 to 10 minutes. This decision is more understandable if you know the people and know the country – but the consequences and the burdens it placed on the 108 passengers, 23 crewmembers, the public, and the Alaska Marine Highway System at the start of its busy season were unfortunate indeed.

Administrative Law Penalties Reached After a Settlement Agreement

On June 2 and 8, 2004, a U.S. Coast Guard Administrative Law Judge in Houston signed a "Settlement Agreement" with both licensed officers. The terms of the settlement agreement and consent order constituted a full settlement of the proceeding with respect to the administrative claims against their licenses.

In addition to a period of license suspension, both the Master and Mate were required to prepare a written "…overview and lessons-learned presentation of the M/V LECONTE grounding to other AMHS Masters and Mates." However, because AMHS fired both officers after the accident, the presentation was not delivered to other ferry system officers. However, after reviewing the entire accident report, we believe both officers identified a number of very important lessons that we passed along to our mariners in our Newsletter.

OVERWORKED PASSENGER VESSEL OFFICERS: THE CHIEF MATE'S PRESENTATION

The facts:

- The LE CONTE grounded on Cozian Reef at 0952 May 10, 2004.
- The weather was clear with light northerly breezes.
- Both the Captain and the Chief Mate were on the bridge.
- There were no apparent mechanical problems.
- The vessel was on a routine run on the Angoon-Sitka.route.
- There were 86 passengers, 23 crewmembers, and 7 vehicles aboard at the time of the grounding.

The events:

1. **Prior to the grounding**: Noted problems steering,

- Q. Sleep- How much sleep had I had in the hours leading up to the grounding?
- A. **14 hours in a 72 hour period.**

- Q. How was I feeling physically prior to the time of the grounding?
- A. Rhummy, knees were bothering me.

- Q. How did I feel at the time of the grounding?
- A. Absolutely shocked, so unaware was I, that the vessel was standing into danger.

2. **At the time of the grounding**:
- Q. How did I respond to the event?
- A. In a totally professional manner, as did every single crewmember aboard the LE CONTE. The training and weekly drills definitely paid off.

3. **After the grounding occurred**:
- Q. What was the foremost thought in my mind?
- A. To immediately confer with Master, assess the ship's condition and organize the crew to safely and most effectively evacuate the passengers from the ship.

- Q. What actions did I take?
- A. Organized crew at direction of the Master, to continually assess vessel's condition, while starting passenger evacuation. Procedures. First and foremost directing mustering of passengers and preparing them for evacuation. Established and maintained communications with vessels rendering assistance. Secured watertight doors and walked out anchor to help hold vessel's position; as it became obvious that the bow thruster compartment and MSD room were compromised with free communication with the sea and were, in fact, tidal….

Lessons Learned:

This event could happen to any one of us, and that risk exists each time we leave the dock. One must put ego aside, as statistically it is very probable that we all will have very close calls; some of which could result in major events such as this, resulting from an accumulation of a multitude of factors, or the error chain. That error chain can be induced or exacerbated by some conditions over which we have little control such as:

- Watch schedules
- Operational conditions.
- Onerous run schedules imposed by administrators who have no experience or practical background in the type of operation, if, never having sailed as pilots or mates or masters within this specialized venue.
- That it is ultimately up to us as licensed professionals and pilots to bring these issues to the foreground and to do everything within our power to see that we get the rest we need to safely do the job.
- To more rigorously adhere to the STCW conventions for operating in bridge watch conditions 3 and 4. As of this time, AMHS does not have anything in place that remotely codifies these standards for their vessels.
- No support from employer or USCG in terms of rectifying work rest issues of which the chronic fatigue suffered by AMHS employees is resultant. They will fix blame. You fix the problem.
- Self awareness of fatigue is unlikely. This is critical to understand. The operational routine and the scheduling are going to continue to bring fatigue as a major agent into our work environment. The reality is that it is virtually impossible to do the job and the mandatory regulatory paperwork imposed, ironically enough, by ISM requirements and how they are passed on to us by AMHS management.
- AMHS is operating vessels on a schedule and watch structure that is virtually unchanged from the 1960s; with the result that the modern administrative and safety mandated ISM regulations are going to virtually guarantee that watchstanders and non-watchstanders alike are fatigued. There are simply not enough hours in the day to safely stand a navigation watch and attend to the administrative burdens imposed by AMHS on a 6 on 6 off watch schedule. Nor is a Master or non-watch Chief Mate likely to be rested enough to be an adequate adjunct to the navigating officer when they are needed on the bridge, due to their extreme administrative burdens. It is very simply math. (There are) not enough hours in the day. As a watchstander, if I had it to do again I would say to hell with the paperwork. Let it all go, every bit of it! There is simply no way to be rested enough to do a safe job and that also.
- Change the watch structure. (There is a) difference between call-out and overtime actually worked. (Suggest) a non-watchstanding Chief Mate.
- Change the route schedule.
- Make sure at least two deck officers have at least had 8 hours uninterrupted rest in 24hours at all times.
- Change the corporate mindset. The **office** is there to support the vessels.
- (Place) electronic chart display (i.e.: ECDIS or Transas) at the conn, where it can be fully utilized.[(1)] *[[(1)]Now Required by §410 of the Coast Guard and Maritime Transportation Act of 2004.]*
- Don't think it cannot happen to you! It has happened to people at the top of their form and has little to do with professional capability.
- Get past the "Can Do" mentality!. Tie the boat up. It is partly from ego and partly from years of operating under such conditions and trying, albeit rather ineffectively, to compensate for these conditions that we contribute to the problem. As long as we as professionals accept the increased risk imposed by watch structure, administrative burden and schedules for the vessels that allow crew no respite, no chance of operating other than in a fatigued state it will be almost inevitable that another incident of this type, or perhaps worse will occur.

[GCMA Comment: This statement explains why our mariner's need Congressional assistance in effectively dealing with all the factors that lead to fatigue.]

Remember that no matter what is or is not done by the USCG and AMHS to arrive at solutions to the fatigue issue; especially as it relates to the LE CONTE grounding and the continued operation of vessels in this manner; it is still

ultimately our responsibility, as marine professionals, to make sure the vessels are safely manned and navigated.

OVERWORKING PASSENGER VESSEL OFFICERS: THE MASTER'S PRESENTATION

The facts:

- The LeConte grounded on Cozian Reef at 0952 May 10, 2004.
- The weather was clear with light northerly breezes.
- The Chief Mate was at the conn for approximately 3 hours.
- The Captain had been on the bridge about 3 to 5 minutes when the Chief Mate requested that we go through Otstoia Passage. Due to the fine weather, I decided that it would be acceptable.
- There were no apparent mechanical problems with the vessel except as noted in the change day notes. A steering problem had been scheduled for correction later in the week, and the "Black Box" (i.e., data recorder) had been out of service for over a month due to "budget constraints"
- Alcohol and drugs did not play a part in the incident.
- There were 86 passengers and 23 crewmembers aboard at the time of the grounding, and 7 vehicles.
- The prime factor in the grounding was fatigue:. See Captain's written USCG statement of June 14, 2004.

The events:

- The LECONTE was on a routine transit of Peril Strait from Angoon to Sitka on May 10, 2004. I went to the bridge just before Point Benham or thereabouts. The Chief Mate and I discussed taking Otstoia Passage. The weather was nice and all looked well, so I gave him permission to go Otstoia Passage. I felt that he had the experience and capabilities to make the transit. I allowed him to continue on the conn. We were approaching the mouth of Otstoia Passage with the Cozian Reef Light #3 to port.

- The transit would be somewhat complicated by the M/V WESTERN MARINER which was outbound from between Otstoia and Elovoi Island from the passage known as Deadman's Reach. However, we would be able to pass behind the tug and tow if we waited for her to pass the mouth of Otstoia Passage. (The Chief Mate) and I, as well as the Captain of the WESTERN MARINER, all reported that the passage was normal and regular for conditions and circumstances.

- (The Chief Mate) commenced his turn to port, keeping the stern of the WESTERN MARINER's tow well clear of the LE CONTE. At this point a major oversight occurred on the parts both of (the Chief Mate) and myself. We did not take action to slow the speed of the LE CONTE. Why neither of us caught so obvious a mistake, we will be discussing for years. Had we slowed the vessel, we would not have advanced down our track line, and actually passed the mouth of Otstoia Passage. We both hyper-focused on the WESTERN MARINER, a second major mistake. In that time frame we both lost situational awareness regarding our position in relation to Cozian Reef Light. The mistakes of not recognizing the speed component, and hyper-focusing on the passing situation with the WESTERN MARINER, created the chain of errors which caused both (the Chief Mate) and me to lose our situational awareness. The loss of situational awareness on both (the Chief Mate's) and my part led to the grounding of the LE CONTE at 0952.

- When the LE CONTE grounded, based on the availability of rescue vessels and- the favorable weather conditions, I decided to evacuate the passengers without delay. The evacuation of the vessel went smoothly, complicated slightly by the 6 1/2 degree port list the vessel had taken after grounding.

- The crew and passengers reacted in textbook fashion. Musters were taken of the crew and passengers. Boats were readied in excellent time. We verified the number of passengers who got into the lifeboats and of those who volunteered to be evacuated to the fast rescue boat The Chief Purser and the Chief Steward verified the number and names of passengers in order to sort everyone onto their respective boats. Due to the port list, the starboard boat was launched first. The port boat was then readied and launched in good order.

- As mentioned above, the evacuation of the LE CONTE was done under ideal weather conditions and with the ready availability of rescue craft. Please note that had weather conditions been unfavorable, the LE CONTE would not have been on Cozian Reef because we would not have attempted Otstoia Passage except in fine weather. What must he remembered is this: evacuation was done with the lifeboats.

- AMHS office personnel later suggested that evacuation chutes should have been used. In my opinion evacuation chutes were not an option due to the shallow water we found ourselves in. We wanted to avoid possible injury during the evacuation which could have come about had we used the chutes. The operation of evacuation chutes take vital human resources from functions that must be accomplished during an evacuation. Those evacuation tasks can be carried out in a shorter time, and with less manpower with the use of lifeboats. Though the chutes are SOLAS and USCG approved evacuation devices, shortcomings of the evacuation chute system became evident during this evacuation. A more fitting means of evacuation would include the equipping of all ferries in the AMHS with more lifeboats. Also, I would recommend an auxiliary means of power to raise and lower the boats in an emergency should have sufficient power to raise and lower boats many more times than the one cycle that is available with the present hydraulic system. Also, the ferries should be equipped with an auxiliary means of power which would have been required if we had more passengers and would have needed to lower more lifeboats than we needed in this instance. The system of the old gravity davits should be reviewed, refined and updated to replace the chute system.

- The crew and passengers of the LE CONTE are to be commended for their performance in a situation that called for a lot of grace under pressure.

Conclusions:

- The primary contributing factor in this incident appears to have been fatigue. I discuss fatigue in the fourth link in the error chain.

- The error chain started when I did not relieve (my Chief Mate) of the conn on the approach to Otstoia Passage. Although I had full confidence in (his) abilities as a navigator to take the vessel through Otstoia Passage, looking back I realize he had been on watch since about 0600. A relief would likely have changed the dynamics of the situation sufficiently to break the error chains.

- The second link in the error chain was the most important of all the errors. Neither (the Chief Mate) nor I noticed that the engines had not been throttled back. Had the engines been slowed, the LE CONTE would not have advanced down the track past the mouth of Otstoia Passage, past Light #3 and on to Cozian Reef. The maneuvering characteristics of the LE CONTE bear this out.

- The third link in the error chain, in my case, was in not recognizing that both (the Chief Mate) and I were hyper-focusing on the passing situation with the WESTERN MARINER, taking our attention away from the entrance to Otstoia Passage and Light. #3. In hyper-focusing again I did not notice that the engines were not slowed down, and we continued to advance down our trackline,

- The fourth link in the error chain, on my part, was in not recognizing the symptoms of fatigue. Not relieving (the Chief Mate) when I decided that Otstoia Passage could be run, not catching the fact that the ship had not been slowed in preparation of the transit, and hyper-focusing on the tug and tow are **all fatigue symptoms**. I had been on the LE CONTE for 11 days after only 5 days at home to recuperate after 16-days on my last work assignment. The schedule just described is a sample of my work schedule since the beginning of 2004 with only intermittent 1, 2 or a maximum of 5 days of actual time off . In addition to the frequency of my work schedule, I had been diagnosed with bursitis in my right shoulder. Even if I had the time needed time for rest on board the vessel, 1 had not been getting my needed rest since the first of the year. I have now undergone approximately 4 months of intense physical therapy to correct the problem. The insidiousness of fatigue is just beginning to be studied in the maritime industry. While this is a relatively new field of study for the maritime industry, it has been a major focus in aviation and trucking industries for many years.

- Just because the maritime industry does not have liners falling out of the sky, or the mangled mayhem of our freeway and streets, does not excuse the maritime industry and its regulatory bodies from their collective responsibility. Yes, our incidents happen in remote locations, and no one hears much after the 1800 hour news broadcasts and helicopter photo-ops. Something must be done.

- The chain of errors I have outlined here are classic fatigue symptoms which led to the grounding of the LE CONTE

The grounding of the LE CONTE on May 10, 2004, was a combination of fatigue-induced mistakes and a loss of situational awareness. The grounding, while regrettable, should provide notice to USCG and AMHS management personnel that the problem of fatigue in the Alaska Ferry System exists. Mitigation of the problem rests primarily with the USCG and AMHS management

I do not deny my culpability in the grounding of the LE CONTE. I was the Master. However, I do say that regulatory and corporate attitudes must change to reflect the added workload demands on deck officers on board vessels in compliance with SOLAS and STCW standards. It must be remembered that ST'CW work/rest rules are minimums, and AMHS vessels are working within minimums that were established 40 years ago. There is no cushion for the safe navigation of the vessels.

On the 84-hour work week, AMHS vessels are exceeding STCW minimums by the fact that the Chief Officers have to put in overtime, and by the fact that Masters are putting in 3 to 4 hours per day, in order to comply with SOLAS, STCW AND SMS paperwork requirements. These 3 to 4 hours should be used for rest.

Solutions can be found to resolve the problem of fatigue. For example, I recommend the following improvements:

(1) Reduce the number of port stops from 40 per week to a more manageable number, to possibly half that number.

(2) Schedule the ferries to reflect the needs of the communities rather than artificial needs ordered by an administration unresponsive to community needs.

The mistake of omission on my part was not to be aware of the levels of fatigue experienced either by the Chief Mate or by myself. (The Chief Mate) had just come aboard from yet another contentious union negotiating session with the state regarding our labor agreement. His administrative duties on the LE CONTE, while similar to his regular vessel, the M/V AURORA, still needed familiarization and extra time that kept him from getting the needed rest to perform his duties.

I had been aboard the LE CONTE for over one week. Although technically I had had "enough rest" according to USCG and STCW minimums prior to the grounding, I did not realize at that time what the fatigue signs were.

There is no training program voluntarily given by our employer, and the USCG has not required training in the recognition of the signs of fatigue.[(1)] And actions the Master can take to mitigate fatigue, such as tie the vessel up until at least the Captain and one other deck officer have had the needed rest. *[[(1)]Refer to GCMA Report #R-362, Revision 1 for the Crew Endurance Management Demonstration Project underway and the anticipated report to Congress.]*

It is now time for the USCG[(1)] to step up to the plate before yet another incident happens, possibly even one that could tragically, involve the loss of limb. The USCG must either mitigate the present 84-hour 6 x 6 watch structure the AMHS now has in place, or eliminate the 6 x 6 watch

structure and put the proper number of licensed deck personnel on board passenger-carrying vessels. Another option would be to drop the SOLAS and STCW requirements altogether so that AMHS licensed deck personnel can go back to the way things were done before AMHS decided to embrace SOLAS and STCW. *[(1)Congress, in 46 U.S. Code §8904(c), gave the Secretary of Homeland Security the authority to promulgate new hours of service regulations. Although we have no evidence that they are doing so, our mariners expect the Coast Guard to promulgate meaningful regulations in a timely manner.]*

[GCMA Comment: To focus attention on fatigue and manning issues we redacted pertinent comments to the effect that management disregards the experience of its licensed mariners at its own peril.]

CREW ENDURANCE MANAGEMENT

46 U.S.Code §8904 was amended in 2004 to add: "(c) The Secretary may prescribe by regulation requirements for maximum hours of service (including recording and recordkeeping of that service) of individuals engaged on a towing vessel that is at least 26 feet in length measured from end to end over the deck (excluding sheer)."

Long before this recent amendment, the Coast Guard was heavily involved in a research project called "Crew Endurance Management."(1)*[(1) Refer to GCMA Report #R-362]*.

The 2004 amendment calls for a demonstration project and a report to Congress on a demonstration project involving the implementation of Crew Endurance Management Systems (CEMS) on towing vessels.

GCMA believes the true value of CEMS lies in teaching mariners to recognize the symptoms of fatigue and to learn how to counteract them whenever that becomes necessary. The value of this training is not limited to mariners who happen to serve in the towing sector of the nation's merchant marine.

Unfortunately, many of our mariners perceive that the towing industry grasped the Coast Guard's Crew Endurance Management System (CEMS) research project as a means to perpetuate the two-watch system, to continue to use the two watch system with its 84-hour workweek and still continue their systematic work-hour abuses. Until recently, participation in the research project remained "voluntary" and a number of successes were noted. However, in early 2006, one major inland towing company mandated the program for all its vessels.(1) The resentment a number of mariners expressed to us about its mandatory use may detract from the positive values reported in the past. It is clear, however, that CEMS will not substitute for adequate vessel manning. *[(1) Refer to GCMA Report #R-362, Revision 1, pgs. 6-9.]*

ESTABLISHING THE SAFE MANNING LEVEL OF VESSELS IS A GLOBAL PROBLEM, BUT WHERE IS THE U.S. COAST GUARD

GCMA attached a recent document from the Marine Safety Committee of the International Maritime Organization submitted by 28 European nations and the European Commission (MSC 81/23/3) to this report.

The document "…identified from an analysis of recent accident data that fatigue and manning levels are inextricably linked… and that proper allowance is not being given to the overall operational requirements when determining a vessel's manning level, and especially so for those vessels engaged on intensive short sea trades."

The report is notable because was submitted by countries other than the United States. This certainly does not surprise us. Over the past three decades and throughout the six-year life of our Association, the Coast Guard demonstrated an almost complete lack of interest in enforcing any "hours of service" regulations already on the books or to even require that adequate logs(1) documenting watch assignments or hours of service be maintained on vessels of less than 1600 tons. *[(1)Refer to Docket USCG-2002-12581-4 where the Coast Guard claimed at the time that it had no authority to require logbooks. Also see 46 U.S. Code §8904(c) that includes "recording and recordkeeping" in the authority Congress granted the Coast Guard under §409 of the Coast Guard and Maritime Transportation Act of 2004. We expect the Coast Guard to use this authority to properly enforce new hours of service regulations]*

The Coast Guard mandates manning on inspected vessels without any significant practical experience gained from working on these vessels and without seeking a dialog with the mariners who serve on them. They deal exclusively with vessel owners whose only goal is to reduce manning costs by reducing a vessel's manning requirements to levels where vessels in 24-hour service do not leave port with a full crew to make up both watches.

The American Waterways Operators (AWO) apparently sees nothing wrong in approving a 15-hour workday for unlicensed mariners serving as deckhands, engineers, deckineers, cooks and tankermen under their Responsible Carrier Program.

The Coast Guard never raised a finger to initiate a Legislative Change Proposal (LCP) to Congress to reduce this figure to no more than the 12 hours required of licensed officers.

Although the Coast Guard implemented new regulations that require a year of training for new Apprentice Mates and Steersmen, they apparently see no problem in letting these mariners continue with their regular duties working on deck or in the engineroom and catch their training in the pilothouse "after hours." Not requiring a separate "training slot" as an "extra man" on a towing vessel, points out a critical and easily recognizable flaw in this program.

The IMO's Marine Safety Committee document does not speak directly to mariners serving on inland towing vessels and many other vessels in domestic service. Since the Coast Guard downplays the role of lower-level mariners on Coast Guard advisory committees like TSAC and NOSAC, we believe this GCMA report will not raise many eyebrows at Coast Guard Headquarters. This agency clearly chooses to avoid addressing the problem of safe manning and work hours.

Lower-Level Personnel Shortages

There are a number of reasons for the severe

personnel shortages in the ranks of lower-level mariners. Among these reasons are the accumulated fatigue from long work hours stretching at times from weeks to months, retirement of experienced licensed officers, insufficient (and insufficiently-) trained personnel to fill the ranks, and inadequate manning levels. We ask Congress to be aware that 46 U.S. Code §8104(h) as interpreted by 46 CFR §15.705(c)(d) are clearly **biased** against OSV officers on voyages of less that 600 miles and **all** towing vessel officers.

46 CFR §15.705 Watches

c) Subject to exceptions, 46 U.S.C. 8104(g) permits the licensed individuals and crew members (except the coal passers, firemen, oilers, and watertenders) to be divided into two watches when at sea and engaged on a voyage of less than 600 miles on the following categories of vessels:
(1) Towing vessel;
(2) Offshore supply vessel; or,
(3) Barge.
(d) Subject to exceptions, 46 U.S.C. 8104(h) permits a licensed master or mate (pilot) operating a towing vessel that is at least 26 feet in length measured from end to end over the deck (excluding sheer) to work not more than 12 hours in a consecutive 24 hour period except in an emergency. The Coast Guard interprets this, in conjunction with other provisions of the law, to permit licensed masters or mates (pilots) serving as operators of towing vessels that are not subject to the provisions of the Officers' Competency Certificates Convention, 1936, to be divided into two watches regardless of the length of the voyage.

While 46 U.S. Code §8904(c) gives the Secretary of the Department of Homeland Security the authority to prescribe regulations for the maximum hours of service on towing vessels, our mariners have seen little movement in this direction since the statute was amended in September 2004. At the same time, we watch the towing industry and the offshore oil industry, two major employers of our “lower-level” mariners, vigorously oppose any changes that would affect their bottom line. All the while, the maritime industry continues to hemorrhage licensed and unlicensed crewmembers in alarming numbers.

IMO Document MSC 81/23/3 is attached.