NMA REPORT #R-293-B, Revision 8

DATE: October 1, 2013

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

REQUEST FOR RULEMAKING TO ADDRESS OVERHEAD CLEARANCE ACCIDENTS

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BACKGROUND INFORMATION

Our Association has become increasingly alarmed by the large number of ñoverhead clearanceò accidents that damage bridges, sever power lines and damage other overhead structures crossing our navigable waterways. The ñoverhead clearanceò problem is <u>in addition to</u> the related problem of oversize and overloaded tows that batter the <u>foundations</u> of bridges and other waterway infrastructure.[(1)] *[(1)Refer to NMA Report #R-340, Rev. 9.]*

Although the Coast Guard ***<u>should be</u>*** well aware of this problem, we have seen no evidence that their perpetually understaffed Accident Investigation and Casualty Analysis branch at Coast Guard Headquarters ever ñconnected the dotsò on this issue at Headquarters level. The Coast Guard manages a vast amount of maritime accident information collected from many sources. However, as Department of Homeland Security Report #OIG-08-51 released in May 2008 clearly pointed out, there were a number of serious shortcomings ï some of the most notable at Headquarters level ï where the program appeared to suffer from a lack of initiative and a paralysis of action. The Inspector Generalôs report was reinforced five years later by OIG Report #13-92 that bluntly stated in its Executive Summary (p. 1) that: ñThe USCG does not have adequate processes to investigate, take corrective actions, and enforce Federal regulations related to the reporting of marine accidents. These conditions exist because the USCG has not developed and retained sufficient

personnel, established a complete process with dedicated resources to address corrective actions, and provided adequate training to personnel on enforcement of marine accident reporting.ò Nevertheless, as our first ñincidentò illustrates, at least some local Coast Guard offices are starting to wake up to the danger of overhead clearance accidents.

At this time, we are not certain whether the Coast Guard has the legal authority to require that important overhead clearance information be provided to those tug and towboat officers responsible for moving tows in places where vertical clearance is a problem or whether they first must seek this authority from Congress. However, we trust that this report will be sufficient to at least outline this ongoing problem that calls for a positive answer either by Congress or by the Coast Guard.

The problem of ñoverhead clearanceò also arises with offshore supply vessels, especially ñliftboatsò as well as with other vessels that navigate in rivers, canals and other inland waters. However, in light of our concern for the safety and wellbeing of our ñlimited tonnageò mariners and their potential for involvement in future overhead clearance accidents, we ask that the Coast Guard address this problem and initiate an appropriate and, we believe, long overdue rulemaking project.

FORMAL PETITION FOR COAST GUARD RULEMAKING

May 22, 2013

Executive Secretary
Marine Safety and Security Council (CG-0943)
United States Coast Guard Headquarters
2100 2nd. Street, SW, Stop 7121
Washington, DC 20593-7121

Subject: **Petition for Rulemaking – Overhead Clearance (Air-Draft) Accidents.**

Dear Sir or Madam,

As provided for in 33 CFR §1.05-20, our Association hereby petitions the Coast Guard to open a docket and initiate rulemaking to address the problem of overhead clearance accidents for the reasons and as described in NMA Report #R-293-B, Revision 7 that is an integral part of this request.

We report 16 avoidable overhead clearance accidents that unnecessarily damaged or destroyed waterway infrastructure and inconvenienced the public. We believe these ñoverhead clearanceò accidents are representative of but probably a small proportion of similar accidents residing in Coast Guard and NTSB files. These overhead clearance accidents are separate and apart from the problem of oversize and overloaded tows that batter the foundations of bridges and other waterway infrastructure and have received much greater attention.

We believe that our report puts many different facets of the problem into focus and, through the extent of its coverage, shows that the problem is pervasive.

There may be a question as to whether the Coast Guard has the ñauthorityò to make some or all of the suggested changes. We would appreciate an evaluation of any such issues if they arise by your legal staff as we are more than willing and able to bring them to the attention of Congress.

Very truly yours,
s/Richard A. Block
Secretary, National Mariners Association

Immediate Results of Our Petition

Our Association directed this petition to the Secretary of the Marine Safety Council in hopes of initiating movement towards a regulatory solution of the underlying problem. In advance of the Towing Safety Advisory Committee meeting in Chicago in September 2013, we filed a ***copy*** of our request in TSACôs meeting Docket #USCG-2013-0505 on Aug. 27, 2013. Following the TSAC meeting, we learned (unofficially) that this Federal Advisory Committee had tasked a Subcommittee to examine this issue.

In the meantime, media reports registered a significant ñoverhead clearanceò accident disabled the Mathews Bridge, a major urban bridge in Jacksonville, FL, on Sept. 26, 2013 as outlined in Incident #17 (below).

Incident #1: DERRICK BARGE DISABLES KEY VIRGINIA HIGHWAY LIFT BRIDGE

***[Source:** Edited from USCG MSO Hampton Roads, VA., Misle Activity #1974182, Misle Case #159319, NMA File #M-457.]*

This marine casualty involved an allision of the barge Big Red, Official Number 665729, with the Virginia State Highway (State Route 337) Jordan Lift Bridge located on the Southern Branch of the Elizabeth River at mile 2.8, in Chesapeake, VA on Jan. 3, 2004.

The uninspected towing vessel Gram Me, Official Number 543221, was pushing the derrick barge BIG RED southbound to Davis Grain Dock in Chesapeake, VA.

The single-screw, 58-foot, 1,000-horsepower tug Gram Me departed light boat from Perdue Facility in Chesapeake, VA at 0115 local time on Jan. 3, 2004 with a licensed operator, Captain ■, and two crewmen, to tow the BIG RED from Newport News Pier No. 5 to Davis Grain Dock.

At approximately 0315 the Gram Me arrived at NNS Pier No. 5 to pickup the Big Red. At 0400, the Gram Me departed with the Big Red configured pushing ahead.

At approximately 0800 both crewmen joined Captain ■ on the bridge of the Gram Me. When the flotilla was abreast of Hospital Point (i.e., Town Point Reach of the Elizabeth River), Captain ■ sent a crewman to the port bow of the Big Red to act as lookout.

The flotilla continued its southbound voyage through the Lower Reach of the Southern Branch of the Elizabeth River. Once it was south of the Norfolk Naval Shipyardôs hammerhead crane, Captain ■ hailed the Jordan Bridge on channel 13 VHF radio. The bridge tender responded.

The captain notified him that he was southbound with a tow and requested an opening. The flotilla was approximately 20 minutes away from the Jordan Bridge when they requested the opening. The captain radioed the bridge again to ask for the vertical clearance of the Interstate Highway (I-64) Bascule Bridge (a.k.a. the ñhigh rise bridgeò). The Jordan Bridge bridge-tender informed him that the charted vertical clearance of the I-64 Bridge was 65 feet. Captain ■ told the bridge tender that this would not be enough, and that he would require 80 feet or more when he reached the Jordan Bridge.

As the flotilla approached the Norfolk and Portsmouth Belt Line Railroad Lift Bridge from the north, they observed the Jordan Bridge going up. However, when the flotilla reached the railroad the deckhand noticed that the Jordan Bridge had stopped rising.

Captain ■ positioned the flotilla to transit the open span of the Jordan Bridge. At approximately 0845 the mast of the Big Red struck the Jordan Bridge road deck. The captain immediately backed the Gram Me and Big Red away from the bridge and then radioed and said that the bridge was not high enough. The bridge tender replied that he had opened the bridge to a clearance of 81 feet.

Conclusions. This allision was caused by the failure of the Jordan Bridge to fully open as required by 33 CFR §117.5 and the failure of the operator of the tug Gram Me to know the vertical clearance required for his tow.

If either of these errors had not occurred the allision would not have occurred. If the operator of the tug Gram Me had known the required vertical clearance and communicated it to the bridge tender, the bridge tender would have raised the bridge to a height sufficient for passage.

Conversely, if the bridge had opened fully as required by regulation, the accident also would not have occurred since the maximum clearance is 145 feet, significantly higher than 87.5-foot height of the Big Redôs mast.

The damage estimate to repair the bridge after the allision was estimated at $450,000. In addition, six deep-draft ships were diverted, ten barges and one tug were unable to complete their transit, one deep-draft vessel loaded with soy meal was unable to depart port for approximately six days. The Coast Guard considered the direct and indirect economic impacts on the port to be significant.

The waterway was closed for 18 hours as dangling structural members were cut away and the channel checked for broken roadway concrete and steel debris.

Reading Between the Lines

The Master stated that he told his deckhand ñto check the height of the barge and the mast of the derrick.ò The deckhand returned and told him that (it was) 14 inches from waterline to the deck, 18 feet up the mast and counted the rungs and estimated the height to be 48 feet for a total of 81 feet. This might have been a reasonable ***guess***, but it proved to be not good enough!

[NMA Comment: The Master of a towing vessel must have factual information about <u>his vessels' air draft</u> immediately available in the pilothouse to provide to bridge tenders and Coast Guard officials and to ensure safe passage under every type of overhead obstruction. He <u>also</u> must have the same information about <u>the air draft of his tow</u>. We assert that the company that owns or operates the towing vessel *should be* designated by regulation to furnish that information to the Master of the towing vessel before the vessel gets underway.]

Although the Coast Guardôs Bridge Administration regulations at 33 CFR §117.5 state in part that ñdrawbridges shall open <u>promptly and fully</u> for the passage of vesselsò the bridge owner, the City of Chesapeake, VA, instructed their bridge tenders to open the bridge to the height requested by the vessel. ***In the case of conflicting instructions, Federal regulations take precedence over the bridge owner's rules***. The bridge tender should have opened the bridge fully.

On Jan. 15, 2004 the Coast Guard received the ñvoluntary surrenderò of Captain ■ôs license for a two-month outright suspension with four months remitted on 12 months probation.

Actions in Response to this Report

USCG Safety Recommendation #5822: Require the permanent marking of maximum design air draft for masts and booms on stationary vessel apparatus.

That the U.S. Coast Guard amends its regulations é to require owner/operators to:

(1) Mark all crane or derrick barges with the maximum air draft; or

(2) Otherwise provide the information ***<u>in writing</u>*** to any vessel contracted to tow the barge.

[NMA Comment: This recommendation is reasonable. After passing through the rulemaking process, it should have been incorporated into Coast Guard regulations. We assert that Coast Guard officials should be accountable when they fail to incorporate thoroughly vetted "recommendations" into regulations. Such a regulation, if promulgated, could remove the guesswork from blindly estimating overhead clearances and more properly and equitably assign blame after violating a published regulation.]

[NMA Comment: This requirement should apply to all booms, masts, or spuds on any equipment that <u>are not completely lowered</u> or placed in a stowed position for any reason. Do not expect a towing vessel officer or a deckhand to be a crane operator or operate equipment he has not been trained or qualified to handle.]

[NMA Comment: We assert that proper "voyage planning" *should* become an important component of all inland tows. In doing so, we support Recommendation #1 by the Commander, Eighth Coast Guard District: "In light of this accident, we recommend that Commandant reconsider applying the Voyage Planning requirements to *<u>all</u>*** towing vessel voyages."[(1)]** ***[(1)Reference:*** *Coast Guard investigation report dated Apr. 28, 2006, pgs. 3, 4 on the Sept. 15, 2001 ramming of the Queen Isabella Causeway Bridge with multiple fatalities. The reference is to the interim rule at 68 FR 22604 that requires voyage planning for only those towing vessels in unprotected waters, beyond the baseline of the territorial sea. 33 CFR §164.80(c).**]***

There have been four casualties in the Port of Hampton Roads involving allisions of vessels booms with overhead obstructions since 1999. Two of these casualties had serious consequences. In each case ***<u>the licensed person-in-charge did not know the vessel's air draft and had no reasonable means to determine it</u>***.

[NMA Comment: The foregoing statement recognizes the potential for "human error" that towing vessel crewmembers may be unable to resolve without outside professional assistance. We assert that the vessel operator provide the officer in charge of the tow with appropriate professional assistance to determine accurate overhead clearance information if requested before moving the vessel or its tow.]

A marked air draft on the boom or mast or in written form would serve as a good quick reference for the master before transiting a bridge. Knowledge of the air draft should be as important as knowing the hull draft.

[NMA Comment: A regulation <u>should</u> require that the Master of the towing vessel <u>be provided</u> with the air draft of his vessel and the air draft of any tow he is expected to move before the tow begins. A professional pre-sailing survey may be required to protect waterway infrastructure.]

We believe the ultimate goal of this recommendation is to ensure that those persons directing and controlling the movement of towing vessels know the maximum overhead clearance (air draft) for their vessel and the barges in their tow and that, knowing that information, they can avoid trying to pass under bridges when there is insufficient clearance.

Current regulations regarding similar aspects of navigation safety for towing vessels are found in 33 CFR Part 164 and ***place the responsibility on the owners and operators of the towing vessels*** to obtain and use information to safely navigate their tows. Therefore, any amendment addressing this issue should also be implemented there.

[NMA Comment: Definition of "*Operator*" as used in the foregoing paragraph: Operator means the person or entity who provides operational instructions to and receives reports from the Master of the vessel and is responsible for the vessel's maintenance and repair.]

As a result, we propose an amendment to 33 CFR Part 164 that requires persons directing and controlling the movement of towing vessels to know the maximum overhead clearance (air draft) for their towing vessel as well as for all barges being towed.

In addition, we intend to submit this issue to the Towing Safety Advisory Committee (TSAC) for advice on a proposed regulatory amendment as well as other actions that might be taken to address this issue.

[NMA Comment: Our Association will bring this report to the attention of TSAC and will ask that they consider these recommendations at subsequent TSAC meetings.]

Safety Alert #5821: Vessel Air Draft

[Our emphasis with underlining.]

Since 1999 there have been four casualties in the Port of Hampton Roads involving vessels alliding with overhead obstructions ï three bridge allisions and one allision with overhead power lines. In each case the licensed master did not know the vessel's "air draft," even though numerous court decisions have consistently found that a mariner is responsible for knowing the vessel's height and available clearances on the route.

These casualties led to the publication of a ñLessons Learnedò broadcast fax, highlighting the responsibilities of vessel owners, operators and mariners. This Safety Alert reiterates those responsibilities and encourages vessel owners and operators to voluntarily mark their vessels in a prominent location with the vessel's maximum vertical height.

[NMA Comment: Our Association recognizes this as a national issue rather than a local issue. Fortunately, MSO Hampton Roads "connected the dots" on their four local accidents. However, the Coast Guard Office of Investigations and Casualty Analysis with access to its voluminous files should have resources to review all "air draft" accidents.]

All mariners recognize the importance of knowing their vessel's water draft, and no prudent mariner would dream of getting underway without first checking the water draft to avoid grounding. However, many mariners are less cautious with vertical clearances. This may be partly due to the lack of markings ***and the difficulty in making an accurate measurement***, which is complicated by changes in the air draft due to the vessel's water draft, trim and the stowage condition of booms, masts and antennas.

It is well settled that a rebuttable presumption of negligence arises when a vessel strikes a fixed object. The presumption creates a prima facie case of negligence, sufficient for an Administrative Law Judge (ALJ) to find a complaint of negligence proved in a suspension and revocation proceeding brought by the Coast Guard.

The presumption of negligence established by an allision is strong and requires the operator of the vessel to prove: (1) the moving vessel was without fault; (2) the allision was the fault of the stationary object; or (3) the allision was an inevitable accident (i.e., one that could not be prevented). In a suspension and revocation proceeding, unlike a civil suit for damages, merely demonstrating that another party was also negligent does not negate the presumption of negligence. In a suspension and revocation proceeding, the only issue is the negligence of the person charged. In other words, contributory negligence is not a defense.

[NMA Comment: As long as the Coast Guard relies on court interpretations, threats to mariners' credentials, etc. and fails to employ common sense, this problem will defy solution. Mariners should not be expected to climb out on the end of a boom and drop a plumb bob to the deck (or to the surface of the water) or undertake risky or absurd actions to obtain any vessel's air draft. As a part of "voyage planning," an enforceable regulation should require the "Operator" to furnish the Master with the correct vessel air draft information before the voyage

begins.]

To adequately rebut the presumption of negligence, the operator of the vessel must prove that the sole fault of the allision rests with another party, or prove there was an occurrence which could not be foreseen or guarded against by the ordinary exertion of human skill and prudence ï not necessarily an act of God, but at least an unforeseeable and uncontrollable event.

The case law on allisions and this presumption of negligence is substantial. The common sense basis is that allisions do not occur in the ordinary course of things unless the vessel is mismanaged in some way. Simply put, a prudent mariner would not proceed under a fixed overhead object without knowing the vertical clearance required for the vessel.

Incident #2: CRANE BOOM STRIKES HIGHWAY BRIDGE AT MORGAN CITY, LA

At 10:40 on Sunday morning, Jan. 31, 2005 a crane mounted on a barge pushed by the towboat Miss Enola struck the Long-Allen Bridge crossing the Lower Atchafalaya River at Morgan City, LA. The crane rolled against the tug and then off the deck barge and sank in the middle of the channel, about 100 feet north of the bridge. The accident closed a portion of the Atchafalaya River, the major distributary of the Mississippi River, to marine traffic as well as the alternate Gulf Intracoastal Waterway route of the Port Allen-Morgan City Alternate Waterway. Tows traveling southbound on the Mississippi River and westbound on the Gulf Intracoastal Waterway use the Port Allen Route to bypass New Orleans. Vessels enter from the Mississippi River through the Port Allen Lock below Baton Rouge and connect with the Gulf Intracoastal Waterway at Morgan City.

In February 2005, the crane's gantry was cut and removed which allowed navigation to continue. Unsafe conditions o the Atchafalaya River delayed further salvage operations. After several delays, a federal district court ordered the crane removed by Dec. 1, 2007. A spokesman for Jefferson Marine, owner of the Miss Enola said its insurers handled the removal.

Initially, the Long-Allen Bridge was closed to local highway traffic for 10 days. The crane, that seriously damaged the towboat before falling into the river, finally was salvaged on Nov. 13, 2007 after the river was closed again for 14 days.

[NMA Comment: NMA file #M-538 shows the damage to the crane and towboat and salvage was estimated to exceed $1,000,000. This does not include an estimate of the costs of delays caused by closing the Port Allen route and rerouting traffic for several periods of more than a month. The mariner was charged with negligence and accepted a two month license suspension and completed a Bridge Resource Management Course.]

One fact that may make this accident unique is that the accident scene lies within the direct camera view of the Coast Guardôs state-of-the-art Berwick Bay Vessel Traffic Center. So, we can ask four very obvious questions:

- Why didnôt the vesselôs master 1) know the height of the craneôs boom above the water and 2) compare it with the height of the bridge shown on his chart and then 3) calculate in the river stage before transiting the bridge? This was a preventable ñhuman errorò?
- Why didnôt the crane owner tell the master the height of the boom before dispatching the tow. This is another ñhuman errorò ï but it doesnôt count. Let the insurance company pay for the damage. Since nobody was killed and vehicular traffic was diverted to the larger and newer bridge nearby, it was only a local incident and easily forgotten.
- Why didnôt the Coast Guard watchstander question the master about the height of his tow when he first entered the VTS system and, later, when he came within sight of the video camera?
- When will the Coast Guard take concrete steps to prevent these overhead clearance accidents? We trust that this report will result in a positive response to this question.

One of our Associationôs Directors suggested that the VTS operator routinely ask towboat operators about the air draft (i.e., height) of their tows relative to their route. ***By asking this question, not only at the Berwick Bay Vessel Traffic Center but at all Coast Guard VTS and other monitoring facilities throughout the country would make mariners understand that a towing vessel officer is expected to know this type of information***. At present, 33 CFR §164.80(c)(iv) is severely qualified by ñIf any part of a towing vesselôs intended voyage is seaward of the baseline (i.e., the shoreward boundary) of the territorial sea of the U.S., then é the master (etc.) must check for

é ñvertical clearancesò (air gaps) for all bridges, ports, and berthing areas.ò §164.80(c)(1)(i-iv) exempts many (but not all) inland towing vessels for good cause. However, the ***preamble*** at 69 FR 34065 column 1 really sums up how the Coast Guard plans to treat voyage planning on ñinland watersò including the western rivers what the regulation really is supposed to do as follows: ñ***And the applicability of the voyage planning requirement was narrowed, so that it does not apply to towing vessels operating exclusively on inland waters***.ò

We disagree!!! Such a regulation is misdirected. It clearly should have placed a burden on ***all*** towing operators to protect public and private infrastructure (like bridges, power lines, or overhead water or gas lines, etc.) crossing navigable waterways throughout the United States.

Such information, coupled with the existing requirement to carry charts, maps, and other waterways publications, would make it possible for any licensed mariner to compare the height of his tow to the height of all overhead obstructions he must pass en route. This is a skill that a towing vessel officer must possess and is currently tested on. Unfortunately, often there is no way to positively determine the actual height of the tow. This one missing ingredient leaves us with a recipe for disaster.

Any ñOperatorò that contracts to move a tow should be responsible for furnishing the Master of the towing vessel with accurate (and written) tow height information in lieu of expecting the mariner to climb out on the craneôs boom, undertake some other foolhardy task, or simply to ñwing itò as has been done in the past with disastrous results. This information should be clearly marked on the tow or provided in writing so the licensed officers are not left holding the bag.

Our Association received a telephone call subsequent to the Miss Enola accident opining that it was the Coast Guardôs responsibility to bring the danger posed by the height of the crane during high water to the attention of the mariner approaching the bridge. We reviewed the Standing Operating Procedures (SOP) manual for VTS controllers and found this paragraph on page 2-20:

"Special procedures for vessels with limited vertical or horizontal clearance: Ensure safe clearance: Pay particular attention to the horizontal and vertical clearances of fixed obstructions to navigation along the waterways within, or adjacent to, the VTSA. Make maximum use of CCTV (closed circuit television) surveillance to monitor transits ***and alert vessels whose dimensions, including vertical draft, horizontal width, length, or overhanging projections, may preclude a safe transit past such obstructions***.ò We do not see where ñthe dimensionsò of the tow were either requested by or made available to the watch stander at the VTS in that accident.

Coast Guard Response

We received a written response from CDR J. H. Whitehead III, Alternate Captain of the Port dated Apr. 5, 2005 that stated in part:

ñAs outlined in Title 33 Code of Federal Regulations (CFR) Part 161.1(b), "VTS provides the mariner with information related to the safe navigation of a waterway. This information, coupled with the mariner's compliance with the provisions set forth in this part, enhances the safe routing of vessels through congested waterways;"

ñTitle 33 CFR Part 161.1(c) reiterates, "the owner, operator, charterer, master, or person directing the movement of a vessel remains at all times responsible for the manner in which the vessel is operated and maneuvered," and Title 33 CFR part 161.1(d) reaffirms, "nothing in this part is intended to relieve any vessel, owner, operator, charterer, master, or person directing the movement of a vessel from the consequences of any neglect."

ñSafety of vessels and mariners transiting the VTS Berwick Bay system is of paramount importance, as proved by the numerous safety requirements set forth in the above-mentioned Vessel Traffic Management Regulations (33 CFR Part 161), as well as, other laws and regulations.

ñAlthough one of the primary purposes of VTS Berwick Bay is to manage vessel traffic in such a manner as to minimize maritime accidents, the ultimate responsibility of vessel safety rests with the operator (master) and its crew. However, VTS watch standers will provide as much information as possible, when queried by towboat operators, to safely transit the areaé .ò

Our Association would support the Coast Guardôs position if the towing vesselôs Master (or pilot) was given the necessary tools to work with. By that statement we mean that ***most towing vessel officers have no accurate or reliable means of determining the vertical height of their tow***. Therefore, unless the owner or person responsible for dispatching the tow provides this information, we contend that licensed officers cannot be expected to move that tow safely.

Because of the nature of the towing business, with officers and crew shuffled from vessel to vessel, ***many towing vessels do not even have information concerning the height of the tug or towboat they are operating readily available to them in the pilothouse to say nothing of the height of the tow they move.*** It was only

following the Bayou Canot tragedy in which 47 lives were lost that charts and publications were first required (1996) on uninspected towing vessels.

It is clear that the Coast Guard ***should*** require that adequate tow-height information must be provided to the towing vessel operators responsible for the tow. There have been far too many similar accidents in different parts of the country to ignore this shortcoming any longer!

Incident #3: CRANE ON A BARGE UNDER TOW STRIKES THE BAYONNE BRIDGE

*[**Source**: NTSB Marine Accident Brief #DCA88MM010; Our File #M-071-Z]*

At 0400 on Nov. 17, 1987 the uninspected 70-foot, 153 gross ton tug ITCO XII with the 100-foot, 464 gross ton uninspected crane barge R-16 in tow alongside, departed Berth 18, Port Newark, NJ en route to Erie Basin in Brooklyn, NY. Before getting underway, neither the Master nor the Mate on the tug determined the height of the top of the craneôs boom, which was in the raised/elevated position on the barge. The crane operator had neither lowered nor secured the craneôs boom to the towing position before he left the barge. There was a crew of 6 on the tug but nobody was on the barge when it was taken in tow.

The weather was clear with two miles of visibility in darkness.

The Bayonne Bridge is aligned at approximately a 60° angle to the Bergen Point West Reach Channel in a north-south direction. The bridge has a horizontal clearance of 800 feet and a vertical clearance at high water of 134 feet at the northern side of the channel, 147 feet at the center of the channel, and 140 feet at the southern side of the channel. High water at the Bergen Point West Reach Channel was at 0511 on Nov. 17, 1987.

About 0445 on Nov. 17th. as the Mate on watch on the tug was maneuvering the tow to pass under the bridge in an easterly direction and in the center of the channel, the end of the craneôs boom struck the center section of the bridge. The craneôs boom was bent over the stern of the barge, and the bridge sustained minor damage. The tug was not damaged. Property damage was estimated at $256,000.

The NTSB determined the probable cause of the accident was the failure of both the Master and Mate on watch to determine the height of the craneôs boom and to insure that the crane was in the towing position before taking the barge in tow.

Not to worry! Authorities plan to spend several **billion** dollars raising the bridge clearance in a port expansion project.

Incident #4: USACE CRANE BARGE UNDER TOW STRIKES HIGHWAY BRIDGE AT HELENA, AR

***[Source**: Our File #M-097; National Association of Maritime Educators Newsletter #82, July 1999]*

On July 14, 1997, prior to the departure of the M/V James R. Hines, Mr. X of the U.S. Army Corps of Engineers spoke with Captain F, master of the towboat. During their pre-departure conference, they did not discuss the height of the tow nor was this discussed with any other member of the towboat crew. However, previously, the Corps of Engineers did provide the towboatôs captain with an equipment list noting the dimensions of the equipment the vessel was to move under USACE contract.

The equipment list showed the height of the A-frame on the Barge Odum was 71.8 feet above the water with a boom height of 122 feet above the water. The A-frame was the highest fixed structure on the barge. The boom height listed its ñnormal operating position.ò Captain F. did not know nor did he inquire as to what the 122-foot figure on his equipment list meant. Captain F. ***assumed*** the boomôs height was 75-feet and did not expect clearance to be a problem.

At approximately 1955 on July 15, 1997, Captain F aligned the M/V James R. Hines and its tow to pass under the Helena Highway Bridge. The tow was making 4.5 miles per hour downstream. At approximately 2000 hours, the boom of the Odumôs crane struck the Helena Highway Bridgeôs ñBò span center channel marking light and then the underside of the bridge. Captain Fôs first indication of the allision was when he observed the boom moving.

As the tow continued to pass under the bridge, the boom caused severe damage to the longitudinal supports of the bridge and eventually caused the boomôs structure to fail and collapse on the deck of the barges in tow. ***<u>The boom exceeded the vertical bridge clearance (i.e., air draft) by approximately 20 feet</u>!***

Captain F contacted Coast Guardôs Group Lower Mississippi River (GLMR). The GLMR watchstander incorrectly ***assumed*** from the report he received that the tow was still in tact and not in danger and that it had struck

the bridge pier rather than the roadway. The bridge maintenance supervisor reported to the scene less than an hour later but well after dark noted no damage and left the bridge open to highway traffic.

At 0800 the following morning, the Corps of Engineerôs M/V Strong reported severe damage to the underside of the bridge. The ñBò span was then closed to vessel traffic and the highway bridge remained closed for three weeks until repairs were completed. ***The estimated repair costs to the bridge were $250,000 and an additional $300,000 in damage to the Odum and the two barges the boom collapsed on***. The inconvenience to the public by the closure of this important traffic artery, the only river crossing in 100 river-miles, was simply ignored.

While the case was still under investigation, our Association requested Major General Anderson, the Chief of the USACE Mississippi Valley Division, at a public meeting to suggest a positive means be provided to a vessel operator to obtain an accurate measurement of a crane boom whose height could not be readily measured. General Anderson spoke at some length about his personal recollection of the accident as it occurred on his first day on the job in charge of the Division and as President of the Mississippi River Commission. Our Association received the following recommendation:

ñ**Recommend as a voluntary industry standard:** Equip booms with a pre-measured, brightly colored tag line that when suspended from a boom and can be hooked into a pre-designated deck fitting only when the boom head is lower than the highest fixed structure on the vessel. If the operator cannot see the line, or the line is not attached, the boom is not properly secured or ready for sea and thus a possible vertical hazard. This recommendation was suggested by representatives from industry as a possible solution to prevent casualties of this type.ò (Mar. 29, 1999).

Incident #5:
RAISED SPUD DAMAGED HIGH ISLAND BRIDGE ON GULF INTRACOASTAL WATERWAY, LA

*[**Source**: USCG Misle Activity #1957609; Misle Case #156296, MSU Galveston, TX. Our File #M-448]*

In the early morning hours (0200) of Nov. 4, 2003 the tug Duard E. was eastbound transiting under the High Island Bridge pushing[(1)] the dredge Tom James, a work barge named Booster Barge 268, a crane barge, the M/V Jenny James and the M/V Miss Helen. *[(1)The report does not make it clear whether the Duard E. was pulling or pushing the tow at the time of the incident.]*

During the transit under the High Island Bridge, the starboard side spud on the Booster Barge 268 was extended too high in the air. As the tow passed under the High Island Bridge at 1.5 knots, the top of the spud scraped the bottom of the bridge. Only minor cosmetic damage was reported on the bridge that was later confirmed by the Texas Department of Public Safety. The spud well on Booster Barge 268 was damaged to an amount estimated at $200,000.

Booster Barge 268 also had a spud on the port side that was not extended as high as the spud on the starboard side and did not contact the bottom of the bridge. The starboard side spud was not lowered enough before passing under the bridge to prevent it from striking the bridge.

The Blame Game

The Master of the towboat stated that he asked the dredge captain, ñAre you ready to go?ò The dredge operator then confirmed that the dredge was ready and the vessels got underway.

In an insurance claims interview several weeks after the incident, the towboat Master reiterated that the main reason he asked whether the spuds on the barge had been lifted was that he noticed the top of the port spud was several feet lower than the starboard spud. The Master made it very clear that the Duard E. and its crew had nothing to do with the configuration of the tow they were expected to push nor did they have any responsibility to adjust, lift, or set spuds on the booster barge. This was the sole responsibility of the customerôs dredge crew.

On his approach to the bridge, the Duard E pulled over for a westbound tow to pass through the bridge first, and then repositioned his tow to the center of the Intracoastal Waterway and proceeded toward the east.

After the Duard E cleared the bridge, the Master felt a jolt, looked up and saw sparks coming from the starboard spud of Booster Barge 268 that was rubbing on the bottom of the bridge.

The Master pushed his tow on the south bank of the ICW and reported the incident. However, the Coast Guard reportedly never arrived on the scene. Hours later, a drug-testing facility performed post-accident drug and alcohol tests. The tow remained on the south bank for approximately 12 hours, during which time the crane lifted the starboard spud from the barge and placed it on deck.

According to the claims adjusterôs report, the dredge captain exonerated the Master of the tug and stated that the

preceding day while in Galveston Bay, the spud operator attempted to lower the starboard spud which had become hung up on a keeper that prevented it from lowering any further. However, the sleeve or ring around the starboard spud moved down giving the ***appearance*** that the spud was moving down when, in fact, it did not. A slightly different version emerged, however, where someone on the booster barge placed a pin in the wrong keeper hole.

In examining this report, a person (whose name was redacted under FOIA) stated that the dredge owner has a history of a spud striking a bridge or overpass approximately once a year.

The High Island Bridge

The High Island Bridge currently is a wide, two lane concrete high-rise bridge that is the only direct route between Interstate 10 and Galveston, TX, that does not pass through the Houston metro area and, as such, leads to a ferry crossing from the Bolivar Peninsula to Galveston. These ferries are extremely busy carrying a great deal of local beach traffic and thru highway traffic.

Knocking out the High Island Bridge would cause a severe disruption of direct vehicular traffic to Galveston and a number of intermediate beach communities. Arguably, a direct strike by a heavy spud pushed by the combined weight and momentum of the tug and its massed flotilla of dredging equipment could dislodge and tumble the concrete bridge span with a catastrophic effect. We assert that the result ***could be*** comparable to the bridge strikes that destroyed the Queen Isabella Causeway in September 2001 and the Interstate 40 bridge strike at Webbers Falls, OK, in May 2002.

Incident #6: CRANE BOOM DAMAGES CROWN POINT BRIDGE WEST OF NEW ORLEANS, LA.

[Source: *Case MC92012357, Our File #M-178]*

On July 30, ***1992*** on or about 0645 the M/V Heather Lynne was underway pushing three barges in the Gulf Intracoastal Waterway in Crown Point, Louisiana. The lead barge was loaded with a crane whose boom was in a raised position. Upon approaching the Crown Point bridge, the master of the vessel failed to ascertain the height of the boom resulting in an allision between the crane boom and the bridge.

In the raised position, the crane boom extended approximately 80 feet in the air. Earlier that morning, the vessel and her three barges passed under the Algiers Highway Bridge without incident. Based on his statement, Captain W. thought the Algiers Bridge was 72 feet high when, in fact, it really was 100 feet high. However, the Crown Point Bridge height is charted as being only 72 feet.

[NMA Comment: The master *assumed* facts he should have confirmed from a chart. Nevertheless, before the *1993* Bayou Canot accident there was no requirement for towing vessels to carry any charts or publications. Lack of charts was one factor the NTSB cited in the loss of 47 lives at Bayou Canot a year after the Crown Point accident. Requiring charts and publications always has been an integral part of traditional Coast Guard "vessel inspection." Add this to the ultimate price our nation paid for failing to inspect towing vessels.]

The master ***mistakenly*** believed that the Crown Point Bridge and the Algiers Bridge were both the same height. Since the crane boom passed under the Algiers Bridge without any problems, the master felt he would encounter no problems passing under the Crown Point Bridge.

The master was charged with negligence. No pollution, injuries, or damage to any vessels were reported. Damage to bridge was $250,000. The incident was soon forgotten with no ñlessons learned.ò

Incident #7: RAISED SPUD STRIKES ELLENDER BRIDGE NEAR LAKE CHARLES, LA

[Source: *USCG Misle Activity #2226216, Misle Case #206748, MSU Lake Charles. Our File #M-499. Case reported in our Newsletter #39, April/May 2006]*

At 11:00 AM on Oct. 21, 2004 the uninspected 97 gross ton towing vessel Celina Marie was pushing six barges including spud barge L-1029 eastbound on the Gulf Intracoastal Waterway southwest of Lake Charles, LA.

The Master was told by his employer that the vertical height above water of spud barge L-1029 was 52 feet.[(1)] Most employers leave their mariners to guess at their towôs vertical height above the water ï which was NOT the case here. However, the Master believed the clearance of the Ellender Bridge in the ñdownò position was 60 feet above the

water. Therefore, the Master did not request that the Ellender Bridge be raised for the passage of his tow. Unfortunately, the Master did not verify the vertical clearance of the Ellender Bridge by consulting a nautical chart of the area or by other accepted maritime reference source or even by asking the bridge tender over the radio. Had he done so, he would have found that the vertical clearance of the Ellender Bridge was ***only 50 feet*** in the down position.

The resulting allision closed the bridge to highway traffic. Boat traffic beneath the bridge was limited to tows with an air draft of 50 feet because the lift span could not be raised until repairs were made. The accident caused approximately $75,000 damage to the spud, spud frame, and the bridge itself.

In the accident report signed by the Master, he reported having served 44 years in the industry and was on duty for one hour before the accident occurred. His license was suspended for two months.

In his notes, the Investigating Officer noted that the Master did not check his chart but, rather, relied on his ñhistorical knowledge.ò He did not approach the bridge with caution that would allow him to make an on-scene assessment of the situation by putting a deckhand on the barge or slowly nosing up to the bridge. In fact, his deckhand was in the galley with no one positioned in anticipation of passing beneath the bridge.

Incident #8: OVERHEIGHT OILFIELD EQUIPMENT STRIKES ELLENDER BRIDGE

[Source: *Investigation Activity #228533; Enforcement Activity #2272816; FOIA 05-0463; Our File #M-509: Reported in our Newsletter #40.]*

On Nov. 26, 2004 the ñé Uninspected Towing Vessel Bob Helton was eastbound on the Gulf Intracoastal Waterway with two loaded barges, including an uninspected freight barge with ***eight pipe stands welded to the deck***. The vertical height of the pipe stands on the barge was about 52 feet, and (they) allided with the Ellender Bridge in its down position (50 feet). The load broke free from the deck, and three pipe stands fell into the waterway, requiring closure of the Gulf Intracoastal Waterway and dive and recovery operations. The incident was referred for enforcement.ò

The licensed Master reported: ñé the M/V Bob Helton was pushing eastbound with a tow loaded with pipe stands and assorted oilfield equipment. I was drifting (at) mile 244 (WHL) waiting on traffic westbound through the Ellender Bridge. When traffic cleared, I came half ahead with my engines to proceed through the bridge. Barge M-562 was loaded with 8 pipe stands. I was making about 0.5 mph when I noticed the pipe stands on the bow of the barge fall like dominoes toward the boat (forward to aft). After not clearing the bridge, there were only 5 pipe stands left on the barge. Realizing the pipe stands had not cleared the bridge, I backed full astern to no avail. The pipe stands were already down on the deck. I pushed into the south bank just east of the bridge and began notifying all concerned. After daylight and a barge survey of equipment, we found out that 3 of the stands had (fallen) overboard.ò

We gleaned these facts from other parts of the report:

- ŏ The Mariner was an experienced 500-ton Master of near coastal vessels and a radar observer on the fourth issue of his license.
- ŏ The final report did not include any damage estimates. In fact, no written accident report on CG-2692 was furnished with the accident report although 46 CFR §4.05-10 (a) ***requires*** a written report.
- ŏ ñPrior to departure from Houston, operators of the M/V Bob Helton, and both licensed officers based their understanding of the vertical height of the pipe stands on information from the owner of the pipe stands, but failed to verify the accuracy of the measurements after they were loaded.ò
- ŏ Fortunately, the Ellender Bridge was not damaged and there were no injuries. However, since no written report appears to have been filed, no equipment damage or recovery cost estimate was provided.
- ŏ The Master was charged with ñNegligenceò and was offered a ñSettlement Agreement.ò The Coast Guardôs Enforcement Summary states in part: ñDiscussed and agreed on Settlement Agreement of one month outright suspension on six months probation. Explained that if we conducted a hearing, I would propose a 2 -3 month outright suspension, in addition to probationary period. The ALJ ñapprovedò the license suspension.ò

Comments. Both licensed officers reportedly ñé based their understanding of the vertical height of the pipe stands on information from the owner of the pipe standsé ò At least they ***asked*** about the height. The report adds, ñé but (they) failed to verify the accuracy of the measurement after they were loaded.ò

Perhaps there is an answer of why they were either unable or forgot to verify the height of the stands. Is a licensed officer expected to climb 50 feet in the air to take such a measurement with the equipment he has on hand that is unrealistic. Did he accept the figure he was provided by the owner of the equipment but forget to add to it the height of the deck of the barge above the water? The report does not say and we will not venture a guess.

Did the Master prepare a ñ***voyage plan***ò before he set sail from Houston? There is no evidence of his doing so. ***In fact, it was the Towing Safety Advisory Committee (TSAC) that advised the Coast Guard to remove the "voyage planning" requirement from 46 CFR §164.80(b)(3) for vessels on most inland waters and the western rivers***. Yet, the report on the allision of the four-barge tow of the M/V Brownwater V with the Queen Isabella Causeway at Port Isabel, TX, on Sept. 15, 2001 where 8 motorists were killed was blamed in large part on the absence of a voyage-planning requirement in the official Coast Guard report issued on Apr. 28, 2005.

We certainly cannot excuse the Master for not calling the bridge and verifying its height before passing under it ï especially after sitting and waiting for westbound traffic approaching the bridge. Negligence is a good word for it.

Unfortunately, in this case, we have an example of intimidation by the investigating officer. The threat of being hit with double or triple the penalty for putting the Coast Guard through the trouble of bringing the matter before an ALJ makes it very attractive to sign your name on the dotted line and agree to anything to make it go away. At $400 per day, the going wage, 31 days out of work can mean $12,400 out of pocket. Double or triple that sum for two or three months if you want to ñtell it to the judgeò and you can understand why many mariners are intimidated into not explaining their actions. Fortunately, the bridge was not damaged, the over-height stands did not injure any crewmembers, and nobody bothered to report any monetary damages.

Incident #9: NORFOLK, VA – TOW DISRUPTS ELECTRIC POWER TO FOUR VIRGINIA CITIES

*[**Source:** NMA File #M-207. Investigated by USCG]*

The Accident

On Thursday, May 25, 2000 the towing vessel M/V Cheyenne, O.N. D234026, was pushing the barge Mobro-1003, O.N. D630659. On board the barge was the crane rig 93-10. At about 1545 the vessels departed the Marine Hydraulics International facility on the Eastern Branch of the Elizabeth River bound for Hampton Roads Leasing, approximately one mile to the west. At approximately 1600 the crane allided with the Virginia Power Transmission Lines that stretch across the Elizabeth River...about 9/10 mile from the mouth of the river. The tug's operator attempted to back the vessel out of the lines. At the same time, the crane operator dropped one of the barge's anchoring spuds and attempted to lower the crane boom out of the wires. After the crane was free of the wires, the tug and tow was given permission to proceed to Hampton Roads Leasing by Coast Guard Group Hampton Roads. They dropped off the barge and crane, and the tug proceeded to its berth on the Eastern Branch of the Elizabeth River.

There were no deaths, injuries or pollution from this incident. The vessels were not damaged, but the boom of the crane was slightly damaged. There was extensive damage to the power lines and other associated equipment ***causing a power outage that affected thousands of people in four cities***. The power outage occurred at rush hour, affecting traffic signals and causing significant problems with rush hour traffic. Virginia Power ***estimated damage at $1,000,000.***

The Master of the M/V Cheyenne...did not determine the height of the boom on the crane rig 93-10 or the height of the transmission lines stretching across the river even though the information for both was readily available. At the time of the casualty the Master had been operating the vessel for approximately 12 hours straight with little rest.

Incident #10: BARGE CRANE SLICES OHIO RIVER POWER LINE

*[**Source:** The Herald-Dispatch, Jun 27, 2008. By Bill Rosenberger]*

Huntington, WV. The power outage that hit Huntington just before noon Friday was caused by a barge boom crane that wasn't as low as it needed to be.

Larry Hall, a transmission supervisor with American Electric Power, Ashland, said the crane operator told him the charts said to stay below 103 feet, but the crane was too high, slicing a 138 kilovolt cable, knocking out power to more than 3,600 customers in Huntington.

AEP crews from Ashland, Chillicothe, and Columbus, Ohio, and Charleston came in Friday evening to repair the line. Crews had to use two barges to find and retrieve both ends of the sliced line. Then they sleeved the two together and replaced whatever portions were damaged with new cable. The crews worked from the Ohio side of the river into the night to complete the work.

The outage was to blame for at least two afternoon accidents in Huntington, as traffic lights throughout eastern

Huntington from 12th Street to 29th Street between 3rd and 5th Avenues were out. The first took place around 12:30 p.m. at 20th Street and 3rd Ave. A representative from Cabell County 911 said that at least one victim was taken to Cabell Huntington Hospital. Another accident took place around 2 p.m. at the intersection of 5th Avenue and Hal Greer Boulevard. At least two victims were transported to St. Mary's Hospital.

Weather compounded traffic issues last night, with at least four other accidents that Cabell County 911 said might have been related to rainfall. Cabell County 911 Dispatch also said that traffic lights were restored about 8 p.m.

The outage also closed the Cabell Huntington Hospital Family Medical Center and Urgent Care located at 2240 5th Ave. in Huntington. The location was expected to reopen today at 10 a.m.

Appalachian Power crews worked throughout the day to reroute power to as many customers as possible, reaching about 1,900 by Friday evening. Spokesperson Phil Moye said that crews were able to reroute the power to restore power to each customer except Steel of West Virginia by Friday night. As of press time, AEP is reporting that fewer than 100 customers are still without power.

Incident #11: MAKING A CASE FOR USING PROPER CHARTS

*[**Source:** Limited Master, Mate and Operator, CNAV p.32]*

An incident in the bayous of south Louisiana reported in a local Marine Safety Newsletter reinforces the need for the prudent mariner to have on board and to use the appropriate chart for the area being transited:

The incident. A large self-propelled, self-elevating vessel commonly known in the oilfield as a "liftboat" was attempting to enter the port of Morgan City, LA via the Atchafalaya River. The Master had made a trip into Morgan City in the past and knew from experience and from the small scale nautical chart #11351 that he could not reach Morgan City because of power lines draped across the Atchafalaya River. These power lines had a vertical clearance of approximately 130 feet and his vessel had four legs that extended up 170 feet.

To bypass this obstacle, he proceeded up an alternate route through Bayou Chene and into Bayou Boeuf near Amelia, LA to avoid the ñhigh linesò. He then proceeded west along Bayou Boeuf searching for his destination when the legs of his vessel struck a different set of overhead power cables that were not shown on **his** chart.

The collision with the power cables caused a good portion of Morgan City to be placed in darkness and, more immediately, draped the power cable about three (3) feet above busy U.S. Highway 90. An automobile struck the downed cables, flipped over, struck a van and became entangled in the cable. Miraculously, the two persons in the car and one passenger in the van received only minor injuries.

This entire incident could have been easily prevented if the Master of the liftboat had consulted the **proper charts**, in this case, nautical chart #11354, rather than to plow blindly ahead without proper chart coverage.

Incident #12: CRANE UNDER TOW DAMAGES J.E. McTEER BRIDGE, BEAUFORT RIVER, SC

*[**Sources:** WLTX, TV and the Beaufort (SC) Gazette, May 4, 2007. Misle Activity #2918910]*

Traffic on a bridge over the Beaufort River will be limited after a crane boom on a passing barge damaged the span of the J.E. McTeer Bridge connecting Port Royal and Ladyôs Island along U.S. Highway 21.

Following the release of the DHS Inspector Generalôs report, the Coast Guard began to post abbreviated versions of their accident reports on their website http://cgmix.uscg.mil. These reports provided much less information about accident investigations, and it became very burdensome even to request additional information. The Freedom of Information Act has not been particularly helpful in providing information. This leads us to believe that smaller accidents simply do not receive adequate coverage. In this regard, our request for the Coast Guard to ñconnect the dotsò on this type of accident is long overdue.

Although 18 months has passed, the Coast Guard has not released any information on our FOIA #07-1426 dated June 4, 2007, Misle Activity #2918910.

Here is what we learned from http://cgmix.uscg.mil.:

On 26 April approximately 2030 Tug Sara Kaitlin towing barge Mobro 139 with crane struck McTeer Bridge in Beaufort River. While underway-southbound heading to Savannah, the crane on the barge struck the ***ceiling*** (sic) of McTeer (swing) Bridge. The towline parted, tug returned to the barge, lowered the crane, and retrieved the barge. Minimal damage to crane was reported.

On April 27, approximately 1600 South Carolina DoT reported damage to three beams of the bridge and closed

the bridge to vehicular traffic. A press release indicating the facts of the incident was issued and subsequent press releases went out as needed. Interviews of crews of both Savannah Marine Services and CML Equipment Company were conducted. Sector Charleston worked closely with South Carolina DoT and Beaufort County Emergency Operations Center to minimize impact to commercial and vehicle traffic and expedite the investigation.

We checked the website six times and found no further meaningful information on how many investigative resources were involved, nothing about ñreferral for enforcement actionò and little else of value ï far less than the information previously provided under FOIA.

However, trade publications reported that the McTeer Bridge is a vital transportation link between the mainland and the sea islands on a daily basis, especially for hurricane evacuation purposes. The bridge suffered damage to 5 large beams on the bridge deck and was reopened on June 29, 2008 after significant delays for the public. The state sued the crane owner and the settlement to recover repair costs was $1,030,000.

Incident #13: CRANE BOOM KNOCKS POWER LINE INTO SAN JACINTO RIVER, TX.

[Source: *Waterways Journal, Nov. 2002. FOIA 03-0315 (unanswered). Our File #M-298.]*

On Nov. 5, 2002 the crane barge BERTHA D snagged power lines crossing the San Jacinto River. The barge was pushed by the M/V KITTIE FISHER owned by King Fisher Marine Service of Port Lavaca, TX. High voltage lines were dropped into the river closing the river to marine traffic until crews dispatched by CenterPoint Energy removed the wires.

Incident #14: BROOKLYN BRIDGE OVERHEAD CLEARANCE ACCIDENT, NY

*[**Source**: Internet articles and Mnl82.16R.]*

The startling ***crane crash*** that ripped a gaping hole in the scaffolding beneath the Brooklyn Bridge Tuesday night (Mar. 13, 2012) is under investigation by the Coast Guard, authorities said.

Officials interviewed the captain of the tug boat that was pulling the massive rig, which tore a 20-foot gash in the protective covering beneath the landmark span around 8 p.m., but the result was not immediately clear.

The investigation came as authorities restricted boats that are more than 90 feet tall from passing beneath the damaged portion of the bridge, which is undergoing a $508 million renovation.

The military is trying to determine where the boat, which is being held at Port Newark during the investigation, was traveling to and from at the time of the incident. ***The Coast Guard was also trying to find out why the crane was extended high enough to gouge the sheet metal.***

The wreck, which closed lanes on the bridge for hours as emergency crews conducted inspections, did not result in any spills into the East River, the spokesman added.

And the bridge, which has since reopened to traffic, did not suffer any damage in the incident.

Half-Billion Dollar Renovation Project

On June 10, 2010, Vice President Joe Biden joined local politicians beneath the Brooklyn Bridgeôs peeling steel supports Wednesday afternoon to announce the start of four years of repairs to the bridge.

ñ***This bridge is an emblem of what this great country represents***,ò Biden told a crowd of construction workers and reporters. ñTo be here restoring this iconic bridge is a pretty neat thing.ò

The federal stimulus bill contributed $30 million to the ***$508 million project***, which will repaint the bridge, widen the approach ramps and retrofit the steel supports. The city and other federal sources put up the rest of the funding.

The city is just starting the work now and will do most of it on nights and weekends, frequently closing the bridge to Manhattan-bound traffic. Pedestrians, cyclists and Brooklyn-bound drivers will not be affected.

As Biden stood alongside Mayor Mike Bloomberg, U.S. Rep. Jerrold Nadler and other local officials on the Manhattan side of the bridge Wednesday, the vice president evoked the 127-year-old span as a symbol of perseverance.

Just as the Roebling family faced widespread doubt when they started building the longest suspension bridge in the world in 1870, skeptics now question whether the Obama Administration will be able to restore the economy, Biden said.

ñJust like the Roeblings, I think weôre proving the critics wrong,ò Biden said.

The $30 million in federal stimulus funds for the Brooklyn Bridge will pay for 150 jobs, and the funds also free up precious New York City capital money for other projects, Biden said.

Incident #15: EGGNER FERRY BRIDGE OVERHEAD CLEARANCE ACCIDENT, KY

*[**Sources:** Wickipedia and NTSB/MAR-13/02.]*

A main span of the bridge collapsed after being struck by the cargo vessel M/V Delta Mariner on January 26, 2012. At least four vehicles were reported to be on the bridge near the time of the collapse. One pickup truck stopped about 5 feet from the edge of the missing section; the driver reported that two cars had stopped directly behind him, and he saw another car on the opposite side of the missing section. No injuries were reported.

The U.S. Coast Guard reported on Jan. 27 that the Delta Mariner hit the bridge when it tried to pass through what is known as the recreational channel, which has a lower clearance, instead of the shipping channel, which the vessel normally used. Reports indicate that some of the bridge's navigational lighting was inoperative at the time of the incident. Paducah television station WPSD-TV reported earlier in the week that the bridge was to be reduced to one lane on Jan. 27 for a Kentucky Transportation Cabinet crew to repair the lights. KYTC spokesman Keith Todd stated that the lights facing the MV Delta Mariner were operational, and that the Coast Guard had made the lighting situation known to vessels operating on the waterway.

Kentucky Governor Steve Beshear has announced that the state will immediately review all options for restoring the roadway to service. ñWe are grateful that this wreck caused no injuries or loss of life. Since that bridge carries 2,800 cars every day, we were very fortunate that no one was on the span at that time,ò said Beshear. ñWeôll turn our attention to a full inspection of the bridge and determine what steps we can take next to speed up the replacement of that important artery.ò

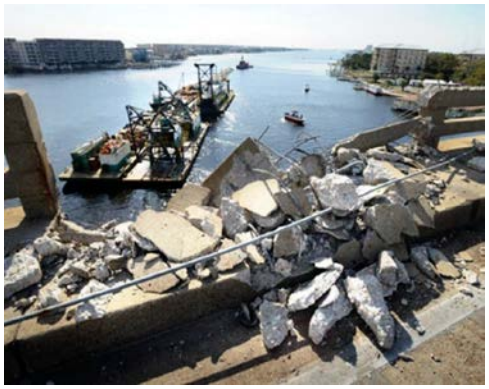
An ongoing concern is the economic impact of the loss of the bridge. The collapse has had an immediate impact on employees and students at Murray State University who normally crossed the bridge during their commutes. According to university officials, about 270 students who attend classes in Murray, 210 of them attending full-time, live in two counties for which the most direct route to campus is via the bridge. In addition, at the time of the collapse, the school's nursing students had a clinical placement in Hopkinsville, the county seat of Christian County. These individuals have been forced to take a longer route to the university, increasing driving times by approximately an hour, and also increasing their fuel costs to cover the extra distance. University officials have been working with students to identify and resolve problems caused by the bridge collapse.

On March 8, 2012, the Kentucky Transportation Cabinet awarded an emergency repair contract to Hall Contracting of Kentucky, Inc. The contract calls for repairing and reopening the bridge before the upcoming Memorial Day weekend. The same company recently completed emergency repairs to the Sherman Minton Bridge in Louisville, KY on a contract with the Indiana Department of Transportation. The bridge was reopened on May 25, 2012.

The NTSB Public Meeting of May 13, 2013 identified several safety issues during its investigation of the accident. One of the safety issues involved the performance of the bridge team and ***contract pilot***.[(1)] As the vessel approached Eggnerôs Ferry Bridge, the bridge team and a contract pilot of the Delta Mariner were largely unaware of what lighting should have been visible on the bridge and which span allowed sufficient clearance for safe passage. The contract pilot and bridge team focused exclusively on the few lights visible on the bridge while ignoring readily available electronic charting system displays, which could have provided critical information about the vesselôs position in relation to the bridge and the bridgeôs correct lighting system. Despite this lack of information, the contract pilot continued to direct the vessel toward a span that was too low for the Delta Mariner. Further, despite the contract pilotôs apparent uncertainty, none of the bridge team challenged his directions. *[(1)The owner of the Delta Mariner regularly hired experienced **towing vessel Masters** to guide and assist the bridge team for the portion of its inland rivers route between Decatur, AL, and Baton Rouge, LA.]*

[NMA Comment: Did inadequate "voyage planning" that is not required of towing vessel officers on inland waters including western rivers play a role here?]

Incident #16: OVERHEIGHT TOW CRASHES INTO BROOKS BRIDGE, FORT WALTON BEACH, FL



NICK TOMECEK / Daily News
By STAFF REPORT / Daily News

[NMA Comment: This is one in a prolonged string of "Overhead Clearance Accidents." We reiterate that the Master of a towing vessel must have reliable factual information about his vessels' air draft immediately available in the pilothouse to provide to bridge tenders and Coast Guard officials and to ensure safe passage under every type of charted overhead obstruction. He also must have the same information about the air draft of his tow. We assert that the company that owns or operates the towing vessel should be designated by law and regulation to furnish that information to the Master of the towing vessel before the vessel gets underway.]

[NMA Comment: Proper "Voyage planning" must become an important component of *all* inland tows as well as those moving offshore.]

[Source: NMA Newsletter #90, file #*Mnl90.18V]*

A tow carrying a crane crashed into the west side of the Brooks Bridge at Fort Walton Beach, Florida, on Wed. Mar. 20, 2013 damaging parts of the span and rupturing the main water line to Okaloosa Island. The bridge was closed to motorists and pedestrians for hours, snarling traffic for miles in each direction.

Crews from the Florida Department of Transportation and the Okaloosa County Water and Sewer Department worked throughout the night to make repairs to the bridge and the 16-inch water main that provides the water supply to Okaloosa Island. Although there was reported to be 900,000 gallons of available water in storage, by that evening officials were urging island residents to conserve water if possible.

The crash occurred at 3:15 p.m. as the tugboat **Miss Lizzy** was pushing four barges two-by-two east in Santa Rosa Sound, according to officials at Coast Guard Station Destin.

The crane on one of the barges hit the bridge.

The allision took down portions of the bridgeôs concrete guardrail and broke a water main running underneath the eastbound sidewalk on the bridge. Concrete and water from the pipe cascaded into the water below. Fortunately no one was hurt and no vehicles crossing the bridge were damaged, but the bridge was closed immediately to vehicular and pedestrian traffic.

It didnôt take long for traffic to snarl in both directions. Motorists were directed north off U. S. Highway 98 west of the bridge and re-routed over the Mid-Bay Bridge. The Coast Guard also closed the area to all boat traffic.

When the crane struck the bridge, the forward end of the barge reportedly lifted out of the water but kept moving forward for about 15 seconds as the crane tipped back so far that it touched the barge behind it.

Incident #17 MILITARY SEALIFT COMMAND VESSEL UNDER TOW DISABLES MATTHEWS BRIDGE, JACKSONVILLE, FL

At about 14:00 hours on Sept. 26, 2013, the 1st. Lt. Harry L. Martin a 754 foot x 116-ft., 48,626 GT Surge Sealift Fleet ship assigned to the Military Sealift Command, was being ***moved by tugs*** in downtown Jacksonville, FL, on its way to the North Florida Shipyard because of the scheduled dredging maintenance work on the channel

of the St. Johns River. The stern ramp of the ship was in an elevated position when it struck the Mathews Bridge, which connects downtown Jacksonville to the Arlington area. The ñhitò tore out a main girder on the bridge.

The Sheriffôs Office reported that the damage ñrendered the bridge unsafeò and detours were instituted that diverted traffic to the Hart Bridge and the already crowded Interstate 95/Fuller Warren Bridge downtown. Newspapers reports said that the bridge handles between 56,000 and 109,000 vehicles per day and that its closure caused untold inconvenience for local as well as interstate travelers. A Transportation Department spokesman said their engineers ñdonôt remember the bridge taking a hit that severeò and offered no immediate estimated time for repair.

U.S. Coast Guard officials, who reportedly had approved the move, said a river pilot was aboard the USNS 1st Lt. Harry L. Martin as three Moran tugboats towed it under the bridge about 2 p.m. when the accident happened. The Coast Guard said the pilot and tugboat crews were all being drug-tested to determine if intoxication played a role.

IN CONCLUSION

While this report only covers a small number of overhead clearance accidents, the relatively small number of cases that mariners brought to our attention is dwarfed by the number of reportable incidents the Coast Guard handles each and every year.

[NMA Comment: Although the Coast Guard collects many casualty statistics from their "investigation" activities under 46 U.S. Code Chapter 61, they apparently do not keep a tally of the <u>dollar amounts</u> casualties cause in damage to our infrastructure, both public and private, and to our national economy in quantifying the inconvenience to the public.]

It is clear that the Coast Guard failed in its task of riding herd on all these incidents over the years as was revealed in a 2008 audit by the Department of Homeland Securityôs Office of the Inspector General in Report OIG-08-51.[(1)] An excerpt follows:

ñCoast Guard Headquarters is not timely in reviewing or closing mariner casualty investigation reports. On Nov. 9, 2006, Coast Guard Headquarters had a backlog of 4,240 investigations of which 2,466 (58%) were open and had been awaiting review for more than 6 months. This (single) staff member[(2)] estimated at best that she could devote 50% of her time to this function. Assigning this significant workload to one person is not sufficient and contributes even further to creating a backlog in marine casualty investigationsé .ò

ñTo reduce the backlog, the Coast Guard resorted to mass closure of investigations without proper Headquarters review. Specifically, on Sept. 29, 2006 Coast Guard Headquarters closed 3,848 investigations it deemed ñlow riskò based on the criteria that the casualtyé .

ŏ occurred in CY 2002-2004
ŏ involved no fatalities or missing persons
ŏ involved injuries to fewer than 6 persons
ŏ involved total dollar damages of less than $250,000
ŏ involved less than 100 gallons of oil spilled, and
ŏ involved no total losses of vessels.

The Department of Homeland Securityôs Inspector Generalôs Report #OIG-13-92 released in May 2013 serves to update and further reinforce the earlier report. For example, ñThe absence of dedicated resources has resulted in a backlog of more than 6,000 open investigations, which include safety recommendations that need to be addressed.ò[3]

[[1]NMA Report #R-429-M on our website contains a reprint of the DHS Inspector General's report prefaced by our Association's comments. [2]Formerly G-MOA, now the Office of Investigations and Casualty Analysis, CG-545. [3]#OIG-13-92, pg. 6.*]*