



ASSISTANT COMMANDANT FOR
PREVENTION POLICY
UNITED STATES COAST GUARD
WASHINGTON, D.C. 20593-7581

MAY 10 2016

Dear Mr. Chairman,

Thank you for your dedication to completing a report in response to Task Statement 13-10, "Recommendations to Establish Criteria for Identification of Air Draft for Towing Vessels and Tows."

The recommendations will be reviewed and considered in current regulatory and policy development. Specifically, the report contains recommendations and best management practices for consideration when conducting pre-voyage planning that entails transit beneath bridges or other overhead structures.

Please convey my gratitude to the members of TSAC and the subcommittee, especially the subcommittee chair, Mr. Mike Caliendo and co-chair, Mr. Matthew Lagarde, for the significant amount of time and effort devoted to this final report.

Sincerely,



P. F. THOMAS
Rear Admiral, U. S. Coast Guard

Mr. Steven Huttman
Chairman of TSAC
Vice President Operations
G&H Towing Company
P.O. Box 2270
Galveston, TX 77553



TOWING SAFETY ADVISORY COMMITTEE

TASK 13-10

Recommendation to Establish Criteria for Identification of Air Draft for
Towing Vessels and Tows

(Short Title: Air Draft)

Final Report and Recommendations

November 5, 2015

Rear Admiral Paul Thomas
Assistant Commandant for Prevention Policy
U. S. Coast Guard
2703 Martin Luther King Jr. Ave SE, Stop 7509
Washington, DC 20593-7509

Subj: Towing Safety Advisory Committee Final Report – Task 13-10

Recommendations to Establish Criteria for Identification of Air Draft for Towing Vessels and Tows

Dear Admiral Thomas,

I am writing today to forward the final report and recommendations of the Towing Safety Advisory Committee for Task Statement 13-10.

The enclosed report, its recommendations and reference documents was formally approved by the Committee at the fall meeting in Washington DC on October 23, 2015. The final report complies with the requirements of the charge of the Subcommittee, which was established to make the recommendations to the U. S. Coast Guard.

The Subcommittee Chair, Mr. Michael Caliendo and Co-Chair Mr. Matt Lagarde and the 24 subcommittee members worked very diligently to prepare a comprehensive report, identified stakeholders, and provide numerous recommendations regarding this very important issue in a timely manner.

The members of the Towing Safety Advisory Committee greatly appreciate the support and cooperation of the U. S. Coast Guard participating and assisting the subcommittee with the Task. We are grateful for the chance to provide to the Coast Guard, the thoughtful advice and recommendations from the Towing Industry as the Coast Guard conducts its regulatory oversight. Should you have any questions regarding the final report or recommendations, please don't hesitate to call or email.

Sincerely,



Eric Johansson
Vice Chairman, Towing Safety Advisory Committee

Encl: (1) Final Report – Towing Safety Advisory Committee Task 13-10

cc: Steven J. Huttman, Chairman, Towing Safety Advisory Committee
Mr. Caliendo TASK 13-10 Chair
Mr. Lagarde TASK 13-10 Co-Chair
CDR Jose Perez, DFO – Towing Safety Advisory Committee
William Abernathy – ADFO – Towing Safety Advisory Committee

Table of Contents

Executive Summary

Discussion

Recommendations

Enclosures: (1) Task Statement 13-10
(2) TSAC Representatives and Sub-committee Participants
(3) Air Draft Diagram – Tow Boat
(4) Air Draft Diagram – Tug Boat
(5) References

Executive Summary

On September 5, 2013, the Towing Safety Advisory Committee (TSAC) accepted Task 13-10 “*Recommendation to Establish Criteria for Identification of Air Draft for Towing Vessels and Tows*” (Short Title: Air Draft [See Enclosure (1) for Task Statement]. Mr. Steven Huttman and Mr. Matthew Lagarde were nominated as co-chairs of the sub-committee to complete the task. At the June 2014 Teleconference, the Chair of the sub-committee transitioned to Mr. Mike Caliendo after Mr. Huttman was appointed TSAC Chairman. The sub-committee list grew to include 25 members, about half of whom were active, contributing members [See Enclosure 2) for TSAC Representatives and Sub-committee Participants].

Task Statement 13-10 contained three specific tasks:

1. Provide recommendations to the Coast Guard to identify potential solutions to prevent allisions between towing vessels and tows with structures due to the lack of accurate air draft information available to the Master or Mate.
2. Provide recommendations to the Coast Guard regarding establishing standardized processes for the documentation of air draft requirements aboard towing vessels when operating in U. S. waters.
3. Provide recommendations to the Coast Guard establishing standardized practices to accurately determine and post air draft requirements of tows and cargo barges when operating in U. S. waters.

On August 25, 2014, an email was sent to all sub-committee members of record at that time that included the draft report developed following the March 2014 meeting. Committee members were asked to review the draft report and respond with any comments, concerns, or answers to questions rose. Members were also asked to review the distribution list to inform TSAC TASK Chair Mr. Caliendo of any additional concerned parties who may have an interest in joining said sub-committee.

Several members responded with comments and suggestions. Additional individuals were also added to the sub-committee as a result of the inquiry.

A conference call was held on November 25, 2014, participated by eleven sub-committee members. Various aspects of the forthcoming recommendations were discussed in detail. General consensus was reached regarding how to proceed on a number of issues. Minutes were generated from which a second draft report was developed.

The second draft report was distributed to the sub-committee members on December 19, 2014. Several comments were received and the draft report was revised in an effort to capture this input.

Key elements of the recommendations:

- Industry Best Practices in lieu of regulatory change
- Incorporate in Towing Vessel Safety Management Systems
- Hold third parties accountable to provide accurate information

- Standardize definition of air draft

Discussion - Scope of the Tasking

1. The sub-committee addressed the issue regarding availability of accurate towing vessel air draft information as a two part problem. First and foremost, the information has to be accurate and secondly it shall be readily available to the vessel Master and/or Mate (Pilot). The committee felt that there should be standardizations throughout the industry regarding how air draft is measured, how it is disseminated to the mariner, and how the process is documented.

It was agreed that accurate air draft data should be provided and readily available aboard the towing vessels and included in company Towing Safety Management Systems (TSMS).

Air draft of a towing vessel was defined as the distance (height) from baseline (keel) to the uppermost part or appurtenance of the vessel, less the minimum operating draft that could be expected. It was noted that operating drafts of towing vessels generally do not change as appreciably as many other vessel types.

2. The sub-committee discussed the issues involved in accurately identifying air draft for all towing vessels. There may be towing vessels that do not have standard draft marks or accurate drawings of the vessel. In such cases, it may be necessary to take physical measurements at the first opportunity when the vessel is dry-docked. Owners/operators should be encouraged at that time to add standard draft marks to their vessels.
3. The sub-committee discussed the issues of air draft as it pertains to towing third party vessels including but not limited to cargo barges, derricks, and dredges.

Recommendations

Task 1 - Provide recommendations to the Coast Guard to identify potential solutions to prevent allisions between towing vessels and tows with structures due to the lack of accurate air draft information available to the Master or Mate.

- A. TSAC recommends that Towing Vessel Air Drafts be addressed through an industry best management practices and that this be disseminated by the Coast Guard via a Navigation Inspection Circular (NVIC) to the towing industry. TSAC recommends that no regulatory change is required at this time. Air draft considerations are a vital part of voyage planning and it is the consensus of the subcommittee that the language in the draft NPRM for Sub-Chapter M (46 C.F.R. 140.635) Navigational Watch Assessment would satisfy any voyage planning requirements for those vessels not already subject to voyage planning per 33 C.F.R. 164.80.
- B. It is further recommended that theses best management practices be included in company's Towing Vessel Safety Management Systems (TSMS) or as part of their Operating Procedures for non-TSMS marine companies as set forth with proposed regulations for Sub-Chapter M. A company's TSMS or policy and procedures for non-

TSAC Task 13-10 Air Draft Final Report

TSMS marine companies should include a minimum safety factor to be added to the towing vessels maximum air draft when calculating safe clearance. In the event that it appears that overhead clearance less than the vessels air draft plus the safety factor will be encountered on any particular voyage, the Towing Safety Management System or operating procedure for non-TSMS companies should require additional safeguards to be implemented. These safeguards could include but not limited to requirements such as; daylight transit only, physical verification of overhead clearances, additional crew, dead-slow steerage speed, etc.

C. Recommend that the following Best Practices be adopted.

All Towing Vessel Safety Management Systems (TSMS) or Operating Procedures for non-TSMS companies shall include:

- The “maximum air draft” permanently posted as necessary to be clearly visible from all control stations.
- A minimum safety factor to be added to the maximum air draft of towing vessels and tows when calculating safe clearances over the intended route.
- Clearly state that it is the towing vessel Master’s responsibility to review properly published information on overhead clearance, and based on this information determine and verify all overhead clearance issues along the intended route as part of Voyage Planning / Navigational Watch Assessment. The Master must be allowed to rely on the published height of any overhead clearances and has no duty to independently verify this information.
- Procedures for notification of all concerned parties when a Master concludes that it is not safe to proceed along the intended route due to air draft constraints of either the towing vessel or tow.
- A requirement Masters and Mates (Pilots) to only pass under lift bridges on a green light (fully open). (See 33 C.F.R. 117.5 for requirements of drawbridges to open fully.)
- Additional precautions and procedures to follow when a towing vessel or tow is determined to be able to pass under an overhead restriction, but with less clearance than required by the minimum safety factor established in the TSMS or operating procedures.

D. Recommend that the Coast Guard make all drawbridge owners and operators aware of their responsibility to ensure bridges are operated in accordance with 33 C.F.R. 117, including the requirement of 33 CFR 117.5 that drawbridges shall open promptly and fully for the passage of vessels.

E. Recommend that the Coast Guard consider having the bridge administration for each Coast Guard District provide a web based resource where overhead clearances of bridges

TSAC Task 13-10 Air Draft Final Report

and other obstructions, as adjusted for current water levels or other variations such as bridge modifications or repairs, can be confirmed.

Task 2 - Provide recommendations to the Coast Guard regarding establishing standardized processes for the documentation of air draft requirements aboard towing vessels when operating in U. S. waters.

- A. TSAC recommends the Coast Guard define air draft for towing vessels as the distance (height) from baseline (keel) to the uppermost part or appurtenance of the vessel, less the minimum operating draft that could be expected for that particular vessel [See enclosure (3) and (4)]. In the case of towing vessels outfitted with an extendable pilothouse, the measurements as described above should be calculated with the pilothouse at the maximum extended height.
- B. Where this calculation can be accurately determined from “as-built” drawings this method should be acceptable. The actual drawings used should be kept on file and accessible with the air draft calculations clearly shown for future reference. If reliable drawings are not available, physical measurements must be taken at the first scheduled dry-docking and the procedure used and personnel involved should be documented and maintained on file. The accuracy of draft marks should be verified at this time and corrected if necessary. Towing vessels without draft marks should have them accurately measured and welded to the hull forward, aft, and amidships at this time.
- C. The “maximum air draft”, as determined above, should be permanently posted as necessary to be clearly visible from all control stations as part of the recommended Best Practices.

Task 3 - Provide recommendations to the Coast Guard establishing standardized practices to accurately determine and post air draft requirements of tows and cargo barges when operating in U. S. waters.

Best Management Practices recognize it is common in the general towing and harbor assist industry for towing vessels to arrive on scene to commence a tow of a third party vessel or barge for which the Towing Vessel Master has had no previous control or familiarity.

In such case when the third party unmanned vessel is to be towed, the responsibility to post or provide accurate air draft information rests exclusively with the third party owner, operator or charterer. Masters of Towing Vessels must be allowed to rely on the information provided and retain the authority, without penalty, not to proceed until reliable information is provided.

In the case of manned vessels, self-propelled or otherwise, the Master, State or Federal Pilot or designated person in charge shall be responsible for providing accurate air draft information.

- A. TSAC recommends that the owners/charterers of unmanned vessels such as barges, derricks, drill rigs, etc. be responsible for providing accurate air draft information to the Master and/or Mate (Pilot) of the towing vessel prior to commencement of the tow. For tows that clearly have less air draft than the towing vessel, this requirement should be

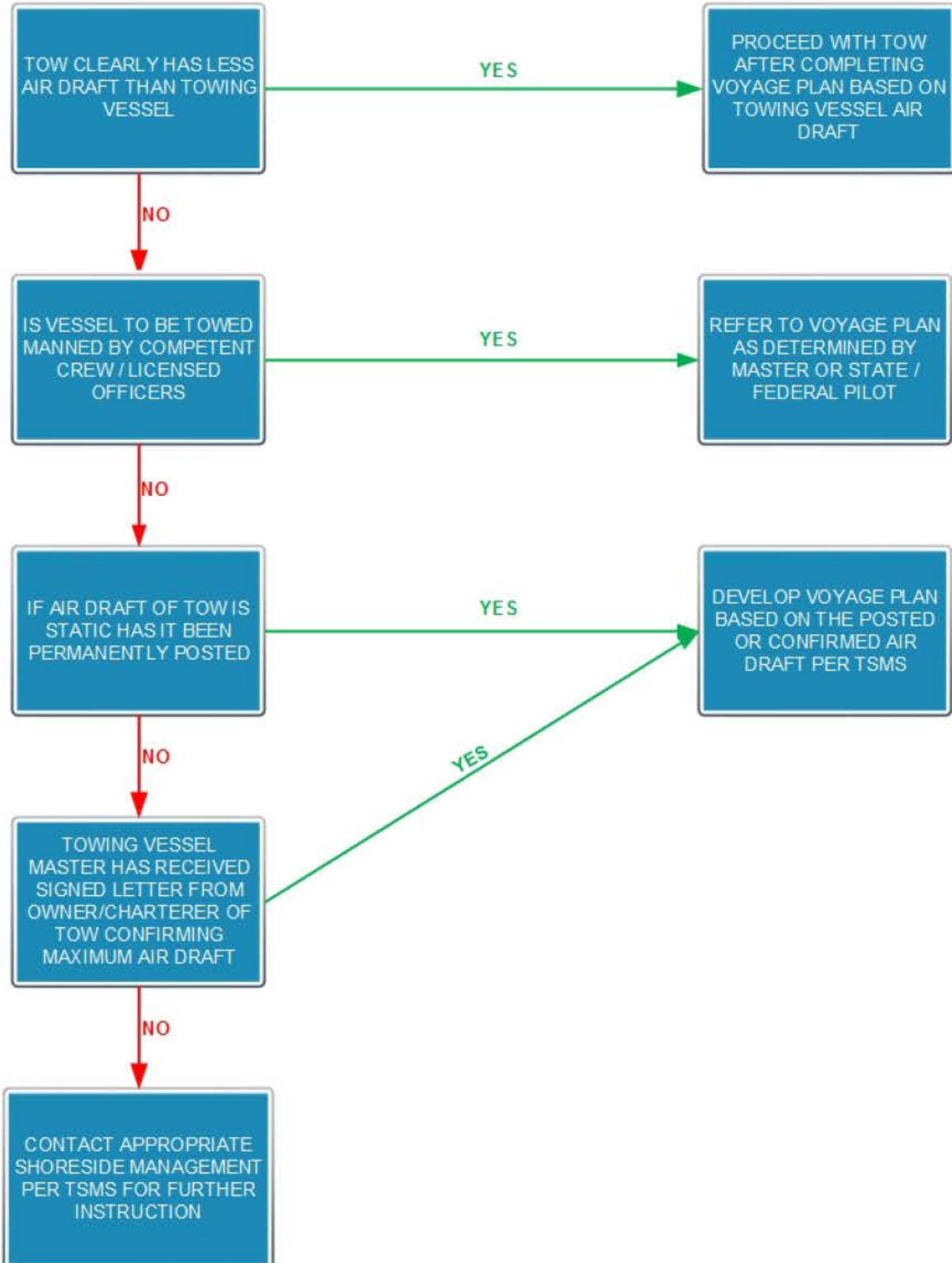
TSAC Task 13-10 Air Draft Final Report

waived. For vessels with a static maximum air draft, the air draft may be permanently posted in a conspicuous manner on board the vessel or documented in a signed letter and delivered to the towing vessel Master prior to commencing the tow.

- (1) Unmanned vessels whose air draft has the capacity to change based on adjustable booms, deck cargo, etc. must have the current maximum air draft confirmed prior to each voyage and documented in a signed letter delivered to the towing vessel Master prior to each tow. The owner/charterer should be responsible for the accuracy of all air draft calculations.
 - (2) On vessels under tow, the responsibility for voyage planning, including but not limited to, air draft shall be the responsibility of the Master and/or State or Federal Pilot of the towed vessel regardless if the tow can maneuver on its own or not.
- B. Towing vessels should be able to reasonably rely on the tow's maximum air draft as posted or provided by owners/charterers. The towing vessel should not be expected, nor be under any obligation, to independently review or confirm air draft information posted or provided by others as herein recommended. The towing vessel Master shall be deemed to have met the requirements of voyage planning by using the information posted or provided as the basis for air draft considerations and shall not be deemed at fault for overhead allisions caused by inaccurate information provided.

TOWS / BARGES

Task 13-10 Recommendation To Establish Criteria For Identification of Air Draft
For Towing Vessels and Tows



Enclosure (1) to TSAC Task 13-10 Final Report

TOWING SAFETY ADVISORY COMMITTEE (TSAC)

TASK STATEMENT

TASK #13-10

I. TASK TITLE:

Recommendation to Establish Criteria for Identification of Air Draft for Towing Vessels and Tows (Short Title: Air Draft)

II. BACKGROUND:

The Coast Guard has received a Petition for Rulemaking to require the accurate documentation and/or identification of air draft for towing vessels and tows when operating in U.S. waters. Upon receipt of this petition, the Coast Guard initiated a review of the casualty data and has found that there may be an unaddressed discrepancy between the standards for air draft documentation/identification required for that of deep draft vessels and those applied to limited tonnage vessels, such as towing vessels.

The Petitioner specifically identified TSAC to be an appropriate entity to receive and consider this matter in order to identify possible solutions to prevent future air draft related casualties. The Coast Guard agrees with the petitioner's suggestion and seeks to engage the expertise of TSAC in this regard.

III. DISCUSSION:

The Coast Guard received a Petition for Rulemaking from the National Mariner's Association (Reference 1.) the Petitioner identifies several casualties whereas limited tonnage vessels and towing units have allided with fixed structures due to an insufficient air draft clearance. Specifically, the core issue contributing, if not causing, these casualties was the lack of accurate data regarding either the towing vessel or tow's air draft information available to the vessel's Master or Mate.

In the process of voyage planning, Masters and Mates are required to plan for draft and air-gap clearances encountered during the navigation of a vessel. There are various reference sources available to the mariner regarding the height and location of bridges, power lines, pipe lines and other elevated objects placed within the navigable channel. Conversely, what is not often known to the mariner is accurate data of the vessel's air draft above the waterline, or the air draft of the tow. Mariners are then compelled to estimate the height of the towing vessel or tow to the best of their ability. These estimates are often assessed without suitable means and lack standardization. Inevitably, the inability to accurately identify air draft has resulted in numerous cases of allisions between the towing vessels or tow and fixed structures.

TSAC Task 13-10 Air Draft Final Report

To prevent such occurrences, the Coast Guard is considering action that would require the Master or Mate to be provided with accurate information by the loading facility, the owner or the managing operator of the towing vessel and tow before getting underway. It was suggested by the petitioner that the towing vessel and tow could be permanently marked with air draft requirements or could be part of a cargo manifest document.

The Coast Guard seeks to receive the input of TSAC to identify operational practices or standards to prevent future occurrence of a similar nature.

IV. TASKS:

1. Provide recommendations to the Coast Guard to identify potential solutions to prevent allisions between towing vessels and tows with structures due to the lack of accurate air draft information available to the Master or Mate.
2. Provide recommendations to the Coast Guard regarding establishing standardized processes for the documentation of air draft requirements aboard towing vessels when operating in U.S. waters.
3. Provide recommendations to the Coast Guard regarding establishing standardized practices to accurately determine and post air draft requirements of tows and cargo barges when operating in U.S. waters.

V. DUE DATE:

Provide an Interim Report to the Coast Guard no later than April 2014.

Provide all recommendations to the Coast Guard no later than September 2014.

VI. TSAC REPRESENTATIVE:

Chair: Mr. Mike Caliendo, Phone: [REDACTED], Email: [REDACTED]

Co-Chair: Mr. Matthew Lagarde, Phone: [REDACTED], E mail: [REDACTED]

VII. COAST GUARD REPRESENTATIVE:

Mr. William Abernathy, Phone [REDACTED], Email: [REDACTED]

Enclosure (2) to TSAC Draft Report Task 13-10

TSAC Representative and Sub-committee Participants

Chair

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Andrie Inc.

[REDACTED]

Co-Chair

Matthew Lagarde

AEP River Operations

[REDACTED]

TSAC Members

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Foss Maritime

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Steve Huttman

G & H Towing Company

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National Mariners Association

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Government Agencies

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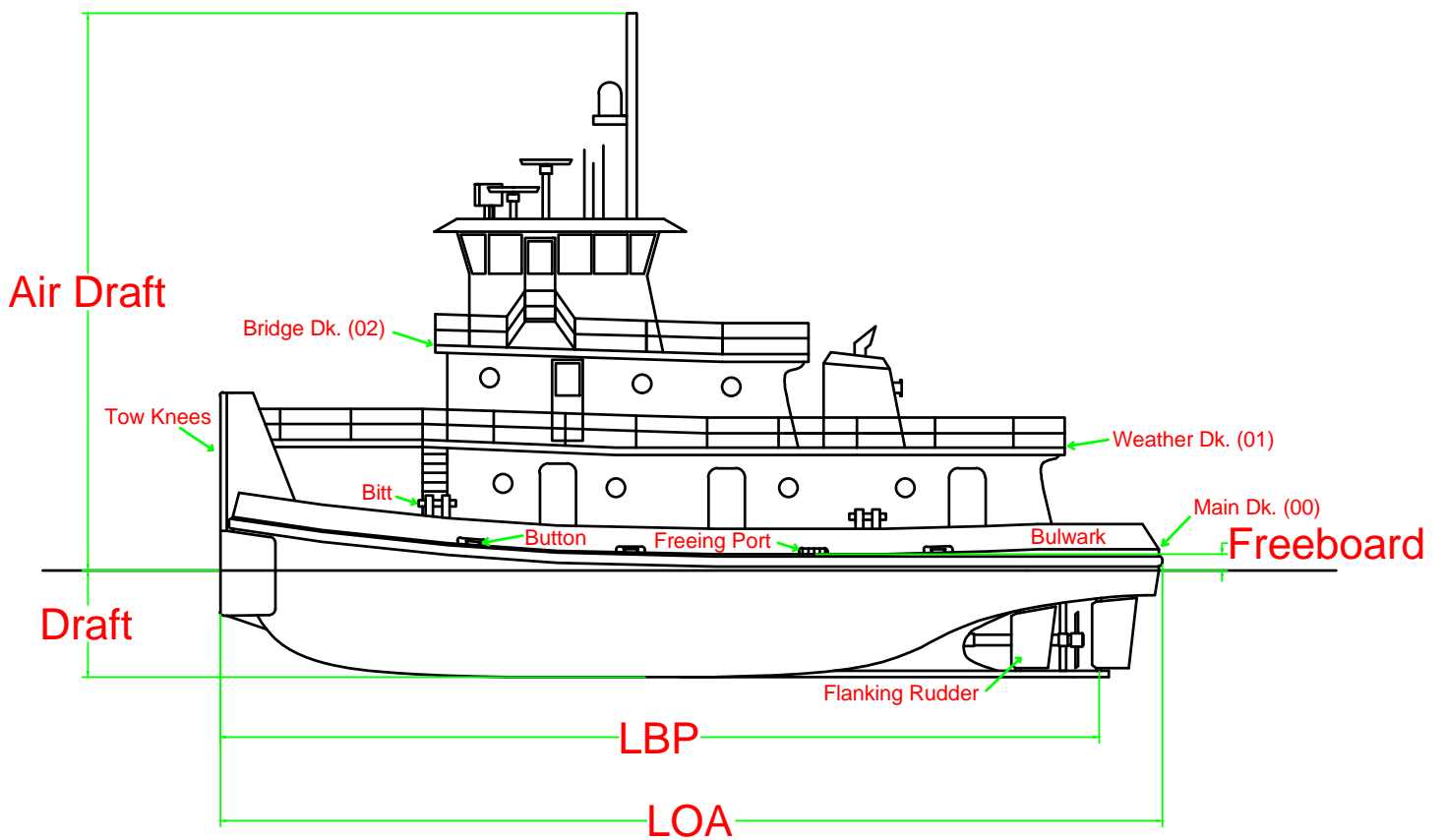
Roy Murphy

U.S. Coast Guard TVNCOE

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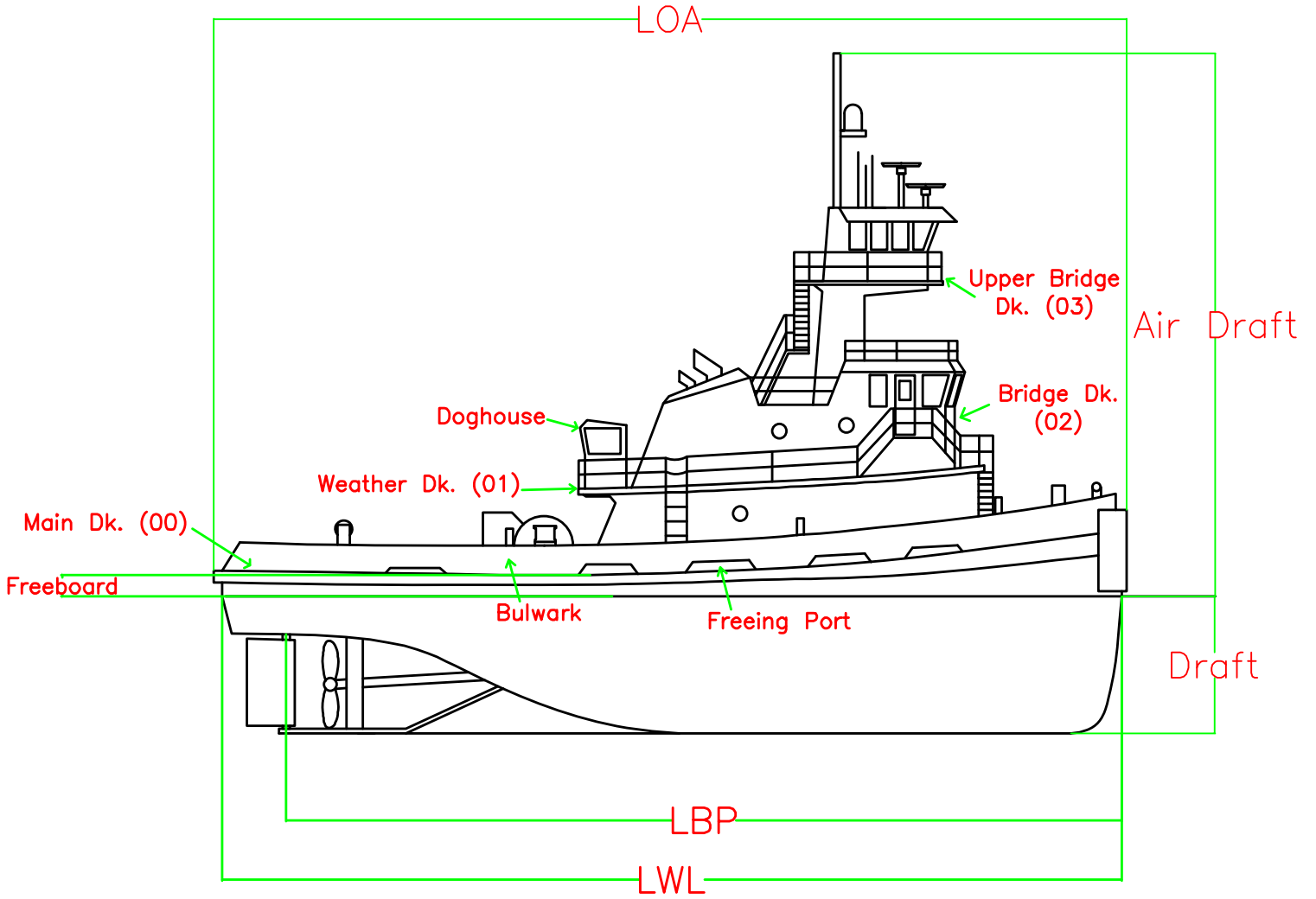
Enclosure (3) to TSAC Task 13-10 Final Report

Air Draft Diagram – Tow Boat



Enclosure (2) to TSAC Draft Report 13-10

Air Draft Diagram – Tug Boat



Enclosure (4) to TSAC Draft Report 13-10

References

Territorial Sea Baseline Definition, 33 C.F.R. 2.20

Navigation Underway Towing Vessels, 33 C.F.R. 164.78

Tests, Inspections, and Voyage Planning, 33 C.F.R. 164.80

22604 Federal Register, Vol. 68, No. 82/Tuesday, April 29, 2003 – Voyage Planning for Towing Vessels

National Mariner Association (NMA) Overhead Clearance – R-293-B, Rev. 7

National Mariner Association (NMA) Overhead Clearance – R-293-B, Rev. 8

U.S. Coast Guard Navigation Inspection Circular (NVIC 7-89) Maneuvering Information

Sub Chapter M – NPRM – 46 C.F.R. 104.635 Navigation Watch Assessment

National Transportation Safety Board – NTSB/MAR-13/02 PB 2013-106636 – Delta Mariner Allision

U.S. Coast Guard – Office of Investigation and Analysis – Air Draft Allisions CY2003 to Mar 2014, June 3, 2014

International Maritime Organization (IMO) – Guidelines for Voyage Planning, A2/Res.893, 4 FEB 2000