



National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: September 27, 2016

In reply refer to: M-16-5 through -21

Admiral Paul F. Zukunft
Commandant
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Washington, DC 20593-0001

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge the US Coast Guard (the Coast Guard) to take action on the safety recommendations being issued in this letter.

On September 13, 2016, we adopted our safety study, *An Assessment of the Effectiveness of the US Coast Guard Vessel Traffic Service System*.¹ Additional information about this topic and the resulting recommendations may be found in the study, which can be accessed at our website, <http://www.nts.gov>, under report number SS-16/01.

As a result of this safety study, we issued 21 recommendations, including 1 to the American Pilots' Association, 2 to the American Waterways Operators, 1 to the Radio Technical Commission for Maritime Services, and the following 17 recommendations to the Coast Guard:

¹ *An Assessment of the Effectiveness of the US Coast Guard Vessel Traffic Service System*, September 13, 2016, SS-16/01.

M-16-5

Revise and align Title 33 *Code of Federal Regulations* Part 161, the *Vessel Traffic Service [VTS] National Standard Operating Procedures Manual*, VTS center internal operating procedure manuals, and training curricula, as necessary, to ensure that VTS authority is consistently applied across the US Coast Guard VTS system.

M-16-6

Incorporate additional training that emphasizes realistic vessel traffic service (VTS) simulation exercises, including detecting and responding to unsafe traffic situations, in your initial training and proficiency requirements for all VTS watchstanders in the US Coast Guard VTS system.

M-16-7

Require standard on-the-job training (OJT) mentor selection criteria, including appropriate vessel traffic service operator work experience levels and instructor training requirements, for all OJT mentors.

M-16-8

Require all vessel traffic service (VTS) watch supervisors to achieve a VTS operator qualification and complete a minimum work experience requirement as an operator before serving as a supervisor.

M-16-9

Modify your *Vessel Traffic Service [VTS] National Standard Operating Procedures Manual*, VTS center internal operating procedure manuals, and training curricula, as necessary, to ensure that VTS watchstanders share a common understanding of how to identify and respond to situations requiring navigational assistance.

M-16-10

Ensure that vessel traffic service watchstanders are trained in and demonstrate proficiency with the navigation rules and regulations by passing the Coast Guard Deck Watch Officer exam, the Merchant Mariner Credentialing Rules of the Road exam, or another appropriate knowledge test.

M-16-11

Conduct or sponsor research, with input from appropriate subject matter experts, to develop more effective procedures or methods for monitoring vessel communications on the bridge-to-bridge radio frequency to identify and address developing unsafe situations in vessel traffic service areas.

M-16-12

Once the research recommended in Safety Recommendation M-16-11 is completed, revise your *Vessel Traffic Service [VTS] National Standard Operating Procedures Manual*, VTS center internal operating procedure manuals, and training curricula, as necessary.

M-16-13

Work with the American Pilots' Association and the American Waterways Operators to conduct or sponsor research to evaluate and determine the feasibility and benefits of professional mariner representation on the watchfloor at each of the US Coast Guard vessel traffic service (VTS) centers, and establish such representation at VTS centers, as appropriate, based on the findings of that research.

M-16-14

Revise your *Vessel Traffic Service [VTS] National Standard Operating Procedures Manual*, VTS center internal operating procedure manuals, training curricula, and VTS user manuals, as necessary, to ensure that VTS watchstanders use standard VTS communication phrasing and message markers from the International Maritime Organization Standard Marine Communication Phrases during radio communications with mariners when appropriate.

M-16-15

Work with the Radio Technical Commission for Maritime Services and the American Waterways Operators to modify regulations, procedures, and equipment standards, as necessary, to ensure that vessels engaged in towing operations broadcast accurate automatic identification system information regarding tow size and tow configuration as well as vessel size.

M-16-16

Develop a continuous risk assessment program to evaluate and mitigate safety risks for each vessel traffic service (VTS) area in the US Coast Guard VTS system that includes input from port and waterway stakeholders.

M-16-17

Develop a program for conducting periodic risk assessments of the entire US Coast Guard vessel traffic service system that includes input from port and waterway stakeholders to evaluate and mitigate system-wide safety risks.

M-16-18

Develop or revise, as necessary, your definitions of the activity and incident data collected by vessel traffic service (VTS) centers as necessary to ensure standardized and routine reporting across the entire US Coast Guard VTS system.

M-16-19

Establish a program to periodically analyze the activity and incident data collected by vessel traffic service (VTS) centers to assess the safety performance of each VTS center and the entire US Coast Guard VTS system.

M-16-20

Revise the vessel traffic service (VTS) monthly activity report requirements to include geographic coordinates for all incident-related data collected by the US Coast Guard VTS system.

M-16-21

Establish a program to periodically review each of the 12 vessel traffic service (VTS) areas and seek input from port and waterway stakeholders to identify areas of increased vessel conflicts or accidents that could benefit from the use of routing measures or VTS *special areas*, and establish such measures where appropriate.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred in these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendations by number. We encourage you to submit your response electronically to correspondence@ntsb.gov. If it exceeds 10 megabytes, including attachments, please e-mail us at the same address for instructions. Please do not submit both an electronic copy and a hard copy of the same response.

[Original Signed]

By: Christopher A. Hart,
Chairman