National Transportation Safety Board
Safety Research Division (RE-10)
490 L’Enfant Plaza East, SW
Washington, DC 20594
Attn.: Dr. Eric B. Emery

December 1, 2015

Subject: Comments to the National Transportation Safety Board Study on U.S.
Coast Guard Vessel Traffic Services (Safety Study Number: DCA15SS001)

In response to a request from the National Transportation Safety Board (NTSB), the
American Pilots’ Association (APA)\(^1\) is pleased to act as the national point of contact for
pilot input to the NTSB’s Safety Research Division study to assess the effectiveness of
Vessel Traffic Service (VTS) systems operated by the U.S. Coast Guard.

APA comments, provided below, are based on extensive feedback from a broad cross-
section of member pilot associations. The APA sought and obtained the input of varied
types of pilot groups (e.g., number of pilots, harbor/river/lake, etc.), from diverse ports
(e.g., weather/climate, vessel traffic and cargo types, etc.) and from every geographic
region of the country (northeast, southeast, gulf, west coast, and Great Lakes), including
from every APA pilot group operating in a waterway with a VTS system.

At the outset, it is significant to point out that APA-member pilots are responsible for safely
directing the navigation of a large majority of all large vessels moving within the VTS
areas around the country. In addition, compulsory pilots in the U.S. on top of their
shiphandling expertise and in depth local knowledge of the port for which they are licensed,

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\(^1\) The APA is the national association of the piloting profession. Virtually all of the more than 1,200 State-
licensed pilots working in the 24 U.S. coastal States, as well as all of the U.S. registered pilots operating in
the Great Lakes system under authorization by the Coast Guard, belong to APA member pilot groups.
These pilots handle well over 90 percent of large ocean-going vessels moving in international trade in U.S.
waterways. The role and official responsibility of these pilots is to protect the safety of navigation and the
marine environment in the waters for which they are licensed.
generally have extensive maritime and shipboard experience prior to becoming pilots. Before earning their pilot licenses, these men and women sailed on all manner of vessels in wide-ranging ports throughout not only the U.S., but also the world. Many of these ports, of course, have some form of VTS system in place. Based on pilots’ unique and broad maritime experience, their intimate familiarization with VTS systems, as well as their statutory responsibility for navigating and maneuvering vessels within VTS areas, we strongly encourage the NTSB to give serious consideration to the feedback and opinions of these maritime professionals.

Comments

General. During outreach to APA-members, it was established that, as a general matter, pilots are satisfied with Coast Guard VTS and consider it to be one of many tools that, if used properly by mariners, can contribute to safe and effective navigation. While continual improvement should be the goal for any operation, the vast majority of pilots believe strongly that, at present, Coast Guard VTS systems are not in need of significant changes or modifications.

Pilots also conveyed the consistent view that in order to be most effective, a VTS must be port specific and designed to match the particular circumstances of each waterway system and to meet the unique needs of the users of that system. Each location has its own technology requirements, mix of vessel traffic, special navigation demands, and other factors that should drive a VTS operation and its interaction with the maritime community.

During APA’s engagement with member pilot groups during the process of gathering input for this study, the most frequently cited examples of the benefits of VTS were related to the provision of information to VTS users. Specifically, pilots singled out the value of information provided to VTS users about:

- vessel departures, arrivals, and general intentions, particularly vessels not subject to compulsory pilotage
- Coast Guard-established security and safety zones
- anchorage availability / usage
- Coast Guard-regulated marine events in the VTS area
- unusual port conditions (e.g., security concerns, vessel incidents, closures, etc.)

VTS Role. Pilots were unanimous in their view that it is not only inappropriate and unnecessary for VTS to attempt to exert “positive control” (e.g., giving specific courses and speeds for vessels to maintain, making passing arrangements between vessels, etc.) over large commercial vessels, but it is also unsafe. While pilots have long been leaders and innovators when it comes to navigation safety technology, technological advancements do not change the basic approach to shiphandling or the navigation safety paradigm within confined or restricted waters. Regardless of what navigation equipment vessels may carry, the sophistication of a VTS center’s technology, or the number/resolution of sensors available to a VTS, a watchstander in a windowless room is simply not in a position to make “just in time” maneuvering decisions and commands for underway vessels.
An effective VTS must be predominantly advisory and allow the trained mariner on the bridge of a ship to exercise informed professional judgment based upon consideration of all factors, including winds, currents, fluid dynamics, and interactive forces between vessels and between a vessel and the waterway bottom.

APA-member pilots’ associations are familiar with, and generally supportive of, the Coast Guard’s concept of a “continuum” of steps in carrying out VTS functions. Under this “continuum” approach, the role of a VTS is to (1) monitor vessel traffic in the area; (2) inform VTS users of relevant information; (3) when necessary, recommend VTS users taken certain actions to prevent dangerous situations from occurring; and (4) on rare occasions (or perhaps during heightened security conditions), direct the actions of VTS users. It is important to stress that with respect to this last step, any VTS direction should be in the form of outcomes, not specific courses or speeds. For example, helpful and appropriate direction should be in the form of a general objective, such as staying out of a certain area, proceeding to a particular anchorage, or passing no closer than a certain distance from a facility.

**VTS equipment and staffing.** Those pilots’ associations with VTSs in their ports are generally of the view that the VTS centers are adequately equipped and staffed. Some associations are of the opinion that the radar coverage (both in terms of geography and quality) for VTS areas could be improved.

As far as VTS staffing, there were two consistent themes conveyed by local pilot groups. Pilots appreciate the fact the VTS commanding officers/officers-in-charge are consistently willing and readily available to meet with the pilots to discuss VTS operations and how these operations might be improved. A number of pilot groups are, however, concerned with the frequent turnover of active duty military VTS watchstanders and the “information gaps” this has the potential to create.

**Communications.** The VTS must use communication methods and means that provide the necessary information to the mariner without being intrusive or distracting. Some pilot groups that operate in a VTS area are of the view that, at times, VTS provides too much information to vessels. While most pilots do not believe this excess information presents a distraction or negatively impacts navigational safety, the information is nonetheless redundant and frequently unnecessary. As one APA-member pilot group commented, “On busy waterways, there should be a VTS focus on providing smarter information to the mariner, not just more information.”

Several pilot groups indicated that some communication requirements could be streamlined. While technology advancements certainly do not eliminate the need for VTS services in most ports, some basic information between ship and VTS and ship might be able to be communicated automatically (i.e., via AIS). Each Coast Guard VTS should engage local VTS users to identify communications and reporting requirements that could potentially be eliminated or be carried out through automated reporting.
Other federal navigation safety priorities. As noted above, the vast majority of pilots are of the opinion that no major changes to Coast Guard VTS systems are warranted. In fact, many pilot groups stressed that of the areas in which the federal government supports safe maritime navigation, VTS is among the areas in need of the least attention. Pilots are generally of the view that the federal government should be much more focused on ensuring that sufficient funding and resources are devoted to other more critical navigation safety systems such as National Differential Global Positioning System (NDGPS), a back-up to GPS (such as eLORAN), dredging waterways to more safely accommodate ever growing ships, and a robust physical aids to navigation constellation.

Conclusion

The APA and its member pilots appreciate the opportunity to offer constructive comments on the NTSB’s study of the effectiveness of Coast Guard VTS systems. We thank the Board and the Safety Research Division for taking the views of professional maritime pilots seriously as this study moves forward and eventual recommendations are offered. We look forward to continuing to work cooperatively with NTSB on this and other initiatives as we seek to advance our shared marine navigation safety objectives.