



THE VTS TECH REVOLUTION



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The first meaningful IMO guideline on Vessel Traffic Services (VTS), IMO Resolution A.587(14) was issued 33 years ago in November 1985. This was updated in November 1997 to the current IMO Resolution A.857(20). In the 22 years since, there has been a revolution in technology, and VTS has matured into the professional and formally certificated organisation that we see today. However, changes are in motion that should see subtle modifications dispel common misconceptions that have developed over the years.

The International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) coordinated a submission calling for the current IMO resolution to be reviewed and updated. The IMO's Maritime Safety Committee (MSC) approved this submission at its 99th session in May 2018 and passed it to the sub-committee on Navigation, Communications and Search and Rescue (NCSR) for action. This review is progressing

well and the expectation is that a revised IMO Resolution providing a new Guideline on Vessel Traffic Services should be approved in November 2021 with implementation shortly thereafter. A significant proportion of the review and update should be relatively self-evident and uncontroversial, and will simply bring the resolution into line with current developments and practices. There are, however, two areas where we now have the opportunity to consider more radical solutions to overcome existing confusion and misinterpretation: the Types of Service and the concept of results-oriented instructions.

Types of Service have long been a source of debate. Thirty-three years ago, the terms Information Service (INS), Traffic Organisation Service (TOS) and Navigational Assistance Service (NAS) were first introduced in the initial IMO Guideline on VTS and the current resolution implies that it is up to ports to declare which of these services it provides and that the

level of provision is optional. As a result, a number of VTSs only declare INS and a large proportion do not declare NAS. Looking at this from a more practical standpoint, a VTS is just one of many mitigation measures available to reduce risk to as low as reasonably practicable. It is, however, one that involves a very significant investment in infrastructure, staff and training.

It is inconceivable that a port would invest in a VTS to mitigate risk and then use it only for providing information, with no role in organising vessel traffic. If a VTS is implemented to reduce risk, it is undoubtedly going to organise traffic. Equally, a VTS operator is not going to stand by and do nothing if a vessel is standing into danger; an operator would intervene and all VTS Operators are trained to do so. Despite clarification issued in an IALA Guideline on Types of Service in 2012, confusion over service provision continues. The current resolution also differentiates

between coastal and port VTS, indicating that a coastal VTS would normally only provide INS. In practice, Coastal VTS operators will, and do, intervene if a vessel is standing into danger, and will also attempt to manage traffic within the legal basis of the coastal VTS. Therefore, the distinction between a port and coastal VTS is misleading and completely unnecessary.

From the mariners' perspective, the subtleties of the different types of service are unnecessarily complex. The specific types of service provided will probably not even have registered among the host of other information that has to be researched before entering port or passing through a coastal VTS. Having established that the port has a VTS, the Master might reasonably expect to be provided with the following:

- Basic factual information relating to the vessel's arrival;
- Movements through the approach channel, the embarkation of the pilot and the passage into port will be deconflicted with other vessels;
- The entry into port will be managed and organised;
- Should the vessel start heading towards the wrong pilot station or towards a navigational danger or shallow water, the VTS would warn and advise.
- A survey by the Nautical Institute identified that many mariners don't recognise that there are three distinct types of VTS service nor is there any practical reason for them to do so.

The draft of the new resolution seeks to remove this confusion by deleting all reference to Types of Service and any suggestion that such provision is optional. Either it is a VTS or it is not a VTS; it is only the high-level functions of a VTS that will be set out in the new document and this should improve world-wide harmonisation of services. This approach has recently been clarified by IALA with the issue of guidance to ports where risk assessment indicates that a VTS is not necessary but recognises that information will still need to be communicated to ships using the port. In these circumstances, qualified operators are not required and the guidance advises that they identify themselves as a "Local Port Service" to avoid any suggestion to mariners that VTS capabilities, such as traffic management or oversight to provide navigational warnings or advice, are provided.

Nothing in the current resolution has caused so much confusion to VTS operators and trainers than the statement that 'instructions should be result-oriented only'. No other term has been quoted so widely - and interpreted so differently - by those seeking to justify their own particular



ends. The intention was simply to ensure that the Master's ultimate responsibility for all aspects of the operation of the ship was respected. As long as this is clearly understood by both VTS operators and Masters alike, there is absolutely no reason why advice cannot be given as long as the advisory intent is clear. The new IMO resolution will focus on the ultimate responsibility of the Master, leaving subordinate documentation to provide details on communications procedures. Standard Marine Communications Procedures (SMCP) is deficient with regard to VTS communications procedures and work is already in progress within IALA to develop guidance on communications procedures taking note of air-traffic procedures as examples of best practice; this should help to improve world-wide harmonisation of VTS communications.

The lack of simplex channels allocated to port operations is another area where changes to VHF channel allocations reflected in the ITU Radio Regulations 2016 offer potential benefits to VTS. These changes were largely driven by the need to provide for digital data in support of the e-Navigation initiative. Two simplex channels, 87 and 88, had previously been formed and allocated to port operations with the splitting of two duplex circuits to provide for AIS but no mandatory carriage requirement was promulgated. The latest Radio Regulations identify two further duplex circuits that have been split to provide further channels for AIS and these also provide two simplex channels, 1027 and 1028, for port operations.

The IMO requires communications equipment to be compliant for all changes by the by the first survey after 1 Jan 2024. By 2025 there should be four more channels available that are dedicated to port operations. The 2016 Radio Regulations also provide for four existing duplex channels, 78, 19, 79 and 20, to be split into eight simplex channels, all with four-digit designators, with equipment required to be compliant by 2025. It is for national

administrations to decide whether to use these channels in the duplex or simplex mode and selection of the appropriate channel number will ensure that ships automatically select the appropriate mode. In the EU, however, for reasons that are not entirely clear, it has been decided that only the duplex mode will be used. Consequently, within the EU four, and outside the EU twelve, additional simplex channels will be available for VTS use from about 2025; this should provide welcome relief to problems of mutual interference between adjacent VTSs both nationally and internationally. Implementation of all these changes may still be a few years off but they offer the prospect of some significant improvements in VTS operations.

ABOUT THE AUTHOR

Commodore Barry Goldman had a 36-year career in the Royal Navy and was appointed CBE in 2001 before joining the Port of London as VTS Manager where he remained for over a decade. He assumed the duties of Harbour Master for the Ports of Jersey in 2012 before retiring in 2014. Barry is currently IHMA's representative at IALA.

ABOUT THE ORGANIZATION

The International Harbour Masters' Association is the professional body for those with responsibility for the safe, secure, efficient and environmentally sound conduct of marine operations in port waters. With members in more than 50 countries, the Association brings together all those who hold a managerial position in aspects of the control of marine operations within a port.

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