

Seaways

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VTS – Let's seize the moment!

IMO has agreed the need to update the current resolution providing guidelines for Vessel Traffic Services, offering the opportunity for improvement and rationalisation.

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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 21 years since, there has been a revolution in technology, and VTS has matured into the professional and formally certificated organisation that we see today. It is therefore unsurprising that there are a number of areas where the current resolution requires updating.

The International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) recently coordinated a submission calling for the current IMO resolution to be reviewed and updated [see column opposite]. IMO's Maritime Safety Committee (MSC) approved this resolution at its 99th session in May this year and passed it to the sub-committee on Navigation, Communications and Search and Rescue (NCSR) for action by the end of 2020.

VTS has matured enormously over the last two decades and this review will allow a thorough appraisal of the current document and a suitable period of time for the involvement of a wide range of stakeholders. It offers an important opportunity to correct areas where experience indicates that improvement and further development is now appropriate.

Areas of contention

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. These are the Types of Service and the concept of results-oriented instructions.

The June edition of *The Navigator* had a timely focus on Vessel Traffic Services. However, it also clearly highlighted these two areas of confusion. Thirty-three years since the terms Information Service (INS), Traffic Organisation Service (TOS) and Navigational Assistance Service (NAS) were first introduced in the initial IMO Guideline on VTS, David Patraiko's introduction included the worrying statement 'Many mariners don't recognise that there are three distinct types of VTS service'.

The concept that VTS 'instructions' to vessels should be 'results-oriented' was introduced 21 years ago in the current version of the Resolution. Differing interpretations of what constitutes 'result-oriented' and why it is linked only to 'instructions' is widespread even among VTS experts and training establishments. These differing interpretations were even reflected in the various articles on the subject in *The Navigator*.

These concerns were also reflected in my article 'Navigational assistance in VTS – service or procedure?' (*Seaways*, March 2016). The feedback received was enormously helpful in the development of the recently approved submission to MSC. My article proposed a change from providing NAS as a 'service' to providing navigational assistance as a procedure. It has been pleasing to find that this initiative has not just gained traction within IALA but is now being developed further.

Types of Service – the problem

Types of Service have long been a source of debate. In an attempt to clarify the resolution, IALA issued Guideline 1089 on the Provision of VTS Services. This set out the basic principles that a VTS that is not organising vessel traffic should provide INS and NAS, while a VTS that does organise vessel traffic should provide INS, NAS and also TOS.

Considering this IALA guidance in more practical terms, the decision to invest in a VTS will have been the result of an overall port risk assessment. A VTS is just one of many mitigation measures available to reduce risk to as low as reasonably possible. It is, however, one that involves a very significant investment in infrastructure, staff and training. In practice, 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. Thus, if a VTS is implemented to reduce risk, it is undoubtedly going to organise traffic and all three types of service will inevitably always be required.

Despite the IALA guidance, there are a number of VTSs that do not declare the provision of a NAS and a smaller, but significant number of VTSs that are clearly organising traffic yet only declare an INS. Nevertheless, VTS operators in these areas would almost certainly intervene if a vessel is seen to be standing into danger and are indeed trained to do so. They are also likely to attempt to organise traffic within the meaning of the term even when no TOS is declared.

It is equally confusing that the resolution differentiates between coastal and port VTS, indicating that a coastal VTS would normally only provide INS. In practice, VTS operators in a coastal VTS 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. Thus, the distinction between a port and coastal VTS is misleading, inaccurate and completely unnecessary.

Types of Service – a solution

From the perspective of the mariner, 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 all of 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.

The current difficulties lie with the word 'service', which gives the misleading impression that some of these things are somehow optional. Further, the current need to declare the 'levels' of service individually creates a focus on liability and leads to the incorrect assumption that, by not declaring a service, the port is absolved of liability.

Remove the word 'Service' after 'Information', 'Traffic Organisation' and 'Navigational Assistance' and remove the capital letters, and all starts to become clear. The provision of information, the organisation of vessel traffic and the provision of navigational assistance need to be identified as key functions of any port or coastal Vessel Traffic Service. This would also help to dispel the misconception that navigational assistance is an optional 'service' that is synonymous with shore based pilotage. While all VTS operators should be trained as part of their generic V103/1 basic operator training to recognise when a vessel is standing into danger and to issue appropriate warnings and advice to contribute to getting it to a position of safety; this is not shore based pilotage.

The new Resolution simply needs to identify *all* of the three services described in the current Resolution as functions required of *any* VTS, together with a stated need for the development of common and globally harmonised procedures to achieve them.

Result oriented instructions – the problem

The establishment of common and globally harmonised procedures is also the solution to the confusion over the statement that 'instructions should be result-oriented only'. No other term in this Resolution has been quoted so widely, and interpreted so differently, by those seeking to justify their own particular ends – and none has caused so much confusion to VTS operators and trainers alike.

Result oriented instructions – a solution

The original statement in the 1985 version of the Resolution that VTS need to respect the Master's ultimate responsibility is all that is needed. As long as this is clearly understood by both VTS operators and Masters, there is absolutely no reason why advice cannot be given. There is no need to agonise over whether VTS should give courses to steer or courses to make good as long as the advisory intent is clear and there is no possibility of such advice being misinterpreted as a conning order.

The military has long used the terms 'come left/right' and 'increase/decrease' to direct the officer of the watch to give appropriate wheel and engine orders – but only if it is safe to do so. Prefixed with an indication that this is in the form of advice or a recommendation, this might usefully be adopted for VTS use.

The current resolution gives each individual VTS responsibility for establishing its own operating

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Proposal for a new output for a revision of Resolution A.857(20) on Guidelines for Vessel Traffic Services

Submitted by Australia, China, India, Norway, the Republic of Korea, Singapore, South Africa, Turkey, International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) International Harbour Masters' Association (IHMA) International Federation of Shipmasters' Associations (IFSMA) International Association of Institutes of Navigation (IAIN) and The Nautical Institute (NI)

6. Since the entry into force of the Resolution 20 years ago, various organizational, operational and technological developments have taken place globally in a rapidly changing maritime domain. This has rendered important parts of the Resolution open to differing interpretation, resulting in debate amongst stakeholders and a reduced ability to implement the Guidelines for VTS in a consistent and harmonised manner.

Commodore Goldman's career has included the role of helicopter controller and lifeline from ship to a very basic single engine Wasp helicopter with just a pilot and no observer or radar, the responsibility for piloting formations of warships into ports not previously visited and 10 years running one of the UK's most complex VTSs, including liaison visits to NATS Swanwick.

procedures, but there is a critical need to develop and set internationally recognised procedures. In developing consistent procedures, we need to stop pussy-footing around with the coded language, currently in common use, designed to acknowledge the master's overall responsibility in each and every radio transmission.

Developing procedures – air/sea comparisons

The concept is no different from the aircraft pilot's ultimate responsibility for the aircraft. We need to emulate the air world where this is perfectly well understood and is, therefore, left unsaid, leaving Air Traffic Control (ATC) free to develop crisp, concise and unambiguous procedures that are consistent and internationally recognised.

With a background career in both basic air traffic control and VTS (see box), I have been advocating for some years the need for VTS to learn from ATC. Rather than becoming preoccupied with the differences, we need to focus on the similarities and how we might draw on them to improve the way VTS is delivered. There are a number of relevant International Civil Aviation Organisation (ICAO) and Civil Aviation Authority (CAA) documents. The CAA's interactive CAP 413 Supplement (ATC/Aircraft) and CAP 413 Supplement 2 (ATC/Ground Staff Drivers), which can be accessed online, are just two examples giving an interesting insight to ATC procedures.

While the current Resolution mentions the Standard Maritime Communication Phrases (SMCP), it compares very unfavourably as a standard for operational procedures for VTS use. The recently issued IALA Guideline G1132 - VTS VHF Voice Communication was quoted extensively in *The Navigator* and sets out the principles of voice communication; the next, but much more demanding, step is to develop these into harmonised and internationally recognised procedures.

Revising the Resolution

Whether subconsciously or not, VTS has been made to appear more complicated than it needs to be. Separating out functions that any VTS should reasonably be expected to provide into Services and indicating that these might be optional has proved to be misleading and confuses theory with practical application. This must be corrected in the next issue of the Resolution on Guidelines for Vessel Traffic Services. The update also needs to establish high level requirements and avoid bland statements and solutions that are open to varying interpretation. This will enable the development of more detailed and much-needed guidance on globally harmonised procedures, modelled much more closely on Air Traffic Control.

The International Harbour Masters' Association (IHMA) will continue its involvement through IALA and IMO in the review and update of the current IMO Resolution A.857(20). Any comments on this article would be welcome, and should be sent to bg.vts@btinternet.com