IALA COUNCIL   **December 9 - 13, 2013**
56ᵗʰ Session   **Goa**
                                                                       India

Agenda item 9 – IALA TECHNICAL ACTIVITIES

9.5   VTS

9.5.1   Documents submitted for approval

9.5.1-3 Draft Recommendation V-120

on Vessel Traffic Services in Inland Waters

Note by the Secretariat

1   SUMMARY

The Recommendation needed revision to align with the 2012 IALA VTS Manual, edition 5, and other Guidelines and Recommendations on VTS.

2   ACTION REQUESTED

The Council is requested to Approve the draft Guideline

International Association of Marine Aids to Navigation and Lighthouse Authorities

IALA

AISM Association Internationale de Signalisation Maritime

IALA Recommendation
V-120

on

Vessel Traffic Services in Inland Waters

Edition 2

December 2013
Edition 1 / June 2001

Document Revisions

Revisions to the IALA Document are to be noted in the table prior to the issue of a revised document.

Date	Page / Section Revised	Requirement for Revision
July 2005	Entire document reformatted	Reformatting to meet IALA documentation standards; Also a preliminary review in conjunction with members of PIANC.
September 2013	Review entire document	Review entire Guideline and updating to align with • 2012 IALA Vessel Traffic Services Manual, Edition 5, and • reviewed relevant Guidelines and Recommendations on VTS

IALA Recommendation on Vessel Traffic Services in Inland Waters
(Recommendation V-120)

THE COUNCIL:

RECALLING the function of IALA with respect to Safety of Navigation, the efficiency of maritime transport and the protection of the environment;

NOTING Regulation V/12 of the 1974 SOLAS Convention, as amended, on Vessel Traffic Services and the associated IMO Assembly Resolution A. 857(20) on Guidelines for Vessel Traffic Services;

NOTING ALSO the responsibility of Governments for the safety of navigation, the efficiency of shipping and protection of the environment in inland waters under their jurisdiction and that a number of Governments have requested guidance on vessel traffic services in inland waters to address these issues;

BEING AWARE that Vessel Traffic Services have been provided in various areas and have made a valuable contribution to the safety of navigation and improved the efficiency of vessel traffic flows and the protection of the environment;

BEING AWARE ALSO of the use of vessel traffic services in inland waters and the increasing participation in these vessel traffic services of vessels to which the SOLAS Convention does not apply; and, for which the IMO guidelines are not entirely suitable;

BEING AWARE FURTHER that, as in the maritime domain, organizations and users participating in inland waterway transport are faced with on-going technical, infrastructural and economic developments, which may challenge VTS authorities to adapt the services in order to meet the changing needs and requirements for VTS

RECOGNISING that:

- In general the use of differing vessel traffic services in inland waters may cause confusion to masters of all vessels moving from one vessel traffic service area to another; and,

- In particular that the use of vessel traffic services in inland waters, which differ from vessel traffic services in coastal, port approach and port areas, may cause additional confusion to masters of maritime vessels when navigating in those inland waters;

RECOGNISING ALSO that the safety and efficiency of vessel traffic and the protection of the environment would be improved if the establishment and operation of vessel traffic services in inland waters was harmonised through international guidelines that are, as far as practicable, consistent with the IMO guidelines.

ADOPTS the Guidelines and Criteria for Vessel Traffic Services in Inland Waters as set out in the Annex of this Recommendation; and,

RECOMMENDS that:

1   Administrations, Competent Authorities and VTS Authorities to take these guidelines into account when developing, implementing and operating vessel traffic services in inland waters where the application of the Guidelines given in IMO Resolution A.857 (20) is not considered appropriate;

2   Masters of vessels navigating in inland waters where vessel traffic services are provided are encouraged to make use of such services.

Table of Contents

Annex

(Guideline on Vessel Traffic Services in Inland Waters)

3   INTRODUCTION

These Guidelines are compatible with SOLAS regulation V/12 and IMO Assembly Resolution A. 857(20) and describe the principles and general operational provisions for the operation of a vessel traffic service (VTS) and participating vessels in inland waters.

These Guidelines are based substantially on IMO Resolution A. 857(20), with changes introduced only to those elements needed to make them suitable for application in inland waters.

Administrations should take account of these Guidelines when planning, implementing and operating vessel traffic services in inland waters.

These Guidelines should be used in conjunction with the IALA VTS Manual and other IALA Recommendations on VTS. However a careful assessment needs to be made to determine the elements that are appropriate and applicable for use in VTS in inland waters.

4   TERMS AND CLARIFICATIONS

For the purposes of this Recommendation the following terms are used in connection with Vessel Traffic Services in inland waters:

Inland waters - are rivers, lakes or other stretches of water, whether linked to the sea or landlocked, which by natural or man-made features are suitable for navigation.

Vessel - the term vessel refers to all seagoing vessels and inland vessels.

Master - the generic term "Master" is used for the indication of the person in command on both seagoing and inland vessels.

For further guidance and purposes of this Recommendation a list of definitions and clarifications related to Vessel Traffic Services is provided in APPENDIX 1.

5   GENERAL CONSIDERATIONS FOR VESSEL TRAFFIC SERVICES IN INLAND WATERS

The purpose of VTS in inland waters is to improve the safety and efficiency of navigation, safety of life and the protection of the environment and/or the adjoining waterway banks, nearby residents and enterprises from possible adverse effects of vessel traffic.

A part of the objectives of a VTS in inland waters may include the support of efficient transport and the collection of data and information that, as a consequence, may be required.

The benefits of implementing a VTS in inland waters are that it allows identification and monitoring of vessels, the strategic, tactical and operational planning of vessel movements, managing traffic by allocation of space, as well as the provision of navigational information and assistance.

The efficiency of any VTS will depend on the reliability and continuity of communications and on the ability to provide accurate and unambiguous information.

VTS may also assist in the prevention of pollution and support emergency response (including anti-pollution operations) in co-operation with authorities responsible for such activities.

The quality of accident prevention measures and responses may depend on the competences of the VTS staff, the system's capability for detecting a developing dangerous situation and on the ability to give timely warning of such dangers to the environment and shipping.

The precise functions of any VTS will depend upon the particular circumstances in the VTS area and the volume and character of vessel traffic. When a VTS is established, the existence of and the functions carried out by the VTS will need to be promulgated to all relevant stakeholders.

The International Maritime Organization (IMO) has adopted guidelines on VTS, IMO Resolution A.857(20), which should be used when planning and implementing a VTS. However, these guidelines only address

- VTS in coastal or harbour areas or a combination of both coastal and port / harbour areas;
- seagoing vessels that have to comply with the SOLAS Convention.

The IMO Resolution A.857(20) is not always entirely suitable for inland waters and the movement of inland vessels. VTS may also be planned for and implemented to provide such services for inland waters. To achieve the objectives for VTS in inland waters, participation of all vessels should be allowed as far as possible.

For instance, for the interaction between VTS and vessels there may be a difference for mandatory equipment (e.g. communications) for inland vessels and the equipment for vessels as prescribed in SOLAS Chapter IV.

Vessels cross the borders between VTS areas, which could happen between harbour areas and inland waters. The operation of VTS in the adjacent areas should be uniform, where appropriate, in order to avoid confusion to the masters of inland vessels as well as to masters of seagoing vessels when crossing VTS areas of different types.

Consequently, adverse effects on achieving the objectives of the VTS might arise. Therefore there is a need to harmonise inland VTS through international guidelines worldwide.

International guidelines on VTS in inland waters should, therefore, follow the IMO guidelines on VTS as closely as possible. This Recommendation should be used whenever the application of the IMO guidelines on VTS is considered to be inappropriate.

6 RESPONSIBILITY FOR PLANNING AND IMPLEMENTING A VTS

6.1 Planning a VTS

It is the responsibility of the Contracting Government or Governments or Competent Authorities to plan and implement Vessel Traffic Services or amendments to such services.

Local needs for the monitoring and management of vessel traffic should be carefully investigated and determined by analysing casualties, assessing risks, infrastructure developments and consulting local user groups.

Where the risks are considered addressable by a VTS, or in cases where monitoring of the traffic and interaction between Authority and participating vessels is considered to be essential, the implementation of a VTS should be considered.

A VTS is particularly appropriate in an area that may include any of the following:

- high traffic density;
- areas where seagoing vessels and inland vessels meet;
- traffic carrying hazardous cargoes;
- conflicting and complex navigation patterns;
- difficult hydrographical, hydrological and meteorological elements;
- shifting shoals and other local hazards;
- environmental considerations;
- interference by vessel traffic with other waterborne activities;
- number of casualties in an area during a specified period;

- existing or planned vessel traffic services in adjacent waters and the need for co-operation between neighbouring States, if appropriate;
- narrow channels, port configuration, bridges, locks, bends and similar areas where the progress of vessels may be restricted;
- existing or foreseeable changes in the traffic pattern in the area.

In further deciding upon the establishment of a VTS, Contracting Government(s) or Competent Authorities should also consider the responsibilities - set out in section 7.1 of this Recommendation - and the availability of the requisite technology and expertise.

6.2   Establishment of VTS Areas

A VTS area can be divided into sectors, but these should be as few as possible. Area and sector boundaries should preferably not be located where vessels normally alter course or manoeuvre or where they are approaching areas of convergence, route junctions or where there is crossing traffic. The boundaries should be indicated in the appropriate publications.

7   RESPONSIBILITIES AND LIABILITY

7.1   Responsibilities

Where two or more Governments or Competent Authorities have a common interest in establishing a VTS in a particular area, they should develop a co-ordinated Vessel Traffic Service on the basis of an agreement between them.

Where a co-ordinated VTS is established, it should have uniform procedures and operations, as well as harmonized processes for the collection, distribution and exchange of relevant data and information to shipping and between VTS centres.

In planning and establishing a VTS, the Contracting Government(s) or the Competent Authorities should:

- ensure that a legal basis for the operation of a VTS is provided for and that the VTS is operated in accordance with national, regional and international law and regulations;
- ensure that objectives for the VTS are set;
- ensure that a VTS authority is appointed and legally empowered and that the service area is delineated and formally declared as a VTS area; where appropriate, this area may be subdivided in sub-areas or sectors;
- determine the type and levels of services to be provided, having regard to the objectives of the VTS;
- establish appropriate standards for supporting equipment; the services to be provided may be performed on different levels;
- ensure that the VTS Authority is provided with the equipment and facilities necessary to effectively accomplish the objectives of the VTS;
- ensure that the VTS Authority is provided with sufficient staff, appropriately qualified, suitably trained and capable of performing the tasks required, taking into consideration the type and levels of services to be provided;
- establish appropriate qualifications and training requirements for VTS operators, taking into consideration the type and level of services to be provided;
- ensure that provisions for the training of VTS operators are available;
- instruct the VTS Authority to operate the VTS in accordance with relevant resolutions, guidelines and recommendations;
- establish a policy with respect to violations of VTS regulatory requirements and ensure that this policy is consistent with national and regional law. This policy should consider the consequences of technical failures and due consideration should be given to extraordinary circumstances that result.

7.2   Liability

The liability element of an incident that involves the provision of a service by a VTS is an important consideration, which can only be decided on a case-by-case basis, in accordance with the principles of the international regulations for the prevention of collision at sea (COLREGS) and/or national law, where applicable and appropriate.

Consequently, a VTS authority should take into account the various legal implications in the event of a shipping incident where both the VTS Authority and VTS operators may have failed to carry out their duty competently.

8   OPERATING A VTS

8.1   Conditions

In operating a VTS the VTS Authority should:

- ensure that the objectives of the VTS are met;
- ensure that the standards set by the Competent Authority for levels of services and operator's qualifications and equipment are met;
- ensure that the VTS is operated in conformity with relevant resolutions, guidelines and recommendations;
- ensure that the VTS operations are harmonised with ship reporting and routeing measures, aids to navigation, pilotage and port operations, as well as data and information management, where applicable and appropriate;
- consider, where applicable and appropriate, the participation of a pilot, both as a user and provider of information;
- ensure that a continuous listening watch on the designated communication system is kept and that all published services are available during the operational hours of the VTS, where applicable and appropriate;
- ensure that operating procedures for routine and emergency situations are established;
- in a timely manner, provide the master with full details of the requirements to be met and the procedures to be followed in the VTS area. This information should include but not be limited to the following:
  - ✓ the categories of vessels required or expected to participate;
  - ✓ radio frequencies or communication methods to be used for reporting;
  - ✓ areas of applicability;
  - ✓ the times and geographical positions for submitting reports;
  - ✓ the format and content of the required reports;
  - ✓ the VTS Authority responsible for the operation of the services;
  - ✓ the types and level of services provided by the VTS centre(s) in the area;
  - ✓ any additional information and services to be provided to participating vessels.

This information should be published in the appropriate nautical publications and it is recommended that it should be published in the 'World VTS Guide'.

8.2   VTS services

The following guidance concerning the services that are rendered by a VTS-centre should be taken into account.

8.2.1   Information Service (INS)

An Information Service (INS) provides relevant information at appropriate or fixed times and intervals or when deemed necessary by the VTS or at the request of a vessel and may include, for example: reports on the position, identity and intentions of other traffic; waterway conditions; weather; hazards; or any other factors that may influence the vessel's transit.

An INS provides relevant information at appropriate times and on request for the promulgated VTS area.

An Information Service:

- involves maintaining a traffic image and allows interaction with vessels and response to developing traffic situations;
- should provide essential and timely information to assist the onboard decision making process, which may include but it is not limited to:
  - the position, identity, intention and destination of vessels;
  - amendments and change in promulgated information concerning the VTS area such as boundaries, procedures, radiofrequencies, reporting points;
  - the mandatory reporting of vessel traffic movements;
  - meteorological and hydrological conditions, notices to mariners, status of aids to navigation;
  - manoeuvrability limitations of vessels in the VTS area that may impose restrictions on the navigation of other vessels, or any other potential hindrance;
  - any information concerning the safe navigation of the vessel.

8.2.2   Navigational Assistance Service (NAS)

A Navigational Assistance Service (NAS) is a service that provides essential and timely navigational information to assist in the onboard navigational decision making process and to monitor its effects. It may also involve the provision of navigational advice and/or instruction.

The Navigational Assistance Service:

- is especially important in difficult navigational or meteorological circumstances or in case of defects or deficiencies;
- may be provided at the request of the vessel, irrespective of whether a pilot is on board, or when a navigational situation is observed and intervention by the VTS is deemed necessary;
- is an important supplement to the provision of other navigational services, such as pilotage;
- requires positive identification and continuous communication throughout the process. If possible and if time permits, checks should normally be made prior to commencement of the provision of NAS to assess the capability of the vessel to respond to the guidance given;
- VTS operators should be appropriately trained and ready to deliver NAS.

8.2.3   Traffic Organisation Service (TOS)

A Traffic Organisation Service (TOS) is a service to prevent the development of dangerous traffic situations and to provide for the safe and efficient movement of vessel traffic within the declared VTS area.

It concerns the operational management of traffic and the planning of vessel movements to prevent congestion and dangerous situations, and is particularly relevant in times of high traffic density or when vessel movements may affect the traffic flow.

A Traffic Organization Service should be provided when the VTS is authorized to provide services when, for example:

- vessel movements need to be planned or prioritised to prevent congestion or dangerous situations;

- special transports of vessels with hazardous or polluting cargo may affect the flow of other traffic and need to be organized;

- an operating system of traffic clearance or sailing plans, or both, has been established in relation to priority of traffic movements;

- the allocation of space needs to be organized;

- mandatory reporting of movements in the VTS area has been established;

- special routes should be followed;

- speed limits should be observed or other appropriate measures which are considered necessary by the VTS authority;

- the VTS observes a developing situation and deems it necessary to interact and co-ordinate vessel traffic;

- nautical activities (e.g. sailing regattas) or marine works in progress (e.g. dredging or cable laying) may interfere with the flow of vessel movement.

A Traffic Organisation Service should be responsible for separating traffic in the interest of safety and the efficiency of shipping.

When the VTS is authorized to issue instructions to vessels, these instructions should be result-oriented only, leaving the details of execution, such as course to be steered or engine manoeuvres to be executed, to the master or pilot on board the vessel.

Care should be taken that VTS operations do not encroach upon the master's responsibility for safe navigation, or disturb the traditional relationship between master and pilot, where applicable.

Generally masters of vessels will respond promptly and carry out instructions given by a VTS. However, it should be recognized that there may be occasions when an instruction by a VTS is disregarded because the master has additional information not available to the VTS centre and he/she decides another course of action. For example: a vessel in inland waters that is not being tracked by the VTS may be a contributory factor to the navigational situation.

8.3   Tasks that may be performed in accordance with the service rendered

A VTS should, at all times, be capable of generating a comprehensive overview of the traffic in its VTS area combined with all traffic influencing factors.

The VTS should be able to compile a traffic image, which is the basis for its capability to respond to traffic situations developing in its VTS area.

The traffic image allows the VTS operator to evaluate situations and make decisions accordingly. Data and information should be collected to compile the traffic image. This includes:

- data and information on the waterway situation, such as meteorological, hydrographical and hydrological conditions and the operational status of aids to navigation;

- data and information on the traffic situation, such as vessel positions, movements, identities and intentions with respect to manoeuvres, destination and routing;

- data and information of vessels in accordance with the reporting requirements and if necessary any additional data, required for the effective operation of the VTS;

- vessel reports by communication between vessels and the VTS Centre should also be used as a major source of necessary data and information.

To respond to traffic situations developing in the VTS area and to decide upon appropriate actions, the acquired data and information should be processed and evaluated. During the decision-making process risk analysis instruments may be used. Conclusions from the evaluation need to be communicated to participating vessels. A distinction should be made between the provision of navigational information, being a relay of information extracted from the VTS sensors and the traffic image, and the provision of navigational advice, where a professional opinion (based on the VTSOs considerations) is included.

8.4 Participation in VTS

Depending upon governing rules and regulations, participation in a VTS may be either voluntary or mandatory. It is recommended that vessels:

- navigating in an area where vessel traffic services are provided should make use of these services;
- should be allowed to use a VTS where mandatory participation is not required.

Decisions concerning the actual navigation and the manoeuvring of the vessel remain with the master.

Neither a VTS sailing plan nor requested or agreed changes to the sailing plan can supersede the decisions of the master concerning the actual navigation and manoeuvring of the vessel.

Communication with the VTS and other vessels should be conducted in accordance with established procedures, in particular where communication is related to intended manoeuvres.

VTS procedures should specify for each situation what communication is required and which communication system(s) should be monitored.

Prior to entering a VTS area, vessels should make all required reports, including reporting of deficiencies.

During their passage through a VTS area, vessels should adhere to governing rules and regulations, maintain a continuous watch on the assigned communication systems and report deviations from the agreed sailing plan, if such a plan has been established in co-operation with the VTS.

Masters of vessels should report to the VTS centre any observed dangers to navigation or pollution of the environment.

In case of a complete failure of the vessel's regular communication equipment the master shall endeavour to inform the VTS centre and other vessels in the vicinity by any other available means of communication of the vessel's inability to communicate in the appropriate manner.

Vessels should carry publications giving full particulars on governing rules and regulations regarding identification, reporting and/or conduct in each VTS area to be entered during the voyage.

8.5 Communication and reporting

Communication between a VTS centre and a participating vessel or between participating vessels should be limited to information essential to achieve the objectives of the VTS. Communication should be clear, unambiguous and easily understood by as many participants as possible.

- standard reports and phrases should be used and promoted;
- VTS centres in an area or sector should use a name identifier.
  - ✓ the naming policy for a VTS should ensure consistency for masters of vessels. The name identifier should include two key elements, namely the location of the VTS and its capability;
  - ✓ 'VTS location' or 'Location VTS';
  - ✓ in the situation where a VTS area is divided into sectors, there are two options for the location part of the name identifier:

  ✓ sectors within a VTS area identified separately; or

  ✓ sectors within a VTS area have the same name identifier.

- Any service that is not authorized as a VTS should not use the term 'VTS' in its name identifier.

- where language difficulties exist, use should be made of a common language as determined by the Competent and / or VTS authorities;

- in any VTS message directed to a vessel or vessels it should be made clear whether the message contains information, advice, warning, or an instruction;

- the use of the SMCP message markers and VTS phrases is recommended;

- traffic signals are regarded as communications facilities.

8.6 Operating procedures

Where operating procedures are concerned, a distinction should be made between internal and external procedures:

- internal procedures cover operating instruments, interactions among the staff and the internal routing and distribution of data;

- external procedures cover interactions with users and allied services.

A further distinction should be made between procedures governing:

- the daily routine for the provision of VTS;

- response to contingency planning of the operational and technical services to be provided;

- emergency response (including Search and Rescue and combatting pollution) and other environmental protection needs.

All operational procedures should be laid down in handbooks or manuals and be an integral part of regular training exercises. Adherence to procedures should be monitored.

8.7 Organization

In order to perform the required tasks a VTS organization must have adequate staff, housing, instrumentation and procedures governing operations and interactions between the various elements.

The requirements in each field are determined by the particular nature of the VTS area, the density and character of the traffic and the type of service that is to be provided.

Consideration should be given to the establishment of back-up facilities to sustain and maintain the desired level of reliability and availability.

8.8 Database

A VTS authority should have, if necessary for the operation of the service, a database with the capacity to retain, update, supplement and retrieve data once collected. Any data retained in a system for further use should be made available only on a selective and secure basis.

9 FURTHER GUIDANCE ON THE ESTABLISHMENT AND OPERATION OF A VTS

VTS Authorities should, in the planning of a VTS, make use of available manuals prepared and published by appropriate international organisations and associations.

The following references should also be consulted for further details and applicability:

- IMO regulations as far as applicable, particularly SOLAS Chapter V Regulation 12 and the Resolution A.857(20);
- IALA Recommendations relevant to VTS, such as:
  - ✓ Recommendation V-119 on Implementation of Vessel Traffic Services;
  - ✓ Recommendation V-127 on Operational Procedures for Vessel Traffic Services;
  - ✓ Recommendation V-128 and Annexes on Operational and Technical Performance Requirement for VTS Equipment;
  - ✓ Recommendation V-145 on the Inter VHF Exchange Service;
  - ✓ Recommendation V-103 on Standards for Training and Certification of VTS Personnel;
  - ✓ Recommendation V-136 on Participation in the World VTS Guide;
- IALA Guidelines relevant to VTS, such as:
  - ✓ Guideline no. 1089 on Provision of VTS types of service;
  - ✓ Guideline no. 1004 on Levels of Service;
  - ✓ Guideline no. 1070 on VTS role in managing Restricted or Limited Access Areas;
  - ✓ Guideline no. 1086 on the global sharing of maritime data & information;
  - ✓ Guideline no. 1083 on Standard Nomenclature to identify and refer to VTS centres.
- IALA VTS Manual;
- IALA Dictionary as can be found on the IALA web site;
- World VTS Guide.

APPENDIX 1   **DEFINITIONS AND CLARIFICATIONS**

Vessel Traffic Service (VTS) - a service implemented by a Competent Authority, designed to improve the safety and efficiency of vessel traffic and to protect the environment. The service should have the capability to interact with the traffic and to respond to traffic situations developing in the VTS area.[1]

Competent Authority - the authority made responsible, in whole or in part, by a Government for safety, including environmental safety, and efficiency of vessel traffic and the protection of the environment.[2]

VTS Authority - the authority with responsibility for the management, operation and co-ordination of the VTS, interaction with participating vessels, and the safe and effective provision of the service.[3]

VTS Area - the delineated, formally declared service area of the VTS. A VTS area may be subdivided in sub-areas or sectors.[4]

VTS Centre - the centre from which the VTS is operated. Each sub-area of the VTS may have its own sub-centre.[5]

VTS Operator (VTSO) - an appropriately qualified person performing one or more tasks contributing to the services of the VTS.[6]

Internal Procedures - procedures that cover the day-to-day running of a VTS centre or sub-centre, including the operation of systems and sensors, interactions among the staff and the internal management of data.[7]

External Procedures - procedures that govern the interaction with participating vessels and allied services (defined as services actively involved in the safe and efficient passage of the vessel through the VTS area).[8]

VTS sailing plan - a plan that is mutually agreed between a VTS Authority and the master of a vessel concerning the movement of the vessel in a VTS area.[9]

VTS traffic image - the surface picture of vessels and their movements in a VTS area.[10] The traffic image allows the VTS operator to evaluate situations and make decisions accordingly.

An Information Service (INS) is a service to ensure that essential information becomes available in time for on-board navigational decision-making.

A Navigational Assistance Service (NAS) is a service to assist on-board navigational decision-making and to monitor its effects.

A Traffic Organisation Service (TOS) is a service to prevent the development of dangerous maritime traffic situations by planning and managing of traffic movements and to provide for the safe and efficient movement of vessel traffic within the VTS area.[11]

Message markers - In order to especially facilitate shore-to-ship and ship-to-shore communication or when one of the IMO Resolution A.918(22) on Standard Marine Communication Phrases (SMCP) will not fit the meaning desired, one of the following eight

---

[1] IALA Dictionary, revision 2012, in accordance with IMO resolution A.857(20)
[2] IALA Dictionary, revision 2012, in accordance with IMO resolution A.857(20)
[3] IALA Dictionary, revision 2012
[4] IALA Dictionary, revision 2012
[5] IALA Dictionary, revision 2012
[6] IALA Dictionary, revision 2012, in accordance with IMO resolution A.857(20)
[7] IALA Dictionary, in accordance with IALA Recommendation V-127
[8] IALA Dictionary, in accordance with IALA Recommendation V-127
[9] IALA Dictionary, revision 2012, in accordance with IMO resolution A.857(20)
[10] IALA Dictionary, revision 2012
[11] IALA Dictionary, revision 2012, in accordance with IMO Resolution A.857(20)

message markers may be used to increase the probability of the purpose of the message being properly understood.

- Instruction
- Advice
- Warning
- Information
- Question
- Answer
- Request
- Intention[12]

Allied services - services actively involved in the safe and efficient passage of the vessel through the VTS area[13].

Quality Management System (QMS) - is a documented process of the organisation that comprises a set of policies, processes and procedures required for planning and implementing the training of VTS personnel. QMS enables organisations to identify measure, control and improve the various training processes that will ultimately lead to improved performance.[14]

Hazardous cargoes include[15]:

- Goods classified in the International Maritime Dangerous Goods (IMDG) Code;
- Substances classified in Chapter 17 of the IMO International Code for Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC) Code, and in Chapter 19 of the IMO International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC) Code;
- Oils as defined in MARPOL Annex I;
- Noxious liquid substances as defined in MARPOL Annex II;
- Harmful substances as defined in MARPOL Annex III; and
- Radioactive materials specified in the Code for the Safe Carriage of Irradiated Nuclear Fuel, Plutonium and High Level Radioactive Wastes in Flasks on Board Ships (INF);
- Cargoes specified in Part B of the International Maritime Solid Bulk Cargoes Code (IMSBC).

---

12 IALA Dictionary, revision 2012, in accordance with IMO Resolution A.918(22)
13 IALA Dictionary, revision 2012
14 IALA Dictionary, revision 2012, in accordance with IALA Guideline 1014
15 IALA Dictionary, revision 2012