

## IALA GUIDELINE

# G1141 OPERATIONAL PROCEDURES FOR DELIVERING VTS

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# DOCUMENT REVISION

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

Date	Details	Approval
14 December 2018	1 <sup>st</sup> issue Guideline prepared to align Recommendation R0127(V-127) – VTS Operations, following adoption of IALA Standards	Council 68
June 2021	Revised to reflect new and amended IALA documentation and ensure the guideline provides an effective document to assist authorities to implement and operate a VTS in a global and harmonized manner.	Council 73



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## 1. INTRODUCTION

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To ensure the harmonized delivery of VTS worldwide processes and procedures should be implemented in a manner that are consistent with Recommendation R0127 *VTS Operations (V-127)* [1] relating to implementing processes and procedures to ensure standards are consistently maintained and the service is delivered accurately.

For the purposes of this Guideline:

- Process: “is defined as a series of actions or steps taken in order to achieve a particular end.”
- Procedure: “is defined as an established or official way of doing something.”

Processes and procedures provide the mechanism to:

- Ensure tasks are performed correctly and that the provision of VTS is consistent globally;
- Ensure conformance with the entity’s policy and regulatory framework;
- Provide guidance for decision-making; and
- Streamline internal and external processes.

IMO Resolution A.857(20) *Guidelines for Vessel traffic Services* [2]:

1 Recognizes that:

“the use of differing vessel traffic service procedures may cause confusion to masters of vessels moving from one vessel traffic service area to another”.

2 States that the VTS authority should:

“ensure that operating procedures for routine and emergency situations are established”.

## 2. PURPOSE OF THE DOCUMENT

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The purpose of this Guideline is to provide a framework for authorities to implement processes and procedures associated with the provision of VTS.

### 2.1. REALTIONSHIP TO OTHER DOCUMENTS

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IALA Guideline *G1141 Operational procedures for Vessel Traffic Services* [3] is associated with Recommendation R0127 *VTS Operations (V-127)* [1] a normative provision of IALA Standard *S1040 Vessel Traffic Services (VTS)* [4]. To demonstrate compliance with the Recommendation the provisions of this Guideline need to be implemented.

Note: This Guidance should be read in conjunction with Recommendation R0132 *Quality Management for Aids to Navigation Authorities (O-132)* [5] and Guideline *G1052 Quality Management Systems for AtoN Service Delivery* [6], noting that G1052 states that documentation for the Quality Management System (QMS) should include, inter alia:

- Procedure documents, e.g., Operating guidelines, operating procedures, work instructions.
- Record keeping.

### 3. CONTENT OF THE DOCUMENT

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The Guideline describes processes and procedures associated with:

- Day-to-day operations to;
  - provide timely and relevant information on factors that may influence the vessel's movements and assist onboard decision-making;
  - monitor and manage vessel traffic to ensure the safety and efficiency of vessel movements; and
  - respond to developing unsafe situations.
- Management and administration to;
  - ensure the VTS operates in accordance with relevant international conventions and IMO instruments, IALA standards and national law; and
  - set operational objectives for the VTS that are consistent with improving safety and efficiency of vessel traffic and protection of the environment and routinely evaluating that they are being achieved.

These processes and procedures are separated into activities that are either internal or external to the VTS, and subsequently split into routine or emergency:

- Internal Procedures – procedures that cover the day-to-day running of a VTS, including but not limited to the operation of systems and sensors, interactions among the staff and the internal management etc.
- External Procedures – procedures that cover the interaction with participating ships and allied services.

### 4. INTERNAL VTS PROCEDURES

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VTS authorities should implement processes and procedures for all internal activities related to the VTS. A clear distinction should be made between routine and emergency activities as described below.

Recognizing that activities may vary between VTSs, these may be further adapted to suit local needs.

#### 4.1. ROUTINE PROCEDURES

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##### 4.1.1. DOCUMENT CONTROL

Processes and procedures should be documented, regularly reviewed and version control maintained. These documents should be available to VTS personnel and form an integral part of training where adherence is routinely monitored.

Further, to achieve collaboration, it is recommended that these procedures (or part of them) may be shared with allied services.

##### 4.1.2. GATHERING AND RECORDING OF INFORMATION

Provision should be made for the storage, security, retrieval and presentation of this information. This type of information may include:

- Communications (internal and/or external);

- Sensor data (i.e. data used to generate the traffic image such as radar, CCTV, AIS);
- Vessel data and voyage information (e.g. vessel particulars, cargo data, including vessel movement information);
- Meteorological and hydrographic data; and
- Data from other sources.

The internal procedures should specify the time period for which VTS information is stored. This time period should be such that it allows for the full retrieval of data post-incident/accident, in compliance with national requirements and those of the incident/accident investigation procedures of the VTS authority and other interested parties.

#### **4.1.3. EQUIPMENT OPERATION, MAINTENANCE, CALIBRATION AND UPDATING**

All manuals and handbooks for equipment operation, maintenance (preventative and remedial), calibration and updating should be properly maintained and readily available to the appropriate personnel.

Key considerations include:

- Descriptions of equipment and systems used in the VTS;
- Operation of equipment, to cover all normal and emergency procedures;
- Determining performance availability criteria for equipment, including the availability of VTS during maintenance or other outages;
- Categorization and prioritization of maintenance and defects;
- Calibration of sensors within specified tolerance level; and
- Updates to equipment (hardware and software) and their associated manuals/handbooks; and
- VTS availability due to maintenance or other outages.

#### **4.1.4. PUBLIC RELATIONS**

There should be a documented processes and procedures to deal with media and public relations issues. Issues for consideration may include:

- Nominated lead department for public relations;
- Publication of ongoing activities within the VTS area; and
- Protection of sensitive information.

#### **4.1.5. SECURITY**

Processes and procedures should be clearly documented and consistent with local and national requirements. As a minimum, they should ensure the security for:

- Data transmission and storage (e.g. Cyber Security);
- VTS personnel; and
- VTS buildings and structures.

Procedures should reflect any involvement of the VTS with the Port Facility Security Plan (PFSP) as per the International Ship and Port facility Security Code (ISPS) [7].

#### **4.1.6. TRAINING**

Processes and procedures should be available to ensure that:

- VTS personnel are appropriately trained and qualified for their VTS duties;

- Qualifications and operational performance are maintained and confirmed through performance assessments undertaken at regular intervals; and
- Training records of VTS personnel are maintained.

Please note, Guideline *G1156 Recruitment, training and assessment of VTS personnel* [8] provides further guidance on the training and assessment of VTS personnel.

#### **4.1.7. WATCH HANDOVER**

Watch handover arrangements should be formalized and include, as an example, information on:

- Present traffic situation;
- Expected/developing traffic situations;
- Incidents and special operations (e.g. SAR or military operations);
- Waterway conditions;
- Environmental conditions (e.g. meteorological conditions and tidal conditions);
- Status of AtoN;
- Equipment performance/availability;
- Status of allied services (e.g. pilotage, port and tug services);
- Personnel availability;
- Appropriate times for watch handover; and
- Method for documenting the handover.

#### **4.1.8. VESSEL HANDOVER**

The arrangements for vessel handover between adjacent sectors or areas should be clearly laid down. Components may include:

- Mutual understanding of the handover procedures;
- Identification of information to be communicated between operators (e.g. communication channel, vessel identification, etc.);
- Method for documenting the vessel handover.

#### **4.1.9. MAINTENANCE OF NAUTICAL PUBLICATIONS AND CHARTS**

A VTS authority should ensure that arrangements are in place for maintaining, updating and disseminating nautical publications and charts (paper and/or electronic).

#### **4.1.10. CASUALTY, INCIDENTS AND NEAR-MISS RECORDING**

The arrangements for the gathering and exchange of information on incidents, accidents and/or near-misses in the VTS area should be described. This may include processes and procedures to ensure that all recording equipment is operating correctly. This may also include the procedures for incident reporting and dissemination of information to relevant parties.

Please note, IALA Guideline *G1118 Marine casualty / incident reporting and recording, including near-miss situations as it relates to VTS* [9] provides further information on developing and establishing processes for the reporting, recording and analysis of marine casualties, incidents and near-miss situations.



#### 4.1.11. ADMINISTRATIVE/ MANAGEMENT

Processes and procedures should be implemented to demonstrate that the responsibilities, practices, policies and procedures, exercised by an authority to provide strategic direction, ensure objectives, manage risk and use resources responsibly and with accountability are monitored and evaluated on a routine basis. This should include documentation relating to:

- VTS Objectives – Procedures to monitor and assess that the objectives set for the VTS are met and regularly reported to management. Aspects and considerations include:
  - Setting performance measures, including both positive (leading) and negative (lag) performance measures;
  - Establishing a framework to regularly assess the performance measures; and
  - Reporting to management.
- Evaluation – Procedures to regularly carry out an evaluation to ensure that the VTS operational objectives have been met, and the problems identified and defined for implementing the VTS have been either alleviated or at least reduced to an acceptable level. Aspects and consideration in undertaking the evaluation include:
  - The need for the VTS, which may include monitoring and identifying changes that may have occurred since the VTS was implemented or when previous evaluation was made regarding the volume of traffic and degree of risk;
  - An operational evaluation of the VTS; and
  - An evaluation of the operational objectives and the list of problems requiring attention.
- Policies – Procedures for maintaining policies associated with VTS, such as qualifications and training, compliance and enforcement.

Please note Guideline *G1131 Setting and Measuring VTS Objectives* [10] provides further guidance for competent authorities and VTS Authorities for setting objectives for a VTS and achieving the obligations associated with *SOLAS regulation V/12 (Vessel Traffic Services)* [11] and *IMO Resolution A.857(20)* [2].

#### 4.2. EMERGENCY PROCEDURES

A VTS authority should have documented contingency plans to ensure the safety of VTS personnel and for the continuity of operations in the event of an emergency. The VTS authority should have plans to address events such as:

- System and equipment Failure;
  - Loss of external communications;
  - Loss of internal communications;
  - Loss of functionality of sensor equipment; and
  - Loss of information management systems.
- Internal emergencies, for example, fire and flood;
- Forced evacuation of VTS centre;
- Personnel medical emergencies; and
- Security incidents.

The following issues may be included in these plans:

- Remedial action;
- Callout procedures;
- Fall-back options;
- Media or allied services communications;
- Recording of incident;
- Data safeguarding; and
- Post-emergency debriefing.

## 5. EXTERNAL VTS PROCEDURES

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A VTS authority should implement processes and procedures for all external activities related to the VTS such as the interaction between VTS and:

- Vessel traffic, including:
  - The provision of timely and relevant information on factors that may influence the vessel's movements and assist onboard decision making;
  - The monitoring and management of vessel traffic to ensure the safety and efficiency of vessel movements;
  - Responding to developing unsafe situations; and
  - Communication and processing of mandatory reporting requirements from vessels and other information as deemed appropriate.
- Allied services.

A clear distinction should be made between routine and emergency activities as described below.

Recognizing that activities may vary between VTSs these may be further adapted to suit local needs. Similarly, the exchange of information should be standardized where possible.

### 5.1. ROUTINE PROCEDURES

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#### 5.1.1. VTS VOICE COMMUNICATION

Processes and procedures to ensure that VHF Communication is timely, clear, concise and unambiguous should be established. In VHF communications with vessels, the IMO Standard Marine Communication Phrases (SMCP) (reference Resolution A.918(22) [12]), Proper use of VHF Channels at Sea (IMO Resolution A.954(23) [13]), and IALA Guideline G1132 *VTS Voice Communications and Phraseology* [14] should be used whenever applicable.

Procedures should also include list of the VTS communication channels used and monitored in the VTS area.

Please note, Guideline *G1132 VTS Voice Communications and Phraseology* [14] provides further information to assist authorities implement practices associated with ensuring VTS communications are harmonized through the use of standard message structure and phrases.

### 5.1.2. PRE-ARRIVAL INFORMATION

Prior to arriving at the VTS area, a vessel may be required to provide information and notify of its intent to enter the VTS area. The VTS Authority should specify the format and timing of pre-arrival information, if possible by non-verbal means, see section 5.1.14. This may for example include:

- Route information;
- ETA;
- Vessel Identity (Name, IMO number, Call Sign, MMSI);
- Vessel dimensions as relevant;
- Vessel draft;
- Air draft;
- Hazardous, dangerous or polluting goods details;
- ISPS security level;
- Information about any vessel defects or deficiencies; or
- Other specified details.

Further, processes and procedures to support the arrival of vessels to the VTS area should be established. These should include:

- Communication requirements for participating ships;
- Reporting requirements for pre-arrival information;
- Non-compliance with reporting requirements; and
- Information exchange with allied services.

### 5.1.3. VESSELS ENTERING VTS AREA

Processes and procedures should be established for when vessels enter the VTS Area. These may include:

- Establishing communications and verifying vessel identity, position and intention;
- Information exchange, such as;
  - Reporting requirements;
  - Provide relevant traffic information;
  - Provide navigational / fairway information; and
  - Vessel defects or deficiencies, such as navigation or manoeuvring equipment failure.
- Updating information with allied services.

### 5.1.4. VESSELS MOVEMENTS WITHIN VTS AREA

Procedures should be established for vessel movements within a VTS area. These may include:

- Reporting formalities;
- Provision or exchange (AIS, VDES or other means) of relevant information to participating ships at regular intervals, on request or as deemed necessary by the VTS, including;
  - Environmental conditions;
  - Traffic situation;

- Navigational conditions;
- Traffic separations;
- Overtaking restrictions;
- Warnings and restrictions concerning the movement of traffic in the area; and
- Maritime Safety Information.
- Special provisions for vessels carrying hazardous, dangerous or polluting cargo;
- Compliance with pilotage requirements;
- Non-compliance with the requirements and procedures in the VTS area;
- Monitor and if possible communicate with vessels not required to participate in the VTS; and
- Information exchange/update on allied services.

#### **5.1.5. MONITORING AND MANAGEMENT OF VESSEL TRAFFIC**

Procedures for the monitoring and management of vessel traffic should be established. These may include:

- Forward planning of vessel movements;
- Organizing vessels underway;
- Organizing space allocation;
- Establishing a system of voyage or passage plans; and
- Ensuring compliance with the regulatory provisions.

#### **5.1.6. PERMISSION TO PROCEED FROM OR TO AN ALONGSIDE BERTH OR ANCHORAGE**

A vessel's departure from or arrival to a berth or anchorage, or when entering a lock or confined waterway is a critical moment when a vessel's movements may have a direct influence on other vessels nearby.

In particular, the departure of a vessel from a berth is a critical moment when situational awareness of bridge staff on the departing vessel may be diverted and impaired by internal or jetty-side issues and when other vessels in the immediate vicinity might be surprised by the unexpected movement of another vessel into the fairway.

Processes and procedures for a VTS responding to a request from a vessel for permission to proceed from or to a berth or anchorage may include:

- Requirements for a vessel to request permission to proceed when it is ready to depart;
- Provision of relevant traffic information to the departing vessel prior to departure;
- Standard and formal message for approval from the VTS for a vessel to proceed; and
- Standard and formal message for refusal from the VTS for a vessel to proceed.

Permission for a vessel to proceed means that, based on the information available, the VTS assesses that it is safe and gives approval for the vessel to proceed on its intended course of action, subject to the discretion of the master.

Permission for a vessel to proceed may be subject to conditions (e.g. details received from the vessel, known fairway and traffic) which may be contained in the message.

Refusal for a vessel to proceed should be unambiguous, clear and may be issued as an instruction.

#### 5.1.7. RESPONDING TO DEVELOPING UNSAFE SITUATIONS

Procedures for responding to developing unsafe situations should be established, and may include:

- a vessel unsure of its route or position;
- a vessel deviating from the route;
- a vessel requiring guidance to an anchoring position;
- a vessel that has defects or deficiencies, such as navigation or manoeuvring equipment failure;
- meteorological conditions (e.g. low visibility, strong winds);
- a vessel at risk of grounding or collision;
- emergency response or support to emergency services;
- a vessel deviating from passage plan; and
- assistance to a vessel to support the unexpected incapacity of a key member of the bridge team.

IALA Guideline G1089 *Provision of VTS Services* [15] states that “before navigational support is provided and if time permits, a VTS should make an assessment of capabilities and conduct other relevant checks” whilst recognizing that, when the need is observed to be necessary by the VTS, early intervention is likely to be necessary, which may preclude pre-assessment checks being carried out.

Some considerations for making a pre-assessment prior to the provision of navigational support are provided in annex A.

Please note, Guideline *G1089 Provision of VTS Services* [15] provides further guidance on the provision of VTSs to participating ships in a harmonized manner in accordance with IMO Resolution A.857(20) [2] and IALA Standards.

#### 5.1.8. VESSELS AT ANCHOR

Procedures should be established for vessels at anchor in a VTS area. Depending on the capability of the VTS to monitor the vessel position under prevailing conditions, these may include:

- Anchorage assignment;
- Communication requirements;
- Reporting requirement for vessels prior to leaving the anchorage;
- Non-compliance with the requirements and procedures for the VTS area; and
- Information exchange/update on allied services.

#### 5.1.9. VESSELS AT BERTH

Processes and procedures should be established for vessels at berth in a VTS area. Depending on the capability of the VTS to monitor the vessel position under prevailing conditions, these may include:

- Reporting requirements for vessels on arrival at berth;
- Non-compliance with reporting requirements;
- Security requirements including security level;
- Special requirements to maintain a communication watch;
- Need for restrictions for other vessels passing the berth (e.g. during bunkering or crane operations);
- Reporting requirements for vessels prior to leaving the berth; and
- Information exchange/update on allied services.

#### **5.1.10. VESSELS DEPARTING THE VTS AREA**

Processes and procedures should be established for vessels departing the VTS area. These may include:

- Reporting requirements for vessels prior to departing the area;
- Non-compliance with reporting requirements; and
- Handover requirements with adjacent or next VTS.

#### **5.1.11. TRANSITION BETWEEN ADJACENT VTS AREAS**

Processes and procedures should be established for vessels transiting between adjacent VTS areas. The handover arrangements may include:

- Transfer of vessel information such as identification, cargo, destination and ETA;
- Process for communication procedures; and
- Process to ensure vessel monitoring.

#### **5.1.12. ADVERSE ENVIRONMENTAL CONDITIONS**

In situations of adverse environmental conditions within the VTS area, such as poor visibility, strong currents or tidal streams, high winds, ice etc. special processes and procedures may be required. These may include:

- Restriction or prohibition on vessel movements;
- Additional reporting requirements;
- Additional separation between vessels; and
- Additional requirements (e.g. mandatory tug service, pilot, etc.).

Special consideration may need to be given depending on vessel characteristics and local geography and conditions.

#### **5.1.13. ENVIRONMENTAL PROTECTION**

The role of VTS to assist with environmental protection may include marine conservation measures is increasingly being recognized internationally as a means to:

- mitigate risks such as ship collisions with cetaceans and disturbance of marine mammals in nursery areas;
- mitigate the effect of ship wash on the shores in the vicinity of low-lying communities; and
- support the protection of Particularly Sensitive Sea Areas (PSSAs) or locally declared environmentally sensitive areas.

It may be appropriate to develop processes and procedures to:

- broadcast relevant information on times and locations;
- interact with individual vessels in the vicinity of marine mammals;
- keep protected areas clear of traffic;
- advise speed restrictions where marine mammals have been sighted, or to reduce ship wash on the shores;
- re-route traffic away from sightings; and
- collect information to identify potential interaction hotspots to assist in planning future mitigation measures.

#### 5.1.14. DIGITAL MARITIME SERVICES

Where the VTS provides information in digital format, processes and procedures on digital information exchange should be established. This information may include, for example, the use of AIS messages to provide information on weather, virtual AtoN or the exchange of route information between vessels and VTS.

The procedures should include a description of the digital information delivered and the communication means used for the information exchange.

#### 5.1.15. INTERACTION WITH ALLIED SERVICES

Processes and procedures should be established to cover the interaction between VTS and allied services, for example:

- Pilots;
- Tugs and tug operators;
- Icebreakers and icebreaker operators;
- The organizers of marine events;
- Shipping agents; and
- Government agencies, including law enforcement agencies

Please note, IALA Guideline *G1102 VTS Interaction with Allied or Other Services* [16] identifies issues to be considered and the principles to successfully interact between VTS and allied or other services.

### 5.2. EMERGENCY PROCEDURES

The activities of the VTS centre should be maintained during any emergency response.

Other authorities (e.g. Maritime Rescue Co-ordination Centre (MRCC)) might be responsible for handling external emergencies within the VTS area. In that case, procedures on the interaction between the VTS and these authorities need to be established.

Incidental co-operation with emergency services, such as Search and Rescue and Pollution Control may be conducted in accordance with pre-established contingency plans in which the procedures for interaction with allied or other services are laid down and responsibilities established.

Despite this, the VTS may be one of the first to respond to a call from a vessel that has an emergency situation. It is important that VTS requests and collects any further information to help in response activities and to pass on to other authorities. Some considerations for information that a VTS may try to establish from the vessel under these situations can be found in annex B.

#### 5.2.1. COLLISION, CAPSIZING, SINKING, GROUNDING, FIRE ONBOARD, MAN OVERBOARD

Processes and procedures should be established to deal with situations such as collision, capsizing, sinking, grounding, fire onboard and man overboard. Actions may include the following actions:

- Alert MRCC;
- Inform and co-operate with relevant emergency services;
- Inform relevant regulatory authority/ies;
- Act on local call-out procedures;
- Support on-scene coordination;
- Consider back-up VTS personnel;
- Promulgate or relay information concerning situations with vessels in VTS area;

- Restrict traffic in the area;
- Alert allied services and other support units; and
- Ensure that a proper log is maintained.

#### **5.2.2. POLLUTION**

Pollution incident processes and procedures should be established. The following actions may be included:

- Alert relevant environmental authority and/or service(s);
- Alert relevant response authority and/or service(s);
- Inform and co-operate with relevant regulatory authority/ies;
- Assess scale of incident and call in specialist support, as appropriate;
- Promulgate information concerning incident to vessels in VTS area; and
- Restrict traffic movements in the area.

#### **5.2.3. PLACES OF REFUGE**

Places of Refuge processes and procedures should be developed, depending on national requirements and the particular arrangements arising out of the implementation of IMO Resolution A.949(23) *Guidelines on Places of Refuge for Ships in Need of Assistance* [17].

#### **5.2.4. MEDICAL EMERGENCY**

Processes and procedures for medical emergencies should be established. Actions may include:

- Inform MRCC ;
- Inform coast radio station;
- Consider special maneuvering requirements; and
- Relay information from responsible health authority to arriving vessels suspected of being infected with a contagious disease that requires special care e.g. quarantine.

#### **5.2.5. VESSEL NOT UNDER COMMAND (NUC)**

Processes and procedures in the event of a “vessel not under command” should be established. Actions may include:

- Promulgate information concerning incident to vessels in the VTS area;
- Obtain detailed information about onboard situation;
- Maintain communication with vessel;
- Assess vessel’s proximity to danger (danger to vessel itself and other traffic); and
- Alert allied services and other support units, if appropriate.

#### **5.2.6. SECURITY INCIDENT**

In the event of a security incident processes and procedures should be established. Procedures should reflect any involvement of the VTS with the Port Facility Security Plan (PFSP) as per the International Ship and Port facility Security Code (ISPS) [7].

#### **5.2.7. PROTEST ACTION**

Processes and procedures should be established to respond to protest action in the VTS area. Throughout any protest action, the safety of vessels and protestors is paramount.



Actions may include:

- Alert responsible authority;
- Act on local call-out procedures, including but not limited to VTS manager; and
- Promulgate information concerning incident to vessels in the VTS area.

#### 5.2.8. NATURAL DISASTER

Natural disaster procedures should be established to deal with situations such as earthquake, tidal wave, fire, exceptional weather conditions. Actions may include:

- Promulgate information to vessels in the VTS area;
- Act on local call-out procedures; and
- Inform MRCC.

## 6. EVALUATION OF PROCEDURES

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All processes and procedures should be regularly reviewed and evaluated for their adequacy and to support the objectives of the VTS.

Such relevant times may include:

- Changes to regulatory requirements;
- Changes to VTS infrastructure including systems and equipment changes and upgrades;
- Changes of VTS areas and sectors;
- Changes of port or fairway infrastructure;
- After a significant near-miss or incident; and
- As part of the ongoing evaluation of the VTS.

The VTS authority should also ensure that VTS personnel are updated with changes to procedures and competence verified through revalidation training.

## 7. DEFINITIONS

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The definitions of terms used in this Guideline can be found in the *International Dictionary of Marine Aids to Navigation* (IALA Dictionary) at <http://www.iala-aism.org/wiki/dictionary> and were checked as correct at the time of going to print. Where conflict arises, the IALA Dictionary should be considered as the authoritative source of definitions used in IALA documents.

## 8. REFERENCES

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- [1] IALA. (2018) Recommendation R0127 (V-127) VTS Operations, Ed 3.1
- [2] IMO. (1997) Resolution A.857(20) Guidelines for Vessel Traffic Services
- [3] IALA. (2018) Guideline G1141 Operational Procedures for Vessel Traffic Services, Ed. 1.0
- [4] IALA. (2018) Standard S1040 Vessel Traffic Services, Ed. 1.0
- [5] IALA. (2013) Recommendation R0132 Quality Management for Aids to Navigation Authorities, Ed 2.2

- [6] IALA. (2013) Guideline G1052 Quality Management in AtoN Service Delivery, Ed. 3.0IMO. (2004)
- [7] The International Ship and Port Facility (ISPS) Code
- [8] IALA. (2020) Guideline G1156 Recruitment, Training and Assessment of VTS Personnel, Ed. 1.0
- [9] IALA. (2016) Guideline G1118 Marine Casualty/Incident Reporting and Recording, Including Near-Miss Situations as it Relates to VTS, Ed. 1.0
- [10] IALA. (2017) Guideline G1131 Setting and Measuring VTS Objectives, Ed 1.0
- [11] IMO. (1974) International Convention for the Safety of Life At Sea
- [12] IMO. (2001) Resolution A.918(22) IMO Standard Marine Communication Phrases
- [13] IMO. (2003) Resolution A.954(23) Proper use of VHF channels at sea
- [14] IALA.(2017) Guideline G1132 VTS Voice Communications and Phraseology, Ed. 1.0
- [15] IALA. (2012) Guideline G1089 Provision of a VTS Services (INS, TOS & NAS), Ed. 1.0
- [16] IALA. (2013) Guideline G1102 VTS Interaction with Allied or Other Services, Ed. 1.0
- [17] IMO. (2003) Resolution A.949(23) Guideline on Places of Refuge for Ships in Need of Assistance

## ANNEX A    NAVIGATIONAL SUPPORT – PRE-ASSESSMENT CONSIDERATIONS

Examples of considerations for making a pre-assessment prior to the provision of navigational support may include:

### Capabilities:

- 1     VTS operator workload.
- 2     VTS equipment capabilities and limitations, performance, serviceability and back-up (particularly key elements of communications, radar and AIS).
- 3     Capability of the vessel and bridge staff to continue passage under navigational support:
  - a     Status of the ship's navigational/communications equipment and machinery;
  - b     Knowledge and understanding of VTS and knowledge of the local area;
  - c     Language ability; and
  - d     Carriage of up-to-date charts.

### Operational Considerations:

- 1     Positive identification of ship to be supported.
- 2     Alternative options (e.g., anchor, provision of pilot, amendment to voyage or passage plan).
- 3     Cargo carried.
- 4     Risk if navigational support is not provided.
- 5     Environmental conditions (wind, day/night, visibility, tidal height, tidal stream).
- 6     Other ship traffic.
- 7     Communications channel for navigational support.

### Checks:

- 1     Master's understanding that VTS navigational support does not absolve the master from responsibility for the safety of their vessel or for collision avoidance.
- 2     Master's acceptance of navigational support.
- 3     Commencement of navigational support.
- 4     Completion of navigational support.

## ANNEX B CONSIDERATIONS FOR INFORMATION THAT A VTS MAY REQUEST FROM A VESSEL IN EMERGENCY SITUATIONS

When a VTS is the first to become aware of an actual or potential emergency, the International Aeronautical and Maritime Search and Rescue Manual (IMSAR) Volume II notes that *"the information collected and the initial action taken are often critical to successful operations"* It also notes that:

"The success of a SAR operation depends on the speed with which the operation is planned and carried out. Information should be gathered to help the competent response authority to determine the nature of distress, the appropriate emergency phase and what action should be taken".

In gathering information, the VTS should ensure safety of other traffic in the VTS area and provide details to the relevant authority such as a rescue coordination centre. Some considerations for information that a VTS may request from a vessel under emergency situations are listed below. These considerations are not intended to be exhaustive or mandatory:

Situation	Considerations
COLLISION	When and where did the accident happen Any injuries to persons? Any dangerous or polluting cargo? Is there any pollution? Are you taking water? Are you flooding? Are you sounding your tanks? Can you proceed by yourself? What is the damage/casualty situation? What assistance is required? Are you venting hazardous / polluting gases?
GROUNDING	When and where did the accident happen? Any dangerous or polluting cargo? Is there any pollution? Are you aground? Are you attempting to re-float? Are you taking water? Are you flooding? Are you sounding your tanks? Do you have any list? What is the damage/casualty situation? What assistance is required?
FLOODING / SINKING	Is the flooding under control? Can you proceed by yourself? What assistance is required?
FIRE / EXPLOSION	When and where did the accident happen? What part of the ship is on fire/has exploded? Is the fire under control? What is the damage/casualty situation? Is there any pollution? What assistance is required?

Situation	Considerations
MARINE POLLUTION	<p>When and where did the pollution/discharge happen?</p> <p>What type of oil (diesel, oil, HFO, bilge) / dangerous goods or hazardous substances have been discharged?</p> <p>What is the approximate size of the spill (length and breadth)?</p> <p>What direction is it heading?</p> <p>If source of pollution is from the reporting ship:</p> <ul style="list-style-type: none"> <li>- What time did the discharge occur?</li> <li>- How did the discharge occur?</li> <li>- How much oil / dangerous goods or hazardous substances have been discharged?</li> <li>- Has the discharge stopped?</li> <li>- Can you stop the discharge?</li> <li>- What assistance is required?</li> </ul>
MAN OVERBOARD	<p>When and where the accident happen?</p> <p>How many persons overboard?</p> <p>Can you still see them?</p> <p>Did anyone see the person go overboard?</p> <p>When was the person last seen?</p> <p>Was the person overboard wearing a life jacket?</p> <p>What assistance is required?</p>
NOT UNDER COMMAND (NUC)	<p>What problems do you have? (e.g., nature of the mechanical failure)</p> <p>Can you repair by yourself?</p> <p>How long [will it take] to repair?</p> <p>What kind of assistance is required?</p>
CONTAINERS / CARGO OVERBOARD	<p>When and where the accident happen?</p> <p>What kind of cargo overboard? Any dangerous or polluting cargo?</p> <p>How much cargo/ how many containers overboard?</p> <p>Are the containers visible? Floating or sinking?</p>
MEDICAL ASSISTANCE	<p>What assistance is required?</p> <p>Is the casualty conscious and breathing?</p> <p>Is the casualty male /female? What is their age?</p> <p>Does the casualty speak English?</p> <p>Does the casualty have any known health problems?</p> <p>What treatment has been provided to the casualty on board?</p> <p>Has the casualty been taking any medication?</p> <p>Is your vessel able to accept a helicopter (i.e., to land or use of winch only)?</p>
LOSS OF PROPULSION	<p>Are you in danger of grounding?</p> <p>Do you need towage assistance?</p> <p>What is the cause for loss of propulsion?</p> <p>When will propulsion be restored?</p>