IALA Recommendation
V-127

On

Operational Procedures for
Vessel Traffic Services

Edition 2

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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
March 2011	Whole document	Minor revisions throughout to maintain currency and ensure alignment with other new and updated IALA documentation.

IALA Recommendation on Operational Procedures for Vessel Traffic Services

(Recommendation V-127)

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 the function of the Association with respect to safety of marine navigation, the efficiency of maritime traffic and the protection of the marine environment;

NOTING ALSO the VTS Operating Procedures set out in paragraph 2.5.3 of Annex 1 of the International Maritime Organization Resolution A.857(20) on "Guidelines for Vessel Traffic Services" (VTS);

NOTING FURTHER the VTS Operational Rules and Procedures described in the IALA VTS Manual;

CONSIDERING the proposals made by the VTS Committee;

ADOPTS the Operational Procedures for Vessel Traffic Services set out in the Annex to this recommendation; and

RECOMMENDS that VTS Authorities take into consideration the Annex to this Recommendation when developing Operational Procedures.

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Annex
Operational Procedures for Vessel Traffic Services

1   INTRODUCTION

The purpose of vessel traffic services (VTS) is to improve the safety and efficiency of navigation, and protect the marine environment and/or the adjacent shore area, work sites and offshore installations from possible adverse effects of maritime traffic[1]. Some VTS centres may also have a role to play in other activities such as maritime security.

VTS authorities are responsible for ensuring that the objectives of a VTS are met. This includes ensuring that the standards set by the competent authority for levels of service and operator qualifications are adhered to. The authority delegated to VTS staff should be clearly identified in the documented operational procedures of a VTS. Such procedures should be an integral part of a verifiable safety management system for the VTS. A properly implemented quality control programme approved by the competent authority can ensure that the standards set for the type and level of service are consistently maintained, and that the service is delivered accurately, efficiently and effectively.

This Recommendation has been prepared as to assist VTS authorities in identifying key aspects that should be considered when developing operational procedures for a VTS centre. The list is neither mandatory nor exhaustive and should be adapted to suit individual needs. In preparing this Recommendation it is recognised that:

- The nature of the tasks and activities to be performed will depend on the capability of the VTS, the VTS area and the type and level of services to be provided. In general, these tasks and activities all involve collecting, processing, evaluating and disseminating information. The collection and dissemination of this information will involve both internal and external communications, while information will be processed within the VTS centre itself. The level of decision-making that can be taken within the VTS centre should be clearly identified.

- The objectives of the VTS can only be met through co-operation and trust among users of the service, VTS personnel and allied services. This can only be achieved through the reliability of the VTS information, which is dependent on the assured availability, continuity and quality of the service provided to all stake-holders.

A clear distinction is made in this document between internal and external procedures[2].

> ***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.*

> ***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).*

A further distinction is made between routine and emergency procedures.

To achieve a standardised operations/performance within the VTS centre, clearly defined operating procedures, particularly those relating to external communications are paramount. This will assist the user in understanding information or instructions given by the VTS.

It is recommended that the operating procedures are documented in manuals. The responsible authority should assign a person responsible to keep the procedures up to date.

These procedures should be available to all VTS personnel in all applicable locations (e.g. head office, VTS centre, training centre, etc.) in, both electronic and printed version. The electronic

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[1]   IALA VTS Manual 2008, pp 51
[2]   IMO Resolution A.857(20), Guidelines for Vessel Traffic Services, Annex 1, 2.5.3

version facilitates searching within the document and keeping it up to date. These standard operating procedures should be an integral part of regular training and adherence to procedures should be monitored.

Consideration may be given to distributing these procedures (or part of them) to allied services. This could increase efficient collaboration.

It is important to communicate updates to everyone who has access to the operating procedures. Primarily all operational VTS personnel should be aware of any changes made to the procedures and it should be ensured that these changes are well understood and properly implemented. In keeping the procedures up to date, particular attention should be given to the printed copies.

Updating the procedures is a continuous process.

2   INTERNAL VTS PROCEDURES

VTS authorities should develop and document procedures for all operations, both routine and emergency, internal to the VTS. The following are examples of the type of operational activities for which procedures should be developed; the list is neither mandatory nor exhaustive.

2.1   Routine Procedures

2.1.1   Gathering and Recording of Information

The period of time for which information gathered by a VTS is required to be stored should be identified in internal procedures. 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. 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);
- Shipping information data (e.g. vessel and cargo data, including vessel movement information);
- Meteorological and hydrological data; and
- Data from other sources.

Provision should be made for the storage, security, retrieval and presentation of this information.

2.1.2   Operational Staff

The number of operators at any time should be based upon safe and efficient operations in the VTS area to meet the operational needs and should be reflected in the human resource planning, including staff rotation and rest period arrangements within any given shift or watch.

2.1.3   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 be readily available to the appropriate personnel.

Key considerations include:

- Operation of equipment, to cover all normal and emergency procedures;
- Determination of acceptable availability criteria for equipment;
- Categorisation and prioritisation of maintenance and defects;
- Calibration of all sensors within specified tolerance level; and
- Updating of equipment (hardware and software) and their associated manuals/handbooks.

2.1.4   Interaction with Allied Services

This should include the internal component of the interaction with, for example:

- Pilots
- Tug operators;
- Shipping agents;
- Government agencies, including law enforcement agencies; and
- Commercial organisations.

2.1.5   Public Relations

There should be a documented policy for dealing with the media and public. Issues for consideration may include:

- Nominated lead agency for public relations; and
- Protection of sensitive information.

2.1.6   Security

Procedures should be in line with local and national requirements and should be clearly documented. They should, as a minimum, ensure the security:

- Data transmission and storage;
- VTS personnel; and
- VTS buildings and structures.

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

2.1.7   Training

There should be arrangements for regular assessments and application of appropriate measures for compliance in accordance with IALA Recommendation V-103.

2.1.8   Watch Handover

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

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

Further guidance on the principles for watch handover can be sought from the IMO International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1975, as amended in 1995 and 1997 (STCS Convention) Section A-VIII/2 part3-1.

2.1.9   Vessel Handover

The arrangements for vessel handover between adjacent sectors 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 handover.

2.1.10   Maintenance of Marine Publications

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

2.2   **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 authority should have plans to address events such:

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

The following may be included in these plans:

- Remedial action;
- Callout procedures;
- Fall-back options;
- Recording of incident;
- Data safeguarding;
- Post-emergency debriefing.

3   EXTERNAL VTS PROCEDURES

VTS authorities should develop procedures governing routine operations external to the VTS, covering interactions between the VTS, participating vessels and allied services. External information exchange should be standardised as much as possible. In communications with participating vessels, the, IMO Standard Marine Communication Phrases (SMCP) (reference Resolution A.918(22)) should be used whenever applicable.

The following topics may be considered for inclusion. The list is neither mandatory nor exhaustive and should be adapted to suit local needs.

3.1   **Routine Procedures**

3.1.1   Pre-Arrival Information

Pre-arrival information is basic information regarding the vessel and its intent to enter the VTS area. The VTS authority should specify the format and timing of pre-arrival information. Aspects for consideration may include:

- Content of Pre-arrival:
    - Route plan;
    - ETA;
    - Vessel Identity (Name, IMO number, Call Sign, MMSI);

- Vessel draught;

- Hazardous, dangerous or polluting cargo details;

- ISPS security level;

- Information about any vessel defects or deficiencies; or

- Other specified details.

- Communication requirements for participating vessels;

- Processes to ensure advanced information has been obtained;

- Procedures for non-compliance; and

- Procedures for information exchange with allied services.

3.1.2 Vessels Entering VTS Area

When a vessel enters the VTS Area procedures for the following actions should be considered:

- Procedures for establishing communications and verifying vessel identity and position;

- Requirements for initial information exchange, which may include:
  - Confirm reporting requirements;
  - Provide relevant traffic information;
  - Provide navigational / fairway information;
  - Establish compliance with IMO requirements (charts and publications, passage plan, mechanical defects, personnel shortfalls).

- Procedures for updating information with allied services.

3.1.3 Vessels within VTS Area

Procedures should be established for vessels transiting a VTS area. These may include:

3.1.3.1 Mandatory Participation

- Identification of reporting requirements for the category/categories of service provided;

- Provision of relevant information to participating vessels at regular intervals or on demand or deemed necessary by the VTSO, including:
  - Environmental conditions;
  - Traffic situation;
  - Navigational conditions;
  - Traffic separations/overtaking restrictions;
  - Warnings and restrictions concerning the movement of traffic in the area.

- Special provisions for vessels carrying hazardous dangerous or polluting cargo;

- Compliance with pilotage directions and any special requirements for a pilot vessel being off station;

- Procedures for non-compliance by a vessel with the requirements and procedures laid down for the VTS area; and

- Procedures for information exchange/update on allied services.

3.1.3.2 Voluntary Participation

- Consideration of requirement to track/monitor and communicate with vessels not required to participate in the VTS; and

- Procedures for information exchange/update on allied services.

3.1.4   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 by a vessel with the requirements and procedures laid down for the VTS area; and
- Information exchange/update with respect to allied services.

3.1.5   Vessels at Berth

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;
- Security requirements and/or level;
- Special requirements to maintain communications watch;
- Need for restrictions for other vessels passing the berth;
- Reporting requirement for a vessels prior to leaving the berth;
- Non-compliance by a vessel with the requirements and procedures laid down for the VTS area; and
- Exchange/Update information exchange/update with respect to allied services.

3.1.6   Vessels Departing the VTS Area

Procedures should be established for vessels departing the VTS area. These may include:

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

3.1.7   Transition between Adjacent VTS Areas

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 destination;
- Process for continuous communication procedures; and
- Process to ensure vessel monitoring.

3.1.8   Adverse Environmental Conditions

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

- Restriction or prohibition on movement;
- Additional reporting requirements;
- Additional separation between vessels;
- 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.

3.2 Emergency Procedures

The services 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.

3.2.1 Collision, Capsize, Sinking, Grounding, Fire On Vessel, Man Overboard

Procedures should be established to deal with incidents such as collision, capsize, sinking, grounding, fire on vessel, 'man overboard', which may include the following actions:

- Alert rescue co-ordination centre;
- Inform and co-operate with relevant emergency services;
- Inform relevant regulatory authority/ies;
- Act on local call-out procedures;
- Consider back-up VTS personnel;
- Promulgate information concerning incident to vessels in VTS area;
- Restrict traffic in the area;
- Activate tugs and other support units; and
- Ensure all recording equipment is operating correctly.

3.2.2 Pollution

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

- Alert relevant environmental 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 in the area.

3.2.3 Places of Refuge

Places of Refuge 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.

3.2.4 Medical Emergency

Procedures for medical emergencies should be established. Actions may include:

- Inform MRCC rescue co-ordination centre;
- Inform coastal radio station;
- Consider special manoeuvring requirements.

3.2.5 Vessel Not Under Command (NUC)

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 on board situation;
- Maintain communication with vessel;
- Assess vessel's proximity to danger (danger to vessel itself and other traffic);
- Activate tugs and other support units if appropriate.

3.2.6   Security Incident

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

3.2.7   Protest Action

Procedures should be established to respond to protest action against a vessel transiting the VTS area. Actions may include:

- Alert responsible authority;
- Act on local call-out procedures, including VTS manager;
- Promulgate information concerning incident to vessels in the VTS area.

Throughout any protest action, the safety of ships and protestors is paramount.

3.2.8   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;
- Inform rescue co-ordination centre.