Document Revisions

**IALA Guideline No. ####**

**On**

**VTS Interaction with Allied and Other Services**

**Edition 1**

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# Introduction

**Preamble**

A Vessel Traffic Service (VTS) is recognised as a valuable asset to help prevent incidents resulting from conflicts in vessel traffic. This contributes to the safety and efficiency of maritime traffic, and protecting the marine environment. Consequently, VTS plays an important role in risk management, not only on behalf of maritime traffic safety and fluency, but also on behalf of the continuity of the maritime transport chain.

The role of VTS is well established and its services are well positioned in the maritime domain. However, this Guideline has a broad perspective, to help VTS authorities in their interaction with other services, outside the VTS area. For example, to respond to a request for the provision of tactical or strategic maritime traffic related information in order to support other services in the maritime transport chain. Also in the maritime domain, VTS information may be needed to support other services such as SAR organizations, maritime security- or environmental agencies, with whom the VTS Authority may not have had previous interaction. The possible stakeholders who may wish or need to co-operate with the VTS Authority need to be identified.

Also present legislation, guidelines and manuals could be studied in order to identify the limitations on possible interaction with allied and other services, identify inconsistencies with legislation, guidelines and manuals and determine any modifications necessary. In particular, the following references may provide guidance in this respect:

* IMO Resolution A857(20);
* IALA Recommendations V127 and V128 Annex 12;
* the IALA VTS Manual
* the IALA NAVGUIDE

**Objective**

This Guideline describes the issues to be considered and the principles to be respected for successful interaction between VTS and allied or other services.

Interaction with allied and other services may be established on a continuous basis, such as in law enforcement and regulatory compliance, or could be temporary, such as in emergency situations, SAR and disaster management, and may include interaction with stakeholders outside the maritime domain.

# Acronyms and definitions

Maritime Domain: is used as a generic term covering:

* all geographical areas (ocean, sea, coastal waters, harbour approaches, inland waters or all

other navigable waterways),structures in, on, under or bordering these areas;

* all aspects of maritime infrastructure in mentioned geographical areas (e.g. waterways, locks, bridges, specific traffic management arrangements);
* all activities between stakeholders relating to and/or adjacent to safety and efficiency of

shipping, security onboard and ashore and the protection of the marine environment;

* waterborne transport of people and cargo and its handling; and
* the all people within this domain.

Allied Service: Allied Services are services actively involved in the safe and efficient passage of the vessel trough the VTS area

Other Service: Refer to the use of VTS data to assist authorities or organisations pursuing other objectives to more effectively undertake their work (e.g. ensuring local security or preventing illegal imports).

VTS Data: is data produced by VTS and owned by the VTS Authority

Interaction: In this Guideline, interaction can be seen as a kind of action that occurs as two or more services have an effect upon one other.

Single Window: Within the context of UN/CEFACT recommendation 33[[1]](#footnote-1), a Single Window is defined as a facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export, and transit-related regulatory requirements. If information is electronic, then individual data elements should only be submitted once

Examples of allied and other services are described in Annex A.

Examples of operational procedures are described in Annex B.

# Criteria for VTS to interact with allied and other services

Where possible, VTS’ interaction with allied or other services should be based on at least the following principles or criteria:

* There should be a clear need for interaction between VTS and allied or other services;
* The interaction should not affect the integrity of the services concerned[[2]](#footnote-2)
* The interaction should be based on an arrangement that clearly states: The objective and scope of the interaction, the data and information exchanged, the purpose for (re)use of the data and information, and an external procedure with the operational details as in Annex C;
* The period of the interaction (when it is commencing and finishing);
* The mechanism or protocol that triggers the interaction if it is temporary. Also the same when interaction should finish;; and
* Legal, security and confidentiality considerations and constraints should be taken into account when the interaction arrangement is being established.

.A vital part of any modern VTS system is the capability to predict the future traffic image in the VTS area. These VTS systems are in many cases capable of many user functionalities for example:

* Import of voyage information;
* Export of the general traffic image interfacing with the voyage information;
* Export of the information of the vessels automatically connected to the available dangerous and polluting cargo and voyage information;
* Capability to automatically connect vessels to the available route information;
* Providing or relaying specific messages and
* Export of ETA/ATA (Estimated/Actual Time of Arrival) and ETD/ATD (Estimated/Actual Time of Departure) information, as indicating the time-dependent availability of resources available. .

Such capability of VTS systems can create value to allied and other services, even to satisfy business needs from stakeholders which are normally not associated with the VTS services. Nevertheless, the VTS Authority may choose to respond to those business needs, as long as the above mentioned principles underlying the interaction, are respected.

# interaction with Allied and other services

It should be taken into account, that interaction between VTS and allied or other services – inside or outside the maritime domain – could be necessary to sustain those other services. In such a case, an arrangement between the VTS Authority and the provider(s) of those services should be in place. In some cases, when considered necessary, support from VTS may extend outside the VTS area. This could result from national, regional or international arrangements.

Some examples of possible interaction between VTS and allied or other services are described in Annex B

# Identification of possible stakeholders

The core capability of VTS is to interact and respond to traffic situations developing in the VTS area. However, there are other stakeholders who may wish to interact with VTS or with whom the VTS wishes to interact. For this reason, in this document three separate types of stakeholders interacting with VTS are identified:

Shipside: Stakeholders aboard vessels; e.g. master of the vessel

Shoreside 1: Stakeholders ashore who interact directly with vessel traffic, e.g.;

VTS Authorities, Port Authorities, Coastguard centres, Pilotage Authorities, Ships Reporting Systems, SAR, MRCC,

Shoreside 2: Stakeholders ashore who interact indirectly with vessel traffic; parties assigned with other public responsibilities, e.g.:

National administrations, Customs, Immigration; border control, Port State Control, Fishing Associations, Shipping Inspection, and parties within the private domain such as shipping owners, agents, stevedores, terminal operators and other associated business.

The distinction between Shoreside 1 and Shoreside 2 stakeholders could be helpful in the process of setting up arrangements between the VTS Authority and subsequent stakeholders. In the case that an arrangement with a Shoreside 1 stakeholder is set up, it may be expected that more issues and more consideration to specific details should be given in order to avoid unintended action which may impair the VTS services. This may vary, depending on the country and legislation applicable.

In addition to the given stakeholders above, VTS may become involved, if not already, in the exchange of traffic related information with state, provincial or local government, and associated agencies or organizations, for purposes unfamiliar to the maritime domain; Such as monitoring emissions from shipping, securing vital supply chains for society and assess the risks associated with maritime transport of dangerous or polluting cargo close to coastal or port communities.

# Legal aspects and constraints

IALA Guideline 1086 on the global sharing of maritime data & information (June 2012) already provides valuable guidance on the legal aspects. The following is intended to supplement that Guideline.

There are a range of potential legal aspects and constraints that could affect the merit of and ability to use VTS information for allied and other purposes. The nature of these will vary between different countries. Factors that may influence the interaction include but are not limited to:

* Type of Governmental institutions;
* Types of legal systems;
* Specific national or provincial legislation on information access and protection of private and confidential information;
* Inter-agency arrangements;
* Business interests associated with sharing information and data;
* Government policies; and
* Possible involvement of private business entities as collectors or potential recipients of VTS information.

Further considerations in this respect are provided in Annex D.

# References

SOLAS Regulation V-12 Vessel Traffic Services

IMO Resolution A.857(20) Guidelines for Vessel Traffic Services

IALA Recommendation V-127 on Operational Procedures for Vessel Traffic Services

IALA Recommendation V-128 on Operational and Technical Performance Requirements for VTS Equipment

IALA Guideline 1086 (2012); the global sharing of maritime data & information

IALA VTS Manual (2012)

1. Examples of allied and other services

|  |  |
| --- | --- |
| **Port Authority& SAR** | Port Administration/Harbour Master/Duty Port Controller |
| MRCC |
| Port State Control (PSC) |
| Pollution Control (MARPOL) |
| **international** | Relevant International Organisations or Authorities (i.e. EMSA through SafeSeaNet - IMO) |
| Adjacent VTS and adjacent States Authority |
| **Law enforcement** | Border Control /Coast Guard/ |
| Police |
| Recognized Security Organization (RCO) |
| Navy\Military |
| **Others** | Fire-fighting services |
| Medical Assistance /Ambulance |
| Ship owners / Agents |
| Pilot organisation |
| Tugboat companies / Linesmen |
| Ice-breakers |
| Bay watch |
| Customs |
| Immigration |
| Port Service Providers |
|  |

1. possible support from VTS to allied or other services

**Security**

Through routine VTS operations and interaction with maritime traffic, VTS operators are aware of the situation and circumstances in the VTS area, and may be in a position to detect and report events out of the ordinary.

Though much has been written about Maritime Security in all relevant documents, there is no existing definition. SOLAS Chapter XI only provides a definition on Security Incident:

“Security incident means any suspicious act or circumstance threatening the security of a ship, including a mobile offshore drilling unit and a high-speed craft, or of a port facility or of any ship/port interface or any ship-to-ship activity.”

VTS may assist security assessments through:

* VTS in-depth knowledge of coastal, port and inland waterway infrastructure and its critical and vulnerable locations;
* VTS real-time knowledge of vessel activity, including scheduled movements, vessel locations and intentions;
* VTS-capability to interact with law enforcing authorities;
* VTS in-depth knowledge of regular port operations, including vessel routes and ship-port interface activities;

The VTS maintains regular and continuous communications with vessels in case a vessel is denied access to a port or restricted area for security reasons. The VTS may determine a safe anchorage, holding area or designated route. The VTS may communicate this information to the vessel and to the appropriate security authority, and monitor the vessel’s status while anchored or in the holding area, or its progress and compliance to the designated route.

**Safety and protection of the marine environment**

Prevention of intentional harm to vessels, waterways and infrastructure will contribute to the safety of personnel, vessels, cargo, and to the protection of the marine environment and of investments in port- or waterway infrastructure.

**Efficiency of maritime traffic**

Next to the support given by VTS for improving safety and the fluency of maritime traffic, support from VTS may also contribute to efficient information management in the maritime transport chain at large. For instance, when information and data contained in or captured by the VTS database is made available for re-use in a Single Window environment, multiple reporting and processing of the same information or data for different stakeholders can be avoided.(e.g., notice of arrival to coastguard, customs, immigration, etc.).

It should be noted that it is important to avoid confusion between allied services and the services provided by a VTS.

**Search and Rescue**

VTS operators are aware of the situation and circumstances in the VTS area and may be in a position to detect and report the present information of the SAR / emergency situation. VTS may collect information from all vessels concerned in SAR area.

In this manner VTS may assist, by providing and exchange of information to the MRCC for SAR and emergency operations in VTS area. An examples of good practice operational procedures concerning SAR and emergency situations are given in ANNEX C.

1. EXAMPLES OF OPERATIONAL PROCEDURES

**Introduction: VTS Role in emergency situations**

Co-operation with allied services is related to safety, security and efficiency. It should be a continuous process and action between services needs to be agreed. Procedures for the co-operation between parties may 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 the co-operations are laid down and responsibilities established.

**Operational Emergency Procedures**

The VTS functions according to IALA Recommendation V-127 “Operational Procedures for VTS” are subdivided into internal and external. External Procedures cover procedures that govern the interaction with participating vessels and allied services. The services of the VTS centre should be maintained during any emergency response.

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

Procedures may 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 relevant regulatory authority/ies;
* Inform relevant emergency services;
* 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.

**Pollution**

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

* Inform relevant regulatory authority/ies;
* Alert relevant environmental authority;
* 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.

**Places of Refuge**

Places of Refuge procedures may be developed, depending on national requirements and the particular arrangements arising of the implementation of IMO Resolution A.949(23) Guidelines on Places of Refuge for Ships in Need of Assistance.

**Medical Emergency**

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

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

**Vessel Not Under Command (NUC)**

Procedures in the event of a “vessel not under command” may 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.

**Security incident**

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

**Protest Action**

Procedures may 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.

**Natural Disaster**

Natural disaster procedures may 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

**Coastal accidents**

Coastal accident procedures with allied services should be established to deal with accidents involving swimmers or divers reported directly to VTS by witnesses. Actions may include:

* Inform maritime rescue co-ordination centre (MRCC);
* Inform other competent services.

**Risk Assessment and incidents classification. /Port of London good practice used/.**

### Correct classification of an incident is vital at the earliest possible stage, to ensure that an appropriate level of response and interaction with relevant allied services initiated. The numerous factors affecting the severity, complexity and duration of an incident must be thoroughly assessed. Incidents are to be classified only by authorised and qualified persons.

**Table 1. Simplified incident classification**

|  |  |  |  |
| --- | --- | --- | --- |
| Management and resources requirements |  | | |
| Low | Minor Incident | Minor Incident | Marine Emergency |
| Significant | Minor Incident | Marine Emergency | **MAJOR INCIDENT** |
| Critical | Marine Emergency | **MAJOR INCIDENT** | **MAJOR INCIDENT** |

MANAGEMENT AND RESORCE REQUIREMENT

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**Evaluation of incident levels (given for guidance only):**

Minor Incident

These constitute the vast majority of incidents. They have the following characteristics:

* Managed as a routine by VTS;
* Integral part of the duties of the VTSO;
* Generally of short duration and of little, if any, impact on routine port operations;
* Will have little, if any, impact on external parties concerned.

Marine Emergency

An emergency of important severity, requiring a rising levels of management and resources deployment to ensure an effective response.

Marine emergencies have the following characteristics:

* A real or perceived threat to life;
* Serious damage or the possibility of serious damage to the environment, vessels, installations, berth facilities or other significant river structures;
* The requirement to mobilise internal manpower and resources on a scale beyond normal day to day requirements;
* The requirement for attendance and action by external allied or other services;
* The closure of a navigation channel, or other such threat to the safety of navigation as a result of a marine or land based incident.

Major Incident

It has the following characteristics:

* Death, or serious injury to a number of people;
* Extensive damage to, or contamination of the environment;
* Extensive damage to vessels, installations, berth facilities or other significant river structures which involves the support or involvement of Category 1 responders;
* Serious disruption to the operation of the port.

**Table 2. INCIDENT CLASSIFICATION & ASSES example**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Human Impact | Material Disruption | Environmental Impact | Response Resources | Response Management | Media Interest |
| **MINOR INCIDENT** | Nil – Minor | Minor | Tier 1 | Routine | Day-to-day | None/Minor |
| **MARINE**  **EMERGENCY** | Some | Intermediate | Tier 2 | “Call-in” | Enhanced | Significant |
| **MAJOR INCIDENT** | Extensive | Major | Tier 3 | External | “Special Measures” | Intensive |

As a general principle, if in doubt, it is better to classify an incident to the next highest level the adverse consequences of having to “stand-down” resources are far less than not having resources available because of delays and indecision.

As result of classification made a VTS Emergencies Procedures are to be issued.

**Incident scenarios**

A variety of scenarios which may warrant a marine emergency response have been identified. The general and individual characteristics of the necessary response to such scenarios can been detailed in each incident action sheets.

Such action sheets are designed to guide and assist in the response to a specific incident, and act as a prompt/checklist for initial call-outs and notifications, and activation of resources. In addition, these action sheets may support training and education. In particular, these action sheets may be used for training exercise Completed Action Sheets should be collated by the appropriate Competent Authority at the end of the incident, along with other documentation generated during the response.

1. Further legal and security considerations

VTS authorities should also consider the purpose of any re-use of VTS information and how that influences the form and time in which information may be provided. For example, information to alert or assist search and rescue operations would generally be required freely and urgently. Other uses, such as compiling data on past shipping trends, could be provided at a later time, perhaps affording sufficient time for a formal written application.

In many cases, the objectives of the Act or high level legislation under which the VTS operates may determine how it may be re-used. If a VTS authority is part of an agency whose objectives include safety at sea and protection of the marine environment, it may be easier to provide information to organisations undertaking similar or complementary work such as marine parks and fisheries management. Another issue in some countries may be whether the eventual use of the transferred information is consistent with the purpose for which it was originally collected. This issue may be solved by clearly describing and specifying the purpose for which the data is collected in the first place from the outset.

Transfer and sharing of data & information, particularly between government agencies, should be based upon an agreement, memorandum of understanding or similar instrument between the VTS authority and the organisation requiring the data. It is also recommended that VTS authorities develop clear protocols and procedures so that data transfer is implemented and maintained consistently and correctly.

The type and format of information supplied by the VTS authority may influence the extent of its distribution. Aggregated information on shipping movement trends may be more readily and widely distributed than information that identifies individual vessels.

In many countries, specific legal instruments may override other general policies. Examples of such instruments include search warrants and court orders.

Where VTS information may need to be used for evidence purposes, VTS authorities should consider data collection and storage protocols that will safeguard the information & data’s security and handling continuity to protect the information & data’s admissibility as evidence in court.

If more than one agency or country contributes to the collection of information supplied to a VTS authority, the question of data ownership and transfer policy may need to be jointly resolved. All VTS authorities should also consider the issue of protocols for any subsequent transfer of information from the recipient organisation to third parties.

1. UN/CEFACT recommendation (33) and Guidelines on establishing a Single Window to enhance the efficient exchange of information between trade and government [↑](#footnote-ref-1)
2. This includes the integrity of the technical infrastructure and systems used in the interaction. [↑](#footnote-ref-2)