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**On**

**Provision of**

**Information Service,**

**Navigational Assistance Service and Traffic Organisation Service**

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

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# introduction

The purpose of Vessel Traffic Services (VTS) is to improve the safety and efficiency of navigation, safety of life at sea and the protection of the marine environment and/or the adjacent shore area, worksites and offshore installations from possible adverse effects of maritime traffic.

Chapter V “Safety of Navigation” of the SOLAS 1974 Convention, Regulation V-12 “Vessel Traffic Services”, states, amongst other things, that:

*“Vessel traffic services contribute to safety of life at sea, safety and efficiency of navigation and protection of the marine environment, adjacent shore areas, work sites and offshore installations from possible adverse effects of maritime traffic.”*

“Contracting Governments planning and implementing VTS shall, wherever possible, follow the guidelines developed by the Organization.”

IMO Resolution A.857(20) *Guidelines for Vessel Traffic Services* define a Vessel Traffic Service (VTS) as a:

“S*ervice 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.”*

In providing definitions and clarifications with regards to VTS services, IMO Resolution A.857(20) also states that:

“*VTS should comprise at least an Information Service and may also include others, such as a Navigational Assistance Service or a Traffic Organisation Service, or both.*”[[1]](#footnote-1)

The principles of vessel traffic services are governed by a hierarchy of regulatory requirements and guidelines. Key requirements and guidelines include:

1. SOLAS Regulation V-12 “Vessel Traffic Services”
2. IMO Resolution A.857(20) Guidelines for Vessel Traffic Services
3. ~~IMO Resolution A.851(20) General Principles for Ship Reporting Systems and Ship Reporting Requirements~~
4. ~~Resolution MSC.43(64) Guidelines and Criteria for Ship Reporting Systems~~
5. IMO Resolution A918(22) IMO Standard Marine Communication Phrases
6. IALA Vessel Traffic Services Manual (2008)

The IMO Resolution also states that:

***“An Information Service*** *provides essential and timely information to assist the on-board decision-making process.”*

Previous IALA Guideline 1068 on *Provision of a Navigational Assistance Service by Vessel Traffic Service* has been superseded by this guideline.

## Objective

The aim of this document is to provide guidance on the delivery of the different types of services such as Information Service, Navigational Assistance Service and Traffic Organisation Service by a VTS [to ensure that the service provided is consistent worldwide].

Implicit in the statement that contracting governments, wherever possible, shall follow the VTS guidelines developed by the Organisation, is the need to ensure consistency in the approach taken to the delivery of VTS and to avoid confusion for the mariner trading between various jurisdictions about the delivery of VTS services.

# Acronyms and Definitions

To assist in the use of these Guidelines, the following acronyms and definitions have been used:

|  |  |  |
| --- | --- | --- |
| ***Acronyms*** | | |
| *COG* | | Course over Ground |
| *IALA* | | International Association for Marine Aids to Navigation and Lighthouse Authorities |
| *IMO* | | International Maritime Organization |
| *MSC* | | Maritime Safety Committee (Standing Committee of IMO) |
| *OOW* | | Officer of the Watch |
| *SMCP* | | IMO Resolution A.918(22) IMO Standard Marine Communication Phrases |
| *SOG* | | Speed over Ground |
| *SOLAS* | | United Nations Convention on the Safety of Life at Sea |
| *VTS* | | Vessel Traffic Services |
| *VTSO* | | Vessel Traffic Services Operator |
|  | | |
| ***General Definitions*** | | |
| *Competent Authority* | | The authority made responsible, in whole or in part, by the Government for safety, including environmental safety, and efficiency of vessel traffic and the protection of the environment.**1** |
| *Information Service (INS)* | | A service to ensure that essential information becomes available in time for on-board navigational decision-making. |
| *Navigational Assistance Service (NAS)* | |  |
| *Participating Vessel* | | Vessels navigating in an area where vessel traffic services are provided should make use of these services. Depending upon governing rules and regulations, participation in a VTS may be either voluntary or mandatory. Vessels should be allowed to use a VTS where mandatory participation is not required. **1** |
| *Traffic Organisation Service (TOS)* | |  |
| *Vessel Traffic Services (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**  VTS should comprise at least an information service and may also include others, such as a navigational assistance service or a traffic organization service, or both.**1** |
| *VTS Authority* | | The authority with responsibility for the management, operation and coordination of the VTS, interaction with participating vessels and the safe and effective provision of the service.**1** |
| *VTS Centre* | | The centre from which the VTS is operated.**1** |
| *VTS Operator* | | An appropriately qualified person performing one or more tasks contributing to the services of the VTS.**1** |
| *VTS Traffic Image* | | The surface picture of vessels and their movements in a VTS area.**1** |
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| ***Course, Track and Heading Definitions*** | | |
| *Course* | | The intended direction of movement of a vessel through the water.**2** |
| *Course Made Good* | | That course which a vessel makes good over ground, as a result of the effect of currents, tidal streams, and leeway caused by wind and sea. |
| *Course to Make Good* | | That course which a vessel intends to make good over ground, after allowing for the effect of currents, tidal streams, and leeway caused by wind and sea. (Be aware that this term does not equate to Course to Steer). |
| *Track* | | The path followed, or to be followed, between one position and another. **2** |
| *Heading* | | The horizontal direction of the vessel's bows at a given moment measured in degrees clockwise from north. **2** |
|  | |  |
|  | |  |
| **1** | IMO Resolution A.857(20) Guidelines For Vessel Traffic Services | |
| **2** | IMO Resolution A.918(22) IMO Standard Marine Communication Phrases | |

# GENERAL PROVISIONS

## Responding to traffic situations developing in the VTS area

IMO Resolution A.857(20) states that:

*“A VTS should at all times be capable of generating a comprehensive overview of the traffic in its service 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 service area. The VTS traffic image allows the VTS operator to evaluate situations and make decisions accordingly.

To respond to traffic situations developing in the VTS area and to decide upon appropriate actions the acquired data should be processed and evaluated. Conclusions from the evaluation need to be communicated to participating vessels by giving relevant information and in regard to the provided service type.

## Equipment capabilities

Consideration should be given to the quality of the traffic image available, the communications capability and the equipment availability in determining to provide the specific service type. For further information refer to IALA Recommendation V-128 – *Operational and Technical Performance Requirements for VTS Equipment*.

## Staffing and training

It is important that VTS personnel should be trained and practiced in the delivery of the service type provided. In determining to provide VTS service types, the VTS/Competent Authorities should give careful consideration to:

* VTS staffing levels;
* The qualifications of VTS personnel and appropriate delegations/authorisations regarding the type of service they may provide.

For further information refer to IALA Recommendation V-103 - *VTS Operator Training* and IALA Guidelines 1045 *on Staffing Levels at VTS Centres.*

## ~~Legal~~

~~It is important that consideration is given to the national and international legal basis for the provision of the service type provided. Advice by VTS personnel should be given under the regulatory powers and responsibilities of the VTS / Competent Authorities.~~

*~~(~~The legal basis and liability should also be considered. – from Guideline 1071)*

## Operational procedures

All details for the provision of any type of service, including the terminology used, should be contained in the Standard Operating Procedures (SOP) of the VTS Centre.

Further information and guidance on preparing operational procedures is provided in the IALA Recommendation V-127 *on Operational Procedures for Vessel Traffic Services.*

## Promulgation of information and types of services

The services offered to the mariner by a VTS should be promulgated to vessels in the appropriate internationally recognised marine publications, including the IALA World VTS Guide and locally produced User Guide or Manual. This should include details of the VTS, its capabilities, types of service provided, rules, regulations, requirements and procedures. The information promulgated should be verified and up-dated at least at annual intervals.

## Message markers

There are eight types of communication message markers that are frequently used in VTS which may be used to emphasise the content of the message or to ensure that the message will be properly understood, particularly when language difficulties are apparent between the VTS and the vessel.

It is at the discretion of the VTS or the bridge team whether to use one of the message markers and, if so, which marker is applicable to the situation. However, it is recommended that message markers are used when providing Vessel Traffic Services. If used, the message marker is to precede the message or the corresponding part of the message.

1. Message markers [[2]](#footnote-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Message Markers*** | ***Description*** | ***Service types*** | | |
| ***INS*** | ***NAS*** | ***TOS*** |
| *Information* | This indicates that the following message is restricted to observed facts, situations  ***Note:*** *This marker is preferably used for navigational and traffic information, etc. Consequences of INFORMATION will be up to the recipient* | X | X | X |
| *Warning* | This indicates that the following message implies the intention of the sender to inform others about danger  ***Note:*** *This means that any recipient of a WARNING should pay immediate attention to the danger mentioned. Consequences of a WARNING will be up to the recipient.* | (X) | X | X |
| *Advice* | This indicates that the following message implies the intention of the sender to influence others by a recommendation.  ***Note****: The decision whether to follow the ADVICE still stays with the recipient. ADVICE does not necessarily have to be followed but should be considered very carefully.* | (X) | X | X |
| *Instruction* | This indicates that the following message implies the intention of the sender to influence others by a Regulation.  ***Note:*** *This means that the sender, e.g. a VTS Station or a naval vessel, must have full authority to send such a message. The recipient has to follow this legally binding message unless he/she has contradictory safety reasons which then have to be reported to the sender.* | - | (X)[[3]](#footnote-3) | X |
| *Question* | This indicates that the following message is of an interrogative character.  ***Note:*** *The use of this marker removes any doubt as to whether a question is being asked or a statement is being made, especially when interrogatives such as what, where, why, who, how are additionally used at the beginning of the question. The recipient is expected to return an answer.* | X | X | X |
| *Answer* | This indicates that the following message is the reply to a previous question.  ***Note:*** *An answer should not contain another question.* | X | X | X |
| *Request* | This indicates that the following message is asking for action from others with respect to the vessel.  ***Note:*** *The use of this marker is to signal: I want something to be arranged or provided, e.g. ship´s stores requirements, tugs, permission, etc.* | X | X | X |
| *Intention* | This indicates that the following message informs others about immediate navigational action intended to be taken.  ***Note:*** *The use of this message marker is logically restricted to messages announcing navigational actions by the vessel sending this message.* | X | X | X |

# Description of information service (INS)

## General

The *information service* is provided by broadcasting information at 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 Information Service involves maintaining a traffic image and allows interaction with traffic and response to developing traffic situations.

An INS provides essential and timely marine information to assist the on-board decision-making process, which may include:

* The position, identity, intention and destination of vessels;
* Amendments and changes in promulgated information concerning the VTS area such as boundaries, procedures, radio frequencies, reporting points;
* The mandatory reporting of movements;
* Meteorological and hydrological conditions, notices to mariners, status of aids to navigation;
* Limited maneuverability that may impose restrictions on the navigation of other vessels, or any other potential hindrances.

## Provision of Information Service

## Who may give Information Service

## When to give Information Service

Information Service may be provided;

* by broadcasting information at fixed times and intervals;
* when deemed necessary by the VTS; or
* at the request of a vessel.

## Broadcasting

?

## Deemed necessary

?

## On request

?

## What to give in an Information Service

## Types of information used under an Information Service

The SMCP gives examples of phrases regarding the provision of Information Service which may be given by the VTS:

|  |  |
| --- | --- |
| **Types of information:** | **Examples:** |
| Electronic navigational aids information | “INFORMATION. GPS Satellite ...*(number)* unusable from ...*(date and time)* to ... *(date and time)*.  “INFORMATION. RACON ... *(name of station)* in position ... off air ... from ... *(date and time).”* |
| Hydrographic information | “INFORMATION. Abnormally high / low tides are expected in position ... / area ... at about ... UTC.”  “INFORMATION. Charted depth has increased / decreased by ... metres due to winds / sea state.” |
| Meteorological information | “INFORMATION. Visibility in position ...~ ... metres / nautical miles.  “INFORMATION. Wind direction ...*(cardinal points)*, force Beaufort ... in position ... .” |
| Meteorological questions and answers | “QUESTION. What is wind direction and force in your position / in position ... ?”  “ANSWER. The atmospheric pressure in your position / in position ... is ... millibars/hectopascals.” |
| Meteorological warnings | “INFORMATION. Gale warning / storm warning was issued at ... UTC starting at ... UTC .”  “INFORMATION. Severe icing condition exists in area ... UTC.” |
| Navigational information | “INFORMATION. (C*harted name of light / buoy)* in position ... unlit / unreliable / damaged / destroyed / off station / missing.”  “INFORMATION. Current meters / hydrographic instruments moored in position ...” |
| Navigational warnings | “INFORMATION. A navigational warning with no... has been issued regarding drifting mine in area...”  “INFORMATION/WARNING. Dangerous wreck / obstruction located in position ... marked by ... *(type)* buoy” |
| Route information | “INFORMATION. Route ... has been suspended / discontinued.”  “INFORMATION. Traffic Lane ... has been diverted.” |
| Traffic information | “INFORMATION. Vessel not under command in position ... / area ...”  “INFORMATION. Vessel constrained by her draft in position … area … (course … degrees … speed … knots).” |

*Local warning* means a navigational warning which covers inshore waters, often within the limits of jurisdiction of a harbour or port authority.

**.8** *Maritime safety information (MSI)*2 means navigational and meteorological warnings,

meteorological forecasts and other urgent safety-related messages broadcast to ships.

(y=IMO Res A706(17)a-World-wide navigational warning service)

## Where is the service given

## How to give Information Service

## Message markers used under an Information Service

When providing Information Service the following message markers may be used:

INFORMATION

WARNING

ADVICE

QUESTION

ANSWER

REQUEST

INTENTION

Instruction as a message marker should never be used in an Information Service.

For more information see the IMO Resolution A.918(22) *IMO Standard Marine Communication Phrases*.

Examples of the use of the message markers QUESTION, ANSWER, REQUEST and INTENTION are provided in the SMCP. The use of the message markers INFORMATION, WARNING and ADVICE are particularly relevant to the provision of an Information Service and are further explained below.

#### INFORMATION

SMCP defines Information as a communication whereby the message is restricted to observed facts, situations, etc. and is preferably used for navigational and traffic information.

As such, it is a relay of information extracted from the VTS sensors and the traffic image where no professional opinion by the VTSO is included, other than the determination by the VTSO that the information is relevant to the mariner.

Implicit in this definition is that the consequences of using the INFORMATION will be up to the recipient.

Examples of the provision of an INFORMATION Message during the delivery of Navigational Assistance to a vessel include:

Course and speed over the ground by a vessel;

Position relative to fairway axis, navigational features and/or way-points;

Proximity to navigational hazards; and

Positions, identities, intentions and any restrictions of surrounding traffic.

For example:

|  |  |
| --- | --- |
| Example 1 | “INFORMATION, According to my equipment, vessel “No Name” will overtake you on your starboard side in the vicinity of Buoy “….”. |
| Example 2 | “INFORMATION, Next high water at Port “YY” predicted to be “….” at a height of “ZZ” metres. |

#### WARNING

The provision of information during the delivery of Navigational Assistance may also include Warnings. SMCP defines WARNING as a communication whereby the message implies the intention of the sender to inform others about danger. It may be used to convey potentially dangerous situations or observed developing situations.

As such, it is a relay of information extracted from the VTS sensors and the traffic image and, in the professional opinion of the VTSO, the message should be communicated to inform a vessel about potential danger.

The contents of a Warning Message should be immediately assessed onboard the vessel in conjunction with any additional information which may not be available to the VTS centre.

Implicit in this definition is that the recipient should pay immediate attention to the danger mentioned. The consequences of a WARNING will be up to the recipient. Subject to the response of the vessel, a Warning Message may be followed by further messages such as ADVICE. Examples of the provision of a Warning Message during the delivery of Information Service to a participating vessel include:

|  |  |
| --- | --- |
| Example 1 | "WARNING. Obstruction in the fairway. Submerged container …. degrees, distance …. meters from …. buoy.” |
| Example 2 | “WARNING. According to my equipment you are running into shallow water.” |
| Example 3 | “WARNING. According to my equipment, you will pass close to the outgoing vessel bearing …… degrees distance … nautical miles.” |

#### ADVICE

SMCP defines ADVICE as a communication whereby the message implies the intention of the sender to influence the recipient by a recommendation*.*

Implicit in this definition is:

* A professional opinion on the part of the VTSO is included in the message as a means to influence the recipient; and
* The recipient should pay immediate attention to the advice mentioned and the consequences of using the information provided will be up to the recipient. Advice does not necessarily have to be followed but should be considered very carefully by the recipient;
  + The recipient should always inform the VTS of intended actions.
* The provision of advice in response to a developing situation may also include or require:
  + An assessment of the suitability of the vessel to respond to the advice provided including an assessment of linguistic ability;
  + A review of vessel characteristics including manoeuvrability relative to the area in which the service is provided and any defects or deficiencies;
  + An assessment of the environmental conditions;
  + An assessment of the implications of the cargo carried.

Examples of the provision of ADVICE during the delivery of Navigational Assistance to a participating vessel include:

|  |  |
| --- | --- |
| Example 1 | “WARNING. According to my equipment, you are diverging from the recommended track.”  “ADVICE, Follow the recommended track.” |
| Example 2 | “ADVICE. Recommend course to make good ... degrees.” |
| Example 3 | “WARNING. According to my equipment you are running into shallow water, distance ...”  “ADVICE. Recommend course … degrees.” |

VTS personnel and mariners should be fully aware of the implications of words such as "track", "heading", "course made good", “course to make good” and “course”.

Advice given from the VTS Centre should be result-oriented. Generally, advice should be provided using the terms “track” or “course to make good”.

When authorised by the competent authority and when intervention by VTS is deemed necessary or requested by a vessel, the VTS operator may advise or recommend a course. However, it should be understood that the safe and effective execution of the action remains the responsibility of the master.

In all circumstances when ADVICE is given, VTS personnel should monitor its effect carefully.

VTS/Competent Authorities should consider the legal implications of authorising VTS personnel to issue ADVICE and the competence of staff to give it.

#### QUESTION

#### ANSWER

#### REQUEST

#### INTENTION

# Description of Navigational assistance service (NaS)

## General

## Provision of Navigational Assistance Service

## Who may give Navigational Assistance Service

## When to give Navigational Assistance Service

## What to give in a Navigational Assistance Service

## Types of information used under a Navigational Assistance Service

## Where is the service given

## How to give Navigational Assistance Service

## Message markers used under a Navigational Assistance Service

When providing Navigational Assistance Service the following message markers may be used:

INFORMATION

WARNING

ADVICE

QUESTION

ANSWER

REQUEST

INTENTION

Instruction as a message marker should not be used in a Navigational Assistance Service.

For more information see the IMO Resolution A.918(22) *IMO Standard Marine Communication Phrases*.

# Description of Traffic organisation service (TOS)

## General

## Provision of Traffic Organisation Service

## Who may give Traffic Organisation Service

## When to give Traffic Organisation Service

## What to give in a Traffic Organisation Service

## Types of information used under a Traffic Organisation Service

## Where is Traffic Organisation Service given

## How to give Traffic Organisation Service

## Message markers used under a Traffic Organisation Service

When providing Traffic Organisation Service the following message markers may be used:

INFORMATION

WARNING

ADVICE

INSTRUCTION

QUESTION

ANSWER

REQUEST

INTENTION

For more information see the IMO Resolution A.918(22) *IMO Standard Marine Communication Phrases*.

# REFERENCES

[1] SOLAS Regulation V-12 “Vessel Traffic Services”

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

~~[3] IMO Resolution A.851(20) General Principles for Ship Reporting Systems and Ship Reporting Requirements~~

[4] IMO Resolution A.918(22) IMO Standard Marine Communication Phrases

[5] IALA Recommendation V-127 On Operational Procedures for Vessel Traffic Services

[6] IALA VTS Manual (2008)

[7] IALA Recommendation V-128 – Operational and Technical Performance Requirements for VTS Equipment Edition 3.0

[8] IALA Recommendation V-103 - VTS Operator training

IALA Guidelines 1045 on Staffing Levels at VTS Centres

1. [↑](#footnote-ref-1)
2. Extracted from IMO Resolution A.918(22) IMO Standard Marine Communication Phrases [↑](#footnote-ref-2)
3. The VTSO should have been given the authority to use Instruction. [↑](#footnote-ref-3)