Document Revisions (Title style)

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

**On**

**VTS Communications**

**Edition 1**

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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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VTS Communications (Title style)

# Introduction

As the maritime industry becomes more globalised with a diversified manpower originated from different parts of the world, effective and clear communication based on mutual intelligibility, regardless of interlocutors’ linguistic and cultural backgrounds, has been considered as the key.

A significant amount of attention needs to be paid to this growing phenomenon considering that the distribution of seafarers from non-native-English regions are considerably high; the number of crew members belonging to these areas is expected to increase in the future. In order to cope with the cross-cultural VTS communication in a clear and well-organized manner, in this sense, the understanding and employing effective communication strategies is regarded highly essential It is therefore crucial that both non-native and native English speakers speak in a structured and effective manner to facilitate mutual understanding. The scope of the VTS communication strategies is quite varied, for example: the correct use the VHF transceivers; the utilization of the standardized terminology and phraseology (i.e. SMCP) and plain language for dealing with unusual and emergency situations; paralinguistic transmitting techniques (e.g. speech rate, tone, word grouping, pause, nuclear stress); the understanding of cross-cultural communication (e.g. different cultural perceptions toward problem-solving, language anxiety, and accommodation ability) and the effective structure of VTS messages.

Information that is used to introduce the document, including reference to lead-up to the creation of the document. This should also include references to any IALA Conference or Symposium recommendations that led to the document creation.

All text should be English UK

General rationale – not just for non-native English speakers (IMO Model Course on Maritime English 3.1.7). Talking to everyone.

(1089) – Purpose of VTS

Lingua Franca – English as a universal language

Deliberate

Plain english

## Objective

This document should provide support to VTS personnel that will promote best practice in effective VTS radio communications. It should be a working document that is practical, limited in length and user friendly. The document is harmonised with other existing relevant documentation that provide communication guidance. It will review and supplement the IMO SMCP VTS section. It should also provide advice, that not only coaches new VTS personnel but guards against complacency with more experienced operators.

Key areas included in this document will be ground rules, message structure and a limited number of common phraseology.

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# Background

SMCP – supplementation, and this document will inform a review of SMCP in the future.

Reasons for accidents – (Estonian document)

Efficiency of VTS depends on comms (A857 (20) 2.1.3)

Participating vessels (A857(20) 2.6) - seafarers

# ACronyms and Definitions

Background would be a section of the introduction, if required. It could refer to previous editions or other IALA documents that have been used / are superseded by this document.

PTT - Push-To-Talk also known as Press-To-Transmit, is a method of using a [button](https://en.wikipedia.org/wiki/Switch#Biased_switches) to switch from voice reception mode to transmit mode.

Over – Out

Acronyms (From 1089)

Comms under each type of service including examples (1089) (A857 (20))

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1. List 1

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# Ground Rules

Intro - Cross cultural communication – anxiety (ICAO 9835), Be professional – Use best practice

Rationale behind each ground rule and source. List of skills (VTS Manual chapter 11.1102) c

**How to use VHF – This section refers to the correct use of audio equipment - M**

The correct use of radio equipment are essential if transmissions are to be successfully received and understood at the first attempt. Here are reported some tips that VTS operators should keep in mind in order to proceed with a correct use of VHF equipment:

HEADSET

* In many situations, particularly in noisy or difficult conditions, the use of headsets fitted with a noise cancelling microphone is preferable to loudspeakers: a headset will aid concentration and the audibility of the incoming calls

MICROPHONE

* The microphone should as close to the mouth as the system requires

PTT

* Completely push in the PTT button, wait a second, and then just start talking. This procedure could be necessary when you are using a remote VHF
* Release the pressel switch promptly. Depress the transmit switch fully before speaking and do not release it until the message is completed. This will ensure that the entire message is transmitted.
* Be aware if your PTT is still remain pressed after a communication or in other words on releasing the pressel switch, ensure that the radio returns to the receive condition. An irritating and potentially dangerous situation in radiotelephony is a "stuck" microphone button. Operators should always ensure that the button is released after a transmission and the microphone placed in an appropriate place that will ensure that it will not inadvertently be switched on.
* After a communication leave enough time (few seconds) before start to communicate again. This could avoid an overlapping of communications between transmitter and receiver

LOG

* Whenever practical to do so, radio logs should be maintained and saved for further uses. The log should be written legibly in the operator’s own hand or electronically and should include relevant information such as time and date, name of station calling, summary part of communication.

RADIO CHECK

* A VTS station is understood to have good signal strength and readability unless otherwise notified. Strength of signals and readability will not be exchanged unless VTS cannot clearly hear another vessel. A VTS that wishes to inform ship of his signal strength and readability will do so by means of a short and concise report of actual using radio check procedures as reported in SMCP.

Practical use of VHF – (VTS Manual Chapter 11 -1102) // (NATO document) // ATC UK Manual

**How to compile a message – This section refers to the preparation, formulation and structure of messages. Specifically the content of VTS radio communications. -C**

In this regard, understanding English as a Lingua Franca (ELF), which English is used as a common tool of communication among speakers of different first languages, is highly important for VTS operators in achieving successful VTS communication in cross-cultural contexts.

USE ACTIVE VOICE, UNLESS THERE’S A GOOD REASON TO USE THE PASSIVE

* It eliminates ambiguity about responsibilities. Passive voice obscures who is responsible for what.
* Active voice emphasized the doers of an action. It is briefer, clearer and more emphatic than passive voice.

PREFER A FAMILIAR WORD TO AN UNFAMILIAR WORD

* Definite, concrete, everyday words
* Choose common, everyday words

OMIT UNNECESSARY WORDS

* Words are superfluous when they can be replaced with fewer words that mean same thing. For instance you can use a simpler word for these phrases: In order to -> to; In the event that -> if; Prior to -> before; Is able to -> can; A number of -> many.

SPEAK IN THE “POSITIVE”, RATHER THAN NEGATIVE

* Speaking in positive way \_\_\_\_\_\_\_\_\_ : Not certain -> uncertain; Not accept -> reject; not unlike -> similar, alike

WRITE SHORT SENTENCES

* The longer and the more complex a sentence, the harder it is for readers to understand any single portion of it
* Short, simple sentences enhance the effectiveness of short, common words.
* It is easier for your audience to understand your message when you communicate in short, simple sentences. Keep your entire message short. Your audience will better appreciate and remember your message if you get it across quickly and effectively
* Use clear, straightforward sentences.

KEEP SUBJECT, VERB AND OBJECT CLOSE TOGETHER

* The natural word order of an English sentence is subject-verb-object. This is how you first learned to write sentences, and it is still the best. When you put modifiers, phrases, or clauses between two or all three of these essential parts, you make it harder for the reciver to understand you.
* The natural word order of English speaker is subject-verb-object. Your sentences will be clearer if you follow this order as closely as possible.

SPELL

* For better understanding, in case of presence of numbers or letters (names of buoys, stations, call signs etc.), spelling should be necessary using the tables defined in SMCP

The 7 C of communication

1.Clear.

2.Concise.

3.Concrete.

4.Correct.

5.Coherent.

6.Complete.

7.Courteous.

Quality (accuracy) of information (VTS Manual chapter 4)

Future – non-native multiculturality (IMO Model Course on Maritime English 3.1.7)

Assumptions – (Estonian document)

Conditionals - (SMCP)

Local Names / Terms - (SMCP)

Times - (SMCP)

Plain English

Human – hesitant, pressure

Direct

KISS - Simple - (A851(20)Chapter 1)

Leading Questions

See it say it - (A851(20)Chapter 1)

Concise – essential info (A857(20) 2.4.1) (A851(20)Chapter 1) filler words, every word must have a reason for being there.

Assumptions

Result Oriented – (VTS Manual - chapter 18 1803/04/05), (A857(20) 2.3.4)

SMCP – Message Markers (VTS Manual - chapter 18 1803/04/05) (1089) context – legal standing – make clear designation (A857(20)2.4.2) – (IMO MSC 43(64) (Chapter 2) - (SMCP)

Spelling / numbers - (SMCP)

Structure - MSC 43(64) (Chapter 2) link to section 5. This is /Over / Out

Type of Vessel

What is the recipient doing? - (A851(20)Chapter 1)

THINK – (NATO document)

Clear

Accurate

**How to deliver a message – This section refers to transmitting techniques used in VTS radio communications. -M**

VHF radio communication is the most important means of day-today VTS communication. When communicating orally using radio devices, information exchanges and broadcasts must be as professional, clear, concise and precise as possible. In order to achieve an effective communication the following steps should be considered:

PREPARATION

* Do not transmit if you are not ready
* listen out on the frequency to be used to ensure that there will be no interference with a transmission from another station (no communications are incoming)
* Do not use VHF for no official communications
* Be polite and professional

SPEED

* Speak slightly slower than for normal conversation. Where a message is to be written down by the recipients, or in difficult conditions, extra time should be allowed to compensate for the receiving station experiencing the worst conditions. Speed of transmission is easily adjusted by increasing or decreasing the length of pauses between phrases, as opposed to altering the gaps between words; the latter will create an unnatural, halted style of speech, which is difficult to understand. A slight pause before and after numbers will assist in making them easier to understand. For instance in case of emergency situations the speech rate should not exceed 100 words per minute. When it is known that elements of the message will be written down by recipient, speak at a slightly slower rate.

VOLUME

* Speak quietly when using whisper facilities, otherwise the volume should be as for normal conversation. Shouting causes distortion.

WORDS GROUPING AND PAUSING \_\_\_\_\_\_

* Provide one phrase for one event. Use short sentences divided into sensible phrases which maintain a natural rhythm; they should not be spoken word by word. Where pauses occur, the PTT should be released to minimize transmission time and permit stations to break in when necessary.

NUCLEAR STRESS

* The voice should be pitched slightly higher than for normal conversation to improve clarity.
* Stress the main word of context -……

PRONUNCIATION OF LETTERS.

* To help identify spoken letters of the alphabet a standard phonetic word alphabet is used. Each letter of the alphabet is represented by a uniquely pronounced word to enable consistent and accurate pronunciation.

PLAIN TEXT

* Spelling is necessary when difficult radio conditions prevent the reception of an obscure word, or of a word or group, which is unpronounceable. Such words or groups within the text of plain language messages may be spelt using the phonetic alphabet.

ABBREVIATIONS

* Although originally designed to save time in writing, abbreviations will often save time in speech. Many abbreviations are so commonly used in normal speech they are more familiar than their original unabbreviated form. The use of such abbreviations in radio transmissions is to be encouraged provided that:
  + They are quicker and easier to use than the full word.
  + They are sufficiently well known to avoid any confusion and subsequent confirmatory transmissions.
  + Where an abbreviation has more than one meaning, the intended meaning is obvious to the addressee from its context or frequent usage.

RESULT ORIENTED MESSAGES

* A fundamental principle of VTS communications is that advice and instructions should be ‘result oriented’ only; leaving the execution to the vessel. The execution, such as courses to be steered or engine manoeuvres to be ordered, remains the responsibility of the person on board accountable for navigational decision making at that time

Timely (A857(20) 2.1.3)

Word Grouping – Lingua Franca Core Phonology (ICAO 9835)

Linguistic – variations (accents, tone etc) (IMO Model Course on Maritime English 3.1.7)

Ambiguity – (Estonian document) (SMCP)

Native communicators accommodation ability (ICAO 9835)

Nuclear Stress – Lingua Franca Core Phonology (ICAO 9835)

Tone

Calm

Direct

Confident

Polite

Attitude

RSVP – (NATO document) // Pace – ICAO (Emergency) 100 wpm (very slow) (what is the best – research) // Pausing (Lingua Franca Core Phonolgy (ICAO 9835))

Clear

**How to interpret a message – This section refers to the accurate interpretation of radio communications received by a VTS. - C**

Briefly describe how the communication is influenced by external (cultural, noise) and internal (feelings, fatigue) factors.

Mental prepared

Cultural differences (finding a good words……)

 **The use of jargon.** Over-complicated, unfamiliar and/or technical terms.

 **Emotional barriers and taboos.** Some people may find it difficult to express their emotions and some topics may be completely 'off-limits' or taboo.

 **Lack of attention, interest, distractions, or irrelevance to the receiver.** (See our page **[Barriers to Effective Listening](http://www.skillsyouneed.com/ips/ineffective-listening.html)** for more information).

 **Differences in perception and viewpoint.**

 **Physical disabilities such as hearing problems or speech difficulties.**

 **Physical barriers to non-verbal communication.** Not being able to see the non-verbal cues, gestures, posture and general body language can make communication less effective.

 **Language differences and the difficulty in understanding unfamiliar accents.**

 **Expectations and prejudices which may lead to false assumptions or stereotyping.**  People often hear what they expect to hear rather than what is actually said and jump to incorrect conclusions.

 **Cultural differences.**  The norms of social interaction vary greatly in different cultures, as do the way in which emotions are expressed. For example, the concept of personal space varies between cultures and between different social settings.

Linguistic – variations (accents, tone etc) (IMO Model Course on Maritime English 3.1.7)

Native communicators accommodation ability (ICAO 9835)

hearback (active listening)

**Monitoring (after) – This section refers to the evaluation of a vessels understanding and its consequent actions following a VTS radio communication. It also refers to the personal review of a VTSO’s own communications. - M**

When the sender sends his message for the receiver he receives feedback. When people come from different cultural backgrounds, the message as well as the feedback are often affected by cultural barriers thus hindering the understanding of those messages conveyed. Other barriers that could hinder communication are:

* language \_\_\_\_\_
* read-back problems
* clipping (speak before keying a microphone)

The process of seafarer/VTS operator communication is further complicated by environmental variables known as clipping, masking, and blocking/distortion. Masking occurs when speech is difficult to understand because of unwanted noise. For example, the bridge can be quite noisy. This masking of important pilot/controller instructions can lead to misunderstandings or having to request repeated instructions a number of times.

Clipping occurs when a speaker does not use a microphone properly. A navigation officer may inadvertently begin to speak before keying a microphone, or, unkey the microphone before finishing his or her transmission. This can lead to broken communication, clutter, and frustration for others using the frequency.

Blocking is a very common problem in VTS communications. If two seafarers are trying to inadvertently transmit at the same time, the transmission will be blocked and everyone listening on the frequency will hear an ever familiar "screeching" or irritating "whistle". A "stuck" microphone can literally prevent everyone from talking or listening on the entire frequency.

A final example of seafarer/VTS operator communication comes in the form of similar sounding words and numbers. Misunderstanding of words and numbers is exacerbated by the environmental factors prevalent in the bridge (i.e., noise, vibration, chatter, etc.). Anecdotally speaking, the author fully understands the difficulties in sorting out words and numbers, particularly in high workload and high ambient noise situations. Does "five thousand" sound similar to "nine thousand?" It sure does. Do all seafarers and VTS operators always use the proper marine pronunciation of the number "nine" (it should be pronounced nine-er) to mitigate this problem? Of course not. Commonly confused words and numbers are just another part of the barriers to effective communication between seafarer and VTS operator.

Feedback / readback /

Review your own comms

Monitor traffic actions

Examples (Estonian document) examples under each message markers.

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# message structure

* Avoiding contracted forms (use you can not instead of you can’t, etc.)
* Avoiding synonyms (…….. put more????)
* Providing fully worded answers to "yes/no"-questions and basic alternative answers to sentence questions
* Structuring the corresponding phrases according to the principle: *identical invariable plus variable*. This means that one sentence may be completed with alternative statements so as to extend the basic information provided initially. Example: “I expect to refloat ~ at … hours UTC ~ when tide rises ~ when weather improves ~ when draft decreases ~ with tug assistance
* Using of Message Markers

Esp – Overview / theory

Structure – (MSC 4364 (Chapter 2))

Call Sign this is VTS

MM

Phrase

MM

Phrase

Over or Out

Body Text



1. Title required

Figure titles come after the figures. Graphics should, preferably be inserted at a text point and then centred.

# Common Phrases / Words

Plain English

Estonian Common Phrases – (Estonian document)

Framework for formulation

Selective

Roger?

Break?

**CONSIDERATIONS**

tO THINK ABOUT AT vts 40:

tIME dISTANCE gEOGRAPHIC SEPERATION (Waterspace management)

eMERGENCY - SMCP

TRAFFIC CLEARANCE

1089 –

Cross cultural communication

Speech Rate

Accommodation ability – anxiety matters

Plain english

1. Annex

Guidelines should have Annexes. Appendices are attached to Annexes.

1. ANNEX HEAD1

Body Text

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* Office 2007, go to down arrow next to Numbering icon and select Set Numbering Value
  1. Annex Heading 2

Body text

Annex Heading 3

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