**Ship Communications**

**Internal Communications** or interior systems of communications

1. PA system (public address)
2. Telephone
3. Engine order
4. Telegraph

**External Communications -** rapid and reliable communications at a distance

1. **Sound communications**
	1. Siren
	2. Whistle
	3. Foghorn
	4. Bell
2. **Visual communications**
	1. Flaghoist
	2. Flashing lights/ signal lamp
	3. Semaphore
	4. Pyrotechnics
	5. Colored lights
3. **Electronic Communications**
	1. Radiotelegraph
	2. Radioteletype
	3. Radiotelephone
	4. Computer/digital
	5. Satellite
	6. Facsimile

**International Code of Signals (ICS)**

* International system of signals and codes for use by vessels to communicate important messages regarding safety of navigation and related matters.
* was preceded by a variety of naval signals and private signals, most notably Marryat's Code, the most widely used code flags prior to 1857.
* drafted in 1855 by the British Board of Trade and

published by the Board in 1857 as the *Commercial Code of Signals*

* Additional changes in 1969 greatly reduced the Code (dropping the Geographical and Vocabulary sections), and more narrowly focused it on communications related to safety of navigation.
* is currently maintained by the International Maritime Organization

The signals used consist of:

1. Single-letter signals allocated to significations which are very urgent, important, or of very common use
2. Two-letter signals for General Signal Code
3. Three-letter signals beginning with “M” for Medical Signal Code

When describing flag colors in words, the part of the flag nearest the halyard is called the ‘hoist’ and the part furthest from the flag pole is called the ‘fly’. A group of flags hoisted from a single halyard to form a signal is called a flaghoist.

The numeral flags are all ‘pendants’ or ‘pennants’. Pendant or pennant is simply a nautical term for a tapered flag.

Complements express:

1. Variations in the meaning of the basic signal.
2. Questions concerning the same basic subject or basic signal.
3. Answers to a question or request made by the basic signal.
4. Supplementary, specific or detailed information.

**SINGLE LETTER SIGNALS WITH COMPLEMENTS**

AZIMUTH/BEARING ... **A** with 3 numerals.

COMMUNICATE, I wish to communicate with you by ... **K** with one numeral.

COURSE ................... **C** with three numerals.

DATE ....... **D** with two, four, or six numerals.

DISTANCE (nautical miles) .... **R** with one or more numerals.

GMT (the first two denote hours; the rest minutes) ........ **Z** with four numerals.

LATITUDE ( first two denote degrees and the rest minutes) ......... **L** with four numerals.

LONGITUDE (last two numerals denote minutes; the rest degrees)... **G** withfour or five numerals.

LOCAL TIME (the first two denote hours and the rest minutes) ........ **T** with four numerals.

SPEED (kph) ............ **V** with one or more numerals.

SPEED (knots) ............ **S** with one or more numerals.

**Use of Substitutes**

1. The first substitute always repeats the uppermost signal flag of that class of flags which immediately precedes the substitute.
2. The second substitute always repeats the second.
3. The third substitute repeats the third signal flag, counting from the top of that class of flags which immediately precedes them.
4. No substitute can ever be used more than once in the same group.
5. The answering pennant when used as a decimal point is to be disregarded in determining which substitute to use.

Procedure signals **“C”, “N”**, or “**NO”** and **“RQ”** which, when used after the main signal, change

its meaning into affirmative, negative and interrogative, respectively.

**Definition of terms**

**Visual signalling** is any method of communication, the transmission of which is capable of being seen.

**Sound signalling** is any method of passing Morse signals by means of siren, whistle, foghorn, bell, or

other sound apparatus.

**Originator** is the authority who orders a signal to be sent.

**Identity signal** or call sign is the group of letters and figures assigned to each station by its administration.

**Station** means a ship, aircraft, survival craft, or any place at which communications can be effected by any means.

**Station of origin** is that station where the originator submits a signal for transmission, irrespective of the method of communication employed.

**Transmitting station** is the station by which a signal is actually being made.

**Addressee** is the authority to whom a signal is addressed.

**Station of destination** is that station in which the signal is finally received by the addressee.

**Receiving station** is the station by which a signal is actually being read.

**Procedure** denotes the rules drawn up for the conduct of signalling.

**Procedure signal** is a signal designed to facilitate the conduct of signalling.

**Time of origin** is the time at which a signal is ordered to be made.

**Group** denotes more than one continuous letter and/or numeral which together compose a signal.

A **numeral group** consists of one or more numerals.

A **hoist** consists of one or more groups displayed from a single halyard. A hoist or signal is said to be **at the dip** when it is hoisted about half of the full extent of the halyards. A hoist or signal is said to be **close up** when it is hoisted to the full extent of the halyards.

**Tackline** is a length of halyard about 2 m (6 ft.) long, used to separate each group of flags.