

## CHAPTER TWELVE

## VISUAL PROCEDURE

## TABLE OF ARTICLES

<u>Section</u>	<u>Article</u>	<u>Subject</u>	<u>Page</u>
12000.		<u>FLASHING LIGHT</u>	12-3
	12001.	Transmission of Signals	12-3
	12002.	Special Prosigns For Visual Procedure	12-3
	12003.	Exchange of Visual Calls	12-5
	12004.	Calling, Answering and Receipting	12-5
	12005.	Directional Procedure	12-6
	12006.	Double-Flash Procedure	12-6
	12007.	Nondirectional Procedure	12-6
	12008.	Expediting Flag Signals	12-7
	12009.	Alarm Procedure For Enemy Reporting	12-8
12010.		<u>SEMAPHORE</u>	12-8
	12011.	Transmitting	12-8
	12012.	Special Characters	12-10
	12013.	Special Semaphore Abbreviations	12-12
	12014.	Calling	12-12
	12015.	Repetitions	12-12
	12016.	Interruption of Transmission or Reception	12-12
	12017.	Receipting	12-12
	12018.	Relay	12-13
12020.		<u>FLAGHOIST</u>	12-13
	12021.	Form of Flaghoist Messages	12-13
	12022.	Flaghoist Headings	12-13
	12023.	Omission of Flaghoist Headings	12-13
	12024.	Use of Substitute Pennants in Flaghoist Headings	12-13
	12025.	Constructions of Flaghoist Headings	12-14
	12026.	Text by Flaghoist	12-14
	12027.	Use of Tackline (TACK)	12-15
	12028.	Hoisting Flag Signals	12-15
	12029.	Reading Flag Signals	12-16
	12031.	Answering and Acknowledging Flag Signals	12-16
	12032.	Executing Flag Signals	12-17
	12033.	Cancelling Flag Signals	12-17
	12034.	Emergency Alarm Signals	12-18
12035.	Expediting Passing of Flag Signals	12-18	
12036.	Relaying	12-18	
12040.		<u>INFRA-RED</u>	12-20
	12041.	Infra-red Communications	12-20
	12042.	Infra-red Guardships	12-20
	12043.	Use of Code Word	12-20
	12044.	Point-of-Train Light	12-20
	12045.	Calling Periods For Infra-red Communications	12-20
	12046.	Uses of Infra-red in Amphibious Operations	12-21

1  
1  
1  
1  
1

CHAPTER TWELVE  
VISUAL PROCEDURE

12000. FLASHING LIGHT

12001. TRANSMISSION OF SIGNALS

- .1 Signals will be transmitted by flashing light as follows:
- (a) In the heading, letters and numerals will be sent as Morse symbols. Written equivalents of special flags used in call signs, such as FLOT, SQUAD and DIV, may be used.
  - (b) In the text -
    - (1) Letters and/or numerals comprising a signal group will be spelled out. Special flags, such as FLOT, SQUAD and DIV, will be transmitted by their written equivalents.
    - (2) Call signs in the text of signals from an authorized signal book are preceded by PT, meaning CALL SIGN FOLLOWS. If more than one such call sign is included in the text, each will be preceded by PT.
    - (3) Call signs may be spelled out when conditions dictate. When call signs are spelled out they are preceded by PT.
  - (c) At the discretion of the OTC, when conditions and operator's capabilities permit, all of the alphabetical and numeral flags and numeral pennants comprising a signal from the U.S. NAVAL SIGNAL BOOK may be transmitted as their Morse symbols to expedite signaling.

12002. SPECIAL PROSIGNS FOR VISUAL PROCEDURE

- .1 D - Reduce Brilliancy or Use Smaller Light. The prosign D is used only in flashing light procedure, in cooperation between operators, when it is required to inform a transmitting operator that his light is too large or too bright.
- EXAMPLE:
- B63 is transmitting to B64 as dusk falls. B64 informs B63 that his light is unnecessarily bright by transmitting DDDD etc. as required.
- .2 L - Relay or Relayed. The prosign L is used only in flashing light and semaphore procedures when the originator has a requirement to determine that the message has been delivered to all addressees.
- (a) L in the transmission instructions means, RELAY TO THOSE ADDRESSEES FOR WHOM YOU ARE RESPONSIBLE. When final relay ships have obtained a receipt from ships for whom they are responsible, they report up the chain of visual responsibility by making L. First relaying ships only are to report to the originator. If relaying responsibility is automatic, L may be omitted.
  - (b) L alone or with identification data means MESSAGE OR MESSAGE INDICATED HAS BEEN DELIVERED TO ALL ADDRESSEES FOR WHOM THIS STATION IS RESPONSIBLE AND INTERVENING RELAY SHIPS HAVE REPORTED DELIVERY TO SHIPS FOR WHOM THEY ARE RESPONSIBLE.

12002.2 (Continued)

- (c) L preceded by INT and followed, if necessary, with identification data means HAVE YOU RELAYED MY LAST MESSAGE OR MESSAGE INDICATED?
- .3 NEGATIVE - Exempted Addressee. The NEGATIVE pennant is used in flag-hoist signaling as the equivalent of XMT as described in Article 9122.
- .4 Dual Use of W.
- (a) In flaghoist procedure the flag W means ADDRESSEE FOLLOWING IS AN INFORMANT ADDRESSEE.
- (b) In flashing light procedure the prosign W means YOUR LIGHT IS UN-READABLE. If a receiving operator is unable to read a transmitting station due to improper direction of the light, or insufficient brilliance, he may indicate this by send W W W as required. The transmitting operator will take appropriate action until the receiver sends him the prosign K.
- .5 OL - Show Steady Dim Light. The special prosign OL is used to tell the receiving station to show a steady dim light. If a station is obviously having difficulty in keeping its light trained properly, the receiving station may be directed to show a steady dim light as a training mark. The flashes to indicate reception of the message must be made slightly brighter or, if necessary, a second light may be used.
- .6 PT - Call Sign Follows. In the text of a message PT means THE FOLLOWING GROUP IS A CALL SIGN.
- .7 FFFF - Do Not Answer.
- (a) F transmitted four times preceding the call (repeated as necessary) indicates that stations addressed are not to answer the call or receipt for the message. The message is to be transmitted twice but the prosign F is not to be transmitted four times preceded the call of the second transmission.
- (b) When this procedure is used with a collective call sign, individual stations relay by the same procedure in accordance with their visual responsibilities, except that if made by nondirectional light the stations receiving the message not to repeat it.
- (c) The prosign F is to be included in the transmission instructions of PLAINDRESS or CODRESS messages.
- (d) EXAMPLE: D36 transmits a message direct, addressed to D72:

FFFF D72 DE D36\* - F - R - 120745Z GR8 BT TEXT BT IMI D72 DE D36\* -  
F - R - 120745Z GR8 BT TEXT BT AR

\*The call may be omitted when no confusion could result.

EXAMPLE: Station D87 transmits a message by directional light to three ships---D63, D67, and D74---using the collective call sign D DIV 1:

12002.7(d) (Continued)

<u>D87 makes</u>	<u>D63 makes</u>	<u>D67 makes</u>	<u>D72 makes</u>
FFFF			
D DIV 1			
- F -	FFFF		
BT	D DIV 1		
SIERRA	- F -	FFFF	
YANKEE	etc.	D DIV 1	
BT		- F -	No Response
Ø315Z		etc.	
IMI			
D DIV 1			
- F -			
BT			
SIERRA			
YANKEE			
BT			
Ø315Z			
AR			

NOTE: Ships will not respond.

12003. EXCHANGE OF VISUAL CALLS

- .1 Ships entering or leaving port at night where other naval vessels are berthed should flash their international call sign (or address group), preceded by DE at frequent intervals to avoid unnecessary exchanging of calls with all ships desiring information. During hours of day-light ships will hoist their signal letters (international call sign).
- .2 When prescribed, ships on entering port will exchange calls for SOPA. This shall be accomplished by flashing their ship's international call sign (or address group) preceded by DE as in paragraph 1 above. SOPA may initiate the exchange of calls if desired or if SOPA is unable to see incoming ships, he should designate intervening ships to exchange calls and subsequently inform him. Operating signals to facilitate such a relay are:

- (a) ZOL, meaning I WILL RELAY YOUR CALL SIGN TO SOPA WHOSE CALL SIGN IS\_\_\_\_\_.
- (b) ZGG3, meaning CALL SIGN OF INCOMING VESSEL IS\_\_\_\_\_.

12004. CALLING, ANSWERING AND RECEIPTING

- .1 The identity of the calling station usually is apparent, and it is necessary only to gain the attention of the station being called. This normally is done by making, until answered, the call sign of the receiving station. When it is desirable to identify the calling station, the full call is used. This consists of the call sign of the station called, DE and the call sign of the calling station.

Abbreviated call:

Full call:

NTFJ (until answered)

NTFJ DE NTSY

- .2 The identity of an unknown station may be established by using the prosign AA as explained in Article 9091.
- .3 The answer normally consists of the prosign K.
  - (a) If necessary to distinguish which of several station is being answered, the prosign K should be preceded by the call of the station answered.

## 12004.3 (Continued)

- (b) Where more than one station is being called in the same direction or during low visibility, it may be necessary for the answering station to indicate his own identity when answering. This is done by transmitting the prosign DE followed by his own call and the prosign K. This method also is used in answer to the prosign AA.
- (c) When required, a full answer consisting of the call of the calling station, and the prosign DE, followed by the call of the station answering, may be employed.
- (d) In flashing procedure, when giving an immediate receipt to a message in response to the prosign K, the prosign R may be used singly without an ending sign K or AR.

## 12005. DIRECTIONAL PROCEDURE

- .1 In directional procedure, the transmitting station waits for the receiving station to make a flash for each prosign, word, code group or operating signal. If the receiving station fails to flash, the transmitting station repeats.
- .2 Although directional procedure is normally employed when using a directional light, it may also be employed when using a non-directional light if the call is that of a single station.
- .3 EXAMPLE of a non-executive message originated by F51 and sent direct to D63 for action:

F51 makes

D63 D63 (until answered)  
 BT  
 ZULU  
 FOXTROT  
 BT  
 1515Z  
 K  
 FLASH

D63 makes

K  
 FLASH  
 FLASH  
 FLASH  
 FLASH  
 FLASH  
 FLASH  
 R

## 12006. DOUBLE-FLASH PROCEDURE

- .1 Double-flash procedure is for use in port and for use with aircraft when a recorder is not available. A station called which desires to use double-flash procedure transmits the appropriate operating signal ZJJ, meaning USE DOUBLE-FLASH PROCEDURE. In double-flash procedure, the first flash indicates the receipt of a word or group; the second flash indicates that the word or group is recorded and that the receiving station is ready to receive the next word or group.

## 12007. NONDIRECTIONAL PROCEDURE

- .1 Nondirectional procedure permits one station to transmit to a number of other stations simultaneously by means of a light showing over a wide arc. If responses are required after the original call up, they are given after the transmission is completed.
- .2 Nondirectional procedure seldom is used at night in a war owing to danger of enemy interception. It may be used by day or night in circumstances where this risk is negligible.
- .3 Nondirectional procedure differs from directional light as follows:

## 12007.3 (Continued)

- (a) The call may consist of a collective call sign, or a number of call signs, repeated until answered by all receiving stations.
- (b) Each receiving station answers by transmitting a continuous series of K's until the calling station, seeing that all receiving stations are answering, stops calling, waits a short time, then starts transmitting the message.
- (c) Ships may be designated specifically as repeating stations. When designated, their function is to act as primary relay stations to facilitate communications.
- (d) During the transmission of a message, all receiving stations keep their signal lights out. In event a receiving station misses a portion of the message, that station will request a repetition in the normal manner upon completion of the transmission.
- (e) Receiving stations, after checking, receipt for the message by making the prosign R four times.
- (f) When the prosign F is used in the nondirectional method no ship is to make any response to this call or to receipt for the message. Ships that miss the transmission or portions thereof may request repetition by directional flashing light from adjacent ships. In requesting such repetition ships should bear in mind the danger of disclosing the presence and/or the tactical composition of the formation.

- .4 EXAMPLE, illustrating nondirectional procedure using repeating ships. OTC (p0p1) transmits a priority message to all ships present (p2):

<u>ø1 makes</u>	<u>Repeating ships (if detailed) make</u>	<u>Receiving ships make</u>
2 - P - (until all answer)	2 - P - (until all answer)	K's to ø1 or appropriate repeating station.
- P - 211357Z BT My 211247Z Operation postponed one hour BT K	- P - 211357Z BT My 211247Z Operation postponed one hour BT K	R's to the station they answered.

## 12008. EXPEDITING FLAG SIGNALS

- .1 A ship may pass a signal by flashing light to ships unable to read the signal as hoisted. Either directional or nondirectional light may be used. If a directional light is used to pass a flag signal, directional procedure is to be used. The operating signal ZJL, meaning HOIST THE FOLLOWING SIGNAL, may be included.
- .2 A SUBSTITUTE (transmitted as FIRST, SECOND, THIRD, or FOURTH) is used in expediting flag signals by flashing light in only two cases:
  - (a) when a SUBSTITUTE occurs as the first flag of a hoist.

12008.2 (Continued)

(b) when using ZJL and a SUBSTITUTE.

12009. ALARM PROCEDURE FOR ENEMY REPORTING

- .1 Emergency alarm signals may be made by the normal abbreviated procedure or by special alarm procedure.
- .2 In the alarm procedure, there is no call, the text being flashed continuously until answered by the prosign R. The precedence prosign, the position of the reporting station and the date-time group are omitted. When used, such a report should be followed by an amplifying report containing the position and any other data available.

EXAMPLE: Reporting ship B63 is in direct visual communication with OTC (Ø1).

<u>B63 makes</u>	<u>Ø1 makes</u>
EMERG GOLF (until answered)	R
DE B63 $\overline{AR}$	FLASH

EXAMPLE: When an alarm report is passed through a relay, the call signs of the relaying ship making the transmission and the originator are to be indicated as shown below. Messages originated by D48 and passed to OTC (Ø1).

<u>D48 makes</u>	<u>B63 makes</u>	<u>Ø1 makes</u>
EMERG GOLF (until answered)	R EMERG GOLF (until answered)	R
DE D48 $\overline{AR}$	FLASH DE D48-B63 $\overline{AR}$	FLASH
	L	
FLASH		

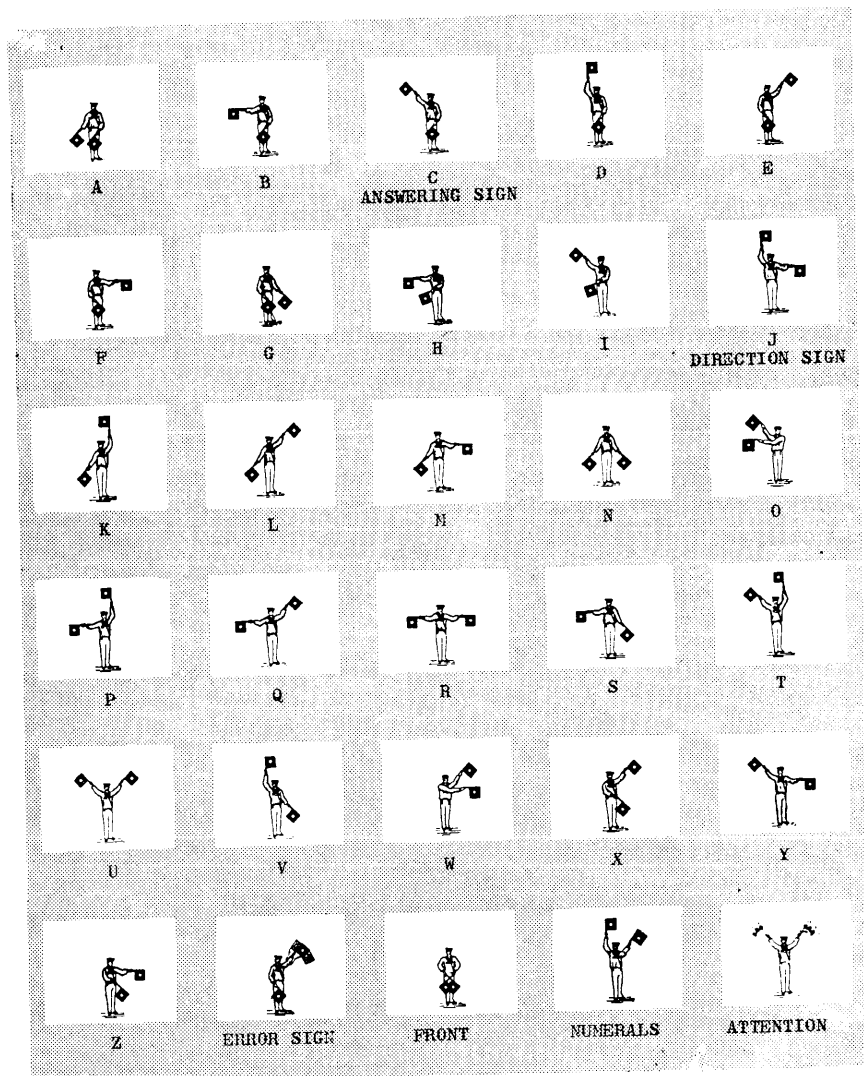
12010. SEMAPHORE

12011. TRANSMITTING

- .1 Semaphore messages should be transmitted at a rate consistent with the capabilities of the receiving operator. Semaphore messages being transmitted to more than one receiving station always should be made at a moderate rate by the originating ship and by ships relaying. Coded texts are sent at a slower rate than plain language texts.
- .2 Care will be exercised in selecting the position from which to send a semaphore message in order to obtain a good background.
- .3 As a general rule, the characters are made facing the ships addressed. The characters will be formed in the same plane as the sender's shoulders with staffs at their full extent, forefingers along the staffs. When at the front position the flags should be crossed in front of the body.



SEMAPHORE CHARACTERS



NOTE: In certain characters, the signs may be formed with the position of the arms reversed.

## 12011. (Continued)

- .4 A distinct pause will be made at each character according to the rate of sending. When transmitting prosigns, operating signals and abbreviations, the pause at each character will be of double duration.
- .5 At the end of each word or group the arm will be dropped to the front position. When double letters occur, the arms will be dropped to the front position after the first letter is made, and then moved out to the second letter without pausing.
- .6 Prosigns and operating signals are signaled as groups.
- .7 Numerals occurring in all components of a semaphore message shall be spelled out. If it is desired that numerals be recorded as digits they shall be preceded and followed by the numeral sign, except in the heading and ending where numerals or numeral pennants always are recorded as digits.
- .8 Signals from the U. S. NAVAL SIGNAL BOOK are transmitted as follows:
  - (a) Heading -
    - (1) Letters will be sent as characters.
    - (2) Numerals or numeral pennants will be spelled out and recorded as digits.
  - (b) Text -
    - (1) Letters and/or numerals comprising the signal group will be spelled out.
    - (2) Call signs will be sent as in the heading and preceded by the special abbreviation PT, meaning CALL SIGN FOLLOWS.
- .9 Use of semaphore for the executive method is authorized for intra-USN use only. The signal of execution by semaphore is IX AR. IX (stand by) may be transmitted several times. The moment of execution is on the completion of AR, AR taking the place of 5 second dash.

## 12012. SPECIAL CHARACTERS

- .1 Answering sign is used as an answer to a call. If necessary, the answering sign may be preceded by a call sign to denote the station answered.
- .2 Attention sign is used as a preliminary call by semaphore and to establish communications.
- .3 Direction sign is used after the attention sign to indicate the direction of transmission.
- .4 Front sign is used before and after each prosign, operating signal, word, and code group.
- .5 Numeral sign is used before and after each group of numerals or group of mixed letters and numerals in the text which are to be recorded and counted as a single group consisting of letters and digits.
- .6 Separative sign is a special character. It is made by sending the character II as one group. It is used in accordance with Article 9107.
- .7 Executive signal is a special character in semaphore, made by transmitting IX AR.

12012. (Continued)

- .8 In the following examples the special characters are indicated by symbols:

ATTENTION - \*  
FRONT - :

SEPARATIVE - -  
NUMERAL - #  
DIRECTION - %

- (a) Message originated and transmitted in PLAINDRESS form by NTFS; addressed to NTSY and NCFX:

\* : % :

- : 0 : - : ONE : SIX : ONE : SEVEN : ONE : EIGHT :

Z : - :

FM : NTFS : - :

TO : NTSY : - :

INFO : NCFX :

GR : FOUR :

BT :

PVOLP : - : LSAPI : - : QNUMY : - : KTERA :

BT :

K

Message recorded as:

- 0 - 161718Z -

FM NTFJ

TO NTSY

INFO NCFX

GR 4

BT

PVOLP - LSAPI - QNUMY - KTERA

BT

K

- (b) Groups containing mixed letters and numerals in the text, to be counted as one group:

Transmitted: #LIMA FOUR HOTEL TWO#

Written: L4H2

- (c) Groups containing punctuation symbols in the text to be counted as one group.

Transmitted: #ONE TWO FIVE XE THREE# AND XE OR  
#FIVE SIX SEVEN XE ALFA BRAVO  
EIGHT AAA SIX# (3 groups)

Written: 125/3 and/or 567/AB8.6

## 12012.8(c) (Continued)

NOTE: When checking group count, groups such as those shown in example (b) and (c) above will be indicated by the first effective letter/numeral in the group.

## 12013. SPECIAL SEMAPHORE ABBREVIATIONS

- .1 Move signs are used by a receiving station to direct the sender to move to a better sending position.

They are:

MD - Move down.  
 ML - Move to your left, as you face me.  
 MR - Move to your right, as you face me.  
 MU - Move up.

- .2 The abbreviation SEM may be used in calling and answering by flashing light to indicate that a semaphore message will follow, or that the transmitting station will use semaphore.

## 12014. CALLING

- .1 A call by semaphore is made by transmitting the call sign of the station called, or if practicable by making just the attention sign. It may be answered either by making the answering sign by semaphore, or by transmitting the prosign K by flashing light.

- .2 The call for a semaphore message may be made by flaghoist as follows:

(a) The calling station hoists the call of the station called above the flag JULIETT. When calling all ships and stations within visual range, JULIETT may be used alone. DESIG hoisted below JULIETT indicates that a PRIORITY message awaits transmission; if it is desired to indicate any higher precedence, the appropriate precedence prosign may be hoisted below DESIG.

(b) The receiving ship hoists the call of the transmitting station above the pennant ANSWER at the dip when seen, close-up when ready to receive, and hauled down to indicate receipt. When no confusion could arise, the call may be omitted.

## 12015. REPETITIONS

- .1 The receiving station shall allow the transmitting station to complete the transmission of the message before requesting a repetition.

## 12016. INTERRUPTION OF TRANSMISSION OR RECEPTION

- .1 The transmitting station may dip the call of the receiving station to indicate that he is required to wait. Then the receiving station should dip his answering hoist until the transmitting station again hoists the call close-up. The transmitting station also may use the prosign AS by semaphore as described in Article 9094.

- .2 The receiving station may dip his answering hoist to indicate that he is unable to receive.

## 12017. RECEIPTING

- .1 Receipt for a semaphore message is given by:

## 12017.1 (Continued)

- (a) Sending the letter R by semaphore or flashing light.
- (b) Hauling down the answering hoist by the receiving station. This is done after the call is hauled down by the transmitting station.
- (c) If the transmitting station has more than one message (or a long message in parts) to transmit, the call of the receiving station may be dipped on completion of the first message, or part, and the prosigns B K made by semaphore. The receiving station should dip the answering hoist to receipt for the first message, and re-hoist close up when ready to receive the next message or part. Requests for repetitions of the first message should be initiated, if necessary, while the answering pennant is still close up prior to dipping the hoist indicating receipt of the first message.

## 12018. RELAY

- .1 Where relay is involved, relaying stations should endeavor to pass the message as rapidly as possible and should not wait for the original transmitting station to complete the message before commencing re-transmission.

12020. FLAGHOIST

## 12021. FORM OF FLAGHOIST MESSAGES

- .1 Component parts of a flaghoist message are the heading and the text.

## 12022. FLAGHOIST HEADINGS

- .1 The heading precedes the text and usually consists of only action addressees, although it may include information and exempted addressees.
- .2 Call signs and address groups may be used for the following purposes in connection with signals from the U. S. NAVAL SIGNAL BOOK:
  - (a) To address ships, units or commands, in which case they precede the signal.
  - (b) To indicate or denote ships, units or commands, in which case they follow the signal.
  - (c) To complete, amplify or vary the meaning of a signal, in which case they are used in conjunction with the signal concerned.

## 12023. OMISSION OF FLAGHOIST HEADINGS

- .1 The heading may be omitted under the following circumstances:
  - (a) By the officer in tactical command, or SOPA if in port, on signals addressed to all ships.
  - (b) By ships or commands on EMERGENCY signals addressed to the OTC. (See Article 12034).

## 12024. USE OF SUBSTITUTE PENNANTS IN FLAGHOIST HEADINGS

- .1 The heading of the flag signal may be modified by use of the substitute pennants as follows:

## 12024. (Continued)

- (a) FIRST SUBSTITUTE over the call of the originator hoisted in a superior position means THE ORIGINATOR OF THIS SIGNAL IS           . If a relay is required, intervening ships relay the signal to the addressee, or to the OTC if there is no addressee.
- (b) SECOND SUBSTITUTE alone in the heading means FOR GENERAL INFORMATION; NO SPECIFIC ADDRESS; NO ANSWER REQUIRED.
- (c) THIRD SUBSTITUTE preceding the address of a flaghoist indicates that the signal, in addition to being addressed to certain ships for action, is for general information and is to be relayed and answered as an ALL SHIP signal.
- (d) FOURTH SUBSTITUTE means ACCOMPANYING SIGNAL IS TAKEN FROM WARTIME INSTRUCTIONS FOR MERCHANT SHIPS (VISUAL SIGNALING AND TACTICS), ACP 148.

## 12025. CONSTRUCTIONS OF FLAGHOIST HEADINGS

- .1 In constructing flaghoist calls numerals are expressed by numeral pennants, except when numeral flags are indicated specifically.
- .2 In flaghoist signaling information and exempted addressees are indicated by the W flag and the NEGATIVE pennant. A tackline often must be used to separate the W flag from the call sign preceding and following it on the same hoist.
  - (a) Action and Information Addressees. In a flaghoist, having both action and information addressees, the parts are arranged as follows: Call of action addressee, W flag, call of information addressee.  
 EXAMPLE, with action to ALL SHIPS MY TACTICAL COMMAND, information to COMMANDER THIS TASK FORCE:  
 p1 TACK W TACK p6
  - (b) Exemptions. To exempt a station from a collective call sign used in a flaghoist heading, the parts are arranged as follows: Calls of addressees, the NEGATIVE pennant, calls of exempted stations.  
 EXAMPLE, with action to ALL SHIPS UNDER MY TACTICAL COMMAND, except the SCREEN:  
 p1 NEGAT p5
  - (c) Information Addressees and Exemptions. To simultaneously indicate information addressees and exemptions, the component parts are arranged as follows: Calls of action addressees, W flag, calls of information addressees, NEGAT, calls of exempted stations.  
 EXAMPLE with action to ALL SHIPS UNDER MY TACTICAL COMMAND, information to COMMANDER THIS TASK FORCE, exempting the SCREEN (Exempted stations do not answer and take no action):  
 p1 TACK W TACK p6 NEGAT p5
  - (d) Information Addressees Only. To indicate information addressees only, the W flag followed by the calls of the info addees may be used.

## 12026. TEXT BY FLAGHOIST

- .1 The text will consist of such prescribed signals, operating signals and/or plain language as may be necessary to convey the meaning of the originator.

## 12027. USE OF TACKLINE (TACK)

- .1 A tackline is a length of halyard about six feet long. It is transmitted and spoken TACK. A tackline is used:
  - (a) To avoid ambiguity. It separates signals or groups of numerals which, if not separated, could convey a different meaning from that intended.
  - (b) When the instructions for making a signal, found with its signification, order a tackline to be used.
  - (c) When there are more flags in a signal than can be made in a single hoist. In this case, the signal should be broken into two or more hoists. The breaks should be made where TACK would be inserted to avoid ambiguity if sent by other means.

## 12028. HOISTING FLAG SIGNALS

- .1 A flaghoist is said to be CLOSE-UP when its top is touching the block at the point of hoist. The originating station will hoist signals close-up.
- .2 A flaghoist is said to be AT THE DIP or DIPPED when hoisted three-fourths of the way up towards the point of hoist. Flag-hoists made in answer to or to repeat the original signal normally are hoisted at the dip until understood. Then the hoist will be hoisted close-up.
- .3 A flaghoist is said to be HAULED DOWN when it is returned to the deck. The moment of hauling down is the moment of execution unless time of execution is indicated, or emergency pennant used.
- .4 Best results are achieved in flaghoist when signals can be made as a single hoist and executed before another hoist is made. If the display cannot be made on three halyards, it usually is advisable to make two or more displays. When this is done, the heading is hoisted and kept flying close-up while successive displays are made.
- .5 When making signals to the ships of his unit, a commander should leave a superior position vacant, whenever possible, for relaying the OTC's signals.
- .6 The terms ABOVE and BELOW are used to describe the relative positions of flags in a hoist.
- .7 Signals should be hoisted at the minimum interval of time before they are to be executed. They should be kept flying only for as long as it is necessary for ships to relay and acknowledge the signals. The object of this is to ensure this channel of communication is kept clear for additional signals.
- .8 Signals are to be hoisted where they can be most clearly seen by the receiving ships. If necessary the signal should be hoisted on both sides of the mast. Flags are to be kept clear. If there is not enough wind to blow the flags out so that they can be read easily, the hoists should be kept on the move.
- .9 A flaghoist which is to be read before another signal, which is flying the same time, may be described as being in a SUPERIOR POSITION. Conversely, a flaghoist which is to be read after another signal is referred to as being in an INFERIOR POSITION.
- .10 ALL SHIPS signals are to be hoisted at a superior position and are to be relayed and answered at a superior position.

## 12029. READING FLAG SIGNALS

- .1 A display comprises one or more adjacent hoists from the same originator, with the same address, flying at the same time. Multiple hoists are to leave the deck in the order in which they are to be read.
- .2 The order of flaghoists follows:
  - (a) Signal flags of a single hoist are read from top down.
  - (b) Adjacent hoists are read down, from outboard in or from forward aft.
  - (c) When several flaghoists are displayed simultaneously, they are to be read in the following order:
    - (1) masthead; (2) triatic stay; (3) upper yardarm; (4) lower yardarm.

## 12031. ANSWERING AND ACKNOWLEDGING FLAG SIGNALS

- .1 The flaghoist normally is answered by addressees repeating the entire hoist at the dip. Heavy ships and unit commanders always will repeat flag for flag. Normally, small ships will act in the same manner, but when signaling conditions warrant they may use the ANSWER pennant, either alone or below the call of the originator when necessary to avoid confusion.
- .2 A flag officer or unit commander may answer a flaghoist addressed to him from a ship or unit commander junior to him by hoisting ANSWER at the dip, either alone or below the originator's call.
- .3 Acknowledgment is effected by hoisting the given signal, or ANSWER, close-up. Signals shall be hoisted close-up when understood and by repeating stations when all addressees for whom they are responsible have acknowledged.
- .4 When ANSWER is used to acknowledge a signal, and if a further signal is hoisted after the acknowledgment has been given, ANSWER, is to be dipped and rehoisted close-up when the subsequent signal is acknowledged.
- .5 When an addressee cannot determine the meaning of a hoist or desires to question the meaning, the signal (or ANSWER) shall be hoisted at the dip, and the INTERROGATIVE pennant hoisted on an adjacent halyard.
  - (a) Normally an address over INT will not be required when communication is strictly between the originator and the addressee questioning the signal.
  - (b) When necessary to refer to the signal of a specific originator a call may precede INT.
  - (c) When questioning one hoist of a multiple hoist display, INT 1 TACK (SIGNAL) should be used in lieu of INT alone.
  - (d) When an addressee is unable to distinguish a signal he should hoist INT 2, using calls as necessary.
  - (e) When a ship hoists a signal incorrectly she should be so informed by the signal INT 3 following her call.
  - (f) INT 3 also is hoisted by repeating ships flying the signal incorrectly. It is hoisted without the address on an inboard halyard.



## 12031.5(f) (Continued)

NOTE: INT signals need not be acknowledged if the signal in question can be clarified, hoisted, or cancelled immediately. However, when answered and brought close-up by both ships INT signals should be hauled down to free halyards for additional signals.

- .6 A senior officer may acknowledge requests by hoisting the appropriate signal indicating approval or disapproval, below the call of the station making the request if necessary. Such a signal constitutes both a receipt and the answer.
- .7 Normally flagships will be called and answered with the call sign of the senior command on board unless the addressee or originator is otherwise indicated. Variations from this procedure, such as the use of a ship's visual call sign instead of a lengthy conjunctive call, may be made to expedite communications provided the identity of the addressee (or originator) is clarified during the transmission.

## 12032. EXECUTING FLAG SIGNALS

- .1 Unless otherwise indicated, a flag signal is executed when the originator hauls down the hoist.
- .2 When a time signal is used, it applies only to the group immediately preceding it. When it is required to apply to two or more groups preceding it, the signal ALFA TANGO is inserted before the first of the groups to which the time signal is to apply.
- .3 If ALFA TANGO is hoisted separately as the first hoist and left flying during several succeeding hoists, all hoists made in this period will be executed when ALFA TANGO is hauled down. No time signal is needed with this method of execution.
- .4 Certain signals are obeyed as soon as understood. A note to this effect will be found against the significations of such signals in the U.S. NAVAL SIGNAL BOOK. Any signal preceded by EMERGENCY is to be acted upon and closed up as soon as understood.
- .5 In addition, these are certain signals which are executed partially by dipping the signal. Instructions for these signals are given in the signification of the signal.
- .6 All addressees haul down with the originator, except when directed by a subordinate unit commander to delay execution.
- .7 The first execute received will govern the time of execution when a signal is executed by more than one means, such as flaghoist and radiotelephone.

## 12033. CANCELLING FLAG SIGNALS

- .1 Flaghoist signals are cancelled by the following use of the NEGATIVE pennant:
  - (a) When only one flag signal is flying, NEGATIVE hoisted on an adjacent halyard cancels the signal.
  - (b) When two or more flag signals are flying under the same call, NEGATIVE hoisted on an adjacent halyard cancels all signals flying. If only one signal is to be cancelled, it must be repeated, preceded by NEGATIVE.

## 12033.1 (Continued)

- (c) When ALL SHIPS signals and specifically addressed signals are flying at the same time, NEGATIVE, without a call preceding, cancels all signals without a call; and NEGATIVE with a call preceding cancels all signals under a similar call. If only one signal of several under the same call is to be cancelled, it must be repeated, preceded by NEGATIVE under the same call.
- .2 When all addressees have acknowledged, the cancelling signal and the signal cancelled are to be hauled down together.
- .3 A flaghoist signal may be corrected in the following manner:
  - (a) The originating ship cancels the signal, then hoists the correct signal.
  - (b) A repeating ship hoists the signal meaning SIGNAL IS REPEATED INCORRECTLY on an adjacent halyard, then hauls down both signals. The correct signal is then hoisted.

## 12034. EMERGENCY ALARM SIGNALS

- .1 When emergency alarm signals are hoisted the originator also:
  - (a) Sounds six short blasts on the whistle.
  - (b) Passes the emergency alarm signals to the OTC by the most expeditious means authorized.
- .2 The flag signal is to be repeated by all ships with the visual call sign of the originator, if other than the OTC, below the FIRST SUBSTITUTE hoisted on an adjacent halyard.

## 12035. EXPEDITING PASSING OF FLAG SIGNALS

- .1 An originating ship may pass her signal by light if there is doubt whether her flags can be seen easily. Either directional or non-directional light may be used.

## 12036. RELAYING

- .1 General relaying responsibilities are set forth in Article 6044. Additional instructions are as follows:
  - (a) Signals are to be relayed by any ship in a position to help by so doing.
  - (b) Whenever practicable, ships which repeat the OTC's signals are to do so on halyards corresponding to those of the OTC.
- .2 If the OTC hauls down a signal before all ships have acknowledged, ships which have answered the signal are to hoist it close-up at once, then haul down immediately and pass it on by light to ships for whom they are responsible and who may not have received it.
- .3 Relaying of signals from the OTC is accomplished in the following manner:
  - (a) Signals are relayed at the dip; hoisted close-up when the ships addressed have acknowledged.
  - (b) The originator is not indicated.

12036. (Continued)

.4 Relaying signals from ships other than the OTC to ships other than the OTC is accomplished as follows:

- (a) The originating ship hoists FIRST SUBSTITUTE followed by her call sign, the call sign of the addressee and the text. If the identity of the originator will be evident to all ships within visual communication range, FIRST SUBSTITUTE followed by the call sign of the originator need not be hoisted.
- (b) The relaying ship hoists the FIRST SUBSTITUTE above the call sign of the originator, the call sign of the addressee and the text.

EXAMPLE of USS Baltimore (C68) originating a signal to be relayed via USS Pittsburgh (C72) to USS Alabama (B60):

<u>C68 hoists:</u>	<u>C72 hoists:</u>	<u>B60 hoists:</u>
Close up 1st		
C		
p6		
p8		
At dip		
B		
p6		
p0		
D		
X		
	Close up 1st	
	C	
	p6	
	p8	
	At dip	
	B	
	p6	
	p0	
	D	
	X	
		Close up 1st
		C
		p6
		p8
		At dip
		B
		p6
		p0
		D
		X
		Close up to acknowledge
	Close up to show addressees acknowledgement	
Hauls down	Hauls down	Hauls down

.5 Signals from individual ships to the OTC are relayed as in 4 above except that the call sign of the OTC is considered understood and is omitted. See Article 12024.1(a).

12040. INFRA-RED

## 12041. INFRA-RED COMMUNICATIONS

- .1 Infra-red is the most secure means of visual communications.
- .2 Infra-red communication is a night visual system with the added complication that the receiver, unlike the human eye, is directional. This complication introduces the necessity for a somewhat rigid system of visual responsibility, and a necessity for the transmitting operator to control the circuit as is done in radio.
- .3 Infra-red communication is divided into two basic forms:
  - (a) Directional, using the standard signal searchlights with filters, or special purpose equipment.
    - (1) Commencing at scheduled time or when alerted by radiotelephone, ships having traffic will turn on the point-of-train light, locate the ships for whom responsible or with whom they wish to communicate, and go ahead with directional infra-red searchlights, using the procedure prescribed in Article 12005.
  - (b) Nondirectional, using a large infra-red yardarm blinker, with nondirectional flashing light procedure as described in Article 12007.
    - (1) Infra-red broadcast procedure is the same as nondirectional flashing light procedure. This procedure will be principally used for multiple addressed messages.
- .4 To reduce interference, infra-red communications between separate ships generally are directional. An officer in tactical command having traffic for wide distribution will use nondirectional procedure.

## 12042. INFRA-RED GUARDSHIPS

- .1 The commander prescribing a disposition or formation will designate the infra-red guardships and promulgate the chain of visual responsibility. If no instructions are given it will be assumed that the general rules for visual responsibility set forth in Article 6044 apply.

## 12043. USE OF CODE WORD

- .1 Signal personnel must be kept alert for calls on infra-red equipment. If such calls are not received, the station being called may be alerted by means of a code word by radiotelephone. The called ship then will switch on her point-of-train light, locate the calling ship in the same way, and prepare to receive.

## 12044. POINT-OF-TRAIN LIGHT

- .1 The point-of-train light (POT) is a steady infra-red light used to assist the sender in locating the receiving station and in keeping his light properly trained. It is turned on to indicate that a station is communicating, or is ready to communicate with infra-red. It is turned off at other times.

## 12045. CALLING PERIODS FOR INFRA-RED COMMUNICATIONS

- .1 Calling periods commence at the beginning of each hour during hours of darkness.

## 12045. (Continued)

- .2 Subordinate commanders that are repeating stations may specify the half hour as their calling period so that they may receive and assemble traffic addressed to the senior officer present or officer in tactical command.
- .3 The general rule to be followed is that the officer in tactical command or guardship, as the case may be, will:
  - (a) Call stations and, by means of an operating signal and a traffic list, indicate those for whom it has traffic.
  - (b) Deliver traffic, repetitions, etc.
  - (c) Receive traffic by predetermined schedule or when alerted by an operating signal or the infra-red code word by radiotelephone.
- .4 Before commencing transmission of long messages, the originator should broadcast an operating signal indicating the station for whom he has traffic. In this way, outlying stations will not secure equipment at the end of the calling period under the impression there is no traffic for them, but will be warned to remain alert for traffic which is on the way.

## 12046. USES OF INFRA-RED IN AMPHIBIOUS OPERATIONS

- .1 In amphibious operations, infra-red communications between ship and shore normally will be initiated after request by radiotelephone or flashing light. At the scheduled time ships will turn on their POT lights to aid the shore stations in locating them.
- .2 Signals from the shore may be weak and it will be easy to confuse them with bursts of gunfire. Therefore, accurate locations of shore parties should be obtained from CIC whenever possible.

