

CHAPTER 46

COMMUNICATIONS - EXTERIOR

46-1 GENERAL:-

On the LSM, the Exterior Communication Systems consist of the following:

- (a) Visual Communication.
- (b) Radio Communication.
- (c) Radar Communication.
- (d) Underwater Sound Communication.

46-2 COMMUNICATION OFFICER:-

The Gunnery Officer (Communications Officer) is the head of the Communication Department. He is responsible to the Commanding Officer for the efficient operation of the equipment and the handling of all communications sent and received through the Exterior Communication Systems. He will follow the procedure outlined in CHAPTER 3, "Communication Instructions" 1944 (DNC5), and study carefully all publications and material pertaining to communications within his department.

46-3 VISUAL COMMUNICATIONS:-

(a) Signaling Equipment

- (1) Semaphore and flag hoists.
- (2) Yard arm blinkers.
- (3) One - 12" signal searchlight.
- (4) Two - Binocular tube blinkers.
- (5) Two - portable signaling lights - battery operated.
- (6) Pyrotechnics (Very pistols)

(b) Procedure

- (1) A continuous visual watch will be maintained when within visual communication with other ships or stations unless relieved by a designated visual guard ship or station who assumes the responsibility of answering for all ships that are guarded and delivering traffic to ships for whom guarding.

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46-3 VISUAL COMMUNICATIONS:-

(b) (cont'd.)

- (2) A complete log of all messages handled will be kept showing time of receipt or delivery with operator's signature.
- (3) Upon receipt of a message it will be forwarded to the radio room for further handling as prescribed for handling radio messages. A tactical situation often makes it necessary to route messages to officers concerned, prior to being forwarded to the radio room. However, it must be forwarded there for final routing and filing.
- (4) Outgoing messages will be handled in a similar manner as prescribed for handling radio dispatches.

46-4 RADIO COMMUNICATIONS:-

(a) Radio Equipment

The Radio Communication Equipment consists of one radio transmitter-receiver set with whip antenna and insulators.

(b) Procedure

- (1) Immediately after installation of radio equipment it will be calibrated on frequencies necessary for operation and will be calibrated at regular intervals thereafter to insure proper adjustment on authorized frequencies. (All radio personnel should be able to calibrate transmitters).
- (2) A continuous watch will be maintained on prescribed frequencies unless properly relieved by a designated radio guardship or station who assumes responsibility of answering calls for all ships that are

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RADIO COMMUNICATIONS:-

(b) (cont'd.)

- (2) guarded and delivering traffic to ships for whom the guardship or station is guarding. If the prescribed frequencies are unknown this information will be obtained from a superior command.
- (3) Prior to 0000 (GCT) of the following day, all call signs guarded will be encrypted and made immediately available to the radio operator.
- (4) Method of handling incoming traffic:

Log Traffic as follows:

Time (GCT).
Frequency.
Name of operator.
Date.
Actual transmission received.

Upon receipt of a message all call signs will be decrypted, messages typed in duplicate on a standard dispatch blank and one copy routed together with the decrypted heading to the Gunnery Officer (Communications Officer) for further handling and routing. If the message is encrypted the Gunnery Officer (Communications Officer) will decrypt same and route to officers concerned.

Routing will consist of presenting the message to the Commanding Officer, Executive Officer and the action or information officer. Every officer to whom a message is routed will acknowledge same by initialing the message.

All plain language versions of classified traffic will be handled by the Gunnery

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(b) (cont'd.)

- (4) Officer (Communications Officer), which will include typing, routing, filing and stowing.

The radio room will deliver one copy of all encrypted traffic to the Gunnery Officer (Communications Officer), retaining the other copy for the "Radio Station File." The Gunnery Officer (Communications Officer) will, after decrypting any incoming traffic, destroy the coded copy by burning. Coded copies and plain language versions will never be filed together.

Plain language versions of all classified traffic will be filed by the Gunnery Officer (Communications Officer) according to Date - Time group and afforded proper stowage. Never stow encrypted and plain versions together.

- (5) Method of handling outgoing dispatches:

Message is drafted in rough form by the originating Officer and presented to the Gunnery Officer (Communications Officer), for handling. The Gunnery Officer (Communications Officer) will note any deficiencies in drafting and prepare in smooth for releases. In preparing the message, the meaning will not be altered in any way.

It is the duty of the originating officer to judge whether or not the message could be handled by mailgram or speed-letter.

Before designating proper classification and precedence, the originating officer and the Gunnery Officer (Communications

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(b) (cont'd.)

- (5) Officer) should have carefully read Notes on Communication Security, CHAPTER 6, and Cominst, 1944 (DNC 5), CHAPTER 2.

The message shall then be submitted to the originator for final approval and signature, and submitted to the Commanding Officer for release.

After the message has been properly released:

Classified traffic shall be encoded by the Gunnery Officer (Communications Officer). The coded version with addressees and routing instructions will then go to the radio room for preparation of heading and transmittal. Before transmission the Gunnery Officer (Communications Officer) shall verify and approve radio heading to be transmitted. Upon completion of transmission the coded copy will be retained in the radio room for the "Radio Station File." The plain language version shall be handled in accordance with paragraph 4F.

Non-classified traffic shall be handled in the same manner as that outlined for classified traffic other than encryption which is not necessary.

Call signs, except as outlined in paragraph 2130 of Cominst, 1944 (DNC 5), shall always be encrypted. Special assigned calls as used on drill circuits need not be encrypted.

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46-5 FILES AND LOG KEEPING:-
(ARTICLES 3210 TO 3229 COMINST 1944)

- (a) The Radio Station File shall be kept in the radio room and shall consist of a copy of all INCOMING and OUTGOING visual and radio traffic handled.
- (b) The General Message Files shall consist of ALNAVS, ALLANTS, ALCONS, etc. filed in numerical order. These shall be kept in the radio room.
- (c) Radio Telephone logs shall be kept in a suitable ledger and an abbreviated version of all receptions and transmissions logged therein.
- (d) Radio Telegraph Logs shall be kept in accordance with Article 3214 and 3215, Cominst, 1944. These become a part of the "Radio Station Files."
- (e) Radio Material Log shall be kept in a large ledger and will record all repairs and adjustments made on radio equipment.
- (f) The Visual Log shall be kept in a suitable ledger and shall contain all flag hoist signals sent and received. This log shall also contain a reference of all messages sent and received by semaphore, flashing light, or other means.
- (g) Radar Material Log shall be kept in a large ledger and will record all repairs and adjustments made on radar equipment.
- (h) Radar Operating Log shall be kept in a large ledger and will contain at top of each page; the operator's name, date, type of equipment, etc.; on each page will be four columns headed:- Time, Bearing, Range and Object.
- (i) Battery Tray Record Log will be kept on NBS form 151.

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RADAR:-

The LSM is provided with surface and I.F.F. Radar. Information as to the operation and uses of this equipment is given in Confidential Publications furnished each vessel.

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UNDERWATER SOUND:-

No Underwater Sound for the LSM is provided at this time. However, Sea Chests have been installed on each vessel, port and starboard sides, to accommodate this apparatus should it become available at a later date.

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