

CHAPTER 12

ADMINISTRATION

Maintaining accurate records and observing good message-handling practices contribute toward an efficient communication organization. In this chapter you will learn what some of these records are and how they are used. You must bear in mind, however, that different stations may do things in different ways. There is no "one" way to log a message, for example; nor is there only "one" message blank form. Here we discuss mostly those practices and procedures that have become, through regulation or custom, fairly well standardized.

MESSAGE FILES

Every message handled by a ship or station is placed in one or more files. Some of the files are maintained by all ships and stations, but others are optional and are maintained only to fill the need of a particular ship or station.

Table 12-1 summarizes the types of message files commonly used. Those marked with an asterisk (*) are required for all ships and stations; the remainder are optional. Following the table is a brief explanation of each type of file.

COMMUNICATION CENTER AND CRYPTOCENTER FILES

The communication center file contains a copy of every message addressed to or originated by the command. It does not matter whether the messages were sent plain or encrypted, or by radio, visual, mail, or other means. All are filed together in DTG order. Classified messages are filed in either of two ways: in encrypted form, or by dummy or filler. A dummy or filler is a form showing only the heading of the message. The communication center file may be subdivided into incoming and outgoing sections.

Plain language translations of classified messages are stowed in the cryptocenter file. Top Secret messages are stowed separately. Messages of other classifications usually are filed together.

If you do not know the file location of a message you need, check the communication center file. If the message is unclassified, you will find it there. If the message is classified, there will be an encrypted or dummy version, indicating that the message is in the cryptocenter file.

Messages in the communication center and cryptocenter files bear the signatures or initials of the drafter, releasing officer, communication watch officer, operator, persons to whom the message was routed, and such other information as may be required by the local command.

For convenience of stowage, filing, and referencing, the communication center file may be combined with the station files described in the next topic.

STATION FILES

The radio station file contains copies of messages handled by the command via radio. It includes a copy of each nontactical message received, transmitted, or relayed by the radio facilities of the ship or station. The copies must bear the operators' servicing endorsements. They are filed in chronological order by DTG, and the file may be combined with the communication center file.

The visual station file is a chronological record of all nontactical traffic handled by the command by visual means. It is identical in purpose and description to the radio station file. Radiomen do not maintain the visual station file—it is kept by Signalmen.

Table 12-1.— Summary of Message Files

File	Contents	Disposition
*Communication center file.	A copy of every message addressed to or originated by the command. Filed chronologically by DTG. Classified messages are filed by encrypted version, or by filler or dummy.	<p>Messages incident to distress or disaster: destroy when 3 years old.</p> <p>Messages involved in any claim or complaint: destroy when 2 years old, or when complaint or claim is settled, if earlier.</p> <p>Messages of historical or continuing interest: retain.</p> <p>All other messages: destroy when 1 year old.</p>
*Cryptocenter file.	The edited plain language version of each classified message addressed to or originated by the command. Filed by DTG. This file may be subdivided as necessary, in order to comply with stowage requirements for classified matter. In effect, the cryptocenter file is the classified version of the communication center file.	Same as communication center file.
*Radio station file.	Radio circuit copy of each message received, addressed to, transmitted, or relayed by radio. Filed in DTG order.	Destroy when 6 months old.
*Visual station file.	Copy of each message received, addressed to, transmitted, or relayed by visual means.	Destroy when 6 months old.
*General message file.	A copy of each general message addressed to the command, segregated by type (ALNAV's, ALCOM's, NAVOP's, etc.). Filed according to serial numbers.	Destroy when canceled or superseded.
*Broadcast file.	Messages received by broadcast method.	<p>Two months old, for ships over 1000 tons.</p> <p>One month old, for ships 1000 tons or under.</p>
Tickler file.	Messages awaiting reply or acknowledgment.	Reply or acknowledgment is sent or received.
'Rough' file.	Originator's rough drafts.	Destroy with regular file copy.
Press file.	Copy of daily press, as distributed.	Destroy when no longer of interest.
Awaiting signature file.	Messages awaiting signature by one or more information officers.	Given to information officer when signed for.
Box or 24-hour file.	Messages received since previous midnight (GMT).	Place in regular files.

GENERAL MESSAGE FILE

The general message file is a record of all general messages addressed to the command. Normally, the file is subdivided by type of general message, and each type is filed in serial number order. (Types of general messages are discussed in chapter 5.)

General message files are given the security classification of the highest classified message contained in the files. For convenience of access and stowage, the files may be segregated by security classification, with appropriate cross-references, and the classified portion filed in the cryptocenter or other secure space.

BROADCAST FILE

Ships copying broadcasts are required to have complete broadcast files. Messages actually addressed to the ship are written up on message books for local delivery, and after processing, copies are placed in the communication center and radio station files. The messages, as they are received on the broadcast, are filed in serial number order in the broadcast file. The broadcast file usually is maintained on a monthly basis because the serial numbers run consecutively and start with number 1 the first day of each month.

When your ship moves from one broadcast area to another, it shifts the broadcast guard accordingly. As a result, more than one broadcast is guarded during the month. A notation is made in the file showing the station from which each broadcast was received, and the inclusive serial numbers of messages from each station.

Larger ships (over 1000 tons) are required to keep the broadcast file for 2 months. Ships under 1000 tons, such as most classes of minesweepers, net layers, auxiliary ocean tugs, submarine chasers, and patrol craft, are authorized to destroy broadcast files when 1 month old. This is because of extremely limited storage space aboard these small craft.

TICKLER FILE

The tickler is a temporary file of copies of messages requiring a reply. It usually is kept on a clipboard near the CWO's desk.

Assume that your ship just received a BuMed message bearing DTG 081704Z. It reads: REPT QUANTITY PLASMA ABOARD IN EXCESS NORMAL REQUIREMENTS NEXT THREE MONTHS.

The BuMed message is routed to the medical officer for action, and a copy (flimsy) goes into the incoming section of the tickler file. The tickler copy is removed when the medical officer prepares a reply.

If the ship sends a message requiring a reply from another command, a copy goes into the outgoing section of the tickler, and is removed when the reply is received. If the message requires replies from several addressees, the outgoing section of the tickler will tell you who has or has not answered.

ROUGH FILE

Sometimes the drafter of a message says something different from what he meant to say, or leaves out something he meant to put in. The rough file consists of originators' rough drafts, and is the communicator's evidence if an originator thinks his message did not go out as he wrote it. Some ships file these copies separately; others staple them to smooth copies in one of the permanent files.

At most shore communication centers, the originator's rough draft never enters the shack. Clerical personnel in the originator's office smooth-type outgoing messages and deliver them to the message center properly released and ready to go.

PRESS FILE

Aboard ship, an important source of news is press broadcasts. Press material is copied by CW or RATT, then is duplicated and distributed throughout the ship. One copy is placed in the press file to be retained until no longer timely. One of the commanding officer's responsibilities is to keep himself informed of current events, with particular emphasis on the international situation and on happenings in countries the ship is scheduled to visit. For this reason, a duplicate press file sometimes is maintained for the captain's use.

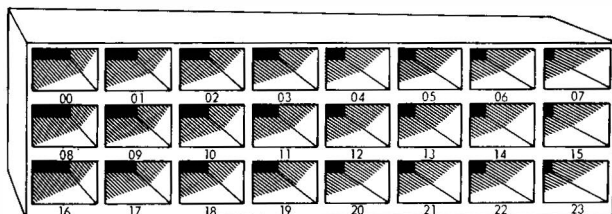
Press news transmitted on the general broadcasts is purchased by the Navy from the press associations with the provision that it will not be placed in competition with normal newspaper outlets and commercial subscribers. Where disclosure to unauthorized persons is a possibility, particularly at shore activities outside the United States, all copies of press should be marked: FOR OFFICIAL USE ONLY. DESTROY AFTER IT HAS SERVED ITS PURPOSE. THIS PRESS MUST NOT FALL INTO UNAUTHORIZED HANDS.

AWAITING SIGNATURE FILE

Information officers usually do not need to see a message as promptly as the action officer. If an information officer is asleep or ashore, his copy is placed in the awaiting signature file, to be signed for when he awakens or returns. The file is kept near the CWO's desk, or on the messenger's clipboard.

BOX OR 24-HOUR FILE

For convenience in locating current traffic, many message centers keep a box file for temporary stowage of messages (fig. 12-1). The box has 24 pigeonholes numbered by the hour. Copies of all messages received are stowed temporarily in the appropriate pigeonhole by DTG. A message with DTG 132146Z, for instance, goes in the 21 slot. Each day the messages are cleared from the box file and filed permanently. If the amount of traffic justifies it, separate boxes may be maintained for incoming and outgoing messages.



31.57

Figure 12-1.— Box or 24-hour file.

KEEP ACCURATE FILES

The importance of well-kept files and of cooperation by the various watch sections to keep them that way cannot be stressed too much nor too often. You should be able to locate any message in 1 or 2 minutes. Inaccurate files aboard ship mean delays in processing traffic, some of which may be operational in nature and of high precedence. A large shore station may file messages at the rate of 50,000 or more a month. Hence, it is easy to see that a misfiled message often means a lost message.

DISPOSAL OF FILES

Stowage space often is a problem, both ashore and afloat. The larger shore communication centers solve the problem of stowage

space for message files by reproducing the files on microfilm. Aboard ship, stowage space for message files nearly always is inadequate. Inasmuch as there is rarely occasion to refer to a message more than a few weeks old, DNC 5 (effective edition) authorizes destruction of sections of the files after a certain period of time elapses. Except for messages pertaining to distress and those of legal or historical interest, the communication center and cryptocenter files are destroyed after 1 year, as indicated in table 12-1. About the first of July, for example, the files for June of the previous year are destroyed. Methods of destruction, such as burning and pulping, are described in chapter 3.

The radio station file is destroyed after 6 months.

General messages must be retained until they are canceled or superseded. Certain general messages (ALNAV, ALNAVSTA, ALSTACON, ALSTAOUT, NAVACT, and NAVOP) are incorporated into the Navy Directives System and are canceled by a superseding message, by a cancellation date indicated in the message text, or automatically after 90 days. Other general messages are incorporated into Registered Publication Memoranda (RPM) and Communications Security Publication Memoranda (CSPM) and are considered canceled when thus published. General messages not incorporated into RPM, CSPM, or the Navy Directives System, and which remain effective at the end of the year, are listed as effective in the first general message of that series for the new calendar year.

COMMUNICATION LOGS

A communication log is a continuous record of everything that happens on a communication net. Four kinds of communication logs are kept by operators: radiotelegraph, teletypewriter, radiotelephone, and visual. Only the first three concern Radiomen; the visual log is the responsibility of Signalmen.

It is never permissible to erase an entry in any communication log. A necessary change must be made by drawing a single line or by typing slant signs through the original entry and indicating the changed version next to the original entry. Any operator who makes a change must initial it. A log should be kept as neat as possible. It is essential that it be complete and accurate.

RADIOTELEGRAPH LOGS

You may recall from chapter 6 that of the four types of radio watches, three of them—guard, cover, and copy—require complete logs. A complete radiotelegraph log must show the following information:

1. All transmissions heard, regardless of origin or completeness, whether addressed to the receiving station or not.
2. Times of opening and closing the station.
3. Causes of delay on the net or circuit.
4. Adjustments and changes of frequency.
5. Any unusual happenings, such as procedure and security violations.
6. Occasions of harmful interference. (When occurring, a report must be forwarded to CNO.)

If the message is addressed to, or is to be relayed by, the receiving station, it must be written in full on a message blank. A good operator always types directly onto the message blank as the transmission is received. After typing the TOR, he removes the message blank from the typewriter and enters sufficient details in the log to identify the message. Normally, he logs the complete heading, followed by the notation "See files." If it is unnecessary to write the transmission on a message blank, it must be written out fully in the log.

When opening a net or when starting a new day's log, the operator writes or types his name in the log. He signs the log when he is relieved or when he secures the net. This procedure is repeated at every change of the watch.

An entry must be made in the radiotelegraph log at least every 5 minutes. If the net is quiet, the operator logs "No signals." If the operator is too busy to log an entry every 5 minutes, he may enter the essential data later, indicating inclusive times. Figure 12-2 shows how a radiotelegraph log should appear.

Radiotelegraph logs are destroyed after 6 months, except when they relate to distress or disaster. Then, they must be kept for 3 years. If the logs are of historical or continuing interest, they must be retained indefinitely.

RADIOTELETYPEWRITER LOGS

The radioteletypewriter log may consist either of page copy or perforated tape. Page copy may be wound on a continuous roll, or it can be cut into pages for insertion into a more

accessible file. Perforated tape is wound on a reel. The reel type of log is inconvenient for reference, however, because of the necessity for unwinding and rewinding the reel each time there is a need to search for a transmission.

Some stations are equipped with automatic timeclocks, which stamp the time on perforated tape and page copies of messages. At stations not equipped with automatic timeclocks, the operator must enter the time on incoming tapes or page copy at least once every 30 minutes.

The disposal schedule for radioteletypewriter logs is the same as for radiotelegraph logs for all stations except tape relay stations. Relay stations are authorized to destroy monitor tapes or page copies of incoming messages after 24 hours. Relay monitor reels or page copies of outgoing messages are retained for 60 days.

RADIOTELEPHONE LOGS

Aboard ship you are likely to discover that men in certain other ratings do more radiotelephone operating than do Radiomen. Radarmen in CIC, for example, control most of the shipboard radiotelephone circuits. Operation of the radiotelephone is also one of the qualifications for Signalmen and Quartermasters. This is because some radiotelephone circuits are controlled from the bridge. In addition to Radarmen, Signalmen, and Quartermasters, the OOD and the commanding officer send and receive messages by radiotelephone.

Radiotelephone circuits manned on the bridge and in CIC, such as the maneuvering, task force command, and combat information nets, are tactical circuits. Complete logs are required on these circuits. For various reasons, the logs differ from those kept by Radiomen in that entries are recorded, by pencil, in ledger-type logbooks. Logs maintained by Radiomen are typewritten on the standard Radio Log (OpNav Form 2810-1) shown in figure 12-3.

Radiotelephone logs must meet the same general requirements as radiotelegraph logs. Often, however, messages are dictated at a rapid pace, and shortcuts are necessary if a complete log is to be maintained. You save time logging equivalent prosigns for the prowords. Thus, EXECUTE TO FOLLOW can be copied as IX, BREAK as BT, and so on. Don't spell out numbers; record them as figures. Use commonly understood abbreviations. Such shortcuts are acceptable as long as your log meets one simple test: It must be understandable.

RADIOMAN 3 & 2

RADIO LOG

OPNAV FORM 2810-1 (Rev. 11-58) Recorder from FPO Cog. "I" Stock

ACTIVITY USS ENTERPRISE	OPERATOR J.D. NICHOLAS RM2	CREW 3	CIRCUIT 27	FREQUENCY 3319 KC
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TIME	TRANSMISSION
1245	NO SIGNALS
1250	J.D. NICHOLAS RM2 OFF TO T. BROWN RM2. RCVR CHECKED WITH FREQ METER. NO TRAFFIC ON HAND. <i>J.D. Nicholas</i>
1254	NFFN NHDY NNQN DE NIQM K NIQM DE NFFN K NIQM DE NHDY K NIQM DE NNQN K NFFN NHDY NNQN DE NIQM -R- 131229Z - FM YONA - TO NFFN NNQN - INFO NHDY GR18 BT (SEE FILES)
1258	NIQM DE NFFN R AR NIQM DE NHDY R AR
1259	NNQN DE NIQM INT R K NIQM DE NNQN AS NIQM DE NNQN IMI WA SUBMIT K DE NIQM WA SUBMIT - EARLPRADATE K
1300	NIQM DE NNQN R AR
1305	NO SIGNALS
1310	NO SIGNALS
1313	NNQN DE NHDY K NHDY DE NNQN K NNQN DE NHDY - T - OJWN - P - 131308Z - FM NHDY - TO OJWN - INFO NBUV NGTA GR44 BT 36155 INDIA MIKE NOVEMBER ALFA JULIETT OYIEM OJCVH USGRI HXRON YIGVL QOOGY STHU TGKNV HUCHN NEIKE WQYYO QPEAX HXICJ AYPMZ JACIM LEZSO CVDAE SXBLW ETSVO PQBHC UBTBN GYFHJ PBVDF IAKMB VAPDI XCIRU SVJXN SNLVI JNUL KNCMF BAWXH KFWJR UZPDE RQYNV OEUCI FHADL XKCEW 36155 BT K
1319	NHDY DE NNQN INT 22 - LEZSO K DE NHDY C K
1320	NHDY DE NNQN R AR
1325	NO SIGNALS
1330	NO SIGNALS
1335	NO SIGNALS
1340	NO SIGNALS
1342	T T T T T T T T (AA TUNING XMTR)
1347	NO SIGNALS
1348	NFFN DE NNQN K NNQN DE NFFN K NFFN DE NNQN - O - 131347Z GR14 BT UNCLAS CARQUAL PLAN CHANGED AS FOLLOWS. 10 A/C OVERHEAD 131445Z. 7 A/C OVERHEAD 131530Z BT K
1350	NNQN DE NFFN R AR
1355	NO SIGNALS
1400	NO SIGNALS
1405	NO SIGNALS
1410	NO SIGNALS
1415	NO SIGNALS

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36.16
Figure 12-2. - Radiotelegraph log.

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RADIO LOG

OPNAV FORM 2810-1 (Rev. 11-58) Recorder from FPSO Cog. "I" Stock

ACTIVITY USS LONG BEACH	OPERATOR R. W. LESLIE RM 2	CREW 1	CIRCUIT 18	FREQUENCY 2272 KC
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TIME	TRANSMISSION
1500	SET WATCH—ASSUMED NET CONTROL SHOEBLACK TI GIRLCRAZY THIS IS A DIRECTED NET OF WHAT PRECEDENCE AND FOR WHOM ARE UR MSGS OVR TI HAYSTACK NO TFC OVR TI SNOWCAP 1 P FOR YOU OVR TI WESTWIND 1 R FOR HAYSTACK OVR TI SUNSHINE NO TFC OVR
1502	SHOEBLACK TI GIRLCRAZY RGR SNOWCAP SEND UR MSG OVR GIRLCRAZY TI SNOWCAP MSG FOLS P TIME 071455Z FM SNOWCAP TO GIRLCRAZY INFO BEACHNUT GR15 BT (SEE FILES) RGR OUT
1506	SNOWCAP TI GIRLCRAZY SEND UR MSG OUT WESTWIND TI GIRLCRAZY HAYSTACK TI WESTWIND OVR TI HAYSTACK OVR HAYSTACK TI WESTWIND R TIME 071452Z GR6 BT UNCLAS REPORT SHACKLE IDPQ RNZT UNSHACKLE BT OVR RGR OUT
1508	WESTWIND TI HAYSTACK RGR OUT
1513	NO SIGNALS
1518	NO SIGNALS
1523	NO SIGNALS
1528	NO SIGNALS
1530	R.W. LESLIE RM2 OFF TO J.D. NICHOLAS RM3—ROUTINE ON HAND FOR SNOWCAP <i>R Leslie</i>
1532	SNOWCAP TI GIRLCRAZY R OVR TI SNOWCAP OVR SNOWCAP TI GIRLCRAZY R TIME 071527Z GR18 BT (SEE FILES) TI SNOWCAP IMI WA AT OVR TI GIRLCRAZY I SAY AGAIN WA AT FIGS 1830Z OVR
1537	GIRLCRAZY TI SNOWCAP RGR OUT
1542	NO SIGNALS
1547	NO SIGNALS
1552	NO SIGNALS
1557	NO SIGNALS
1601	GIRLCRAZY TI SNOWCAP OVR TI GIRLCRAZY OVR GIRLCRAZY TI SNOWCAP R TIME 071554Z GR4 BT (SEE FILES) SNOWCAP TI GIRLCRAZY RGR OUT
1603	NO SIGNALS
1608	NO SIGNALS
1610	GIRLCRAZY TI SUNSHINE ROUTINE FOR HAYSTACK OVR SUNSHINE TI GIRLCRAZY SEND UR MSG OUT SUNSHINE TI HAYSTACK SEND UR MSG OVR HAYSTACK TI SUNSHINE R TIME 071601Z GR9 BT UNCLAS REQ CANCEL EVENT 0712 DUE ROUGH SEAS BT OVR RGR OUT
1613	SUNSHINE TI HAYSTACK
1618	NO SIGNALS
1623	NO SIGNALS
1628	NO SIGNALS

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Retention and disposal requirements of radiotelephone logs are the same as for radiotelegraph logs.

MESSAGE BLANKS

Commands vary widely in message-handling procedures and systems of internal routing. Each has individual requirements concerning what should be shown on message forms. At most shore communication centers, message blanks are used only for outgoing messages; incoming messages are run off on plain paper on duplicating machines.

Message blanks actually are message "books," each book consisting of a cover and a standard number of flimsies, with sheets of carbon paper inserted. The original (cover) is initialed or signed by recipients of flimsies of the message. It is retained in the communication center file after distribution is completed.

Figure 12-4 shows two typical message forms. The larger of the two, marked UNCLASSIFIED at the bottom, also is available preprinted with security classifications Confidential, Secret, and Top Secret. The short message blank is the one used most frequently aboard ship. It can be used for both incoming and outgoing messages of any classification. The following discussion concerns the short form.

The upper spaces of the naval message blank are for the security classification, the name of the drafter (for outgoing messages only), precedence, date-time group, and message number (for internal logging). These blocks are followed by spaces for the originator and addressees. About half of the form is left clear for typing the text. Across the bottom are spaces for the releasing officer's signature (for outgoing messages), the time of receipt (if the message is incoming), time of delivery (if outgoing), followed by a block for the CWO's initials and another block for initialing by the watch officer or internal router. The day, month, and year are typed in the date block, and the DTG is repeated in the lower right corner. This location of the DTG is a timesaver when filing messages or when looking for a particular message in the files. Space for an additional marking of the security classification is provided at the bottom of the message blank.

The row of numbered blocks across the bottom are utilized for internal routing (distribution) of the message. The commanding officer

and executive officer always receive blocks 1 and 2; the rest are assigned according to the needs of the command. Following is a typical shipboard assignment of the numbered blocks. Notice that assignment is made by functional title instead of by name.

1. Commanding officer;
2. Executive officer;
3. Operations officer;
4. Communication officer;
5. CIC officer;
6. Navigator;
7. Weapons officer;
8. Engineer officer;
9. Meteorological officer;
10. Supply officer;
11. Disbursing officer;
12. Medical officer;
13. Dental officer;
14. First lieutenant;
15. Damage control assistant;
16. Chaplain;
17. Custodian (RPS or TPL);
18. Electronics officer;
19. Main propulsion assistant;
20. Fire control officer;
21. Postal officer;
22. Ship's secretary;
23. Command duty officer;
24. OOD.

INCOMING MESSAGES

All CW, RATT, and FAX traffic addressed to your ship is processed through the message center. Except for tactical signals that must be executed within a few minutes, visual and radiotelephone messages are handled similarly. Typically, an incoming message is processed according to the following steps:

1. On arrival of the message in the message center, the CWO or one of his assistants translates the call signs and address groups in the heading. The CWO checks the message, logs it, signifies action and information officers, and gives it to the communication clerk, who makes a smooth original and as many copies as are required. The original and all copies then are passed back to the CWO.

2. The CWO checks the message again and gives it to the messenger, retaining at least one copy until completion of delivery.

3. The messenger delivers the traffic to the action officer, then to the information officers. They receipt by initialing the original of

NAVAL MESSAGE
OPNAV FORM 2110-28 (10-58)

RELEASED BY _____

DATE _____ TOR TOD _____ DRAFTED BY _____

MESSAGE NR _____ DATE TIME GROUP (GCT) _____ ROUTED BY _____ PHONE EXT. NR _____

FROM _____

PRECEDENCE	FLASH	EMERGENCY	OPERATIONAL IMMEDIATE	PRIORITY	ROUTINE	DEFERRED
ACTION						
INFO						

TO _____

INFO _____

NAVAL MESSAGE (SHORT FORM)
OPNAV FORM 2110-29 (10-58)
Reorder from FPSO Catalog "I" Stock Point

SECURITY CLASSIFICATION _____

DRAFTED BY _____ PRECEDENCE _____ DATE/TIME GROUP _____ MESSAGE NR _____

FROM: _____

TO: _____

INFO: _____

DISTRIBUTION

RELEASE	TOR	TOD	CWO	WO	DATE																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	DATE TIME GROUP

SECURITY CLASSIFICATION _____

Reorder from FPSO Catalog "I" Stock Point

UNCLASSIFIED

DATE TIME GROUP _____

31.47
Figure 12-4. – Two typical message blank forms.

the copies typed by the communication clerk. The captain, executive officer, and communication officer receive copies of all messages, and for this reason often maintain file boards on which their copies are placed. On large ships the orderlies of the captain and executive officer sign for the messages and make delivery to these officers.

4. After distributing all copies and obtaining initials, the messenger returns the completely initialed original to the message center. There the CWO checks it for completeness of delivery. This master copy becomes a permanent part of the communication center file. The circuit copy is placed in the radio station file.

INTERNAL ROUTING AFLOAT

Although the captain has the overall responsibility for taking any action required by a message, he seldom is indicated as the action officer. Customarily, a message is routed for action to the department head who has direct responsibility for the subject matter of the message. The captain (or the executive officer), receiving a copy of all messages, then ensures that the action officer takes the required action.

A message is routed for information to officers who have an indirect interest in its subject matter.

Call signs and address groups in the heading of a message do not indicate who aboard is to receive the message either for action or for information. The CWO must read the text and decide who is principally responsible and who is officially interested. Some incoming messages are borderline cases; that is, more than one department must take some kind of action. The CWO must decide upon the one action officer, keeping in mind that the officer with the GREATER interest in the subject matter is routed action.

It is important that the proper number of copies of a message be made. An under-routed message may result in delay and the inconvenience of making additional copies. The other extreme—preparing a copy for everyone who might have even a remote interest in the message—is just as bad; it would take too much time and often circulate classified information too widely.

An example of internal routing afloat may be helpful. Refer to the incoming message shown in figure 12-5. The routing ("A" for action, "I" for information) is as follows:

<u>Block</u>	<u>Assigned to</u>	<u>Routing</u>	<u>Explanation</u>
1	Commanding officer	----- I -----	Receives all messages. Responsible for everything that goes on in his command and, therefore, necessarily must be informed of everything.
2	Executive officer	----- I -----	Receives all messages. In charge of administering the ship, hence must also be informed of everything.
3	Operations officer	----- A -----	Acts in matters relating to the ability of the ship to carry out her assigned mission.
4	Communication officer	--- I -----	Receives all messages, for two reasons: to check for errors, and to be informed if questions arise.
6	Navigator	----- I -----	Plots storms and gales; must determine bearing and distance of ship from gale; plots diversionary route, if necessary.
7	Weapons officer	----- I -----	Must see that exposed ordnance equipment is covered properly.
8	Engineer officer	----- I -----	Responsible for damage control and ship's stability. Must ballast as necessary and be prepared to strike topside weights below; must take precautions against water damage to engine room power panels; must see that shaft alleys, workshops, and storerooms are ready for heavy weather.

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NAVAL MESSAGE (SHORT FORM) <small>OPNAV FORM 2110-79 (10-58)</small> <small>Recorder from FPSO Cog "I" Stock Points</small>												SECURITY CLASSIFICATION UNCLASSIFIED												
DRAFTED BY						PRECEDENCE IMMEDIATE				DATE/TIME GROUP 110403Z				MESSAGE NR. 31										
FROM: FLEWEACEN WASHDC																								
TO: ALL SHIPS COPYING THIS BROADCAST																								
INFO: COMEASTSEAFRON / FLEWEAFAC NORVA / FLT HURRICANE FCSTFAC MIAMI/																								
UNCLAS																								
110403Z GALE WARNING. BETWEEN FORTY TWO AND FORTY FIVE NORTH FROM																								
THIRTY FIVE WEST TO EUROPEAN COAST. WIND WESTERLY TWENTY FIVE TO																								
THIRTY FIVE KNOTS																								
WR NR3365												WU/JN												
RELEASE								TOR 11/0417Z		TOD		CWO <i>Jn</i>		WO		DATE 11 OCT 63								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	DATE/TIME GROUP
I	I	A	I		I	I	I	I	I		I		I										I	110403Z
SECURITY CLASSIFICATION UNCLASSIFIED																								

Figure 12-5.— Incoming message. 31. 47

<u>Block</u>	<u>Assigned to</u>	<u>Routing</u>	<u>Explanation</u>
9	Meteorological officer	----- I -----	Receives all messages concerning weather. Must advise command in matters relating to his specialty: anticipated storm track, probable state of sea, etc.
10	Supply officer	----- I -----	Must see that galley, messhalls, storerooms, and other spaces assigned his division are rigged for heavy weather; may have to revise his menus to provide food that can be served when the seas are high.
12	Medical officer	----- I -----	Must see that bedridden patients are subjected to a minimum of discomfort caused by roll and pitch of the ship, and that the sick bay, medical storerooms, and other spaces are secure from heavy weather damage.
14	First lieutenant	----- I -----	Must see that ground tackle is secured, if not required; that rafts, boats, and other gear on the weather decks are secure from damage.

<u>Block</u>	<u>Assigned to</u>	<u>Routing</u>	<u>Explanation</u>
24	OOD-----	I-----	Responsible for safety of the ship during period of his watch. (A message routed "OOD" is seen by all OODs.)

Final responsibility for routing rests with the CWO, even though an enlisted assistant performs the work. Some CWOs do the routing themselves, using a Radioman mainly for clerical assistance. Others delegate the work of routing, but check its accuracy before delivery is made. At small stations, both ashore and afloat, it is not unusual for a Radioman First or Chief to act as CWO and to assume responsibility not only for routing but also for supervising the watch.

INTERNAL ROUTING ASHORE

The principles of internal routing are practically the same everywhere, but routing at a shore station often presents difficulties because of traffic volume and the number and diversity of activities the station may serve. For some activities, the station may not route at all, but only make delivery in accordance with address groups. Actual routing to action and information officers in such an instance is a function of the addressee. For other activities the station makes internal routing; but the messages usually go to offices, divisions, or sections—not to individuals—for action and information.

In addition to the action/information internal routing commonly used everywhere, another routing symbol, COGNIZANCE (abbreviated COG), is in use at many of the large shore message centers. It is used instead of action routing on messages addressed to the command for information. The purpose of routing for COG is simply to prevent routing for action when the message is not addressed to the command for action. The office that has primary cognizance over the subject matter contained in the message is routed COG. It is responsible for taking any action that may be required within the command, including checking to see that the CWO's routing for information includes distribution of copies to other activities that might need the information.

Many stations, especially the larger ones, maintain a routing file based on subject matter of messages. The file consists of cards showing the activities interested in each subject for action and for information.

Messengers from each activity make several trips daily to the communication center to pick up their activity's incoming traffic and to deliver outgoing messages for transmittal. Delivery to some activities may be made by direct teletypewriter drop instead of by messenger.

OUTGOING MESSAGES

Typically, an outgoing message is processed according to these steps:

1. After determining that a message is necessary, the drafter prepares it, assigns appropriate classification and precedence, and sends it to the releasing officer.

2. The releasing officer checks the message for content, precedence, classification, brevity, and clarity, making any changes he sees fit. If he thinks the message unnecessary, or that it can go by slower means, he returns it to the drafter. If he approves the message, or approves it with changes, he signs it and sends it to the message center.

3. As soon as the message arrives in the message center, the time of file (TOF) is stamped or penciled on it. The CWO then logs the message in the outgoing message log, which contains the same general type of information as the incoming message log. The CWO determines that all addressees hold copies of any referenced messages listed in the message being processed, or that the references are marked with the abbreviation NOTAL, which the originator uses to indicate that the referenced messages were "not to, nor needed by, all addressees." The CWO also must ascertain that the classification of the message is in accord with the requirements for unclassified references to classified messages. Primarily, these checks are the responsibility of the message drafter, but they are doublechecked by the CWO or one of his assistants.

4. The originator's draft is given to the communication clerk, who makes file and routing copies. On some ships, the originator indicates internal routing for an outgoing message. On others, the CWO performs this duty and routes an outgoing message just as he would an incoming message.

5. If the message is classified, the CWO prepares it for encryption and sends it into the cryptocenter. The encrypted version is passed back to the CWO, who drafts a heading, places it on the encrypted copy, and sends it to the watch supervisor in the radio room for transmission. If the message is unclassified, it is unnecessary, of course, to route it through the cryptocenter.

6. In the radio room the message is placed on the air. The time of delivery, accepting station, frequency, and operator's sign are noted on the face of the form, and the message is returned temporarily to the message center for completion of the CWO's outgoing message log.

7. The originator's draft goes into the rough file. The original encrypted copy, if any, goes to the radio supervisor for the radio station files. A filler, dummy, or encrypted copy goes into the communication center files. A plain language copy goes in the proper section of the cryptocenter file. If the message is plain language, a copy goes in the radio station file, as before, and another in the communication center file.

RELEASING SIGNATURE

Before you accept any outgoing message for transmission, be certain that it is released properly. You will find the signature of the releasing officer on the face of the message. Aboard ship the authority to release messages is vested in the commanding officer, but for sake of convenience the authority often is delegated. Following is a typical large ship releasing arrangement:

1. Captain and executive officer—may release any message.
2. Meteorological officer—may release routine weather reports.
3. Navigator—may release routine position reports.
4. OOD—may release visual and radio-telephone messages concerning operations.
5. Communication officer—may release service and class E (personal) messages.

Shore stations maintain a signature file of releasing officers. This file is used in much the same way as a bank's signature file of depositors. Each local command or activity served by the station submits a signature card for every officer authorized to release messages. Besides signatures, the cards also

carry information regarding any limitations on the officer's releasing authority. An officer may, for example, be authorized to release messages to shore activities, but not those addressed to forces afloat. When an outgoing message is received over the counter, the releasing officer's signature is compared with that on his card. If he is authorized to release messages of that type and classification, the message is accepted.

REFERENCES

Many messages refer directly to a previous incoming or outgoing message. It saves bother for everyone if half a dozen officers do not need to telephone the message center to have previous references taken from the files and read to them. Accordingly, if there is a reference in an incoming message, look up the referenced message and show identifying extracts across the face of the routed copies. The same applies to outgoing. It is unnecessary to copy the reference in its entirety, but quote enough so that action and information officers get the gist of it. There are two additional reasons why you must check references in outgoing messages. First, checking references assures accuracy. Second, it is a security measure; unclassified replies to certain types of classified messages are forbidden.

TRAFFIC CHECKER

The traffic checker is a station's final safeguard against error. Every message handled by the station passes through his hands for a last thorough check before going into the files. (See the Checklist for Traffic Checkers.)

Shore stations often have from one to four men checking traffic full time. Usually there is some specialization to meet local needs—one or two men, for instance, may check only encrypted traffic, whereas the others check plain language traffic. A good checker will do his best to stay "up" with the traffic load. That way he can catch errors before the messages leave the station, thus saving service messages and corrected copies.

A traffic checker must know the station's message-handling procedures inside out. He must be acquainted with in-station memoranda and directives, official publications, and (aboard ship) the communication organization book. He must have a well-rounded knowledge of guard lists, routing indicators, and fleet organization. He must stay abreast of all of these.

CHECKLIST FOR TRAFFIC CHECKERS

1. Examine heading, text, and ending for garbles and omissions.
2. Determine if the message has been handled in accordance with its precedence.
3. Check routing indicators, if any. Check breakdown of call signs and address groups.
4. Check the group count, if any.
5. Check the continuity of the station serial number. See that the number agrees with the number logged.
6. Compare originator's rough draft against hard copy or circuit copy.
7. Compare numbers in text with those in CFN line (if used).
8. If the message contains a ZFF, ensure that it has been answered. (ZFF: an operating signal means, in effect, "When did addressee receive message?")
9. Check operator's sign and servicing.
10. Check internal routing for omissions.
11. In shore stations, watch for duplicate messages. If your station receives the same message twice, someone else may have a nondelivery.
12. Watch for excessive in-station delays; compare the time your station received or accepted the message against the time it was delivered or sent.
13. Always be alert for security violations.

Few ships handle enough messages to warrant an assembly line procedure, where one man does nothing but check preceding steps. Messages are checked, of course, but checking ordinarily is done by the CWO and assistants as they go along. The communication officer also checks his personal copy. Many ships hold a daily traffic check before messages handled the previous day go into the files. The checker reads the writeup and circuit copies, noting the heading, text, routing, and so on. If everything is in order, he initials the message to that effect. If he finds an error, he brings it to the attention of the CWO. If the error is serious enough to justify corrected copies, they are made up and delivered at once. Incorrect copies are picked up, or the possessor is advised to destroy them.

DNC 5

The effective edition of DNC 5, U.S. Naval Communication Instructions, is one of the most

important communication publications to the man at the operating level. This unclassified, nonregistered publication is promulgated by DNC. It contains several hundred pages of information, advice, and instructions on virtually every phase of naval communications. About half the total contents of the publication deal with communication procedures.

You are required to have a knowledge of the contents of DNC 5. This is not as imposing a requirement as it may seem, because some of the information contained in it is so basic that you will soon learn it by just being around a communication office. You also will refer to it frequently in the course of your work, and further your acquaintance with its contents in that manner.

The index in the back of the book is arranged alphabetically by subject matter, with references both to the page number and the article number. If you are looking for information on radiotelegraph logs, you will find it indexed

under "Logs, Radiotelegraph." Then you thumb to the page and article indicated.

In general, the communication procedures explained in DNC 5 are the same as those contained in Allied Communication Publications. You must remember, however, that DNC 5 is distributed only within the U. S. Navy, whereas ACPs are held by all armed services of the United States and allied countries. In cases of conflicting communication procedures between DNC 5 and any of the ACPs, DNC 5 is the governing publication for use within the U. S. Navy.

Many test questions in the fleetwide competitive examinations are based on information in DNC 5. If you need a considerable amount of study in that publication, you are advised to get an early start.

CORRECTIONS TO PUBLICATIONS

One of your jobs as RM3 and RM2 is to help keep your communication publications up to date. All communication publications, particularly the call sign, address group, and routing indicator books, frequently undergo necessary changes. The custodian (or technical publications librarian) is responsible for the prompt and accurate entry of all changes and corrections to publications. Usually, he issues the changes and corrections to the leading Radioman for the publications held in communication spaces. The leading Radioman then assigns the work to his men. On some ships and stations, each man is assigned his share of the publications to keep up and is responsible only for those assigned to him. Other activities assign the correcting job to any men available at the time the work needs to be done.

Corrections to publications are issued in four ways: errata, change, memorandum, and message. An errata is a correction, usually mimeographed, distributed with a publication or change to a publication at the time of its initial distribution. Errata are for the purpose of correcting defects that may affect the status or accountability of a publication, or to amend serious errors in the text that may lead to misinterpretation.

A change to a publication is itself a serially numbered publication, and may consist of pen-and-ink corrections, cutout corrections, or new pages to amend or add to the contents of a basic publication. Changes are numbered consecutively (change No. 1, No. 2, etc.).

Memorandum corrections are of two kinds: Registered Publication Memorandum Corrections (RPMC) for corrections to RPS-distributed publications, and Navy Memorandum Corrections (NMC) for publications distributed by the Forms and Publications Supply Office of the Navy supply system. Memorandum corrections are used when time does not permit the preparation of a serially numbered change. The RPMCs and NMCs are numbered serially, using a system of two numbers separated by a slant sign. The figure before the slant sign indicates the number of the NMC (or RPMC), and the numbers run consecutively for the life of the basic publication. The figure after the slant sign indicates the change that will confirm the material contained in the NMC or RPMC. For example, NMC 2/1 to ACP 113 is the second NMC issued to ACP 113 and will be confirmed by a forthcoming change No. 1.

Message corrections to publications are issued by ALCOM general message (or ALCOM-LANT, ALCOMPAC when appropriate). Message corrections are used only when it is absolutely necessary to disseminate the correction by rapid means.

Entering corrections in publications is tedious work. It is a necessary chore, however, and is of such importance that it warrants your most careful attention. Here are some general rules for entering corrections:

1. Read and understand the specific instructions contained in the correction before you begin the actual entry.

2. For pen-and-ink corrections, use green ink or any dark ink except red. Red ink is not visible under the red night lights used aboard ship.

3. Type lengthy pen-and-ink corrections on a separate slip of paper, then paste the paper on the page.

4. When cutouts are provided, use them in preference to pen-and-ink corrections.

5. Cutouts should be cemented flat on the page with rubber cement or mucilage. (Rubber cement or mucilage is more satisfactory than cellophane tape because the tape often sticks pages together or may tear pages if its removal is attempted.) If there is insufficient room on the page to insert cutouts, they may be attached to the inner (binding) edge of the page as flaps.

6. Delete, in ink, all subject matter superseded by a cutout before adding the cutout. This method prevents using the superseded material if the cutout becomes detached.

7. Because a correction entered in one section of a publication often affects another section, such as the index, make certain that the corrections are entered in all applicable sections.

8. After entering pen-and-ink or cutout corrections, note on the margin, opposite the line containing the correction, the identification of the correction, as NMC 1/2, ALCOM 3, etc.

9. Upon completion of the entry of any change affecting page numbers, and before destroying any superseded pages, make a page check of the publication.

10. After entering the correction, fill in the information required by the "Record of Changes" page in the front of the publication. This page provides spaces for the correction number and its date, the entry date, your signature and rate, and the name of your ship or station.

WATCH SUPERVISION

As you advance in rating you are expected to assume more responsibility and to become more proficient in your field. As Radioman 2 you are required to take charge of a watch, supervise traffic handling, and act as a minor technician for many equipments. Even though at your present duty station you might not be given a watch to supervise, remember that in time of war Radiomen are scattered throughout the enlarged fleet, and it is quite possible for an RM2 to be the only experienced Radioman aboard.

Communication organizations, afloat and ashore, differ widely in internal message-handling procedures. It is difficult to lay down more than a few specific rules for supervisors because of varying problems, purposes, sizes, and locations of individual stations. If you had an opportunity to serve on the watch before taking it over, you probably are reasonably well indoctrinated in the local way of doing things. If not, you will have to depend on your superiors for guidance. In either case, make a study of the organization and regulations of your duty station, and know the contents of departmental and division notices and directives.

Upon the supervisor of any watch falls the responsibility for keeping the traffic moving and for running a taut watch. You must know your publications and instructions, and have them at hand for ready reference. At sea you should know and understand the cruising dispo-

sition of the fleet. You should be familiar with your own radio equipment and, if possible, the equipment of ships in company. That way you can allow for equipment limitations. You should not have to refer to the equipment technical manual for any of the following data on your transmitters, or, as applicable, receivers: model, location, source of power, frequency range, type of emission, rated power output, and effective day and night ranges, summer and winter.

During exercises you must watch your men closely, with an idea to the correction of any shortcomings that may appear. Keep an eye on the strikers; if they show no interest in self-betterment, and in making themselves of more value to the Navy, find out why.

Before taking over each watch, obtain all the information possible relating to circuit conditions; special orders; cruising disposition; traffic awaiting transmission, receipt, execution, or acknowledgement; frequencies under guard; gear in use; and guardships.

Before relinquishing the watch, assure yourself that all of your men are relieved, and that your operators surrendered to their reliefs, logs that are up to the minute and signed. Pass on all information of interest to your relief, and be satisfied that he understands the current communication situation.

The supervisor's desk is so wired that he can cut in on any of the operating positions and monitor the transmissions. Listen in frequently to both radiotelephone and radiotelegraph nets to check for off-frequency operation, incorrect procedure, and unauthorized use of plain language. Correct offending operators. Ensure that traffic flows smoothly. Do not allow letterwriting while on watch, nor the reading of books and magazines (except official publications). See that files are kept orderly, and that out-of-date sections are burned on time.

When you are given an outgoing message, look it over carefully before passing it to an operator for transmission. After the message is sent, note the operator's servicing. Check the address and group count of an incoming message, and take particular care to see whether relay is necessary. As frequently as possible during the watch, examine the logs and records, and make a final check at the end of the watch. Constant checking and rechecking are the best means of preventing mistakes that can embarrass not only you but the entire chain of command up to the captain.

Traffic usually is filed on the morning after the day it is handled. After the daily files are complete, a final check should be made for non-deliveries. If at any time a delayed delivery or a nondelivery is discovered, that fact, with the attendant circumstances, should be reported at once to the CWO and the radio officer. Fear of the consequences of a mistake should not be a deterrent to such a report. If an honest mistake was made, punishment seldom is occasioned, and a report and rectification are essential to good communication practice.

The relationship between officers and men of the communication organization must, for the sake of efficiency, be based on mutual confidence and trust. A supervisor can do his part to attain this objective by keeping alert and by conducting his watch in such a manner that the radio officer respects his ability. When mistakes occur, as they do in all offices, the radio officer undoubtedly will recognize that, although the error was avoidable, his supervisor nevertheless is competent. Most mistakes merely require provision for prevention of recurrence.

Constant work, observation, and correction are necessary to make your men efficient and responsible by second nature. It is your prime duty to make them so, and to instill in them the conviction that the success of naval communications depends on them individually.

The remainder of this chapter contains special topics of interest to the supervisor.

OPPLAN COMMUNICATION ANNEX

An operation plan (OpPlan) is a directive outlining procedures to be followed for some particular operation, such as an invasion, air strike, or convoy. That part of the OpPlan of interest to you is the communication annex, which usually is one of several annexes. The communication annex sets forth instructions that govern radio and visual communications during the operation. Typically, it deals with such topics as—

1. Contact reports—to whom made, how authenticated and acknowledged, and whether to be sent plain or encrypted.
2. Recognition and identification, including IFF.
3. Radio silence.
4. Use of UHF.
5. Radio procedures and circuit discipline.

6. Command circuits.
7. Call signs and address groups.
8. Radiotelephone codes and ciphers.
9. Visual communications.
10. Frequency plans for surface ship nets, CIC communications, and for aircraft communications.
11. Movement reports.

Departures from, or modifications of, communication doctrine for a particular operation are described carefully in the annex. Departures from standard doctrine are not made except for good reasons.

The information you are required to have from the annex is furnished you through the chain of command. From the communication officer it passes through the signal and radio officers to the watch officers and the leading PO. The leading PO disseminates the information to the watch sections.

COMMUNICATION (FREQUENCY) PLAN

The communication annex of an OpPlan contains a table of circuits and frequencies devised to fulfill the communication requirements of the forces participating in the operation. Depending on the size of the operation, the number of circuits required may be quite large. Because of equipment limitations, every ship or command cannot guard all of the circuits simultaneously; nor does every ship or command have the same circuit requirements. For these reasons, the frequency plan in the communication annex designates the circuits each type of ship or command is to guard. It also specifies the circuits each type is to maintain in a ready or standby condition.

The overall frequency plan usually is condensed by the individual ship into a ship's communication plan. This communication plan is the radio supervisor's guide for setting up equipment and circuits and for maintaining communications.

Communication plans vary with individual ships and may appear in many forms, but most contain at least the following information concerning each circuit:

1. Circuit designation (number);
2. Frequency;
3. Utilization (primary tactical, secondary tactical, and the like);
4. Specific transmitter and receiver used;
5. Remote position(s) to which patched;
6. Net control station.

Other pertinent data, such as scheduled frequency shifts and the time radio checks are to be conducted, may also be included in the communication plan.

STATUS BOARDS

Status boards usually are large, thick sheets of plexiglass on which the supervisor maintains a record of frequently changing communication data. For instance, the communication plan normally is transferred to a status board. As changes in equipment or circuit status occur, the supervisor records the changes on the status board, and thereby maintains an up-to-the-minute record of the equipment in use, the circuits that are up, and those that are in standby, and so on.

To be of any value, a status board must be accurate. An inaccurate board can cause a lot of confusion, particularly when relieving the watch. To avoid this disarrangement, the supervisor personally makes all changes to a status board.

FREQUENCY ADHERENCE

One of the supervisor's duties is to be sure that transmitters and receivers are exactly on frequency. Off-frequency operation may result in a ship's transmission not being heard at all. Less extreme cases are also dangerous because they lead to use of excessive power to blast through what the off-frequency station believes to be poor receiving conditions. Acceptable frequency tolerance for shipboard stations varies from .01 to .05 percent, depending on the frequency band. Table 12-2 shows the frequency tolerances for both short-based and shipboard radio transmitters. Note that the requirements for frequency adherence for most frequency bands are more stringent for shore stations than for ships. There are no shipboard transmitters in the frequency range of 10 to 50 kc. Transmitters installed in motor vehicles must meet the same requirements as for ships.

Table 12-2. — Frequency Tolerances

Type of station	10 kc to 50 kc	50 kc to 535 kc	535 kc to 4000 kc	4000 kc to 30 mc	Above 30 mc
Shore	.1%	.02%	.005%	.003%	.01%
Ship	--	.05%	.015%	.015%	.01%

A shipboard transmitter on 2716 kc, for example, must be kept within 2715.5926 to 2716.4074 kc. The tolerance is .4074 kc (or 407.4 cycles), which is found by multiplying 2716 by .00015.

Frequency tolerances are prescribed as operational standards in DNC 5 and must be maintained. Naval frequencies are monitored by communication security activities. Unless your transmitters are kept within the frequency tolerances shown in table 12-2, you are certain to receive an off-frequency report by either message or memorandum.

The newer models of Navy transmitters are capable of greatly improved frequency stability. This feature means that, when correctly set on the desired frequency, they are unlikely to drift off frequency. Ships and shore stations are also provided with a frequency-measuring instrument—the frequency meter—used principally to measure frequencies of transmitters and receivers. It is a calibrated device to which an oscillating circuit may be compared, either to determine its frequency, or to adjust it to a desired frequency. The frequency meter itself is not an ultimate standard of accuracy. It may become unreliable, hence it should be checked weekly against the standard radio frequency broadcasts of National Bureau of Standards radio station WWV. Transmissions from WWV are explained fully in chapter 14. DNC 5 requires that frequency meters be checked at least once each week, and directs that a log be kept of the checks conducted.

The frequency of radio receivers on circuits where no (or few) transmissions have been received should be checked with the frequency meter at least once every hour. Crystal-controlled receivers need not be checked this often, inasmuch as there is less likelihood of their drifting in frequency.

Shipboard transmitters used frequently should be checked with the frequency meter at least once each watch. Those used only occasionally should be checked before each use. This requirement is not applicable to crystal controlled transmitters. Most VHF/UHF transmitters are crystal-controlled, but many shipboard transmitters in the MF/HF range are not.

CRYSTALS

Among the essential items that often receive too little attention are the crystals used in most shipboard VHF/UHF transmitters. These crystals are small, consequently they easily are

lost or misplaced. They cannot take too much abuse, although encased in a protective covering. When not actually in use, the crystals should be removed from the equipment and stowed in their appropriate container—usually a metal box. Too often someone stuffs a crystal into his pocket, forgets it, then it goes to the laundry in his clothes. Even if they are recovered, few crystals work after a trip through a washing machine. Lost or inoperative crystals should be called to the attention of the leading Radioman immediately so that they may be replaced. It is embarrassing, to say the least, to be unable to come up on a required frequency because of a missing or inoperative crystal.

Bureau of Ships Instruction 09670.58 series, the Shipboard Crystal Allowance List, lists the crystals (by equipment, frequency, and ocean area) that each type of ship is required to have. When this instruction is revised, check it closely to make certain that you have all crystals allocated your ship.

TRAINING AND STUDY

As a supervisor of a watch, it is your responsibility to train your men to become more proficient in their duties. During a normal watch, you are presented with an untold number of opportunities for on-the-job training. Conditions permitting, each shift in frequency or change in equipment can be utilized to train one or more of your men. Many outgoing messages can be used in a similar manner. Take advantage of these opportunities, because both you and your men benefit from them. You benefit by having a sharper watch section that requires less of your time in doublechecking their work; they benefit by increasing their advancement opportunities.

By the time you advance to the position of a watch supervisor, you should know the value of studying. Encourage your men to study during slack periods. They are not permitted to write letters or read unofficial books or magazines, so why not use this time in bettering themselves? In the ACPs and other publications available, you and your men have at your fingertips all of the doctrinal communication information required for advancement from Seaman to Master Chief Petty Officer. Take advantage of them!

WATCH SUPERVISOR'S LOG

Usually, ships and commands that handle a large volume of traffic and maintain a large

number of circuits require the watch supervisor to keep a log. The supervisor's log is a running record of the happenings during his watch. It contains such data as circuit outages, equipment failures, frequency shifts, off-frequency reports, traffic backlogs, security violations, and unusual circumstances that occur. Entries are made only when warranted. They are not required at specific time intervals.

The supervisor's log is particularly useful as background information when turning the watch over to a relieving supervisor.

PUBLICATION CUSTODY LOG

The watch supervisor is personally accountable for official publications used by his section. In order to provide effective control, ships and shore stations use publication custody logs for recording the watch-to-watch inventory. No standard form for this log is available, so you may see many different log forms. The publication custody log shown in figure 12-6 satisfies the requirements of the Fleet Training Groups. The log lists all publications in use in a particular space. At the change of watch, the supervisor and his relief sign every publication, and the relief signs the log. By doing so, he says, in effect, that the publications are actually present and that he holds himself responsible for them. Always sign every publication for which you sign. If you fail to do so, you leave yourself open to king-size troubles.

SOME QUESTIONS FOR SUPERVISORS

Following is a list of questions worth asking yourself every time you stand your watch.

1. Does handling of traffic meet Navy requirements for reliability, security, and speed?
2. Are regulations for handling and stowing classified matter observed in the spaces for which you are responsible?
3. Are all logs and files kept properly?
4. Does all wastepaper go into the burn bag?
5. Are unauthorized personnel kept out of the communication spaces?
6. Are encrypted call signs broken rapidly and accurately?
7. Do all operators in your watch section understand communication procedures and authentication?
8. Can all your operators tune every transmitter aboard? Can all use a frequency meter?
9. Are frequency meters calibrated weekly against radio station WWV?

- 10. Is all your equipment operative? If not, is something being done to put it in working order?
- 11. Are safety precautions and warning posters displayed?
- 12. In a sudden electrical accident, would every man in your gang know what to do?

- 13. Do you know what condition of radio silence exists, and under what circumstances and by whose authority it may be broken?
- 14. Do you know what channels and frequencies are in use for every purpose? What standby frequencies are available? The call signs of ships in the force?

PUBLICATION CUSTODY LOG											
WATCH-TO-WATCH PUBLICATION INVENTORY FOR						Radio Central					
	Day-Month-Year Period of Watch	10 Dec 63	10 Dec 63	10 Dec 63	10 Dec 63	10 Dec 63	10 Dec 63	10 Dec 63	11 Dec 63	11 Dec 63	
Short Title	Reg. Nr.										
ACP 100		✓	✓	✓	✓	✓	✓	✓	✓	✓	
ACP 110		✓	✓	✓	✓	✓	✓	✓	✓	✓	
ACP 112		✓	✓	✓	✓	✓	✓	✓	✓	✓	
ACP 113		✓	✓	✓	✓	✓	✓	✓	✓	✓	
ACP 121		✓	✓	✓	✓	✓	✓	✓	✓	✓	
FXP 3		✓	✓	✓	✓	✓	✓	✓	✓	✓	
JANAP 119		✓	✓	✓	✓	✓	✓	✓	✓	✓	
JANAP 195		✓	✓	✓	✓	✓	✓	✓	✓	✓	
(Full) Signature (in ink)		<i>Rudshakie</i>	<i>Jack Colbert</i>	<i>Fred Croner</i>	<i>Rudshakie</i>	<i>Jack Colbert</i>	<i>Fred Croner</i>	<i>Rudshakie</i>	<i>Jack Colbert</i>	<i>Fred Croner</i>	

I certify that I have personally sighted and inventoried each of the above-listed publications and/or materials. By my signature above I acknowledge responsibility for maintaining security precautions and assume custody for all above-listed publications and/or material during my watch or until properly relieved of their custody. I will report immediately to the custodian or other competent authority any discrepancy in the inventory.

31.58
Figure 12-6. - Publication custody log.