

CHAPTER 4

COMMUNICATIONS

A glance at a globe is all it takes to appreciate the meaning of control of the sea in the nuclear age.

—Admiral Arleigh Burke

Table 4-1.—Phonetic Alphabet

Communications are of vital importance to a shipboard organization and are sometimes referred to as *the voice of command*. Without proper communication among the different parts of the ship, the whole organization could break down and fail in its mission.

Communications, as discussed in this chapter, are grouped into two basic categories—interior and exterior. Interior communications are concerned only with the exchange of information between individuals, divisions, and departments aboard a single ship or station. Exterior communications deal with conveying information between two or more ships, stations, or commands.

One of the most important communications systems used aboard ship is the sound-powered telephone. Sometime in your Navy career, you **will** “man” a sound-powered telephone set. You must become familiar with the proper usage and care of the equipment. In addition, you must learn the correct procedures used with the sound-powered telephone system, including the use of the phonetic alphabet.

THE PHONETIC ALPHABET

Learning Objective: When you finish this chapter, you will be able to—

- Identify the phonetic alphabet as applied to communications.

It is easy to confuse the sounds of certain letters, such as bee and dee, cee and zee. To avoid confusion, the Navy requires that phonetic equivalents of letters be spoken instead of the letters themselves.

The Navy has had a phonetic alphabet for many years. From time to time, it’s been changed in attempts to use words that would instantly bring to mind the letter represented by the word. The phonetic alphabet (table 4-1) was adopted by the armed forces of the various NATO nations as a means of overcoming many

LETTER	EQUIVALENT	SPOKEN
A	ALFA	AL fah
B	BRAVO	BRAH voh
C	CHARLIE	CHAR lee
D	DELTA	DELL ta
E	ECHO	ECK oh
F	FOXTROT	FOKS trot
G	GOLF	GOLF
H	HOTEL	hoh TELL
I	INDIA	In dee ah
J	JULIETT	JEW lee ett
K	KILO	KEY loh
L	LIMA	LEE mah
M	MIKE	Mike
N	NOVEMBER	no VEM ber
O	OSCAR	OSS cah
P	PAPA	pah PAH
Q	QUEBEC	kay BECK
R	ROMEO	ROW me oh
S	SIRERRA	see AIR rah
T	TANGO	TANG go
U	UNIFORM	YOU nee form
V	VICTOR	VIK tah
W	WHISKEY	WISS key
X	XRAY	ECKS ray
Y	YANKEE	YANG key
Z	ZULU	ZOO loo

language difficulties. Each word is accented on the capitalized syllable. You should memorize the phonetic alphabet and use it along with correctly pronounced numbers, as described earlier in chapter 3, for all telephone and lookout reports.

REVIEW 1 QUESTION

Q1. You are manning the sound-powered telephone in a repair locker. DC central calls and wants the serial number of the P-100 pump (23DBCX14) in your repair locker. How should you say this number over the phone?

SOUND-POWERED TELEPHONES

Learning Objectives: When you finish this chapter, you will be able to—

- Recognize the components of the sound-powered telephone.
- Identify the procedures to follow when using sound-powered telephones.

Sound-powered phones are just what the name implies—phones that operate on your voice power and require no batteries or external electrical power source.

When you speak into the mouthpiece, the sound waves of your voice cause a diaphragm to vibrate. The vibrations are transferred from the diaphragm through a drive rod to an armature centered in a wire coil. The coil is located in a magnetic field supplied by two permanent magnets. Movement of the armature in the magnetic field causes a current to be induced into the coil. The current then is transmitted to a receiver (the earpiece) where the process is reversed, and the person at the other end of the circuit hears the same sounds you transmitted.

The mouthpiece and earpiece, though shaped differently, function in the same manner and thus can be used interchangeably. You can talk into an earpiece and hear through a mouthpiece. This feature is important to remember not only in the event of a breakdown of one or the other pieces but also because undesired noises can

be fed into the system through an earpiece turned away from your head.

THE HEADSET

Figure 4-1 shows a headset type of sound-powered telephone. The mouthpiece is suspended from a yoke that is attached to a metal breastplate. The earpieces are connected by an adjustable band. The mouthpiece and earpiece are connected by wire from a junction box on the breastplate. The plug cord is also connected into this junction.

The headset is delicate and can be easily damaged. When you pick up the set to put it on, hold the entire unit in your left hand. You will find the headset is hung over the transmitter's supporting yoke and the lead wires are coiled.

To put the gear on—

1. Unhook the right side of the neck strap from the breastplate, put the strap around your neck, and then fasten it to the breastplate again.

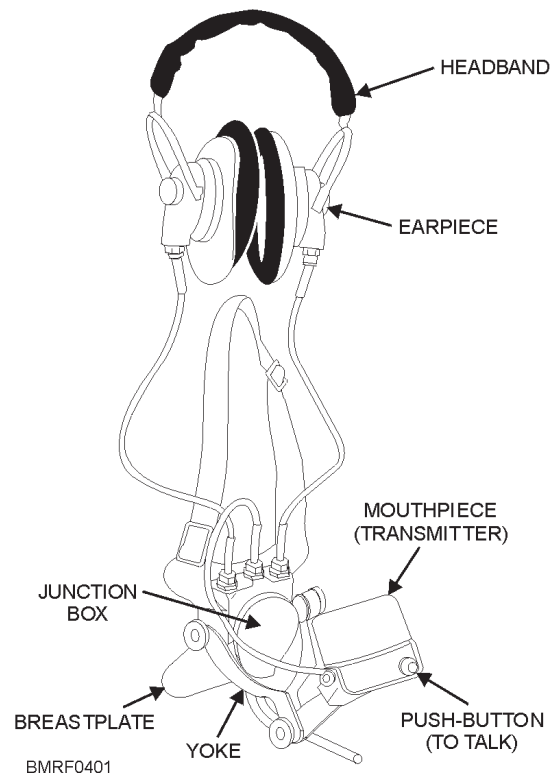


Figure 4-1.—Headset.

Student Notes:

2. Take off the coil of lead wires; then put the earpieces on and adjust the headband so that the center of the earpiece is directly over the opening of the ear.
3. Insert the plug into the jack box and screw the collar on firmly.

Adjust the mouthpiece to bring it directly in front of your mouth when you stand erect. When you speak into the transmitter, it should be about 1/2 to 1 inch from your mouth. In making this adjustment, remember that the fine wire that goes to the transmitter can be broken easily. Be sure there aren't any sharp bends in it, and don't allow it to get caught between the transmitter and the yoke.

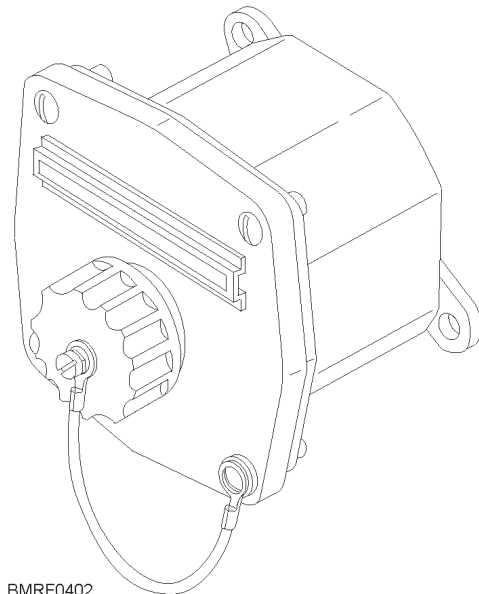
When you are wearing the headset, always keep some slack in the lead cord and be sure it is flat on deck. If you have the cord stretched taut (tight), someone may trip over it and damage the wires, receive an injury, or injure you. Don't allow objects to roll over or rest on the cord.

After plugging in the phones, test them with someone on the circuit. If the phones aren't in order, report that fact to the person in charge of your station and don a spare set; do not attempt to repair the set yourself.

If you are on lookout and should be listening as well as searching, cover only one ear with an earpiece so that you can hear outside noises as well as telephone communications. Keep the unused earpiece flat against the side of your head so that noises will not enter the circuit.

Never secure the phones until you have permission to do so. When permission is given, make up the phones for stowage according to the following instructions:

1. Remove the plug from the jack box (fig. 4-2) by holding the plug in one hand and unscrewing the collar with the other. When the collar is loose, grasp the plug and pull it out. Don't pull on the lead to remove the plug; that will weaken and eventually break the connection. When the plug is out, lay it carefully on the deck. Immediately screw the cover on the jack box, as dust and dirt will soon cause a short circuit in a jack box left uncovered. (**NOTE:** If you



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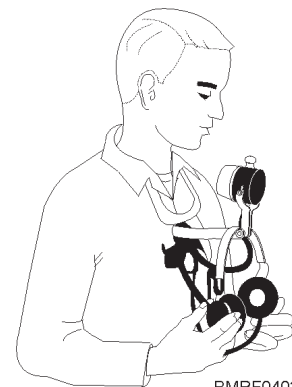
Figure 4-2.—Sound-powered telephone jack box.

see an uncovered jack box, cover it, even though you were not responsible for the carelessness.)

2. Remove the headset and hang it over the transmitter yoke, as shown in figure 4-3.

3. Coil the lead cord, starting from the end at the phone. Coil the lead in a clockwise direction, holding the loops in one hand, as shown in figure 4-4. The loops should be 8 to 10 inches across, depending on the size of the space where the phones are stowed. When you are coiling the lead, be careful not to bang the plug against the bulkhead or deck.

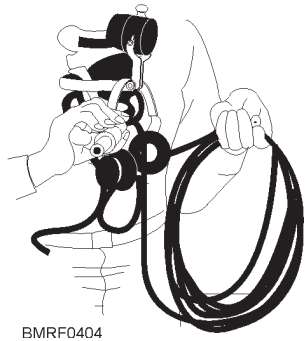
4. When the lead is coiled, remove the headset from the transmitter yoke and put the headband in the same hand with the coil. Use this same hand to hold the



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Figure 4-3.—Hanging the headset on the yoke.

Student Notes:



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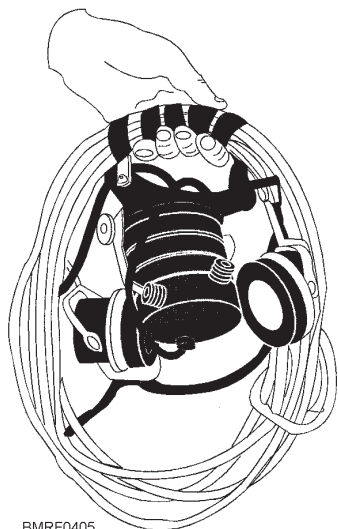
Figure 4-4.—Coiling the lead cord.

transmitter while you unhook one end of the neck strap from the breastplate. Fold the transmitter yoke flat, being careful not to put a sharp bend in the transmitter cord.

5. Wrap the neck strap around the coil and the headband two or three times and snap the end back on the breastplate; then fold the mouthpiece up against the junction box. You now have a neat, compact package for stowage, as shown in figure 4-5.

6. Put the phone into the box or hang them on the hook provided. Be careful not to crowd or jam the leads.

Headset phones should always be unplugged when they are not in use. If they are left plugged in, the earpieces will pick up noise and carry it into the circuit. Never place the phones on the deck. Not only is it possible that someone may step on them, but decks are good conductors of noise, which can be picked up by the phones.



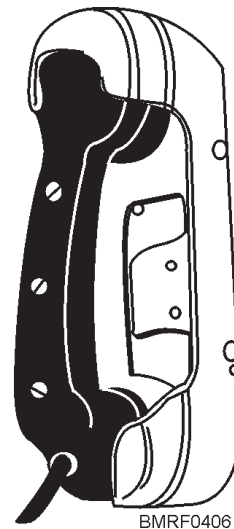
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Figure 4-5.—Coiling completed.

THE HANDSET

The handset telephone shown in figure 4-6 is held in one hand with the receiver over one ear and the transmitter in front of the mouth. A button, located on the bar connecting the transmitter and the receiver, is pushed down for talking. (The button must also be depressed [pushed down] to listen.) (**NOTE:** If the button is held down at other times, all of the noise at the talker's station will go throughout the circuit and make it difficult for other talkers on the line to understand each other.)

When not in use, the handset telephone is held on a bracket on a bulkhead with a lever or spring attachment that keeps it from being jarred loose. When you replace the handset in its bracket, be sure it is secured so that it cannot fall to the deck and be damaged.



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Figure 4-6.—Handset.

REVIEW 2 QUESTIONS

- Q1. True or False. The mouthpiece and earpiece of a sound-powered phone are interchangeable.

- Q2. Describe the reason why you pick the headset phones up as a whole unit.

Student Notes:

Q3. You are finished using the headset sound-powered phone. You should then unplug the headset for what reason?

Q4. When using a handset sound-powered phone, what action should you take to talk or listen through the phone?

SOUND-POWERED CIRCUITS

Learning Objective: When you finish this chapter, you will be able to—

- Recognize the function of the primary, auxiliary, and supplementary systems of a sound-powered circuit.

Sound-powered telephone circuits aboard ship fall into three categories—primary, auxiliary, and supplementary systems.

The **primary system** includes all circuits necessary for controlling armament, engineering, damage control, maneuvering, and surveillance functions during battle. These circuits are designated JA through JZ.

The **auxiliary system** duplicates many of the primary circuits for the purpose of maintaining vital communications in the event of damage to the primary system. Auxiliary circuits are separated as much as possible from primary circuits. Circuit designations are the same as the primary system, preceded by the letter *X* (XJA, X1JV, and so on).

The **supplementary system**, X1J through X61J, consists of several short, direct circuits, such as from the bridge to the quarterdeck or from the quarterdeck to the wardroom. Circuits in the primary and auxiliary systems can be tied together at various switchboards or individual stations may be cut out of the circuits, but the supplementary system does not

have these provisions. Because circuits in the supplementary system usually are not manned, most circuits contain a buzzer system so that one station can alert another station that communications between the two are desired.

Circuit designations are characterized by a letter and number code. The 21JS4 primary battle circuit, for example, is identified as follows: numerals 21 indicate the specific purpose of the circuit; the letter *J* denotes sound power; the letter *S* means general purpose (radar, sonar, and ECM information); and the numeral 4 indicates a particular station in the circuit. The same circuit in the auxiliary system is X21JS4. All auxiliary and supplementary circuit designations are preceded by the letter *X*, but supplementary circuits are easily identified as such because they have no letter after the letter *J*.

The following are some typical shipboard sound-powered circuits:

JA	Captain's battle circuit
JC	Weapons control
JL	Lookouts
21JS	Surface search radar
22JS	Air search radar
61JS	Sonar information
1JV	Maneuvering and docking
2JZ	Damage control
X8J	Replenishment at sea

If you are on a lookout watch, your reports will go over the JL circuit to the bridge and the ship's CIC. On small ships, the JL circuit sometimes is crossed with another circuit, such as the 1JV, to reduce manning requirements. The bridge talker then has the lookout,

Student Notes:

CIC, engineering, and after steering (emergency) stations on the same circuit.

TELEPHONE TALKERS

Learning Objective: When you finish this chapter, you will be able to—

- Identify the responsibilities of telephone talkers to include telephone talking procedures.

As you have learned, you'll probably stand some form of watch aboard ship as a telephone talker. A ship at sea requires many talkers even during a peacetime cruising watch. In addition to the lookouts, there are talkers on the bridge, in firerooms, and in engine rooms, to mention only a few of the many spaces. To be a good sound-powered telephone talker, you must learn proper telephone procedures.

Sound-powered telephone talkers are essential to the operation of a ship at sea because the ship must have a reliable interior communicating system. Imagine the difficulties the captain would have without means of communication with the engine room, with gunnery stations during battle, or with all the other spaces that help run the ship.

GENERAL TELEPHONE TALKING PROCEDURES

Here are some tips on how to be a telephone talker.

- Because all the power for the phones is generated by your voice, you must speak loudly and clearly if your message is to get through. However, do not shout unnecessarily. Do not run your words together; make every part of your message stand out clearly. Repeat all messages word for word to the intended receiving station; if you try to paraphrase a message, its meaning may be changed.

- Never have gum or food in your mouth while you are using the phones. Talk from the front of your mouth, never from the corners. Remember, you must project your voice to every station on the circuit.

- You gain nothing by talking too rapidly; a message spoken slowly, so that it is understood the first

time, is better than a message spoken so rapidly that it must be repeated.

- During an emergency, remember that it is doubly important to get the message through. By talking slowly, some of your own excitement will subside. If you are calm and sure of yourself, you will influence other talkers on the circuit to behave in the same way.

- Nearly everyone has a manner of speech that reveals to others what part of the country they are from. On occasion, you may have found it difficult to understand the speech of a person from a different part of the country. With this thought in mind, try to speak without local accents.

CIRCUIT DISCIPLINE

The sound-powered system resembles a party line—everyone can talk and listen at once. For that reason, strict circuit discipline must be maintained. Otherwise, the circuit will become clogged with private conversation just when someone is trying to transmit an important message.

The rules for circuit discipline are as follows:

1. Transmit only official messages.
2. Keep the button in the OFF position except when actually transmitting.
3. Use only standard words and phrases.

Don't use slang or profanity on the phones. Use correct nautical terms. If naval terminology is new and unfamiliar to you, make it your business to learn the correct terms.

You, as a phone talker, are a very important link in the interior communication chain; that chain is no stronger than its weakest link. Unauthorized talking means there are at least two weak links in the chain. Be efficient. If someone else on your circuit persists in useless talking, remind the person that the line must be kept clear at all times.

Circuit discipline also means you must never show impatience, anger, or excitement. You must talk slowly, clearly, and precisely. Circuit discipline means self-discipline.

Student Notes:

STANDARD TELEPHONE TALKING PROCEDURES

Most messages are divided into the following parts:

1. Name of the station called
2. Name of the station calling
3. The message

You call the station for which you have a message, identify yourself, and send the message without waiting for the receiving station to answer.

When a message is received, it must be acknowledged (receipted for) as soon as it is understood. You acknowledge a message by identifying your station and saying "Aye."

NOTE

"Aye" is not used as an answer to a question; instead, "Affirmative," "Negative," or other appropriate reply is given.

When a message is received, it must be repeated back word for word. An example would be "Catapult center deck, primary; raise the starboard jet blast deflector." The response would be "Primary, catapult center deck; raise the starboard jet blast deflector, aye." The catapult center deck operator would then wait for a few seconds for the primary operator to confirm that the order was understood. The catapult center deck operator would then raise the jet blast deflector.

Communications on the sound-powered phone system is phrased in the declarative (statement) instead of the interrogative (question). For example, the questions "What is the status of the jet blast deflector?" or "When will the jet blast deflector be repaired?" would be rephrased to "Report the status of the jet blast deflector" and "Report the estimated repair time of the jet blast deflector."

Slang expressions or locally devised codes should not be used. The use of abbreviations should be avoided. Some abbreviations may be easily misunderstood, such as SSTG, SSDG, and SFMG.

When a subordinate station requests permission to carry out an action, do not say, "Permission granted."

Another station might think you are giving it permission to carry out some other action. Respond to a request with a direct order. For example, when permission is requested to change phone talkers, the proper response, if approved, would be "Change phone talkers."

If you "belay an order," immediately order what action is needed. For example, when the throttleman is given an order to "Close the throttle" and that order is belayed, then you tell the throttleman what you want him or her to do, such as "Return throttle to original position" or "Open throttle to _____."

Never receipt for a message unless you are sure you understand it. If you do not understand, tell the sender, "Say again." If the message is long and you need only a part of it to be repeated back, you can say, "Say again all after ..." or "Say again all before ..."

When you are leaving the circuit for any reason, you must obtain permission from the controlling station. You may be leaving the circuit to change headphones because of a faulty set, to be relieved by someone else, or to secure. In any case, when leaving the circuit, **request permission.**

When a circuit is in use and a station has a more important message to transmit (to report a fire, for example), the talker says, "Silence on the line." Whenever you hear that command, you must immediately stop talking so that the message can be transmitted.

EXAMPLES OF TELEPHONE TALKER PROCEDURES

The following examples of sound-powered telephone transmissions are representative of the types of messages sent over the phones. Study them until you are sure you have the procedures correct; only practice can make you into a reliable talker.

Circuit Test

To find out if telephone stations are manned and ready, the talker at control says, "All stations, control; phone check."

Each talker then acknowledges in assigned order. On a gun circuit it would go like this:

Student Notes:

Each station responds in order, but does not wait more than a few seconds for the station immediately preceding to acknowledge. If you are on gun 3, and gun 2 does not respond in a few seconds, you acknowledge and let gun 2 come in at the end. A circuit test is not complete until every person has answered and faults in equipment have been checked

Sending

In sending a message, first call the station you want, and then identify your own station; finally, state the message:

“Foc’sle, bridge; prepare to anchor in five minutes.”

“Fantail, bridge; slack off stern line.”

Receiving

When receiving a message, first repeat back the message, identify yourself, and then acknowledge the message.

“Prepare to anchor in five minutes; foc’sle, aye.”

“Slack off stern line; fantail, aye.”

Both Sending and Receiving

The following are examples of sending and receiving a message:

“Fantail, bridge; report the status of slacking off the stern line.”

“Report status of slacking off the stern line; fantail, aye; stern line is slack”

“Main engine control, bridge; report which boilers are on the line.”

“Report which boilers are on the line; main engine control, aye; wait.”

“Bridge, main engine control; boilers too, tree, and fo-wer on the line.”

“Boilers too, tree, and fo-wer on the line; bridge, aye.”

Repeats

When a message is not clear to the listener at the receiving end, the receiver should say, “Say again.” For example, damage control central wants repair two to send a submersible pump to repair three. The central talker says, “Repair too, central; send one submersible pump to repair tree.”

Repair two does not understand this message, so the talker there says, “Central, repair too; say again.”

Central repeats the message and repair two acknowledges by saying, “Send one submersible pump to repair tree; repair too, aye.”

Spelling

Difficult words are spelled by using the phonetic alphabet preceded by the prowords (procedural words) “I spell.” Pronounce the word before and after spelling it. For example:

“Foc’sle-I spell—FOXTROT OSCAR ROMEO ECHO CHARLIE ALFA SIERRA TANGO LIMA ECHO, Foc’sle.”

Temporarily Leaving the Circuit

When a phone talker is relieved by another talker, the phone talker must request permission to change phone talkers. If a talker is exchanging a faulty set of phones for a good set, the phone talker must request permission to change phones.

“Bridge, after steering; request permission to change phone talkers.”

“Bridge, combat; request permission to change phones.”

Once the talker has been given permission to go off the circuit and the talker rejoins the circuit, the report given is,

“Bridge, combat; back on the line.”

Securing

Before securing the phones, you must always get permission.

Student Notes:

Fantail asks, "Bridge, fantail; request permission to secure."

Bridge says, "Request permission to secure; bridge, aye; wait."

The bridge talker gets permission from the OOD for the person on the fantail to secure, then says,

"Fantail, bridge; secure."

Fantail replies, "Fantail, aye; going off the line."

REVIEW 3 QUESTIONS

Q1. List the three categories of sound-powered phone circuits.

a.

b.

c.

Q2. An XJZ circuit is what type of circuit?

Q3. List four tips that you should use to be a good phone talker.

a.

b.

c.

d.

Q4. Sound-powered phone circuits are like a party line; therefore, some phone talker disciplines must be followed. List four types of good discipline.

a.

b.

c.

d.

Q5. A sound-powered-phone circuit has to be cleared to transmit an important message. What should the sender say over the circuit?

Q6. When you receive a message, what is the proper response?

DIAL TELEPHONES

Learning Objectives: When you finish this chapter, you will be able to—

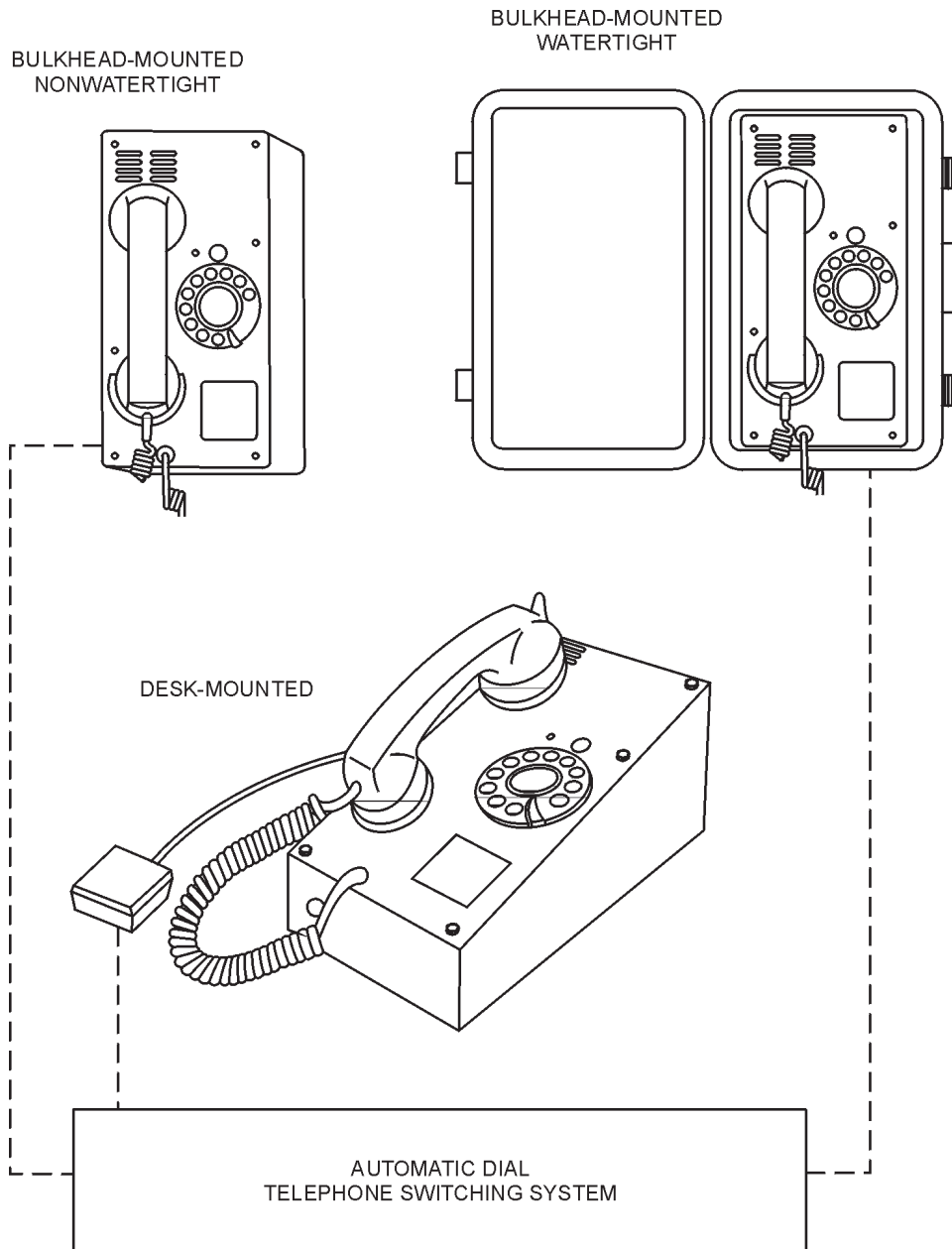
- Recognize the purpose of dial telephones.
- Identify the procedures to follow when using dial telephones.

At home, ashore, and at sea, the telephone is a part of everyone's life. It is an important and essential instrument in every Navy office, and you must know how to use it properly. By observing proper techniques, you will give and receive information correctly and quickly. Remember, the success of a telephone conversation depends almost entirely upon your ability to express yourself in words; whereas, when speaking to a person directly, your facial expressions, gestures, and the like, help get your point across.

TYPES OF DIAL TELEPHONES

Different types of dial telephones currently in use are shown in figure 4-7. The desk set is used in staterooms, cabins, offices, and similar areas. A bulkhead-mounted telephone can be used in any station except those on weather decks. It is a nonwatertight unit that should not be exposed to the weather. A bulkhead-mounted telephone, is a splashproof unit that may be installed on weather decks and other areas

Student Notes:



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Figure 4-7.—Telephones.

exposed to moisture. All the phones in figure 4-7 are type 'G' telephones, general use.

USE OF THE DIAL TELEPHONES

Good telephone technique starts with answering your telephone as promptly as possible. Don't let it ring several times while you finish what you are doing. After lifting the receiver, you should speak immediately to the

person calling. Identify yourself when answering the telephone; usually the person making the call will tell you who is calling. This procedure puts the conversation on a business-like basis and eliminates that hazy feeling one has when unsure of the identity of the person on the other end.

Don't go on talking to someone in the office as you answer the telephone. You never know who your caller

Student Notes:

may be, and information inadvertently given out in this way could be harmful to national security. In addition, it is discourteous to make the caller wait while you finish your office conversation.

When you answer the phone for someone who is absent from the office, give some facts to the person making the call. Do not merely say, “He is not in right now.” Rather, tell the caller when you expect the person to return, or volunteer to help if you can. If you have no information concerning the whereabouts of the person called, ask the caller if you may take a message.

Always make sure you have a pencil and pad beside the telephone for taking messages. This practice eliminates needless rummaging about while the other person is holding the line open. Also, it is worth remembering that the message will mean little to the person for whom it is intended unless you leave the following information:

1. Name of the caller
2. The message
3. Time and date of the message
4. Your name

Sometimes, you may have to leave the telephone to obtain additional information for a call. When this delay is necessary, you should make it known to the caller. If it takes more time to obtain the required information than you anticipated, give the caller an occasional progress report, such as “I’m sorry I did not find it there. If you do not mind waiting, I will look elsewhere.”

When making a telephone call, there are certain rules you should observe.

1. Be sure that the number you dial is the correct one. When you dial wrong numbers, you waste other people’s time as well as your own.
2. When making a call to another office, identify yourself immediately.
3. If you make the call for another person or an officer, so inform the person at the other end of the line. This courtesy eliminates the need for the other party to question you in this regard.

If you make a call and are informed that the person called is not in, ask the person answering the telephone

to take a message, if appropriate. You should make sure that the person to whom you are speaking understands the message, knows how to spell your name or the name of the person for whom you are making the call, and has your correct telephone number.

The tonal quality of your voice may or may not be subject to improvement. But by speaking correctly and distinctly and by speaking clearly and unhurriedly, you should have little difficulty in making yourself understood. Do not shout; it probably will not help and is likely to hinder.

Some people become nervous when speaking over the telephone. They take a deep breath, start at the beginning of their notes, and rush through to the end, all in the same breath. Naturally, the person at the other end of the line cannot absorb so much information so quickly, with the result that the whole conversation is unintelligible. Do not race through a conversation. The person on the other end is just as anxious to hear your information as you are to give it, so avoid the need (and the waste of time) of having to repeat your message.

REVIEW 4 QUESTION

- Q1. You are taking a telephone message. List the four elements that you should include when taking a message.
- a.
 - b.
 - c.
 - d.

INTEGRATED VOICE COMMUNICATIONS SYSTEM (IVCS)

Learning Objective: When you finish this chapter, you will be able to—

- Recognize the purpose of an integrated voice communications system (IVCS).

Student Notes:

The IVCS is an integrated communications system that solves some of the shortcomings of older systems installed on older ships. IVCS combines the features of sound-powered telephones, dial telephones, and intercommunications units into one system. The IVCS also can interface with other shipboard communications systems. The system consists of terminals (user access devices), accessories, and two computer-controlled Interior Communications Switching Centers (ICSCs).

NOTE

Whenever IVCS are installed, sound-powered telephone circuits are designated as secondary communications circuits.

TERMINAL DEVICES

Two types of terminal devices (network terminal and dial terminal) are used with the IVCS. The type of terminal and the way it is connected into the system determines the type of service that is provided to you the user.

Network Terminal

The network terminal (fig. 4-8) provides service comparable to that provided by sound-powered telephone systems. By depressing one of the five numbered push buttons, you're connected to any one of four networks. Each network circuit is also connected to one of the ICSCs. The network circuits are manned for certain shipboard operations, similar to sound-powered telephones.

Dial Terminal

The dial terminal provides services that can be most easily compared to that provided by a dial telephone system. The dial telephone terminals (fig. 4-9) are connected to ICSCs. They are used similar to a commercial dial telephone with push-button dialing.

Terminal Accessories

There are several types of accessories designed for use with the dial and network terminals. These

accessories include headsets, handsets, spray-tight enclosures that permit the installation of the terminals in exposed areas, and loud speaker units. The loudspeaker units (fig. 4-10) are designed for use with either the dial or network terminals. Both units are equipped with press-to-talk switches. Additionally, by depressing the hands-free push switch on the unit, the operator can communicate without using the press-to-talk switch. This permits you to communicate without a handset or headset.

INTERIOR COMMUNICATIONS SWITCHING CENTER (ICSC)

The ICSCs are the heart of the IVCS. They perform the switching actions necessary to connect the calling party to the called party, similar to the automatic switchboards of a dial telephone system. Figure 4-11 shows the relationship between ICSC and the IVCS.

REVIEW 5 QUESTIONS

- Q1. List the terminal devices used with IVCS.
 - a.
 - b.
- Q2. What is the purpose of the ICSC within the IVCS?

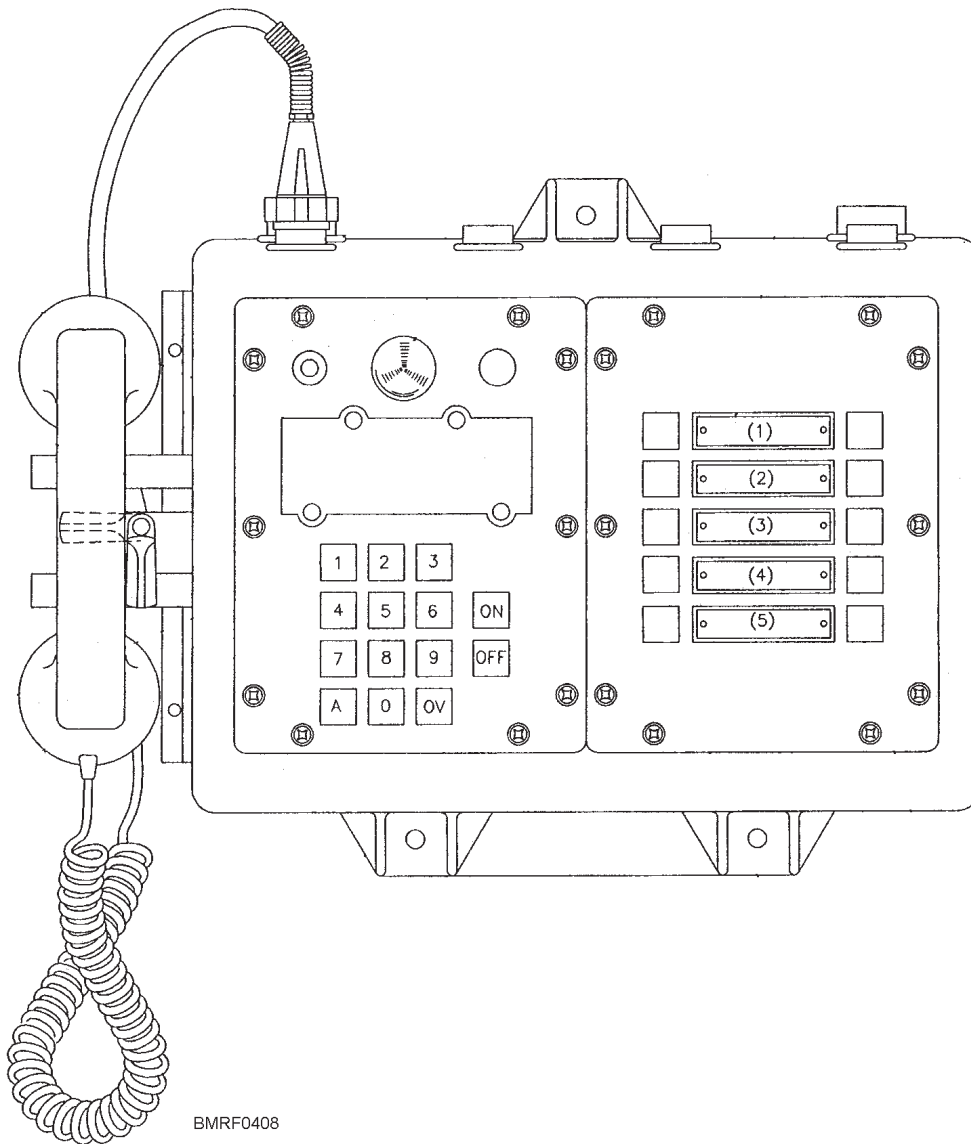
COMMUNICATIONS SECURITY

Learning Objective: When you finish this chapter, you will be able to—

- Identify basic communications security procedures.

Communications security is defined as the protective measures taken to deny unauthorized persons information derived from telecommunications of the United States government that are related to national security and to ensure the authenticity of each telecommunication.

Student Notes:



BMRF0408

Figure 4-8.—Network terminal.

Classified information may not be discussed in telephone conversations except as may be authorized over approved secure communications circuits. When in doubt about the classification of information necessary to answer a question asked in a telephone conversation, you should say nothing. When answering a telephone on a nonsecure communications circuit, you should inform the caller that the telephone is nonsecure. For example: “Quarterdeck, USS Never Sail messenger of the watch speaking, sir this is a nonsecure telephone.”

Student Notes:

ANNOUNCING AND INTERCOMMUNICATION SYSTEMS

Learning Objective: When you finish this chapter, you will be able to—

- Recognize the purpose and use of the announcing and intercommunication systems.

The general purpose of shipboard announcing and intercom systems, circuits 1MC through 59MC, is to transmit orders and information between stations within the ship by amplified voice communication by either a central amplifier system or an intercommunication

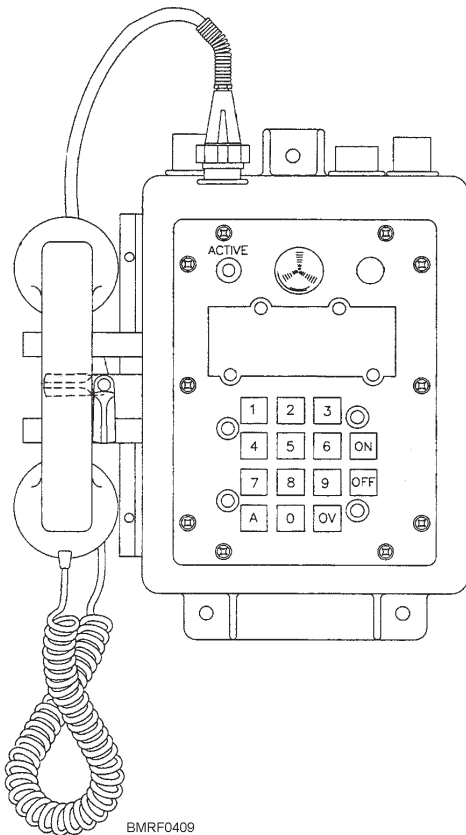


Figure 4-9.—Dial terminal.

system. A central amplifier system is used to broadcast orders or information simultaneously to a number of stations. An intercom system is used for two-way transmission of orders or information.

GENERAL ANNOUNCING SYSTEM

The basic MC circuit is the 1MC shown in figure 4-12. This is the general announcing system, over which word can be passed to every space in the ship. The ship's alarm system is tied into it as well. Transmitters are located on the bridge, quarterdeck, and DC central/central control station; additional transmitters may be located at other points.

The OOD is in charge of the 1MC. No call may be passed over it unless it is authorized by the OOD, the executive officer, or the captain, except for a possible emergency call by the damage control officer.

Normally, the 1MC is equipped with switches that make it possible for certain spaces to be cut off from announcements of no concern to them. The captain's

cabin, for instance, should not be blasted with calls for individuals to lay down to the spud locker. The BMOW is responsible for passing the word over the 1MC. If the BMOW is absent and you are required to pass the word yourself, be sure you know which circuits should be left open. Some parts of the ship have independent MC circuits of their own, such as the engineers' announcing system (2MC) and the hangar deck announcing system (3MC).

The bullhorn (6MC) is the announcing system from one point to another. It can be used to communicate between two ships. It is a convenient means for passing orders to boats and tugs alongside or to line-handling parties beyond the range of the speaking trumpet. If the transmitter switch is located on the 1MC control panel, you must be careful to avoid accidentally cutting in the bullhorn when you are passing a routine word.

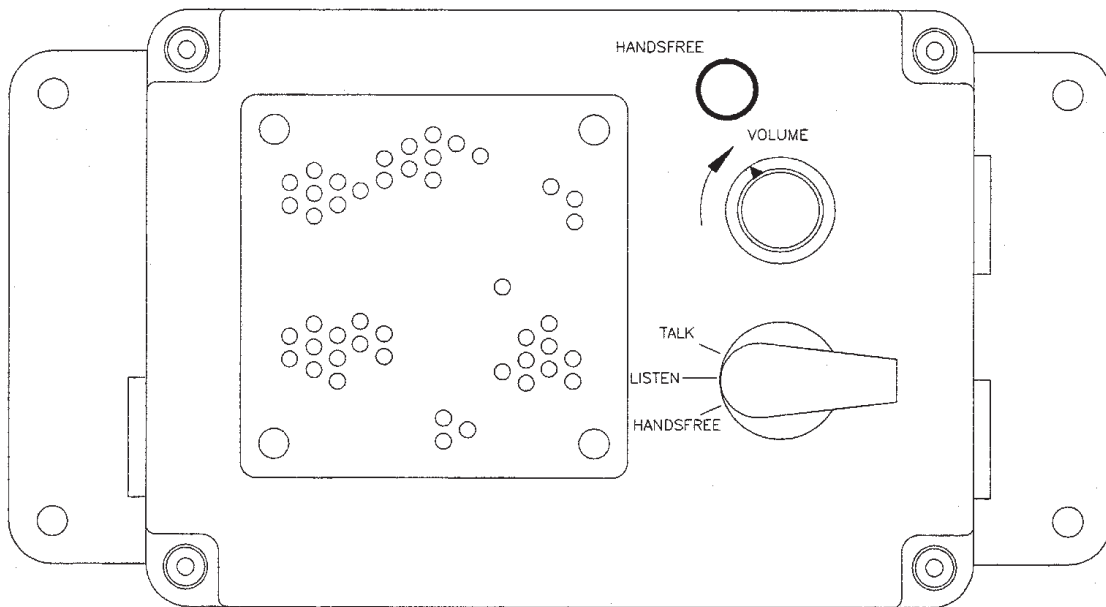
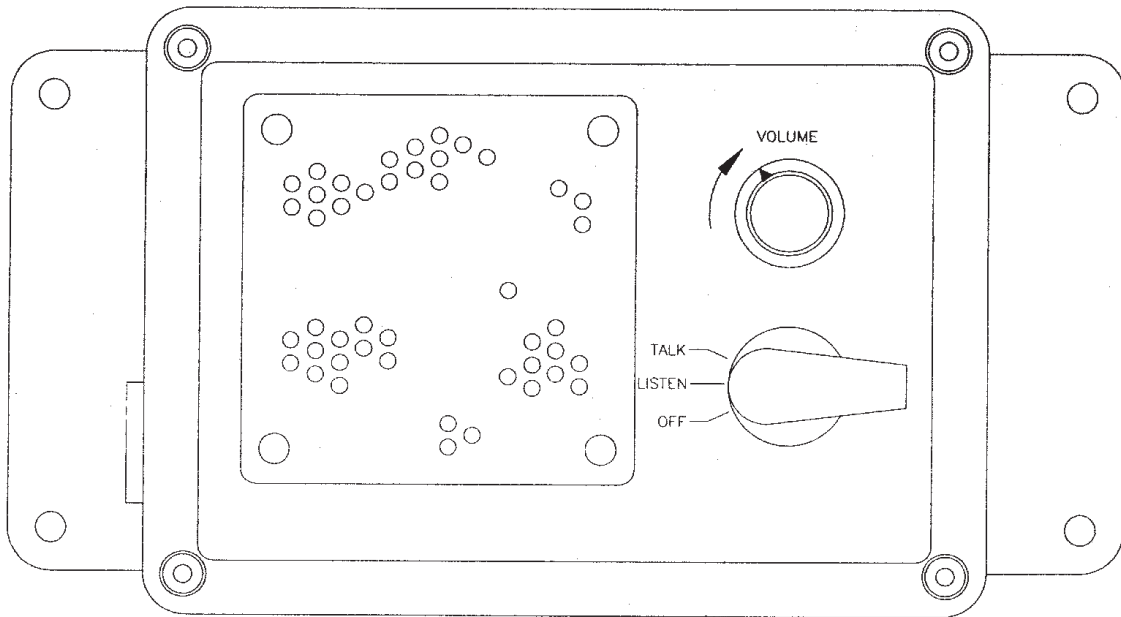
The 1MC, 2MC, 3MC, and 6MC are all one-way systems. A partial list of loudspeaker systems is shown in table 4-2.

INTERCOMS

MC circuits, such as the 21MC (commonly known as "squawk boxes"), differ from the preceding systems in that they provide two-way communications. Each unit has a number of selector switches. To talk to one or more stations, you only need to position the proper switches and operate the PRESS-TO-TALK switch. A red signal light mounted above each selector switch shows whether the station is busy. If it is busy, the light flashes; if it burns with a steady light, you know that the station is ready to receive. Typical IC circuits are as follows:

4MC	DC
19MC	Aviation ready room
20MC	CIC
21MC	Captain's command
22MC	Radio central
24MC	Flag officer
26AMC	Machinery control

Student Notes:



BMRF0410

Figure 4-10.—Loudspeaker units.

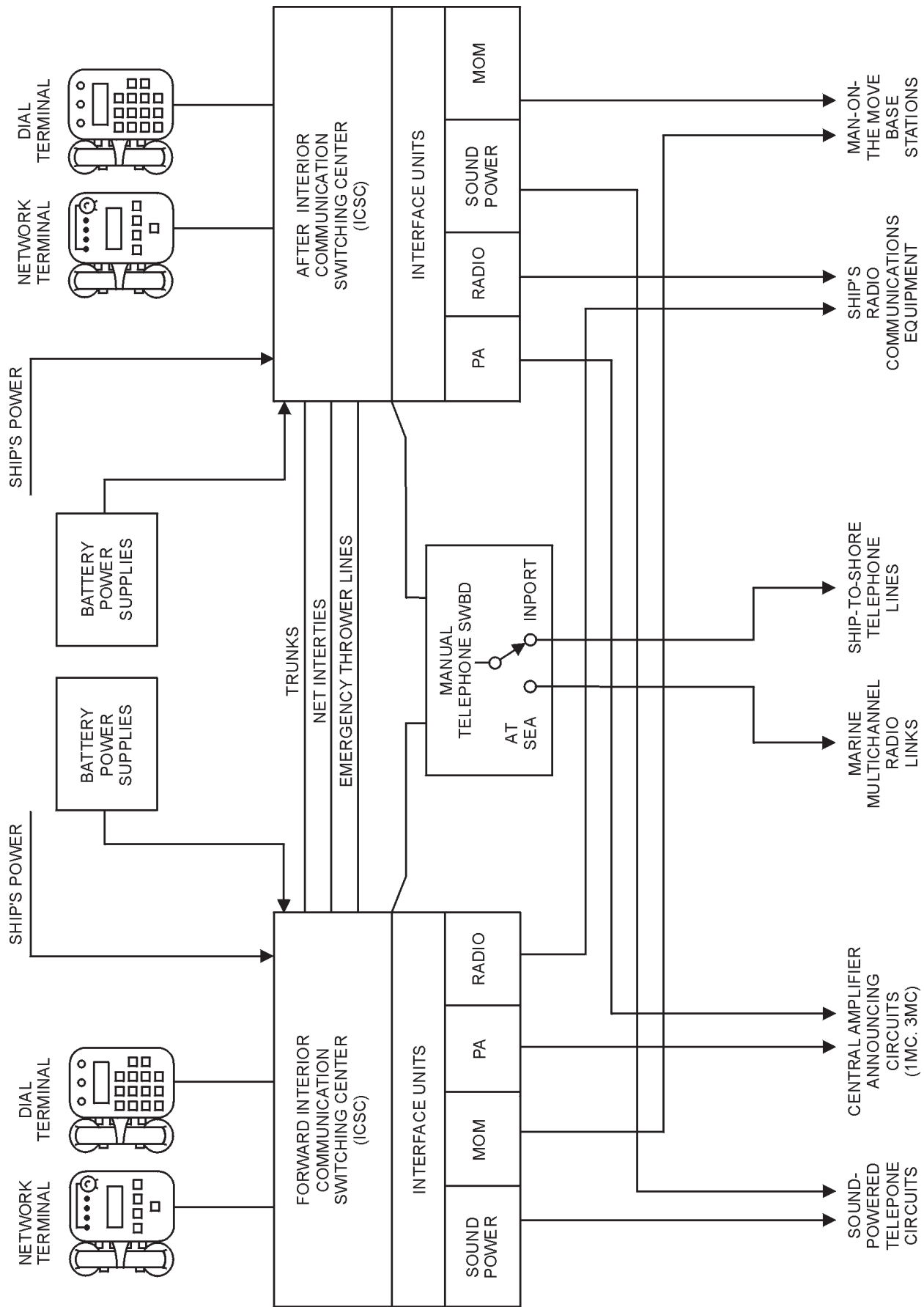
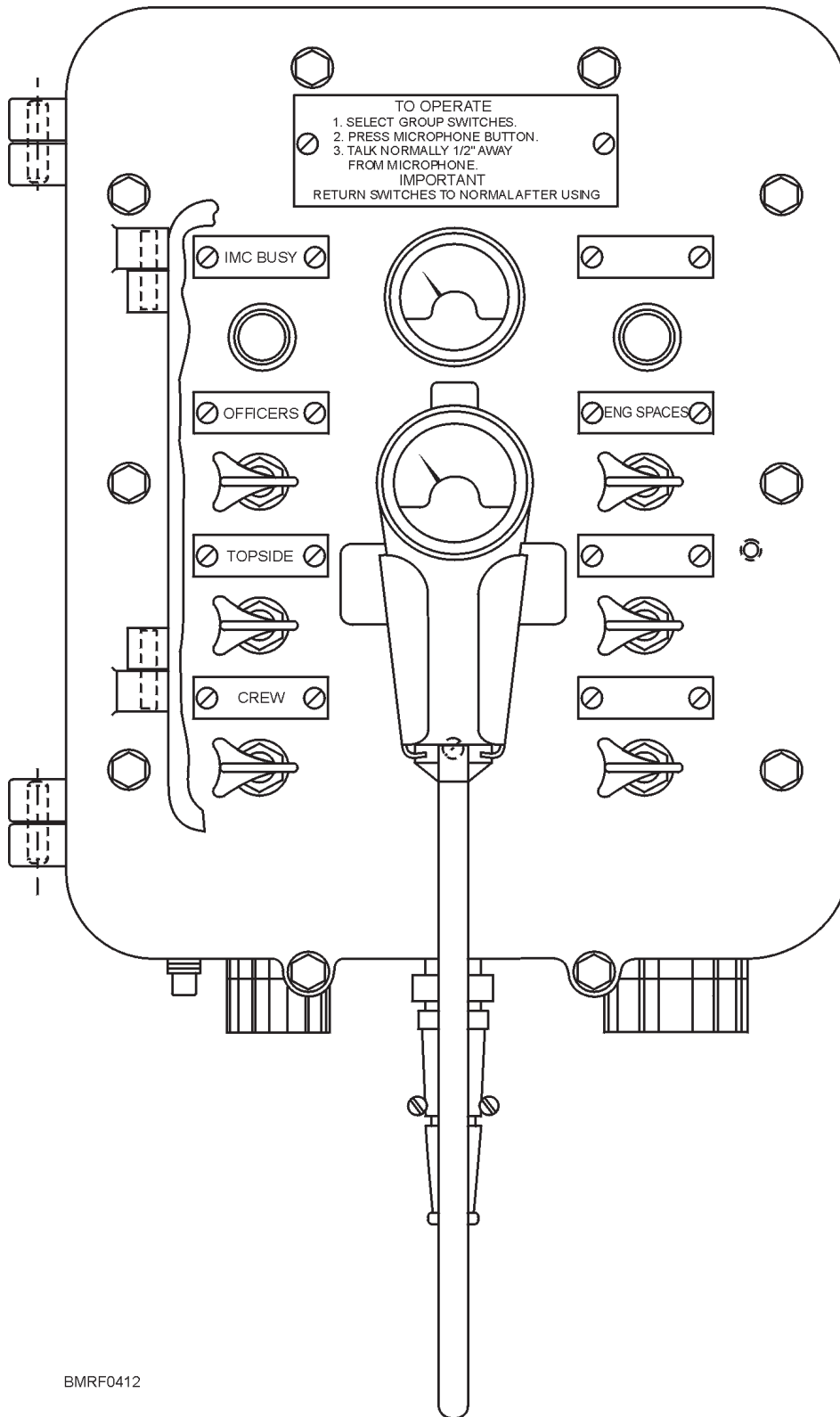


Figure 4-11.—IVCS block diagram.



BMRF0412

Figure 4-12.—Loudspeaker transmitter

Table 4-2.—Shipboard Announcing Systems

CIRCUIT	SYSTEM	CIRCUIT	SYSTEM
1MC	General	35MC	Launcher captains'
2MC	Propulsion plant	39MC	Cargo handling
3MC	Aviators	40MC	Flag administration
4MC	Damage control	42MC	CIC coordinating
5MC	Flight deck	43MC	Unassigned
6MC	Intership	44MC	Instrumentation space
7MC	Submarine control	45MC	Research operations
8MC	Troop administration and control	46MC	Aviation ordnance and missile handling
9MC	Underwater troop communication	47MC	Torpedo control
18MC	Bridge	49MC	Unassigned
19MC	Aviation Control	50MC	Integrated operational intelligence center
21MC	Captain's command	51MC	Aircraft maintenance and handling control
22MC	Electronic control	52MC	Unassigned
23MC	Electrical control	53MC	Ship administration
24MC	Flag command	54MC	Repair officer's control
26MC	Machinery control	55MC	Sonar service
27MC	Sonar and radar control	56MC	Unassigned
29MC	Sonar control and information	57MC	Unassigned
30MC	Special weapons	58MC	Hangar deck damage control
31MC	Escape truck	59MC	SAMID alert
32MC	Weapons control		

Student Notes:

The following is an example of how to operate the intercom. You are on the signal bridge at the 24MC transmitter (fig. 4-13), and you want to call conn. First, you push the selector button marked CONN on the designation plate. We will assume the line is clear for your message, which means that a steady red light appears over the signal bridge selector button at the conn transmitter. When the operator at conn pushes the signal bridge button, the signal lights at both stations begin to flash. Now you can operate the PRESS-TO-TALK switch and start your message. Any other station attempting to cut in gets the flashing busy signal.

The chief disadvantage of the intercom is that it raises the noise level in any space in which it is located. For this reason, it seldom is used when sound-powered telephones are manned. Intercom circuits, which may be located on the bridge, are identified briefly as follows:

- 20MC, combat information announcing system, connects the same stations as the IJS phones.
- 21MC, captain's command announcing system, is an approximate parallel to the JA phones.
- 22MC, radio room announcing system, is a substitute for the JX phones.
- 24MC, flag officer's command announcing system, is the intercom equivalent of the JF phones.

DAMAGE CONTROL WIREFREE COMMUNICATIONS (DC WIFCOM)

Learning Objective: When you finish this chapter, you will be able to—

- Recognize the purpose of DC WIFCOM.

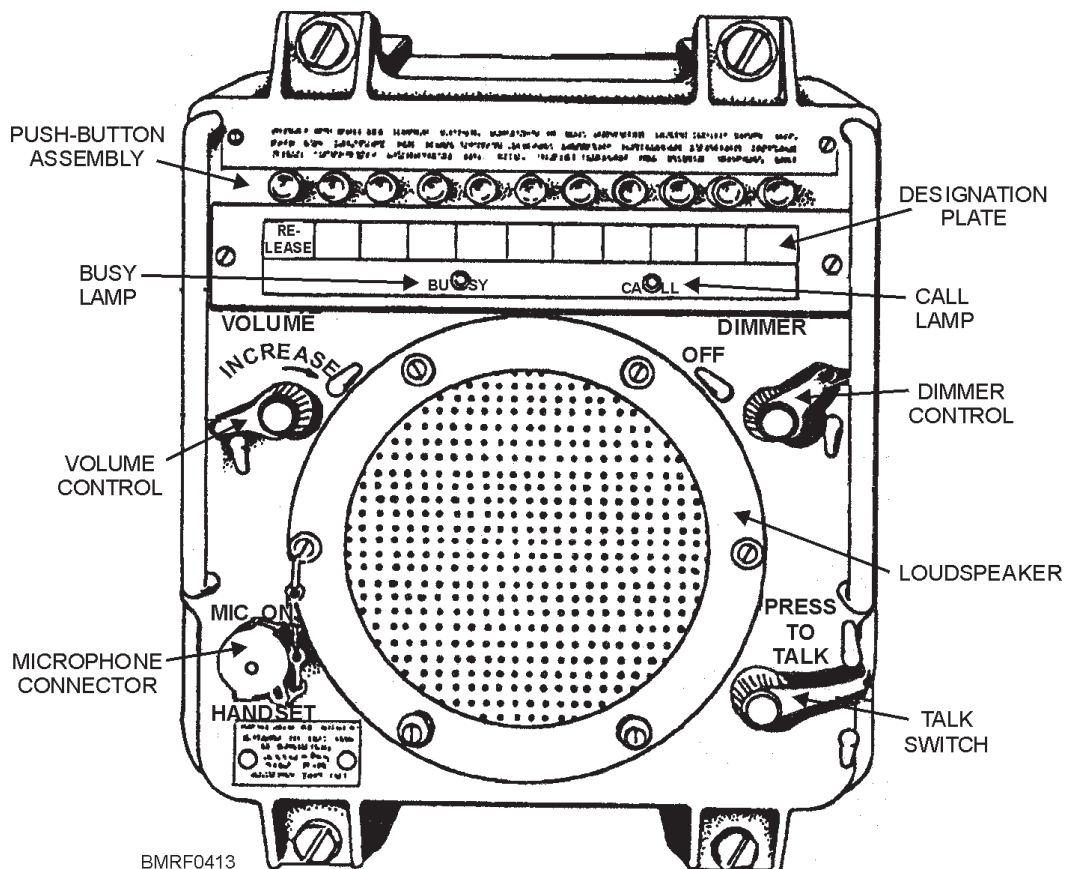


Figure 4-13.—A 24MC transmitter.

Student Notes:

DC WIFCOM is an improved means of damage control central (DCC) using modern hand-held radios specifically designed for shipboard needs. The system is initially installed in some ships and repair lockers with radios and antennas on a horizontal plane. An improvement in the system will eventually include additional radios and vertical antennas for other stations to include the bridge and electronics casualty control team.

Where installed, DC WIFCOM is the primary means of DCC within the repair locker area. Then hand-held portable transceivers, repair locker base stations, and a radiating antenna system provide instantaneous communications between repair lockers and repair locker personnel at the scene and investigators making damage reports. Each repair locker has an installed base station and four portable hand-held transceivers. Four to 12 channels are available for use. The first four channels have the following assignments:

Channel 1—Repair 5 area

Channel 2—Repair 2 area

Channel 3—Repair 3 area

Channel 4—Designated for ship-to-ship communications. Channel 4 may also be used for communications among ship control stations such as DCC, secondary DCC, secondary conn and the bridge major configurations.

In the DC scenarios, WIFCOM hand-held transceivers are issued to the investigators and scene leader. They are the primary means of communication in the repair station area of responsibility. The 21J (or other designated) sound-powered telephone circuits are the primary means of communication between repair lockers and DCC. Personnel using WIFCOM must be aware of specific zones of reduced transmission capability or dead zones. Secondary communications, such as messenger or via second WIFCOM operator, must be used to communicate through dead zones. If emission control is necessary, special consideration must be given WIFCOM. In watertight areas during material condition ZEBRA, WIFCOM transmissions may be interrupted. These transmissions can be made only with command approval. In case of WIFCOM failure, repair locker personnel should establish

effective communications as quickly as possible using other methods.

REVIEW 6 QUESTIONS

- Q1. Your phone system is unsecured. When receiving a call, you should answer the phone by saying—
- Q2. What system is tied into the IMC circuit?
- Q3. What circuit is the damage control circuit?
- Q4. What person(s) authorize(s) calls passed over the IMC?
 - a.
 - b.
 - c.
- Q5. What is the difference between an IMC circuit and a 21MC circuit?
- Q6. The first 4 channels of WIFCOM are assigned to—
 - a.
 - b.
 - c.
 - d.

Student Notes:

FLAGS AND PENNANTS

Learning Objective: When you finish this chapter, you will be able to—

- Recognize the function and use of flags and pennants.

Flags and pennants serve various functions throughout the world. They have identified nations, governments, rank, and ownership and have conveyed messages for centuries. This section introduces flags and pennants that identify persons and ships and transmit information and orders. On special occasions, flags are used as a decoration, such as “dress ship.”

The Navy uses the international alphabet flags; numeral pennants and a code/answer pennant; a set of numeral flags, special flags, and pennants; and four substitutes, or repeaters.

Each alphabet flag has the phonetic name of the letter it represents. A numeral flag takes the name of the numeral it represents; numeral pennants are used only in call signals. Special flags and pennants are used in tactical maneuvers to direct changes in speed, position, formation, and course; to indicate and identify units; and for specialized purposes. Flags and pennants are spoken and written as shown in figures 4-14 and 4-15.

EMERGENCY AND ADMINISTRATIVE SIGNALS

The flags and pennants (figs. 4-14 and 4-15) represent only a few of the thousands of signals that can be transmitted by flag hoist. Since they may be frequently seen displayed aboard Navy ships or stations, it would be to your advantage to learn to identify them and understand their meaning. Your own personal safety may someday depend on recognizing a particular signal flag.

Table 4-3 contains only those international signals most commonly used and having the same meaning as Navy signals.

THE NATIONAL ENSIGN

Our national ensign (fig. 4-16) must always be treated with the greatest respect. It should never touch the ground or the deck. It should always be folded,

stowed, and displayed properly. Our flag represents freedom to the world today and forever.

When not under way, commissioned ships display the ensign from the flagstaff at the stern and the union jack from the jack staff at the bow from 0800 to sunset. While under way, the ensign is normally flown from the gaff. In ships having more than one mast, the gaff is usually positioned on the aftermast. In ships equipped with two macks (combination masts and stacks), the location of the flag depends on which mast is configured to accept halyards or a gaff.

When a U.S. naval ship enters a foreign port during darkness, at first light it briefly displays its colors on the gaff to make known its nationality. Other ships of war that are present customarily display their colors in return.

Our national ensign, along with the union jack, is referred to as colors. At commands ashore and on U.S. naval ships not under way, the ceremonial hoisting and lowering of the national flag at 0800 and sunset is known as morning and evening colors.

When the national ensign is hoisted and lowered or half-masted for any occasion, the motions of the senior officer present are followed. This is done by flying the PREPARATIVE pennant (called *PREP*) 5 minutes before morning and evening colors. Ceremonies for colors begin when *PREP* is hauled to the dip (the halfway point). The *PREP* pennant is shown in figure 4-17.

If a band or recorded music is available for the colors ceremony, “Attention” is sounded, followed by the national anthem. At morning colors, the ensign is hoisted when the music begins. It is smartly hoisted to the top of the flagstaff. Remember, a furled (folded) ensign is never hoisted to the top of the flagstaff or gaff. At evening colors, lowering of the ensign also begins at the start of the music and is so regulated as to be completely lowered at the last note of the music. “Carry On” is sounded at the completion of the music. The national flag is always hoisted smartly and lowered ceremoniously.

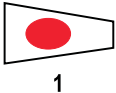




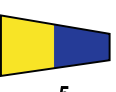




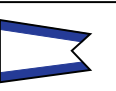
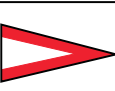

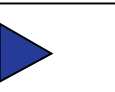

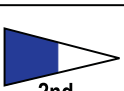

If a band or music is not available for colors, “To the Colors” is played on a bugle at morning colors, and “Retreat” is played at evening colors. For ships having no band, music, or bugler, “Attention” and “Carry On”

Student Notes:

FLAG AND NAME	SPOKEN	WRITTEN	FLAG AND NAME	SPOKEN	WRITTEN	FLAG AND NAME	SPOKEN	WRITTEN
 A	ALFA	A	 M	MIKE	M	 Y	YANKEE	Y
 B	BRAVO	B	 N	NOVEMBER	N	 Z	ZULU	Z
 C	CHARLIE	C	 O	OSCAR	O	 1	ONE	1
 D	DELTA	D	 P	PAPA	P	 2	TWO	2
 E	ECHO	E	 Q	QUEBEC	Q	 3	THREE	3
 F	FOXTROT	F	 R	ROMEO	R	 4	FOUR	4
 G	GOLF	G	 S	SIERRA	S	 5	FIVE	5
 H	HOTEL	H	 T	TANGO	T	 6	SIX	6
 I	INDIA	I	 U	UNIFORM	U	 7	SEVEN	7
 J	JULIETT	J	 V	VICTOR	V	 8	EIGHT	8
 K	KILO	K	 W	WHISKEY	W	 9	NINE	9
 L	LIMA	L	 K	XRAY	X	 0	ZERO	0

BMRF0414

Figure 4-14.—Alphabet and numeral flags.

PENNANT AND NAME	SPOKEN	WRITTEN	PENNANT OR FLAG	SPOKEN	WRITTEN	PENNANT OR FLAG	SPOKEN	WRITTEN
 1	PENNANT ONE	p1	 CODE OR ANSWER	CODE OR ANSWER	CODE OR ANSWER	 NEGATIVE	NEGAT	NEGAT
 2	PENNANT TWO	p2	 SCREEN	SCREEN	SCREEN	 PREPARATIVE	PREP	PREP
 3	PENNANT THREE	p3	 CORPEN	CORPEN	CORPEN	 PORT	PORT	PORT
 4	PENNANT FOUR	p4	 DESIGNATION	DESIGNATION	DESIG	 SPEED	SPEED	SPEED
 5	PENNANT FIVE	p5	 DIVISION	DIVISION	DIV	 SQUADRON	SQUADRON	SQUAD
 6	PENNANT SIX	p6	 EMERGENCY	EMERGENCY	EMERG	 STARBOARD	STARBOARD	STBD
 7	PENNANT SEVEN	p7	 FLOTILLA	FLOT	FLOT	 STATION	STATION	STATION
 8	PENNANT EIGHT	p8	 FORMATION	FORMATION	FORM	 SUBDIVISION	SUBDIVISION	SUBDIV
 9	PENNANT NINE	p9	 INTER-ROGATIVE	INTER-ROGATIVE	INT	 TURN	TURN	TURN
 0	PENNANT ZERO	p9	SUBSTITUTES					
TACK LINE	TACK	—	 1st. SUBSTITUTE	FIRST SUB	1st.	 3rd. SUBSTITUTE	THIRD SUB	3rd.
			 2nd. SUBSTITUTE	SECOND SUB	2nd.	 4th. SUBSTITUTE	FORTH SUB	4th.

BMRF0415

Figure 4-15.—Numeral pennants, special flags, and pennants.

Table 4-3.—Commonly Used International Signals

INTERNATIONAL SIGNALS	NAVY MEANINGS
EMERGENCY/WARNING FLAGS	
CODE ALFA	(International) I have a diver(s) down; keep well clear at slow speed.
BRAVO	I am taking in, discharging, or carrying dangerous materials.
KILO	Personnel working aloft.
MIKE 1	This ship has medical guard duty.
MIKE 2	This ship has dental guard duty.
OSCAR	Man overboard.
FLAG FIVE	Breakdown; the vessel is having engine or steering difficulty.
ADMINISTRATIVE FLAGS	
HOTEL	(International) This ship has a harbor pilot on board.
INDIA	Preparing to come alongside in-port or at anchor.
JULIETT	I have a semaphore message to transmit.
PAPA	General recall; all personnel return to the ship.
QUEBEC	Boat recall; all boats return to the ship.
ROMEO	In port; flown by ship having READY DUTY. At sea, flown by the ship PREPARING TO REPLENISH.
SIERRA	Holding flag hoist drill.
FIRST SUBSTITUTE	Indicates the absence of the flag officer or unit commander show personal flag or pennant is flying on the ship.
SECOND SUBSTITUTE	Indicates the absence of the chief of staff..
THIRD SUBSTITUTE	Indicates the absence of the captain. If the captain is absent over 72 hours, it indicates the absence of the executive officer.

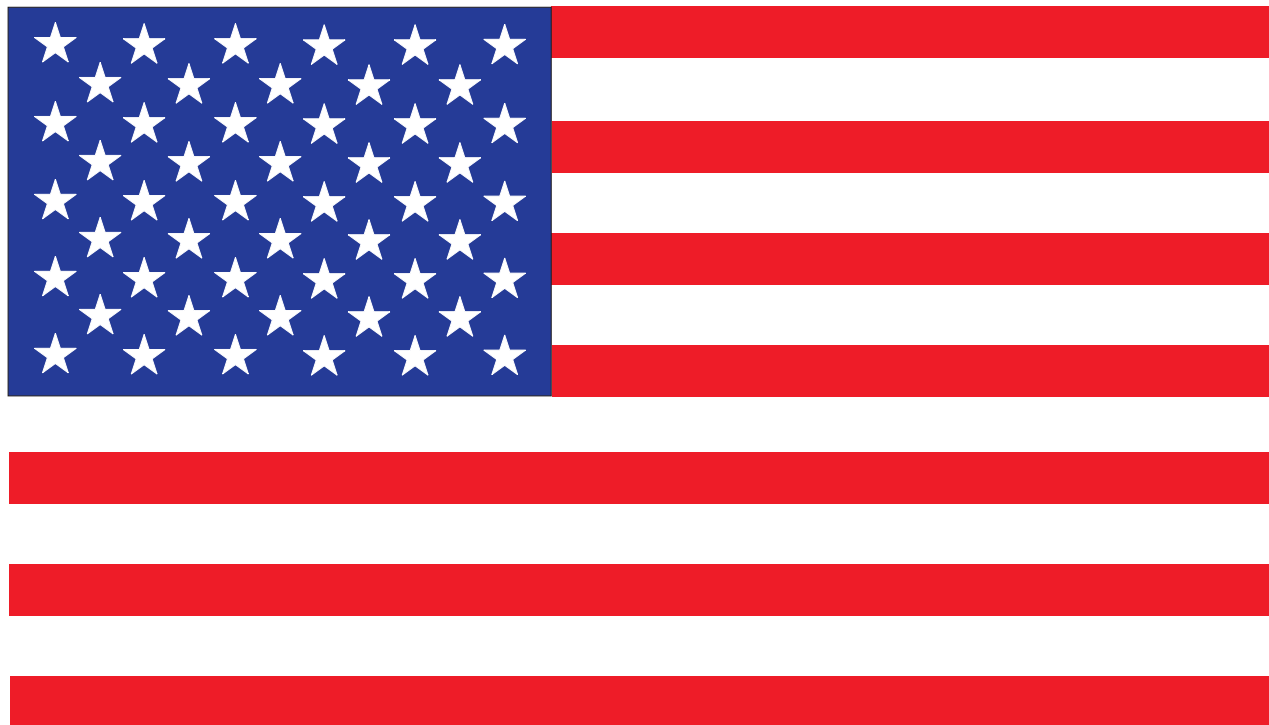
are signals for rendering and terminating the hand salute.

Sometimes the music for colors from another U.S. ship can be overheard aboard your ship. When this happens and no band, music, or bugler is aboard your

ship, the command “Carry On” should not be given until the music being overheard is completed.

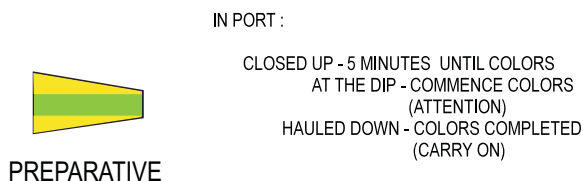
If foreign warships are present, the national anthem of each country represented is played after morning colors. If your ship is visiting a foreign port, the national anthem of that country is played immediately following

Student Notes:



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Figure 4-16.—The United States national ensign.



BMRF0417

Figure 4-17.—Preparative pennant.

morning colors, followed by the national anthems of any other foreign nations represented.

There are times during the year that the ensign is flown at half-mast, or half-staff ashore. This is the internationally recognized symbol of mourning. Normally, the flag is half-masted on receiving information of the death of one of the officials or officers listed in *U.S. Navy Regulations*. Notification may be through the news media or by official message. The United States honors its war dead on Memorial Day by flying the flag at half-mast from 0800 until the last gun

of a 21-minute gun salute that begins at noon (or until 1220 if no gun salute is rendered).

If the ensign is flown from the flagstaff and is half-masted, the union jack is also half-masted. In half-masting the national ensign, it will, if not already hoisted, first be hoisted to the peak and then lowered to the half-mast position. Before lowering from the half-mast position, the ensign is hoisted to the peak, then lowered ceremoniously. Distinctive marks, such as commission or command pennants, are not half-masted except when the ship's commanding officer or the unit commander dies.

U.S. Navy Regulations stipulates that when any ship under United States registry or the registry of a nation formally recognized by the United States salutes a U.S. Navy ship by dipping its flag (hauled halfway down and then raised), the courtesy is to be returned dip for dip. A U.S. Navy ship never dips to a foreign ship (flag) first. U.S. naval ships (USNS) of the Military Sealift Command do not dip the national ensign to Navy ships since they are public ships of the United States.

Student Notes:

Formal recognition of a foreign country does not mean that diplomatic relations must exist. The fact that diplomatic relations have been severed does not mean that the United States no longer recognizes the existence of the state or the government concerned. However, the United States does not return the dip to countries such as Albania, North Korea, Vietnam, and South Yemen. If in doubt, ask the duty Signalman.

UNION JACK

The union jack is the rectangular blue part of the United States flag containing the stars. It is shown in figure 4-18. It symbolizes the union of the states of the United States. Each star represents a state.

When a naval ship is in port or at anchor, the union jack is flown from the jackstaff from 0800 to sunset. In addition to flying from the jackstaff, the union jack is hoisted at the yardarm to indicate that a general court-martial or a court of inquiry is in session.

The union jack is flown in boats as follows:

1. When a diplomatic official of the United States, at or above the rank of charge d'affaires, is embarked in a boat of the U.S. Navy and is within the waters of the country which that person represents
2. When a governor general, or a governor commissioned as such by the President, is embarked in a boat in an official capacity and the boat is within the governor's area of jurisdiction

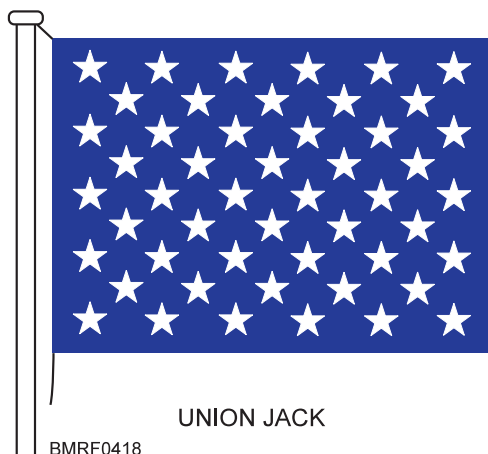


Figure 4-18.—Union jack.

(for example, the Governor of the Virgin Islands)

When displayed from the jackstaff, the union jack is half-masted if the national ensign is half-masted. It is raised and lowered in the same manner as the national ensign. The union jack is not dipped when the national ensign is dipped.

The union jack is issued in several sizes; but, when flown at the jack staff, it must be the same size as the union of the ensign flown at the flagstaff. To make sure it is not flown upside down, always have the single point of the stars pointing toward the sky.

U.S. NAVY FLAG

On 24 April 1959, the President, on the recommendation of the Secretary of the Navy, established an official flag for the United States Navy. That was done to fulfill a need for an official flag to represent the Navy in displays and on a variety of occasions, such as ceremonies and parades. Figure 4-19 shows the Navy flag.

The U.S. Navy flag represents the Navy as follows:

- At official ceremonies
- In parades
- In displays during official Navy occasions



Figure 4-19.—U.S. Navy flag.

Student Notes:

- At public gatherings when the Navy is an official participant
- On other occasions as may be authorized by the Secretary of the Navy

When used for the purposes listed above, the Navy flag accompanies, and takes the place of honor after, the national flag. However, when other branches of the armed forces are participating, the flags take precedence in the order of seniority of the services represented.

PERSONAL FLAGS AND PENNANTS

Every Navy ship in commission flies the commission pennant except when it is replaced by a personal flag, command pennant, or Red Cross flag. The commission pennant, shown in figure 4-20, is flown at the after truck of a naval vessel and at the highest and most conspicuous point of hoist on a fixed mastless ship (submarines in particular). It is also flown from the bow of a boat when a commanding officer, not entitled to a personal flag, is embarked on an official visit.

The commission pennant is not a personal flag, but sometimes it is regarded as the personal symbol of the commanding officer. Along with the ensign and union jack, it is half-masted upon the death of the commanding officer of a ship.

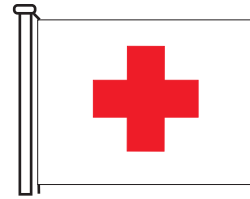
The Red Cross (Geneva Convention) flag, shown in figure 4-21, is the distinctive mark flown from the after truck of a commissioned hospital ship of the Navy. In general, the Red Cross flag is regarded as an international guarantee of amnesty from attack. None of the military services, however, fly it on the same halyard as the national ensign. Boats engaged in sanitary service and landing party hospital boats display the Red Cross flag in the bow.

Some nations in the Middle East regard the cross as a symbol contrary to their religious beliefs. Therefore, they use a design such as a red crescent on a white field



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Figure 4-20.—Commission pennant.



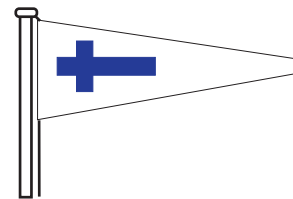
BMRF0421

Figure 4-21.—Red Cross flag.

or a red lion and sun on a white field to indicate a mission of mercy or amnesty from attack.

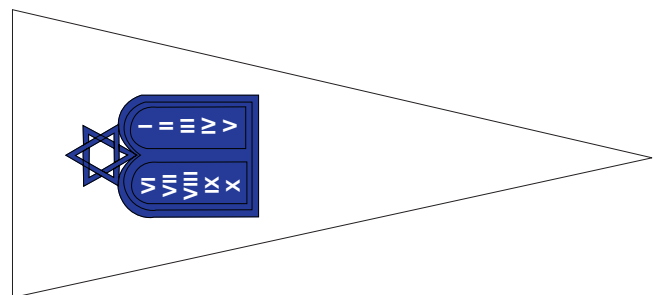
No flag or pennant may be flown above or, if on the same level, to the right of our national flag. One exception is the display of flags at the United Nations headquarters, where special rules apply. The only other exception is during church services aboard ship conducted by Navy chaplains or visiting church dignitaries. Then the church pennant (fig. 4-22) or the Jewish worship pennant (fig. 4-23) is flown above the ensign. Many ships are fitted with two halyards to the same point of hoist at both the staff and gaff to permit display of the church pennant and ensign simultaneously.

Aboard ships under way, the church pennant is displayed by hoisting it to the peak or truck and then dipping the ensign just clear of it. If services are being



BMRF0422

Figure 4-22.—Church pennant.



BMRF0423

Figure 4-23.—Jewish worship pennant.

Student Notes:


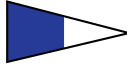


conducted at the time of morning colors aboard ships not under way, the ensign is hoisted to the top of the flagstaff at the prescribed time. The church pennant is then hoisted and the ensign dipped just clear of the pennant. If the ensign is half-masted, the church pennant is hoisted just above the ensign. When the church pennant is lowered, the ensign is closed up (hoisted to the truck, peak, or top of the flagstaff) before the pennant is lowered. Although the church pennant may not be flown above the national flag ashore, it may be displayed separately.

The Jewish worship pennant, shown in figure 4-23, is displayed during Jewish religious services afloat and ashore. This pennant was authorized by the Secretary of the Navy in 1975. The same rules governing the display of the church pennant apply to the display of the Jewish worship pennant.

The flag of the Chief of Naval Operations (fig. 4-24) is a blue and white rectangle, divided diagonally from lower hoist to upper fly. In its center is the official seal of the Chief of Naval Operations—an eagle clutching an anchor and encircled by 50 gold links of chain. The CNO’s flag is displayed in the same manner as required for displaying flags of any flag officer.

Aboard ships not under way, the absence (for a period of 72 hours or less) of various officers is indicated by the display of SUBSTITUTE pennants. These are general signal pennants. The pennants are assigned as shown in figure 4-25.

On many small ships, it is the responsibility of the quarterdeck watch to hoist and haul down the absentee

	1st. SUBSTITUTE	FLAG OFFICER OR UNIT COMMANDER IS ABSENT
	2nd. SUBSTITUTE	CHIEF OF STAFF IS ABSENT
	3rd. SUBSTITUTE	COMMANDING OFFICER IS ABSENT
	4th. SUBSTITUTE	CIVIL OR MILITARY OFFICIAL WHOSE FLAG IS FLYING IS ABSENT

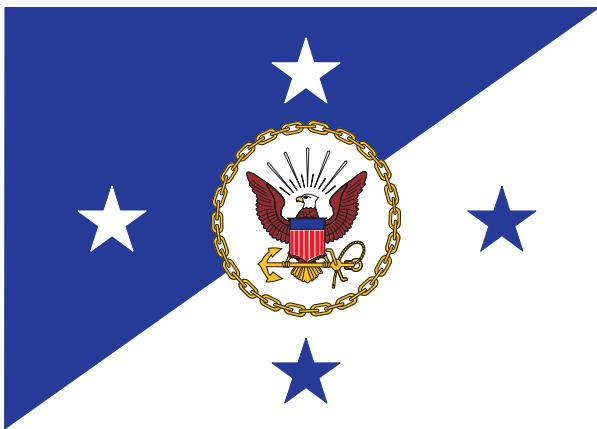
BMRF0425

Figure 4-25.—Substitute pennants.

pennants. They are flown only between sunrise and sunset.

Whenever the ship is taking aboard, transferring, or handling dangerous commodities, such as ammunition and fuel, the BRAVO flag is hoisted and the smoking lamp is put out. BRAVO is hauled down when the dangerous condition no longer exists. The BRAVO flag (fig. 4-26) is a general signal flag.

While standing watch, you will have many duties. One of them is to make sure special flags or pennants are displayed as required to indicate changing events aboard ship. Usually on a large ship, this is the responsibility of the duty signalman. On small ships, such as submarines, it is the duty of the topside watch (POOW). These flags or pennants are important because they tell other units what is happening within their area at any given time. A list of special flags and pennants is normally posted within the quarterdeck area for the ready reference of watch standers.



BMRF0424

Figure 4-24.—Chief of Naval Operations flag.











BMRF0426

Figure 4-26.—Bravo flag.

Student Notes:

There are many more flags and pennants that have special meanings. You will have to know the meaning of some of these. They are called general signals, and those not previously discussed are shown in figure 4-27.

When flag officers of the Navy (admiral, vice admiral, rear admiral [upper half], rear admiral [lower half]) assume command of a fleet or a unit of a fleet, their personal flag (fig. 4-28) is hoisted and kept flying until they turn over their command to their successor. If the officer is absent from command for a period exceeding 72 hours, the flag is hauled down until the officer returns.

SIGNAL		MEANING
	CODE	} DIVERS ARE DOWN
	ALFA	
	MIKE	MEDICAL GUARD
	OSCAR	MAN OVERBOARD
	PAPA	GENERAL RECALL. ALL PERSONNEL RETURN.
	QUEBEC	BOAT RECALL
	YANKEE	VISUAL COMMUNICATION DUTY
	ZERO	AT BOW OF SMALL BOAT: GUARD MAIL BOAT. ABOARD SHIP: MILITARY GUARD DUTY.

BMRF0427

Figure 4-27.—General signals.

A flag officer's flag is never displayed simultaneously from more than one ship. It is flown at the main-truck of the ship the officer is aboard. Normally, no personal flag or pennant is shown at the same masthead with the national ensign. When a double display is required, the personal flag or pennant should be flown at the foretruck and the national ensign flown at the main-truck. When a single masted flagship is dressed or full-dressed, however, the personal flag or pennant is hoisted at the starboard yardarm. During a gun salute, the ensign is displayed at the main-truck. Any personal flag is lowered clear of the ensign.

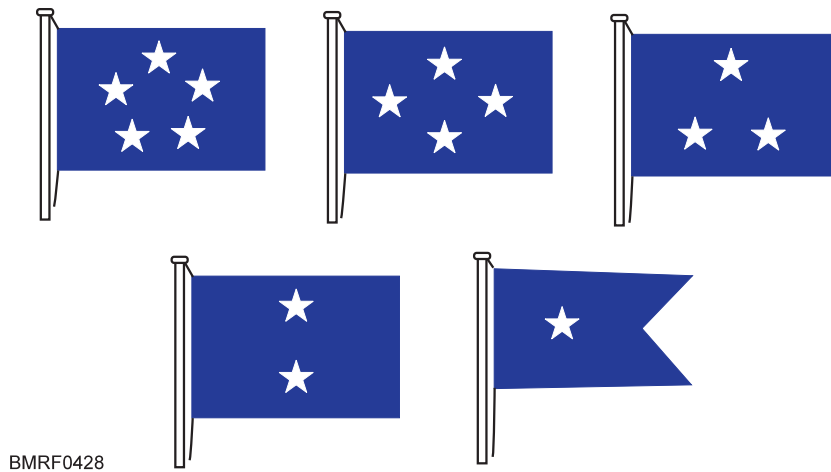
FLAG DISPLAYS IN BOATS

The ensign is flown from the stern of naval boats. The ensign should never be so large that it hangs in the water when the boat is afloat. When the ensign becomes soiled, it should be changed for a clean ensign. Our flag should be flown from boats during the following times:

- When under way during daylight in a foreign port
- When ships are required to be dressed or full-dressed
- When going alongside a foreign vessel
- When an officer or official is embarked on an official occasion
- When a flag or general officer, a unit commander, a commanding officer, or a chief of staff, in uniform, is embarked in a boat of the command or in one assigned for personal use
- At other times when prescribed by the senior officer present

When an officer in command (or chief of staff) entitled to a personal flag or pennant is embarked in a boat on an official occasion, the appropriate flag or pennant is flown at the bow. (If not entitled to a personal flag or pennant, a commission pennant is displayed.) On other than official occasions, a miniature personal flag or pennant is displayed near the coxswain's station.

Student Notes:



BMRF0428

Figure 4-28.—Personal flags.

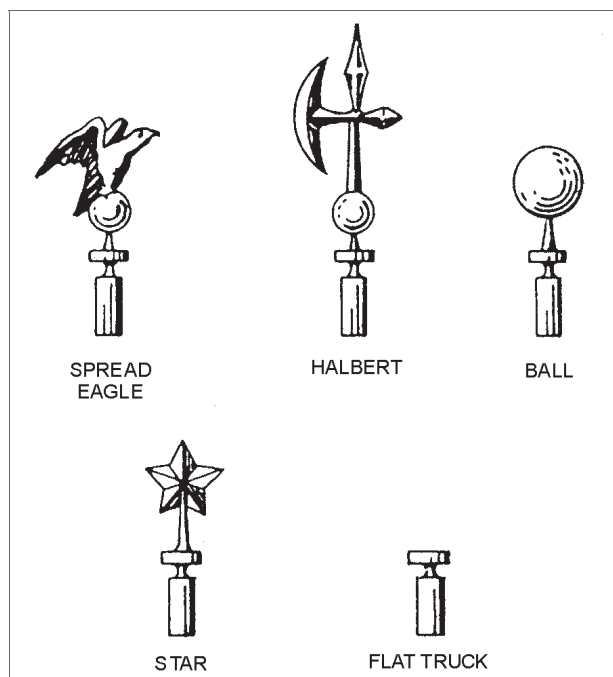
Bow Markings

Many boats carry bow markings to indicate to whom the boat is assigned. A boat having an arrow in the bow is assigned for use by a commanding officer or a chief of staff who is not a flag officer. A miniature of the command pennant is on the bow of the boat assigned to a unit commander. A boat assigned for the personal use of a flag or general officer has on each bow the number of stars corresponding to the officer's rank.

Flagstaff Insignias

Boats assigned to officers for personal use or boats in which a civil official is embarked on official business are marked with special devices on the flagstaff. The flagstaff for the ensign and for the personal flags or pennants is fitted at the peak with these special devices, shown in figure 4-29, as follows:

- Spread eagle: For any civilian official or flag officer whose official salute is 19 guns or more
- Halbert: For a flag or general officer whose official salute is less than 19 guns or for a civil official whose salute is 11 guns or more but less than 19
- Ball: For an officer of the grade, or relative grade, of captain in the Navy, and for certain diplomatic officials
- Star: For an officer of the grade, or relative grade, of commander



BMRF0429

Figure 4-29.—Flagstaff insignias.

- Flat truck: For an officer below the grade, or relative grade, of commander, and for civil officials entitled to honors of a lesser nature than those previously described

Boat landings for officers usually are separate from those for enlisted personnel; but there may be times, especially overseas, when they are in the same location.

Student Notes:

Aboard ship, the bridge watch usually tells the quarterdeck that an officer's or enlisted's liberty boat is approaching the ship.

REVIEW 7 QUESTIONS

Q1. List some of the flags and pennants used by the Navy.

Q2. In the space provided, list the flag flown for the conditions described on the right.

CONDITIONS	FLAG
a. There is a man overboard.	
b. There are divers in the water.	
c. A general court-martial is in session.	
d. Worship service(s) in progress.	
e. The captain is absent.	

Q3. In port, commissioned ships display the national ensign and the union jack from what locations?

Q4. In large ships, what person is usually responsible for making sure that special flags and pennants are displayed?

Q5. What is the flagstaff insignia for a captain?

Q6. A boat with a halbert insignia on the flagstaff is approaching your ship. What is the rank of the person on the ship?

SIDE HONORS

Learning Objective: When you finish this chapter, you will be able to—

- Identify the purpose of and use of side honors.

Side honors, rendered to officers and officials boarding and departing the ship, are part of the honors stipulated for an official visit. The honors consist of parading the proper number of side boys and piping the side by the honors boatswain's mate. Officers appropriate to the occasion also attend the side. Side boys are not paraded on Sunday or on other days between sunset and 0800 or during meal hours of the crew, general drills and evolutions, and periods of regular overhaul, except in honor of civil officials and foreign officers; then they may be paraded at any time during daylight hours. Side boys are paraded only for scheduled (official) visits.

The term *official* means a formal visit of courtesy requiring special honors and ceremonies. An informal visit of courtesy requiring no special ceremonies is a *call*.

HONORS FOR OFFICIAL VISITS

The honors specified for an official visit are rendered on arrival as follows:

- When the rail is manned, personnel are spaced uniformly at the rail on each weather deck, facing outboard. The command "Attention" is sounded as the visitor's boat or vehicle approaches the ship.

- If a gun salute is prescribed on arrival, it is fired as the visitor approaches and is still clear of the side. The proper flag or pennant is broken on the first gun and hauled down on the last gun except when it is to be flown for the duration of the visit. Other ships firing a concurrent salute also haul down, on the last gun, the flag or pennant displayed in honor of the visitor.

Student Notes:

If the ship visited is moored to the pier in such a position that it is impractical to render the gun salute before arrival on board, the salute is rendered (provided local regulations don't forbid gun salutes) after the official arrives on board and the commanding officer is sure that the dignitary and party are moved to a position in the ship that is well clear of the saluting battery.

- The boat or vehicle is piped as it comes alongside.
- The visitor is piped over the side, and all persons on the quarterdeck salute and the guard presents arms until the termination of the pipe, flourishes, music, or gun salute, depending on which is rendered last.
- If the gun salute is not prescribed on arrival and a flag or pennant is to be displayed during the visit, it is broken at the start of the pipe.
- The piping of the side, the ruffles and flourishes, and the music are executed in the order named. In the absence of a band, "To the Colors" is sounded on the bugle, instead of the national anthem, when required.
- The visitor, if entitled to 11 guns or more, is invited to inspect the guard upon completion of the gun salute or such other honors as may be accorded.

On departure, the honors prescribed for an official visit are as follows:

1. The rail is manned, if required.
2. The command "Attention" is sounded as the visitor arrives on the quarterdeck.
3. When the visitor is ready to leave the ship, the guard presents arms, all persons on the quarterdeck salute, and ruffles and flourishes, followed by music, is sounded. The visitor then is piped over the side. The salute and present arms terminate with the call. If no gun salute is fired, the flag or pennant displayed in honor of the visitor is hauled down.
4. The boat or vehicle is piped away from the side.
5. If a gun salute is directed upon departure, it is fired when the visitor is clear of the side. If a flag or

pennant is displayed in honor of the visitor, it is hauled down with the last gun of the salute.

When possible, the same honors and ceremonies are rendered for an official visit to a naval station.

SIDE BOYS

When required for attending the side, the required number of side boys will be on deck in the uniform of the day. Side boys are mustered, inspected, and instructed in their duties by the OOD and BMOW. They are stationed on either side of the route across the quarterdeck taken by arriving and departing high-ranking officers or civilian officials who are making official calls to the ship. When the side is piped by the BMOW on the boatswain's pipe, from two to eight side boys, depending on the rank of the honored official, will form a passageway to or from the gangway. They salute on the first note of the pipe and drop the salute together on the last note.

Side boys must be particularly smart in appearance and groomed with polished shoes and immaculate uniforms. Enlisted women detailed to this duty are also called side boys.

REVIEW 8 QUESTIONS

Q1. When are side boys paraded?

Q2. When a gun salute is prescribed, when is it fired?

SUMMARY

In this chapter, you have learned about communications equipment, telephones and telephone talker responsibilities, and how this equipment and responsibilities relate to you. You also learned about the importance of security and why the following correct procedures are important. This chapter also introduced you to the use of flags, pennants, and honors accorded various military and civilian personnel.

Student Notes:

REVIEW 1 ANSWER

- A1. To give the serial number (23DBCX14) of the pump over the phone, you would say—**too, tree, delta, bravo, charlie, xray, wun, fo-wer.**

REVIEW 2 ANSWERS

- A1. **True**, the mouthpiece and earpiece of a sound-powered phone are interchangeable.
- A2. If you pick up the mouthpiece or the headpiece by itself, **delicate wires could break.**
- A3. If you leave the headset plugged in, the **earpieces pick up background noises and transmit them over the circuit.**
- A4. To talk or listen through the phone, **depress the button located between the transmitter and receiver.**

REVIEW 3 ANSWERS

- A1. The three categories of sound powered phone circuits are—
- a. **Primary**
 - b. **Auxiliary**
 - c. **Supplementary**
- A2. An XJZ circuit is an **auxiliary** circuit.
- A3. Some of the practices that make a good phone talker include—
- a. **Speak clearly and directly into the phone**
 - b. **Don't have food or gum in your mouth**
 - c. **Don't paraphrase messages; repeat them word for word**
 - d. **Speak slowly**
 - e. **In an emergency, speak calmly and precisely**
 - f. **Don't use local accents**

- A4. Some disciplines that must be followed when talking over sound-powered phone circuits include—
- a. **Transmit official message only**
 - b. **Keep the button in the OFF position except when transmitting**
 - c. **Use standard terms and phrases**
 - d. **Don't use slang or profanity**
- A5. To clear a sound-powered phone circuit to transmit an important message, the sender should say **"silence on the line."**
- A6. The proper response upon receipt of a message is as follows: **"Repeat message, identify yourself, and then acknowledge the message."**

REVIEW 4 ANSWER

- A1. The four elements you should include when taking a message are—
- a. **Name of caller**
 - b. **The message**
 - c. **Time and date of message**
 - d. **Your name**

REVIEW 5 ANSWERS

- A1. The terminal devices used with the IVCS are—
- a. **Network**
 - b. **Dial**
- A2. Within the IVCS, the **ICSC acts like a switchboard and connects the caller with the person who called.**

REVIEW 6 ANSWERS

- A1. Your phone system is unsecured. When receiving a call, you should answer the phone by saying **this line is unsecured.**

- A2. The **alarm system** is tied into the 1C circuit.
- A3. The **4MC** circuit is the damage control circuit.
- A4. Calls passed over the 1MC are authorized by the—
- OD,**
 - XO, or the**
 - CO**
- A5. The **1MC is a one-way system** and the **21MC is an intercom with two-way communication.**
- A6. The first 4 channels of WIFCOM are assigned to—
- Channel 1—Repair 5**
 - Channel 2—Repair 2**
 - Channel 3—Repair 3**
 - Channel 4—Ship-to-ship communications**

REVIEW 7 ANSWERS

- A1. Flags and pennants used by the Navy include **the international alphabet flags; numeral pennants and a code/answer pennant; a set of number flags, special flags, and pennants; and four substitutes or repeaters.**
- A2. The flag flown for the conditions is as follows:

CONDITIONS	FLAG
a. There is a man overboard.	Oscar
b. There are divers in the water.	Code Alfa
c. A general court-martial is in session.	The Union Jack
d. Worship service(s) in progress.	Church pennant/ Jewish worship pennant
e. The captain is absent	The third pennant

- A3. When in port, commissioned ships display the national ensign and the union jack. The **national ensign is flown from the flagstaff at the stern,** and the **union jack is flown from the jackstaff at the bow.**
- A4. On large ships, the **signalman** is usually responsible for making sure that special flags and pennants are displayed.
- A5. A **ball** is the flagstaff insignia for a captain.
- A6. A boat with a halbert insignia on the flagstaff is approaching your ship. **There is a flag or general officer on board, whose official salute is less than 19 guns.**

REVIEW 8 ANSWERS

- A1. Side boys are paraded for **scheduled official visits.**
- A2. A gun salute is fired when **the visitor approaches and is still clear of the side.**

CHAPTER COMPREHENSIVE TEST

1. To report serial number 23NCI16 over the sound-powered telephone circuit, you would report the serial number in what way?
 1. Too, three, november, charlie, india, wun six
 2. Too, tree, november, charlie, india, wun, six
 3. Two, tree, november, charlie, india, wun, six
 4. Two, tree, november, charlie, india, wun, sics
2. It's important for you to remember that the mouthpiece and earpiece of sound-powered telephones are interchangeable for which of the following reasons?
 1. Two people can talk at once
 2. They can be interchanged if a piece breaks
 3. Undesirable noises can be fed into the system
 4. Both 2 and 3 above
3. The headset of sound-powered telephones is picked up as a unit for which of the following reasons?
 1. To make sure you have all the parts
 2. To avoid breaking them
 3. Both 1 and 2 above
 4. In case the earpiece is missing
4. When using the mouthpiece of a sound-powered phone set to report contacts, how far from your mouth should you position the mouthpiece?
 1. 1/2 to 1 inch
 2. 1 to 2 inches
 3. 2 to 3 inches
 4. 3 to 4 inches
5. Why should you unplug a phone's headset when it's not in use?
 1. To keep the user costs down
 2. Earpieces will pick up noise and transmit it over the circuit
 3. Carbon will build up at the connectors
 4. Calls from other circuits won't go through
6. Aboard ship, there are how many categories of shipboard sound-powered phone circuits?
 1. One
 2. Two
 3. Three
 4. Four
7. What category of shipboard telephone circuits is designed to maintain vital communications and are preceded by the letter X?
 1. Primary system
 2. Auxiliary system
 3. Supplementary system
 4. Command circuit
8. Which of the following sound-powered phone circuits is used as the CO's battle circuit?
 1. JA
 2. JC
 3. JL
 4. IJV
9. To keep the meaning of a message intact when standing duty as a telephone talker, what action should you take?
 1. Speak loudly
 2. Repeat the message word for word
 3. Paraphrase what you hear
 4. Speak rapidly to transmit the message quickly
10. Which of the following statements is a rule for circuit discipline?
 1. Transmit only official messages
 2. Keep the button in the OFF position when not transmitting
 3. Use only standard words and phrases
 4. All of the above
11. When a telephone talker says "Silence on the line," you take what action?
 1. Request permission to leave the line
 2. Receipt that you've heard the message
 3. Stop talking immediately
 4. Call back for authority to use the line

12. What type of telephone may be installed on weather decks?
 1. A
 2. F
 3. C
 4. G
13. Which of the following elements is included when taking a message?
 1. Name of caller
 2. Message
 3. Time and date
 4. Each of the above
14. The IVCS has which of the following components?
 1. Terminals
 2. Accessories
 3. ICSCs
 4. All of the above
15. Within the IVCS, what is the purpose of the ICSCs?
 1. To perform switching actions
 2. To keep lines clear
 3. To give multi-access to lines
 4. To ensure automatic cutoff for security purposes
16. Which of the following shipboard announcing systems is called the general announcing system?
 1. 1MC
 2. 2MC
 3. 3MC
 4. 4MC
17. Which of the following shipboard announcing systems is used for intership communications?
 1. 5MC
 2. 6MC
 3. 7MC
 4. 8MC
18. Which of the following shipboard announcing systems is used for hangar deck damage control?
 1. 39MC
 2. 51MC
 3. 53MC
 4. 58MC
19. Which of the following persons is authorized to pass calls over the 1MC?
 1. OOD
 2. XO
 3. CO
 4. Each of the above
20. What is the purpose of the 20MC announcing system?
 1. Radio room announcing system
 2. Flag officer's command announcing system
 3. Combat information announcing system
 4. Captain's command announcing system
21. Which of the following types of flags and pennants is/are used by the Navy?
 1. Substitute flags
 2. Numeral pennants
 3. International alphabet flags
 4. All of the above
22. Aboard ship, a man overboard is indicated by what emergency/warning flag?
 1. Code Alfa
 2. Oscar
 3. November Charlie
 4. Bravo
23. What administrative flag is used to recall all personnel to the ship?
 1. Hotel
 2. Juliett
 3. Romeo
 4. Papa
24. What administrative flag is flown in port to indicate the ship has ready duty?
 1. Hotel
 2. India
 3. Romeo
 4. Quebec
25. When under way, the national ensign is normally flown from what location?
 1. The gaff
 2. The aftermast
 3. The flagstaff
 4. The jackstaff

26. Which of the following statements defines the term "colors"?
 1. Colors give recognition of codes
 2. Colors consist of our national ensign along with the union jack
 3. Colors are lights on the flagstaff
 4. Colors are the flags of foreign ships
27. When a naval ship is in port or at anchor, the union jack is flown from what location?
 1. The gaff
 2. The jackstaff
 3. The aftermast
 4. The flagstaff
28. The U.S. Navy flag is flown in which of the following situations?
 1. At official ceremonies or official public gatherings when the Navy is officially a participant
 2. In parades
 3. In official Navy occasions
 4. Each of the above
29. Which of the following flags are half-masted at the death of the CO?
 1. National ensign
 2. Union jack
 3. Commission pennant
 4. Each of the above
30. On small ships, personnel from what watch are responsible for hoisting and hauling down absentee pennants?
 1. Security watch
 2. Quarterdeck watch
 3. Roving watch
 4. DC central watch
31. On large ships, what person is responsible for making sure that special flags or pennants are displayed to indicate changing events aboard ship?
 1. Boatswain's mate
 2. Quarterdeck watch
 3. Duty signalman
 4. Topside watch
32. Where is a list of special flags and pennants normally posted as a ready reference for watchstanders?
 1. Combat information center (CIC)
 2. After deck
 3. Quarterdeck area
 4. Half deck
33. An officer in command entitled to a personal flag is embarked in a boat on an official mission. Where should the pennant be flown?
 1. Amid ship
 2. In the bow
 3. In the stern
 4. Yardarm, port