Preface

The *American Language Course's Maritime Operational Language Seminar* is designed for both self-instruction and classroom (seminar) use. The course was designed to provide maritime officers with practice in the English language skills, knowledge, and terminology they will find necessary to participate in multinational operations.

The Defense Language Institute English Language Center (DLIELC) recommends a proficiency of 80 in the English Comprehension Level (ECL) test or American Language Course Proficiency Test (ALCPT) for staff officers who will serve in multinational positions and/or study these materials. For a majority of learners, this level is similar to the level of a learner rated at the 2/2+ range of the STANAG 6001 scale.

Recommendations for improving these materials are encouraged. A questionnaire regarding the content and appearance of this course may be found on the last page of Volume II text. Correspondence should be addressed to: Commandant, Defense Language Institute English Language Center. ATTN: LEC, 2230 Andrews Ave., Lackland AFB TX 78236-5203 or FAX 210-671-0211.

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The authors extend their appreciation to those organizations that granted DLIELC permission to use their copyrighted material. Their contributions are identified as they appear in the text.

The photos in this text were provided, for the most part, by the Public Affairs Office, Naval Training Base, Newport, RI. Thanks to the US Navy JOs who made these possible.

Please note that every effort has been made to contact all copyright holders for permission to reprint borrowed material. We regret any oversights that may have occurred and will rectify them in future printings of this work.

Notes to the Reader

Introduction

As stated on page i, it is recommended that participants of the course have at least an 80 ECL. This presupposes that the participants have mastered basic skills in English.

This course has the dual goal of enhancing English language proficiency and the knowledge of maritime terminology. This course also emphasizes advanced writing and speaking skills useful in staff positions. These skills include writing memos, reports, participating in group discussions, and giving briefings. Although military officers may already have these skills in their first language, the styles and formats of writing and giving briefings vary from culture to culture. It is the purpose of this course to provide the students with models and some practice so that they can transfer their skills from their first language to English. In Units 3 through 5 the vocabulary and reading skills topics deal with NATO and PfP. The vocabulary and reading skills material in Units 6 through 10 is based on *EXTACS 1000, 1001, 1004, 1006, 1007, 1010*, and *1012* which provide useful information on messaging, search and rescue, noncombatant evacuation operations, maritime interdiction operations, mine countermeasures, and air operations.

Keeping a schedule and a learning log are activities recommended to help the learners manage and understand their learning. In a learning log, they are to track their feelings about what they are learning and the strategies that work best for them. This awareness is an important step to improving their effectiveness as learners. Effective learners are aware of the strategies they use and consciously try out new strategies to make learning not only more effective, but also more interesting.

Assessment of Needs

The Supreme Allied Command, Atlantic and the Defense Language Institute English Language Center entered into an agreement to meet the training needs of Partnership for Peace nations for a Maritime Operational Language Seminar that includes a self-instruction portion as well as a classroom portion (two-week seminar) which is to be conducted by US Navy Surface Warfare Officers School instructors with the assistance of DLIELC instructors.

Course Materials

The student's package includes a two-volume text, a dictionary, sixteen audio cassettes, and a CD containing the *EXTACS* used in the course. The two-volume text includes twelve units, eight appendices, self-evaluation exercises for each unit, and answers to the exercises for self-correction.

Recommendations

DLIELC recommends one week per unit. Students should plan to work on each unit for approximately ten hours concentrating on learning objectives including vocabulary (those items in the glossary) and nonobjective vocabulary (those items on the margins). After they complete each unit, they should complete the evaluation exercises.

Description of Course Contents

Unit 1. Written Communication Skills

The course begins with a focus on writing for a number of good reasons. First, writing is an extremely important skill for staff officers. Most maritime officers frequently have to write reports, briefings, and general correspondence. Second, writing is a difficult skill to acquire, and in fact, progress in this skill can only be gained by writing and obtaining meaningful feedback. (Because this course is designed to be partly a self-instruction course, we recommend that they enlist the services of a tutor, the assistance of an instructor from the institute that sponsors them, or any advanced speaker of English.) Both input and output are essential ingredients for learning/acquiring a language. Thus, it is important that the students practice reading (input) and writing (output). The materials emphasize two kinds of writing: personal

and technical writing (because second language research seems to indicate that learners find technical writing more difficult without practicing personal writing). In this course, personal writing is practiced by writing learning journals; formal writing is practiced through a variety of writing assignments.

Besides writing practice, the unit will also provide them with the opportunity to practice and learn important terms that relate to the commander and his staff. The grammar review for this unit is the passive/active voice. The function consists of formats for asking and giving factual information. An introduction to the dictionary as a pronunciation guide exercises is also part of this unit.

Unit 2. Oral Communication Skills

In order to produce good quality, highly understandable speech, one must first be able to *hear* the language correctly. Listening is the first and most basic language skill and speaking is its corollary, i.e., speaking is a normal result of listening. It is one thing to be able to hear and understand a person who is speaking directly to them; the understanding comes as much from body language and lip movement as from the sound of the words. It is quite another thing to understand from the sound alone, such as from the telephone or radio.

In this unit the students will learn about giving briefings including the technical aspects of delivering concise and effective presentations. They will also practice listening by means of the taped lectures and by role-playing telephone conversations. In the area of grammar, the modals are reviewed and practiced. In the area of reading skills, the authentic readings include two short magazine articles, a speech by Prime Minister Blair, and a reading describing the process of communication. Basic aspects of group discussion are also introduced in this unit.

Unit 3. Introduction to NATO

The textual content in this unit is extremely important and is, in fact, the basis for much of the course. It must be remembered, however, that the objectives center on acquiring English language skills, grammar, and vocabulary. In this unit the grammar emphasis is on prepositions.

Using English prepositions correctly has been considered by some linguists to be the last and most difficult hurdle in mastering the language. The difficulty stems from the lack of specific rules for their use, that some languages do not use them at all, and that sometimes they defy all logic. In this unit they will consider primarily the prepositions of direction or motion.

Unit 4. Partnership for Peace Challenges

Since its introduction in 1994, Partnership for Peace has grown and become more operational; its role in expanding political and military cooperation throughout Europe has increased. This unit will help staff officers understand the changes in PfP and the challenges it faces.

The grammar portion of this unit deals with word order and reported speech; the function is supported by the grammar and focuses on inquiring about and reporting what others have said—an important skill for military personnel. There are many challenging readings in this unit. Students will work on improving their reading skills including reading faster, summarizing, concentrating on the main idea of the passage, using context clues to guess at the meaning of words, etc. They will also practice their personal writing by continuing their work on their learning log. This will help them become more aware of their learning styles as well as improve their fluency in written English.

Unit 5. Standardization in Multinational Forces

The need for multinational forces has emphasized the need for standardization, not only in equipment but also in the whole range of military activities. The readings in this unit will help students understand the four levels of standardization: compatibility, interoperability, interchangeability, and commonality. They will also become familiar with factors affecting multinational commands. In the grammar component, the students will review word order in indirect questions. Since giving instruc-

tions is an important skill to the military officer, they will review sequenced instructions and practice giving them. Again they will have the opportunity to read models of technical/military material.

The vocabulary readings in Units 6 through 10 are based on *EXTACS 1000, 1001, 1004, 1006, 1007,* and *1012* and are designed to help the maritime officer become more familiar with this material.

Unit 6. Maritime Communications

Unit 6 is based on *EXTAC 1000 Maritime Maneuvering and Tactical Procedures*. The readings and objective vocabulary will help students understand and produce various reports made by individual units of a Task Group to the Task Group Commander using voice communications circuits. Students will also become familiar with the sequence and components of voice reports as well as call signs and the correct transmission of numerical figures. They will also learn the proper usage of brevity code words. The listening exercises include authentic messages.

Unit 7. Maritime Tactical Message Requirements

EXTAC 1006 Structured Messages is the basis for this unit. The first vocabulary reading introduces the maritime tactical message system. Other vocabulary readings in the unit deal with specific types of messages the students will use during maritime operations—the OPGEN, the OPSTAT, and the Pre-exercise Message. In the grammar section, students will use conditional sentences to make hypotheses about actions or conditions.

Unit 8. Search and Rescue (SAR)

Since students will be involved in a Search and Rescue (SAR) mission sometime during their career, the vocabulary and reading skills of the unit will help them understand the challenges and importance of SAR. This terminology will be helpful during maritime exercises with multinational forces. There are various readings concerning SAR missions which are both interesting and informative. The grammar component is a review of the simple past tense verses the present perfect tense.

The activities on the recording for this unit, as well as other units, such as pronouncing the unit vocabulary, and practicing maritime expressions will help the students become more comfortable with spoken military English.

Unit 9. Maritime Interdiction Operations (MIO)

The title of this unit is "Maritime Interdiction Operations." The objective vocabulary of the unit will help students understand the different phases of a MIO mission, the navy's role in maritime interdiction operations, as well as the responsibilities of each person in the MIO chain of command in preparing for and conducting a MIO. Based on EXTAC 1012, the readings identify the material support each department onboard ship will be required to provide for the MIO mission as well as state the importance of the following when conducting MIO: communications, boarding procedures, employment of forces, and coordination with boarding teams' members.

Unit 10. Noncombatant Evacuation Operations (NEO)

In this unit students will learn about noncombatant evacuation operations or the evacuation of personnel from a location in a host or foreign country. The objective vocabulary of the unit will help them understand the different aspects of NEO. The grammar section is a review of all grammar presented in the two-volume text. In the function component, students will become familiar with and identify navy ranks and rates as well as NATO codes for officers and enlisted personnel. Since giving briefings and reports is an important part of navy life, students will have an opportunity throughout the self-instruction portion to prepare and practice an oral presentation.

Unit 11: Mine Countermeasures (MCM)

This unit deals the challenges and importance of mine countermeasures. The terminology in this unit will be valuable when carrying out mine countermeasure operations with multinational forces. The various readings concerning MCM are not only interesting by also informative. The grammar section

deals with a review of the use of articles a/an. Also, students will finalize their oral presentation using techniques in oral and written communication learned throughout the course. The information and terminology in this unit will be helpful during helicopter cross operations.

Unit 12: Air Operations

Unit 12 Air Operations is based on *EXTAC 1001 Helicopter Operations From Ships Other Than Aircraft Carriers (HOSTAC OPERATIONS)*. The objective vocabulary of the unit will help students understand the challenges and importance of air operations. This terminology will be helpful in military exercises with multinational forces. Students will find the various readings concerning standards for ship and aircraft interoperability, sea state and weather conditions, as well as radio communication interesting and informative. The grammar section deals with the use of noncount and count nouns with *the*. Again, the activities on the unit recording, such as pronouncing the vocabulary and practicing maritime expressions, will help students become more comfortable with spoken military English.

In order to make some material readily available for the students, eight appendices are included. Appendixes A, D, and E supplement the grammar presentations provided in the text. Appendixes B and C provide them with tools to help them become better writers. Appendix G should be used for the Listening/Viewing activities in the textbook. (Of course, the form can be used any time they watch news broadcasts in English to help them focus their listening.) Appendix F contains additional information on group discussions, and Appendix H gives NATO/US equivalent Ranks and Rates.

The answer pages for the exercises are next, and these can provide the students with feedback. They should keep in mind that true independent learning occurs only when learners try to get the answers on their own and then use the answer pages for feedback. Next in the book come the evaluation exercises that can be used to check their progress. The students may check their answers with the text or during the two-week seminar.

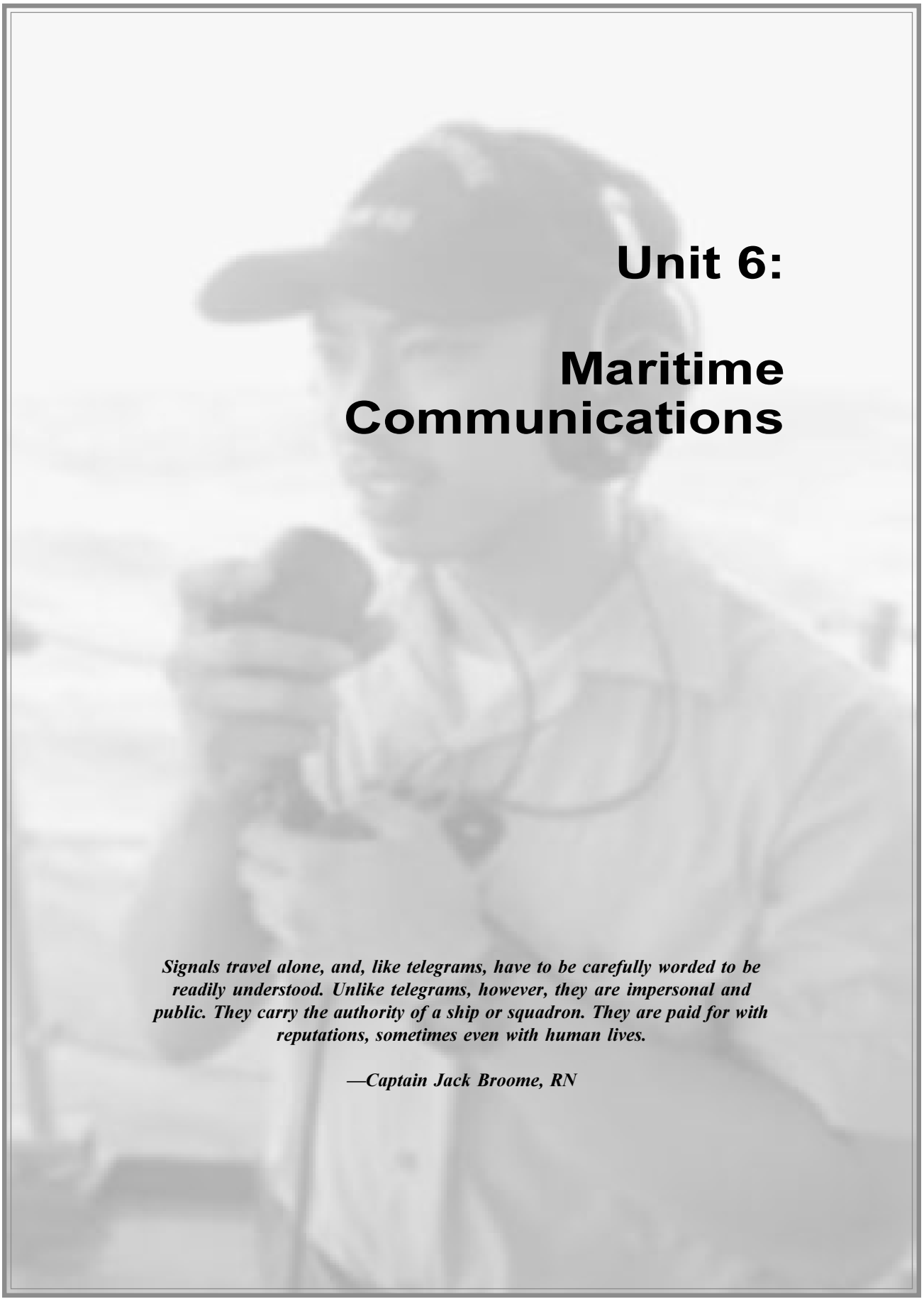
There are sixteen cassettes which accompany the two-volume text. All of the vocabulary readings are included on the audio tapes. In addition, there are authentic messages, dialogs, as well as other listening activities to assist the students in understanding the material in the text. The tapes have been made by active duty military personnel and civilian personnel who work on a military installation. The tapes have been made to appear as authentic as possible so that the students will hear a wide range of American English accents similar to those they may encounter during a typical multinational operation.

Included in the package of course materials is a CD containing the *Multinational Maritime Operations* (MMOPS) and *EXTACS 1000, 1001, 1004, 1005, 1006, 1007, 1010, 1011*, and *1012*. These files are in Portable Document Format (PDF). The CD contains Acrobat Reader which may be downloaded to open and read the materials. It is recommended that students print the *EXTACS* for easier readability.

Maritime Operational Language Seminar

Volume II

Table of Contents



Unit 6:

Maritime Communications

Signals travel alone, and, like telegrams, have to be carefully worded to be readily understood. Unlike telegrams, however, they are impersonal and public. They carry the authority of a ship or squadron. They are paid for with reputations, sometimes even with human lives.

—Captain Jack Broome, RN

Resources

You will need Unit 6 of this course, the Unit 6 recording, a tape/CD player, a notebook, a pen or pencil, and your copy of *Webster's New World Dictionary.*

Objectives

In this lesson you will

1. practice expressing opinions and engaging in hypothetical situations as these relate to group discussions.
2. review the use of modals in past and perfect time contexts.
3. use objective vocabulary, military/maritime terms, and military acronyms in the glossary.
4. be familiar with the different reports using voice communications circuits which are designated in the tasking message made by individual units of a Task Group (TG) to the Task Group Commander (CTG) .
5. describe the sequence and components of a voice report.
6. be familiar with international ship callsigns, collective callsigns, and helicopter callsigns, as well as the abbreviation of callsigns.
7. review the purpose of the TG Communication Net.
8. review group discussion techniques and the language needed for group discussions.
9. organize the main points of your oral presentation in outline form.
10. read models of military material and answer comprehension questions.
11. read authentic military articles and answer comprehension questions.
12. practice various learning strategies.

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LEARNING STRATEGIES

You practiced a variety of learning strategies in Units 1 through 5. How are you applying these strategies to your learning?

Planning

Exercise 1

Look at your schedule for Unit 5. Did you study more or less than the original plan required? Fill in the schedule below, and after you complete this unit, give yourself a reward for sticking to your study schedule.

Unit 6 Schedule

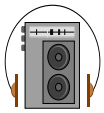
Day	Plan	Actual
Mon	_____	_____
Tues	_____	_____
Wed	_____	_____
Thu	_____	_____
Fri	_____	_____
Sat	_____	_____
Sun	_____	_____

Introduction

This unit provides information about voice communication procedures in ***surface***, ***subsurface***, and air exercises. It addresses six aspects:

1. Reports made by individual units of Task Groups to their commander (CTG).
2. Description of the sequence and ***components*** of ***voice reports***.
3. Description of callsigns.
4. Correct transmission of numerical figures using proper pronunciation and voice reports.
5. Purpose of the Task Group Communications Net.
6. Proper use of brevity code words.

VOCABULARY



Listen to the reading titled "Task Organization and Command and Control," which was excerpted from *EXTAC 1000,* Chapter 1, and follow along. The new words are in italics. As you listen to the reading, circle any words you do not know.

Learning Strategy

What you already know can help you to better understand the content of this unit.

Task Organization and Command and Control

Task Organization

delineate: to describe in words

Whenever two or more ships are operating together, a task organization is needed to **delineate** responsibility and establish a well-defined tactical chain of command. Each task organization will consist of a task group (TG). TGs may be subdivided into smaller, subordinate task units (TUs). TUs, in turn, may be divided into smaller, subordinate task elements (TEs). TUs and TEs are normally formed for specific purposes or to meet specific missions (for example, communication exercises, search and rescue, etc.). Figure 6-1 shows a sample task organization containing the TG, TU, and TE levels. Figure 6-2 shows how the task organization in Figure 6-1 would be ***promulgated*** in a tasking message.

Task Group (TG). During all exercises and operations, participants will be organized into a TG. The tasking message establishing the exercise or operation will assign a TG commander and a number to the TG.

Task Unit (TU). Each TG may include two or more smaller, subordinate TUs. The tasking message establishing the exercise or operation will assign TU personnel, TU numbers, and TU commanders.

Learning Strategy

Repeating new words gives you a feel for them.

Task Element (TE). Each TG with TUs may also contain smaller, subordinate TEs. The tasking message establishing the exercise or operation will assign TE personnel, TE numbers, and TE commanders.

Chain of Command

The task organization defines the chain of command and control for the exercise or operation. The chain of command establishes the relative authority of each commander and ship in the task organization. In the task organization described in Figure 6-1, all participants are subordinate to the CTG (Commander Task Group); TU and TE ships are subordinate also to their respective CTU (Commander Task Unit) and CTE (Commander Task Element.

imposing: placing the responsibility on

Command and Control

Command is the authority ***vested*** in an individual to direct, coordinate, and control forces. The aim of command is to provide a single authority responsible for operational efficiency. Some functions arising from *direction*, *coordination*, or *control*, may be delegated to subordinates. However, these functions are normally only delegated in large or widely ***dispersed*** task organizations. Let us look at the definitions of these terms.

Direction is the process of planning, establishing priorities, formulating policies, and **imposing** decisions.

Coordination is the establishment of planned actions to achieve the best overall result. In the maritime ***environment***, the term coordination may include certain specified control functions.

Control is the authority exercised by a commander over part of the activities of subordinates. Control includes the responsibility for implementing orders or ***directives***. All or part of this authority may be transferred or delegated.

Levels of Command

Various levels of command exist: *operational* command and control, *tactical* command, and *tactical* control. The following paragraphs define each of these levels.

Operational Command and Control (OPCON). OPCON refers to operational control or the authority to assign ships as participants in an exercise or to make operational commitments, and to authorize ships to ***detach*** from an exercise or operation. (See Figure 6-1 Sample Task Organization.)

Tactical Command (TACOM). TACOM is the authority to assign ships to specific tasks within an exercise or operation. It involves issuing detailed orders and ensuring their correct ***execution***. It also involves responsibility for the general safety of assigned units, although ultimate responsibility for safety remains with the commanding officer of each unit. TACOM does not include the authority to assign tasks ***inconsistent*** with the exercise or operation.

Tactical Control (TACON). TACON is the authority to direct and control the movements or maneuvers of ships to accomplish the exercise or operation. TACON is assigned to the CTG and may be delegated to subordinate CTUs or CTEs.

Change of Operational Control (CHOP)

CHOP occurs when responsibility for operational control (OPCON) shifts from one task organization to another or

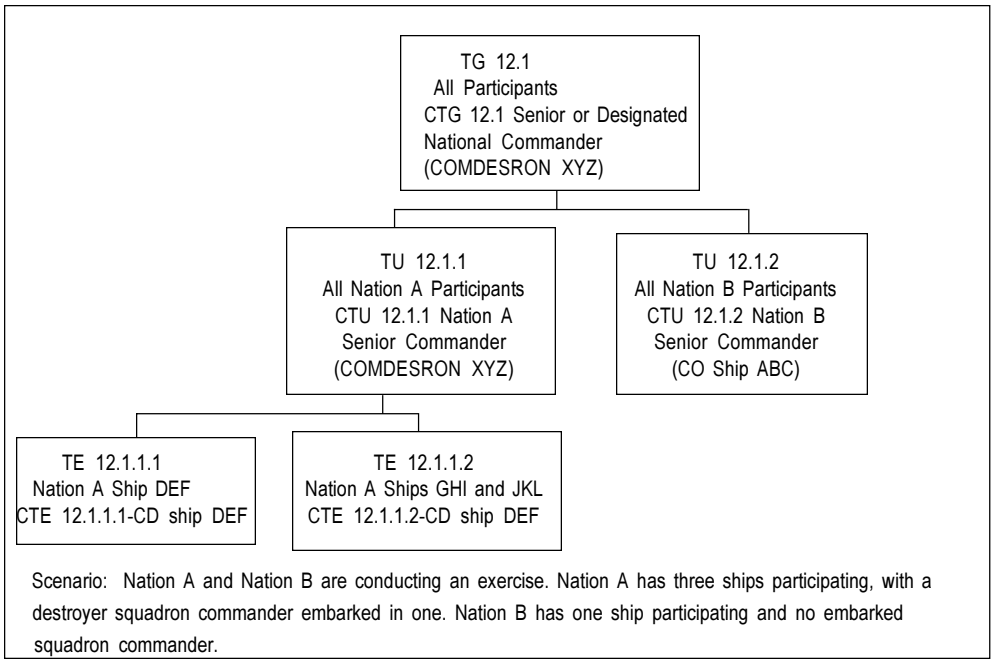


Figure 6-1. Sample Task Organization

between national and ***allied*** task organization authority. Scheduled CHOPs, including time of CHOP, should be established in the tasking message that initiates the exercise or operation.

Tasking and Reporting

Tasking to subordinates and reports to seniors in the task organization will be by message, such as the tasking message shown in Figure 6-2, or by signal, using the standard signals. ***Frequencies*** for radio communications will be assigned in the tasking message.

Readiness

Upon commencement of operations, the CTG will assume all participants are ready to carry out the assigned exercise or operation. Any participants less than fully ready (for example, those having reduced speed, maneuverability, or communication capability) should advise senior commanders of their limitations and the time when a return to full readiness is expected. When full readiness is ***restored***, commanders should be advised. Commanders need to be informed only of limitations that affect a unit's ability to carry out the assigned exercise or operation.

Task Group Designation TG 12.1	
CTG 12.1 TG 12.1	COMDESRON XYZ COMDESRON XYZ Ship ABC Ship DEF Ship GHI Ship JKL
CTU 12.1.1 TU 12.1.1	COMDESRON XYZ COMDESRON XYZ Ship DEF Ship GHI Ship JKL
CTU 12.1.2	CO Ship ABC Ship ABC
CTE 12.1.1.1 TE 12.1.1.1	CO Ship DEF Ship DEF
CTE 12.1.1.2 TE 12.1.1.2	CO Ship GHI Ship GHI Ship JKL

Figure 6-2. Sample Tasking Message Task Organization Designation

Source: *EXTAC 1000,* "Chapter 1, Maritime Maneuvering and Tactical Procedures,"August 1996.

After you turn off the recording, silently read the paragraphs again. Next, in your dictionary or the glossary for Unit 6, look up those words you do not know and write the definitions in your notebook. Then complete the next exercise.

Exercise 2

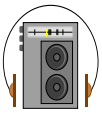
In your notebook, write answers to these questions. If you do not know the answer right away, read the appropriate paragraphs again.

1. A task group may be made up of what subgroups?
2. What does OPCON stand for?
3. What authority assigns ships to specific tasks and ensures correct execution of those tasks?
4. What is the acronym for the action of shifting control from one task organization to another?

Learning Strategy

Ask yourself questions about the readings and try to answer them. Doing so clarifies the meaning of the text.

VOCABULARY



Listen to the reading titled "Communications," which was extracted from *EXTAC 1000,* Chapter 4, and follow along. The new words are in italics. As you listen to the reading, circle any words you do not know.

Communications

Visual Communications

Although voice radio is the preferred method of communication, ***visual communications*** may be used on occasion. Visual communications methods that may be used include flag and flashing light communications. All visual communications will be in accordance with the International Code of Signals. Visual communications will not normally be used for tactical maneuvering.

Radioteletype Communications

One or more radioteletype ***circuits*** will be assigned for each exercise or operation. Radioteletype will be used for planning and coordinating exercise operation matters. Unless otherwise agreed on, English will be used in all radioteletype communications. The exercise or operation tasking message will specify each radioteletype circuit's name, its radio frequency, its backup (secondary) frequency, its intended use, the command assigned control of the circuit, and the participants on the circuit. Figure 6-3 is an example of the radioteletype circuit assignment section of a tasking message.

Radio Teletype Circuits

— **Circuit Name: RATT 1**
Radio Frequency: 227 KHz
Backup Frequency: 317 KHz
Intended Use: All radioteletype traffic
Control: COMDESRON XYZ
Participants: All TG 1

Figure 6-3. Sample Tasking Message Assignments of a Radioteletype Communication Circuit

Voice Radio Communications

Voice Radio

Voice radio will be the primary method of communication during exercises and operations in which international navies who presently are not in possession of computer-based means of communication will participate. Circuits and callsigns for ***voice radio communications*** will be promulgated in the tasking message. Each circuit assigned will specify the circuit's name, its radio frequency, its intended use, the command assigned control of the circuit, and the participants on the circuit. Backup or secondary frequencies will be assigned when **feasible**. Figure 6-4 is an example of the voice radio circuit assignment section of a tasking message.

Voice Radio Circuits

–Circuit Name: Tactical Circuit
Radio Frequency: 273.7 MHz
Backup Frequency: 312.0 MHz
Intended Use: All tactical signals
Control: COMDESRON XYZ
Participants: All TG 12.1

--Circuit Name: Admin Circuit
Radio Frequency: 313.7 MHz
Backup Frequency: None
Intended Use: Nontactical information exchange
Control: COMDESRON XYZ
Participants: All TG 12.1

Figure 6-4. Sample Tasking Message Assignment of Voice Radio Circuits

Voice Callsigns

Voice callsigns promulgated in the tasking message will be used for all voice radio communications. Individual ship callsigns will normally be the ship's name, three- or four-letter international radio callsign, or code name assigned for the exercise or operation. Task organization commanders will normally be assigned a code name. Figure 6-5 is an example of the voice callsign assignment section of a tasking message.

feasible: possible

Voice Call Signs		
Command	**Name**	**Call Sign**
CTG 12.1	COMDESRON XYZ	Uniform Yankee Zulu
TG 12.1	Collective	Golf Lima Foxtrot
CTU 12.1.1	COMDESRON XYZ	Romeo Golf Charlie
TU 12.1.1	Collective	Mike Whiskey Victor
CTU 12.1.2	CO Ship ABC	Sierra Tango Charlie
TU 12.1.2	Collective	Echo Hotel Papa
Ships	Ship ABC	Alpha Bravo Charlie
	Ship DEF	Delta Echo Foxtrot
	Ship GHI	Golf Hotel India
	Ship JKL	Juliett Kilo Lima

Figure 6-5. Sample Tasking Message Assignment of Voice Callsigns

Voice Procedures

All voice messages will be in English unless otherwise agreed on and will include the following items: an *addressee*, "*this is*," an *originator*, a *text*, and the phrase "*over or out*."

The ***addressee*** identifies the command or commands for whom the message is intended.

"*This is*" is standard terminology that will follow identification of the addressee(s). It indicates that the message originator's identity follows.

acknowledge: confirm, respond to

The *originator* identifies the command sending the message.

The *text* is the actual message being sent.

"*Over* or *out*" indicates the end of the message.

"*Over*" means that all addressees should **acknowledge** receipt of the message. When acknowledging, commands should respond in order of station assignments; for example, station 1 ship acknowledges first, station 2 ship acknowledges next, etc. If a ship does not acknowledge within a reasonable amount of time (about five seconds), the next scheduled ship should acknowledge without waiting any longer.

If the originator desires only selected addressees to acknowledge, the term "over" will be preceded by an indication of the command(s) that should acknowledge. For example, "Alpha Bravo Charlie, over." This indicates only ship ABC should acknowledge. It does not mean the signal is not intended for others. It means only that the others are not required to respond.

The proper response by an addressee is "This is (callsign). Roger out." This means, "I have received and understand your message." If the message was not clearly received by an addressee, the proper response is "This is (callsign). Please say again, over."

If one or more commands requested to acknowledge a voice message fail to do so, or request that the message be repeated, the originator should repeat the message. Only the command(s) that failed to respond, or requested the original message be repeated, should be included as addressees on the repeat message.

"*Out*" indicates addressees are not required to acknowledge.

Golf Lima Foxtrot. This is Victor Yankee Zulu. Execute to follow. TURN PORT 030. I say again, TURN PORT 030. Over.

This is Alfa Bravo Charlie. Roger, out.

This is Delta Echo Foxtrot. Roger, out.

This is Golf Hotel India. Roger, out.

This is Juliett Kilo Lima. Roger, out.

Golf Lima Foxtrot, this is Victor Yankee Zulu. TURN PORT 030. Standby, execute. Alfa Bravo Charlie, over.

This is Alfa Bravo Charlie. Roger out.

Figure 6-6. Sample Tactical Signal Voice Radio Sequence

Tactical Signals

If the text being sent is a tactical maneuvering signal, the message shall be sent twice. The first time it is sent, the text will begin with the phrase, "Execute to follow." This phrase indicates the text is a tactical maneuvering signal that will be executed shortly. Additionally, the tactical maneuvering signal should be repeated within the text. For example: "Execute to follow. TURN PORT/STBD 090. I say again, TURN PORT/STBD 090." The second time the message is sent, the text need only be stated once and should end with the phrase, "Standby, execute." Upon hearing the word, "Execute," the addressees commence the tactical maneuver that has been signaled. Figure 6-6 provides a

	Code Word	Pronunciation
A	Alfa	**AL** FA
B	Bravo	**BRAH** VOH
C	Charlie	**CHAR** LEE or **SHAR** LEE
D	Delta	**DELL** TAH
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	KEH **BECK**
R	Romeo	**ROW** ME OH
S	Sierra	SEE **AIR** RAH
T	Tango	**TANG** GO
U	Uniform	**YOU** NEE FORM or **OO** NEE FORM
V	Victor	**VIK** TAH
W	Whiskey	**WISS** KEY
X	X-ray	**ECKS** RAY
Y	Yankee	**YANG** KEY
Z	Zulu	**ZOO** LOO

Note that the **boldfaced** syllables are emphasized.

Figure 6-7. Letters, Code Words, and Pronunciations as Used in Maritime Operations

0	ZERO	ZAY ROH
1	ONE	WUN
2	TWO	TOO
3	THREE	TREE
4	FOUR	FOH WER
5	FIVE	FIVE
6	SIX	SIX
7	SEVEN	SAY VEN
8	EIGHT	ATE
9	NINE	NI NER
DECI-MAL POINT	DECIMAL	DAY SEE MAL
INT	INTERROGATIVE	INT AIR OG AH TEEV

Note that each syllable should be equally emphasized.

Figure 6-8. Numbers, ***Prowords***, and Pronunciations as Used in Maritime Operations

sample tactical signal voice radio sequence. Figures 6-7 and 6-8 provide the prowords and pronunciations for letters and numbers used in voice radio communications.

Note that the originator of a tactical maneuvering signal must allow sufficient time between the first transmission of the message and the second transmission to ensure that all addressees have time to decode and understand what action is required of them.

Action Signals

A signal ordering an action to be carried out is to be read as a directive when originated by a senior to a subordinate. If a subordinate originates the signal, it should be read as a request for action to be carried out.

Examples:

AV16 … Carry out flight operations (when from a senior to a subordinate).

AV 16 ... Request permission to carry out flight operations (when from a subordinate to a senior).

suffix: a syllable or syllables added to the end of a word

___°T: degrees true

ambiguity: being vague; having more than one meaning

denote: indicate or signify

Signal Modifiers

The following words are used to modify signals given in *EXTAC 1000*. The words modify all signals that follow.

PREP ... Prepare to _____.

INTERROGATIVE (INT) ... Questions the signal.

NEGAT ... Cease, or do not _____.

Examples:

AV 16 ... Carry out flight operations.

PREP AV16 ... Prepare to carry out flight operations.

INT AV16 ... Are you carrying out flight operations?

NEGAT AV 16 ... Cease (or do not) carry out flight operations.

Completing a Signal

Where a "_____" or "as indicated" appears in the meaning of a signal, it is always to be completed with **suffix** or with supplementing data unless an interrogative sense (INT) is used. Where a "(_____)", an "(as indicated)", or an instruction in parentheses appears, the addition of suffixes or supplementing data is optional.

Examples:

G CORPEN ... Guide's course is _____° **T.**

G CORPEN 000 ... Guide's course is 000° T.

INT G CORPEN ... What is the Guide's course?

Tackline

The tackline is transmitted as and pronounced TACK and written as a dash (–). It is used

- to avoid **ambiguity**, by separating signals or groups of numbers which, if not separated, could convey a meaning different from that intended
- when, for the needs of a particular signal, the instructions order that a tackline be used.

Example:

G CORPEN 000–10 instead of G CORPEN 000 10 [without TACK (–) could be read 00010].

Designation (DESIG) Signal

The DESIG signal is used to describe one's own or other forces or to indicate that the information that follows is not a signal but is to be interpreted as spoken.

Examples:

NA37 ... Use time zone indicated.

NA37 DESIG S ... Use time zone +6S

RE2–3 ... This unit or unit indicated has personnel casualties.

RE2–3–7 DESIG ABC ... Ship ABC has 7 personnel casualties.

Times and Dates

In a signal, times are expressed as four numbers; the first two numbers **denote** the hour from 00 through 23 and the last two numbers denote the minutes. When it is desired to signal an exact hour, the minutes may be omitted, but the hours

must always be expressed as two numbers. Date-time groups in signals are expressed as six numbers plus the time zone indicator. The first two numbers denote the date, the second two numbers the hour, and the third two numbers the minutes. The letter "T" is used to indicate time in a signal and is positioned as follows:

- "T" preceding numbers signifies that action is to (or will) **commence** at that time.
- "T" following numbers signifies that action is to (or will) be completed by that time.
- Number groups preceding and following "T" indicate time by which action is to be completed and time at which action is to commence, **respectively**.
- If the signal consists only of "T" plus two or four numbers, it signifies a time check.
- When time is referred to in the meaning of a signal, "T" may be omitted if the omission will not cause any ambiguity.
- "T" applies only to the signal immediately preceding it. When it is required to apply to two or more signals preceding it, "BT" is inserted before the first group to which the time signal is to apply. All time signals are for Greenwich Mean Time (GMT) (Zone 0) or (Z), unless otherwise indicated. Figure 6-9 shows standard time zones.

Examples:

AV16-T18 ... Carry out flight operations commencing at 1800Z.

AV16-19T ... Carry out flight operations by 1900Z.

AV16-19T18 ... Carry out flight operations commencing at 1800Z. Complete operations by 1900Z.

commence: begin

respectively: in the order named

EAST LONGITUDES			WEST LONGITUDES		
Zone	Number	Letter	Zone	Number	Letter
7.5 W to 7.5 E	0	Z	7.5 W to 22.5 W	+1	N
7.5 E to 22.5 E	-1	A	22.5 W to 37.5 W	+3	O
22.5 E to 37.5 E	-2	B	37.5 W to 52.5 W	+3	P
37.5 E to 52.5 E	-3	C	52.5 W to 67.5 W	+4	Q
52.5 E to 67.5 E	-4	D	67.5 W to 82.5 W	+5	R
67.5 E to 82.5 E	-5	E	82.5 W to 97.5 W	+6	S
82.5 E to 97.5 E	-6	F	97.5 W to 112.5 W	+7	T
97.5 E to 112.5 E	-7	G	112.5 W to 127.5 W	+8	U
112.5 E to 127.5 E	-8	H	127.5 W to 142.5 W	+9	V
127.5 E to 142.5 E	-9	I	142.5 W to 157.5 W	+10	W
142.5 E to 157.5 E	-10	K	157.5 W to 172.5 W	+11	X
157.5 E to 172.5 E	-11	L	172.5 W to 180	+12	Y
172.5 E to 180	-12	M			

Figure 6-9. Standard Time Zones

International Signals

Signals from the International Code of Signals (INTERCO) may be used alone or in conjunction with signals from the *EXTAC 1000*. Whenever international signals are used alone, INTERCO followed by TACK shall be used as the first group to indicate that all signals following are taken from the International Code of Signals. When the signal consists of only one group, TACK may be omitted. Whenever signals from the *EXTAC 1000* are supplemented by signals from the International Code of Signals, INTERCO shall immediately precede the international signal to indicate that only that group is taken from the International Code of Signals.

Source: EXTAC 1000, "Chapter 4, Communications," August 1996.

After you turn the recording off, read the paragraphs again. Look up any words you do not know and complete Exercises 3 and 4.

Exercise 3

Copy these comprehension questions in your notebook and answer them. If you do not know an answer, read the appropriate paragraphs again.

1. What is the primary method of most international maritime communications?
2. What are the five components of a voice procedure?
3. What is the first phrase sent in a tactical maneuvering signal?
4. What is the final transmission word when the transmitter is expecting a reply?
5. What is the final transmission word if the transmitter is not expecting a reply?

Exercise 4

In your notebook, copy the following sentences and insert the correct vocabulary words from the readings titled "Task Organization and Command and Control" and "Communications."

allied	restore
components	surface
voice callsign	dispersed
promulgated	execution
addressee	vested

1. The authority was _____ in the senior officer.
2. A ship may have a three- or four-letter international callsign or _____, which has been assigned for an exercise or operation.
3. The _____ is the one receiving the message.
4. The chief is responsible for the correct _____ of the order.
5. This order will be _____ immediately.
6. After the disturbance, the marines helped to _____ order.
7. Without all of the _____, this equipment cannot work.
8. CHOP occurs when responsibility is shifted from national to _____ task organization authority.
9. The orders were _____ throughout the fleet.
10. _____, subsurface, and air vessels will participate in this exercise.

GRAMMAR

Review of Modals: Past / Perfect Contexts

In the grammar section of Unit 2, you briefly reviewed the forms and functions of the modals of ability, possibility, permission, request, suggestion, necessity, advisability, obligation, expectation, etc., in present time contexts (to describe present action, to generalize about repeated action, or to express future equivalence). In this segment, you will use some of the same modals and some comparable ones with verbs primarily in past and perfect time contexts.

To use a modal in a context calling for a past tense, follow this pattern:

modal + simple form of the verb

Example:
When LCDR Rodgers was at the naval academy, he **would study** every weekend.

When Petty Officer Jones was in the deck department, he **could tie** knots faster than anyone else.

To use a modal in a context calling for a perfect tense, follow this pattern:

modal + **have** + past participle

Example:
Admiral Krawczyk **may have left** the ceremony already.

If you need to negate a modal + verb in a past tense, place **not** between the modal and the simple form of the verb. If you need to negate a modal + verb in a perfect time, place **not** between the modal and **have**. In some cases the placement of **not** will vary; for example, with **ought to**, the negative goes between **ought** and **to,** and with **had better**, it goes between **had better** and the main verb. The negative verb is often contracted, as in **didn't have to** or **wouldn't**.

A chart of the most common modals and their principal functions has been provided at Appendix D. Sentences representative of their most frequent uses are included.

Exercise 5

Become familiar with the modal chart in Appendix D; afterwards, read the following sentences and write a description, based on the chart, of each underlined modal + verb phrase. Number 1 is done for you as an example. Write the sentences and the descriptions in your notebook.

1. You shouldn't have carried those heavy weapons by yourself. You **should have asked** for help.
   advisability after the fact
2. The admiral's flight is late; it **ought to have arrived** by now.
   _____
3. It was nice of the yeoman to type my report; he **didn't have to** do that.
   _____
4. When he was on the security force, Petty Officer Banner **could outshoot** any opponent.
   _____
5. When they first arrived, the sailors **would avoid** the local people, but now they get along well with them.
   _____
6. When the officers returned from dinner, they found their offices locked. Base Security **must have secured** them.
   _____
7. The lieutenant missed his flight. **He could have arrived** at the airport on time if he had taken a cab instead of the bus. _____

Learning Strategy

When you complete grammar exercises, strive for 100 % accuracy.

Exercise 6

After you go over the modal chart again, read the following sentences. Circle the modal + verb phrase (past or perfect) that correctly completes the sentence. Write the correct form of each sentence in your notebook.

reminiscing: thinking, talking, or writing about remembered events

1. Yesterday morning I (couldn't reach / could not have reached) the captain by phone.
2. **Reminiscing** about the war, the general said that, when in the field, he (will have read / would read) military history until late every night.
3. I don't know why I bothered to go to the planning meeting. I'm not on the committee, so I (didn't have to attend / must not have attended).
4. Tomorrow morning we (shall have marched / would have marched) eight miles before we reach the village.

Exercise 7

Choose the modal + verb phrase that best completes the sentence. Note aspects of logic and of time involved in the sentence. Be prepared to explain why you selected the answer you chose. Write the correct form of each sentence in your notebook.

1. Yesterday that officer was complaining because he (had to remain / would remain) on base all day due to the security alert.
2. Despite their best efforts, our marines (couldn't have overcome / couldn't overcome) the enemy. Our troops were too greatly outnumbered.
3. It wasn't necessary for you to clean the passageway alone. You (must have asked / could have asked) Seaman Andrews to help you.
4. You shouldn't have cleaned the passageway alone. You (ought to have asked / might have asked) Seaman Andrews to help you.
5. I'm not at all sure where the new officers are. They (must have gone / might have gone) to their staterooms.
6. Why did you show up dressed like this? You know you (should have worn / could have worn) your dress uniform.

Exercise 8

Complete the sentences with a suitable modal + verb phrase based on the verb in parentheses. Write the completed sentences in your notebook.

1. Had we known that the VIPs were planning to visit us, we _____ (plan) a reception.
2. Yesterday the commander said, "Turn in your report before you leave today," so I _____ (work) late.
3. The witness was very convincing. No one _____ (deny) the truth of his statements.
4. There was debris all over the beach. The ship _____ (explode).
5. The training exercises _____ (conclude) before the next major inspection begins.
6. Don't assume you lost your key; you _____ just _____ (mislay) it.
7. The training video that lasts twenty minutes started at 0900. It's 0930, so the recruits _____ (finish) viewing it.

8. In years past, whenever the academy graduates held a reunion, they _____ (have) dinner together.

Exercise 9

Some of the sentences in this exercise contain errors in modal use. If the sentence is correct, mark C in the blank; if incorrect, mark I. Write the corrected sentences, as well as the correct ones, in your notebook.

Example:

have
__I__ The marine couldn't ~~had~~ climbed that hill even if he had wanted to.

1. _____ We should have go to the galley before it closed.
2. _____ They couldn't have been at the captain's briefing this morning; they were here.
3. _____ Petty Officer Rodriguez wasn't at formation; he must had gotten sick.
4. _____ The dispute over funding of the operation might has developed into a crisis if not for the influence of the Secretary-General.
5. _____ I didn't had to practice that drill; the chief said I could already perform it well.
6. _____ The instructor you are looking for might of gone to the Technical Library.
7. _____ The senior chief ought not to have left the classified documents unattended.

Exercise 10

Complete a combination chart on modals in present, future, past, and perfect time contexts by following these instructions: (1) In column 1, using the verb in parentheses, provide a modal + verb phrase that appropriately completes the sentence. (2) In column 2, identify the time context of the modal + verb phrase. (3) In column 3, describe the meaning of the modal phrase. Draw the chart in your notebook, and enter the information in it.

1. You _____ (not miss) the captain's briefing. He will be upset if you do.
2. I'm sorry I don't have a manual to lend you, but you could ask Seaman Sanders. He _____ (have) one you can use.

Modal + VP	Time	Meaning
1. had better not miss	present (alluding to future event)	advisabiltiy with threat of disagreeable consequences

3. I recall that during boot camp, every Saturday we recruits _____ (clean) the barracks from top to bottom.

4. Admiral, _____ I _____ (comment) on the matter, Sir?

5. The corpsmen are worried about the dwindling medical supplies. The shipment they requested _____ (arrive) by now, but it hasn't.

6. The vessel never received our message. The terrible storm _____ (damage) the communications system.

7. The sailor's response to his superior was unexpected and rude. He _____ (not answer) in that tone.

8. The admiral advised me that he _____ (attend) the summit meeting next week.

9. You _____ (not see) Captain Hassan yesterday. He died in an automobile accident last month.

10. Hey, shipmate, _____ you _____ (get) me a cup of coffee?

11. A sailor _____ never _____ (disgrace) his uniform.

12. We didn't have any choice in the matter. We _____ (follow) orders.

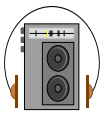
13. The retired colonel _____ (march) in the veterans' parade. He was severely crippled in the war.

14. The commander _____ (delegate) the authority, and then again, he _____ not.

Learning Strategy

Scan the text and write some questions. See to what extent you can answer your own questions.

VOCABULARY



Listen to the reading titled "Voice Reporting Procedures, Part I" and follow along. The new words are in italics. As you listen to the reading, circle any words you do not know.

Voice Reporting Procedures, Part I

This section on types of voice reports provides information on voice reports to units of different navies that historically have not operated together and do not have any agreed-on voice procedures. Refer to Figures 6-10 and 6-11, pages 6-18 to 6-20 as you read.

Types of Voice Reports

Reports are made by individual units of the Task Group (TG) to the Commander Task Group (CTG) using voice communication circuits which are designated in the Tasking Message. The following reports can be made.

FLASH reports

These report only contacts which represent an immediate threat. They are used for contacts which need to be reported immediately to the CTG. They need to include the ***precedence proword*** FLASH after the callsign and before ***track*** identity or code word. If the circuit is busy, the operator should break in. The following components should normally be included:

- Originator's callsign
- FLASH
- Either environment (as required/ code word) or identity
- Position
- Course/direction
- Ending sign

INITIAL reports

These report new contacts which are considered as not representing an immediate threat. The components of an INITIAL

report will vary with the type of contact and the length of time from first detection to making the report, but normally should include at least:

- Addressee's callsign
- Originator's callsign to be followed by the word NEW as the first word of the text
- Either environment (as required/ code word) or identity
- Track number
- Position
- Track identity
- Track number
- Ending sign

AMPLIFYING reports

These report new or revised information about previously reported contacts. They are used to update information about contacts previously reported. The components of the AMPLIFYING reports will depend on the information available and on circuit loading, but normally include at least:

- Originator's callsign
- Either environment (as required/ code word) or identity
- Track number
- Position
- Amplifying data as available
- Code word/identity
- Track number
- Ending sign

MISCELLANEOUS reports

MISCELLANEOUS reports clarify or amplify the appropriate **plot.** They are as follows:

I HOLD reports which may be used when a unit reports a track. Either the CTG or another unit confirms the existence of the reported track on his own sensor.

I WANT reports may be used when another unit or the CTG confirms the existence of a reported track and requires reporting responsibility of nominated track.

I MAKE reports may be used by a unit to report different amplifying information to that already reported. It is usually used when a unit is closer to the track being reported, or has more accurate information.

LOST reports are used when a unit loses contact with a track for which it has been reporting. Units have the responsibility to report the loss of contact immediately.

DROP TRACK reports are used when track continuity has been interrupted for a significant period of time; the appropriate track is cancelled by the CTG by making a *DROP TRACK* report. Unless otherwise ordered, the following are to apply:

- Air tracks – two minutes
- Surface tracks – ten minutes
- Subsurface tracks – NOT dropped

MERGED reports are used when two or more tracks merge and remain merged for a significant period of time. The CTG will decide which track number is to be ***retained*** and will inform other units by a MERGED report.

SPLIT reports are used when a track splits into two or more components.

The original track number should be retained by the following **prioritized** considerations: (1) the track which is most dangerous, (2) the track which contains the greatest number of contacts, or (3) the track that maintains the original heading. New track numbers should be assigned to the other tracks by the unit reporting the split.

For air tracks with a strength component greater than single, SPLIT reports will normally be made as follows:

- Air tracks – When individual echoes become more than ten miles apart.
- Surface tracks – When individual echoes become more than one mile apart.

In the event that a missile launch from an existing track is detected, a new track will be initiated. A FLASH report normally is preferred over a SPLIT report.

SITREPs (Situation Reports) may be issued by CTG. Voice SITREPs will be issued on the appropriate reporting communication net at such ***intervals*** as circumstances demand or on request from another reporting unit. SITREPs should not be made too frequently, nor should the transmission be too long, as

miscellaneous: consisting of various kinds

prioritized: items arranged in order of importance

plot: a diagram of ship movement (surface plot), aircraft movement (air plot), or submarine movement (under-water plot)

they may prevent ships which have more vital information from passing it. If there is a large number of tracks, SITREPs are made in two or more parts, each about half a minute in ***duration***.

The minimum components of a voice SITREP are as follows:

– *POSITION OF CONTROL SHIP* (ZZ, if present). From time to time, the CTG should report his own position (or the position of ZZ if present).

– *NON-FRIENDLY TRACKS* which are normally reported in clockwise sequence, with track identity, track number, and position being given, as well as other amplifying information considered significant. This procedure applies also for neutral tracks.

– *FRIENDLY TRACKS* which are maintaining their assigned station should be reported as ON STATION.

UPDATE OF REFERENCE POSITION – All contact positions are reported relative to a reference position. When using a fixed geographic position, CTG should ensure that all units maintain a matched plot by periodically reporting their respective position relative to his RP (reference point). Units should use this updated position to adjust their own plot.

Source: EXTAC 1004 Voice Procedures and Bevity Codewords, July 1994.

After you turn the recording off, silently read the paragraphs again. Look up any words you do not know and complete the next exercise.

When figures are used in voice reports, they are spoken digit by digit. The following examples apply:

a. Track number	– one zero two five
b. Bearing (degrees True, from reporting point of contact)	– two four zero
c. Distance	
(1) distance (in miles; no proword)	– one two DECIMAL five (12.5)
(2) range (in hundreds of yards; proword RANGE)	– RANGE two five (2500)
c. Speed	
(1) surface tracks (incl. helicopters) (in knots)	– SPEED one five (15)
(2) air tracks (in tens of knots)	– SPEED four five (450)
d. Depth	
(1) submerged tracks: DEVILS (in tens of feet)	– DEVILS two (20)
(2) objects/water depth: DEMONS (in meters)	– DEMONS one five (15)
e. Height	
(1) friendly air tracks:	
(a) ANGELS (thousands of feet)	– ANGELS two five (25000)
(b) FLIGHTLEVEL (in hundreds of feet)	– FLIGHT LEVEL one two zero (12000)
(2) other air tracks:	
(a) HEIGHT (in feet)	– HEIGHT one seven zero (170)
(b) ALTITUDE (in hundreds of feet)	– ALTITUDE five zero (500)

Figure 6-10. Transmission of Figures in Voice Reporting

Figure 6-11. Examples of Voice Reports

REPORT	REMARKS	EXAMPLES OF PROCEDURES (c)
FLASH report	1. Ship detects fast moving radar contact and reports to the CTG	THIS IS PAMA–FLASH–BOGEYS–235–18–LOW–TRACKING NORTHEAST–CTG OVER
	2. Break–in procedure	FLASH FLASH FLASH THIS IS PAMA–FLASH–BOGEYS–235–18–LOW–TRACKING–NORTHEAST OUT
INITIAL report	1. Detection of an underwater contact	CTG THIS IS UVGE–NEW SONAR CONTACT 7327–053–RANGE–90–SONAR CONTACT 7327–OVER
	2. Ship detects a slow-moving air contact	CTG THIS IS PAZX NEW BOGEY 2624–100–ZZ–40 TRACKING NORTH WEST–SLOW–BOGEY 2624 OVER
	3. a. Detection of a surface contact	CTG THIS IS UVGE–NEW SKUNK 7330–050–RP–20 SKUNK 7330–OVER THIS IS CTG–ROGER–REPORT SKUNK 7330–OVER
	b. CTG doesn't hold contact and directs detecting unit to report.	
	4. a. Detection of a contact by unit not assigned tracknumber.	CTG THIS IS CCXX–NEW SKUNK 125–RP–15 TACK ONE SMALL SKUNK 12–OVER
	b. CTG assigns a track number	THIS IS CTG–ROGER–SKUNK 270–RP–15 NOW SKUNK 4632 REPORT–OVER
AMPLIFYING report	1. Air contact is closing.	THIS IS ZX–BOGEY 2624–030–ZZ– 50 HIGH CLOSING SINGLE–BOGEY 2624–OUT
	2. An already reported surface contact now with course and speed as reported to CTG	THIS IS GE–SKUNK 7330–050–ZZ–20 TRACKING 270 SPEED 17–SKUNK 7330–OUT
	3. Previous unidentified air track has been evaluated as suspect.	TG THIS IS CC–BOGEY 2312 NOW SUSPECT 2312–DO OVER
	4. Previous surface track has been recognized as two fishing vessels	THIS IS DO–SKUNK 3210 TWO FISHING VESSELS OUT
	5. Previous air track has been evaluated to consist of two units.	CTG THIS IS FH–UNKNOWN 1242 STRENGTH 2 – OUT
	6. Course, speed, height, and identification	CTG THIS IS VK–SUSPECT 1266 TRACKING 330–SPEED 50–ALTITUDE 400–OUT
I HOLD report	1. Another unit confirms the track.	THIS IS FH–I HOLD BOGEY 2624–ZX OVER
	2. The CTG confirms the track.	THIS IS CTG–I HOLD BOGEY 2624–CEASE REPORTING–OUT
	3. A unit holds contact of track previously reported as lost by another unit.	CTG THIS IS ZX–LOST BOGEY 7133–TIME 1410–OVER
		THIS IS GG–I HOLD BOGEY 7133– OVER
I MAKE report	1. Reported by another ship.	
	2. Ship with callsign GE reports more accurate information of BOGEY 2624.	FH THIS IS GE–I MAKE BOGEY 2624–ALTITUDE 120–SPEED 45–OVER

I WANT report	1. CTG requires reporting responsibility of nominated track.	UD THIS IS CTG – I WANT BOGEY 2412 – OVER THIS IS UD – ROGER OUT
	2. Unit requires reporting responsibility of nominated track.	CTG THIS IS XS – I WANT BOGEY 2412 – OVER UD THIS IS CTG – CEASE REPORTING TRACK 2412 – CALLSIGN XS REPORT BOGEY 2412 – OVER THIS IS UD ROGER – OUT
LOST report	Reporting unit doesn't hold radar contact any more on a track and reports directly	THIS IS GE – LOST BOGEY 2624 – 170–ZZ–45 – TIME 1025 – CTG OVER
DROP TRACK report	Track continuity has been interrupted for a significant period of time.	THIS IS CTG – DROP TRACK HOSTILE 2334 – OUT
MERGED and MIX UP reports	1. Two hostile tracks are merged.	THIS IS CTG – HOSTILE 1204 – 320–ZZ–80 – MERGED WITH HOSTILE 2305 –
	2. A DROP TRACK report should follow.	NOW HOSTILE 1204 – FEW – DROP HOSTILE 2305 – OUT
	3. MIX UP reports are used when two identified radar contacts coalesce, as for example, friendly fighter and target(s).	CTG THIS IS XX – FRIENDLY 7112 AND HOSTILE 7134 MIX UP OUT
SPLIT report	Track splits into more components.	THIS IS GE – SKUNK 7341 – 215–RP–35 SPLIT – SKUNK 7341 1 MILE SOUTHWEST OF SKUNK 7341 – CTG OVER THIS IS CTG – ROGER – REPORT – OUT
UPDATE report	1. CTG decides position of designated unit relative to RP. On the last "NOW" CTG and designated unit mark position of designated unit.	PAMA THIS IS CTG–STANDBY UPDATE–NOW–NOW–NOW PAMA OVER
	2. CTG reports position of designated unit. Designated unit adjusts his plot.	PAMA THIS IS CTG – YOUR POSITION WAS 087–RP–12.5– OUT
SITREP	1. SITREP on TG SURFACE NET	THIS IS CTG–SITREP–SKUNK 7341–215–RP–30 TRACKING 270 SPEED 20–TWO FRIGATES SKUNK 7342–210–RP–20–TRACKING 220 SPEED 25 TIME 1234–XX OVER 25–TIME 1234–PAMA OVER
	2. SITREP on TG AIR NET	THIS IS CTG–SITREP–HOSTILE 2343–270–RP–45 TRACKING NORTH–HOSTILE 2345–275–RP–50 –HIGH–TRACKING NORTHWEST–FAST–FRIENDLY 4601 180–RP–60–TIME 1234–PAMA OVER

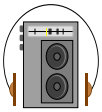
Figure 6-11. Examples of Voice Reports, continued

Exercise 11

In your notebook, write answers to these questions about the reading. If you do not know the answer right away, read the paragraphs again.

1. What elements should be included in a FLASH report?
2. What are the four types of voice reports?
3. What are the elements of the AMPLIFYING report?
4. Who decides which track number is to be retained on a MERGED report?
5. In which sequence are NON-FRIENDLY TRACKS reported?
6. What information should be given in the NON-FRIENDLY TRACK report?

VOCABULARY



Listen to the reading titled "Voice Reporting Procedures, Part II" and follow along. The new words are in italics. As you listen to the reading, circle any words you do not know.

Voice Reporting Procedures, Part II

Callsigns

Callsigns are used as a means of identification.

International ship callsigns are made up of four characters, the third and fourth are always letters. They never change, for example, PAMA is the full international callsign for HNLMS KAREL DOORMAN.

Collective callsigns are designated in the tasking message: for example, a collective callsign for a group of ships, task group, or task unit.

Helicopter callsigns are designated in the Tasking Message. On some occasions the helicopter side number may be the most suitable helicopter callsign.

Abbreviations of callsigns consist of the last two characters: for example, GWPE becomes PE. If two or more ships have the same last two characters, then the last three are used.

When callsigns in the text of a voice report are being preceded by a group of letters and/or figures (for example, times, track numbers, positions), the word "CALLSIGN" is to be inserted to ensure proper separation and to avoid possible confusion between such groups and the callsigns. This procedure does not apply to callsigns in message address.

When figures are used in voice reports, they are spoken digit by digit. (See Figure 6-10, p. 6-18 for some examples.)

Sequence of Components

Voice reports will include different components, depending on the type of report being made. If more components than those required in the specific type of report are available, they also can be included in that report. Whenever a track number is included in a report, it is always to be preceded by a Track Identity. Components are always to be included in the correct position from the following sequence:

correlated: associated; brought into a mutual relation

allocates: distributes

- Addressee's callsign
- Originator's callsign
- Precedence
- Environment (as required) (an appropriate code word can be used) (See the "Brevity Codewords" listed in the Glossary of this unit on p. 6-38.)
- Track Identity (See the "Identity Definitions" listed in the Glossary of this unit on page 6-37.)
- Track number
- Position
- Course and Speed/Direction
- Time
- Amplifying Data
- Track Identity
- Track Number
- Ending Sign

Details of Components

CALLSIGN – Used as ordered

PRECEDENCE – Used for FLASH reports only.

ENVIRONMENT – The environment in which the contact or (when required) track is operating, namely:

- Air
- Surface (Sea)
- Subsurface (Sea)
- Land

TRACK IDENTITY – (See "Identity Definitions" listed in the Glossary of this unit.)

TRACK NUMBER – Each track reported is assigned an individual track number to enable subsequent reports to be **correlated** correctly.

- BLOCK ALLOCATION – The CTG **allocates** blocks of octal track numbers from the range of 0001 to 7776 to any or all reporting units. Track number allocation is as follows:
  - 0001 to 0176 – Collective identifiers for commanders and/or reporting units
  - 0200 to 7776 – Contact track number allocation
- RETENTION – The same track number should normally be retained by a contact throughout its existence as a track. Where a contact has been given more than one track number, the CTG will order the use of a single track number.

POSITION – Position may be expressed as a ***bearing*** and distance from a reference position (RP) whose location is known to all the participants. This RP may be a fixed geographical location (for example, 53-00.ON/003-00.OE), a specific ship of the task group (for example, the reporting ship) or any other point promulgated to or known by all participants (for example, ZZ). Unless otherwise ordered, the following methods are to be used for reporting contact positions.

- FLASH and ***sonar*** contact reports include bearing and distance (in miles or RANGE in hundreds of yards) from detecting unit. Depths should be reported if accurately known as DEVILS in tens of feet (for example, DEVILS 10 is 100 feet), by the codewords SHALLOW or DEEP, or by DEMONS in meters. See Figure 6-10.
- AIR/SURFACE TRACKS on the designated voice net bearing and distance from a RP are used. Altitude information may be added, if available. If an accurate altitude of the air track cannot be determined, an estimated altitude using codewords can be reported (for example, VERY LOW, LOW, and VERY HIGH).

FRIENDLY AIR TRACKS. The accurate altitude of friendly air tracks determined by radar or the altitude of aircraft controlled within the force can be reported using the words ANGELS, in thousands of feet (for example, ANGELS 1 DECIMAL 5 is 1500 feet) or using the International Civil Aeronautical Organization (ICAO) term FLIGHTLEVEL, in hundreds of feet (for example, FLIGHTLEVEL 250 is 25000 feet).

OTHER AIR TRACKS. The accurate altitude of other air tracks determined by radar is to be reported as ALTITUDE in hundreds of feet using three digits (for example, ALTITUDE 151 is 15100 feet). HEIGHT in feet (for example, HEIGHT 400 is 400 feet) or an appropriate codeword (such as, HIGH).

COURSE AND SPEED/DIRECTION – The apparent course of a contact is reported as follows:

- Surface and subsurface contacts: TRACKING is followed by the course in degrees.
- Air contacts: TRACKING followed by the course to the nearest ten degrees or to the nearest cardinal/ intercardinal point (N, NE), both spoken in full. ORBITING may be used instead of TRACKING, if appropriate.
- SPEED is reported as follows: surface and subsurface tracks, estimated speed in knots to the nearest knot (for example, 5.4 Kts are reported as SPEED FIVE).
- Air tracks: The nearest multiple of ten knots ground speed (for example, SPEED FOUR FIVE indicates 450 knots) or the amplifying words (for example, SLOW, FAST, etc.)

TIME – The time component is required for any report when the information being reported is more than 3 minutes old. Time is reported using four digits, except that the hour digits may be omitted when no ambiguity can result. Zulu time is to be used unless otherwise ordered.

AMPLIFYING DATA – Any other relevant data

- PLATFORM: To **complement** the track identity, for example, SKUNK
- STRENGTH: The numerical strength of a track is reported using the actual number of contacts if known (for example, STRENGTH ONE FOUR or appropriate codewords, if known, (for example, SINGLE, FEW, MANY)
- INTENTIONS: Plain language statement amplifying present or intended action

complement: make complete

ENDING SIGN – Transmissions requiring confirmation of receipt end with OVER; transmissions not requiring confirmation end with OUT.

Note that a single unit may be directed to confirm receipt by inserting his callsign before OVER.

Source: EXTAC 1004 Voice Procedures and Brevity Codes, July 1994.

Exercise 12

In your notebook, write answers to these questions about the reading. If you do not know the answer right away, read the related paragraph again.

1. What are callsigns?
2. What may be the most suitable helicopter callsign on some occasions?
3. How many characters do international ship callsigns have?
4. To what or whom are collective callsigns designated?
5. How many letters are usually used in an abbreviated callsign?

READING SKILL

Skim the following paragraphs. Then, answer the questions at the end of the reading.

EXTAC 1004

CHAPTER 2

THE TG COMMUNICATION NETS

SECTION I – GENERAL

210. Use of the TG COMMUNICATION nets.

a. The TG COMMUNICATION nets are used for the exchange of radar, and plot information on surface, subsurface, and air contacts. Two of these nets can be designated in the Tasking Message: the TG SURFACE net (used for exchange of both surface and subsurface information) and the TG AIR net (used for exchange of air information).

b. TG COMMUNICATION nets are normally manned by the TG units; CTG will exercise net control.

SECTION II – REPORTS ON THE SURFACE NET

220. General.

The following reports can be made on the SURFACE NET:
(1) Surface report.
(2) Surface SITREP.
(3) Subsurface report.
(4) Subsurface SITREP.
(5) Tactical and other information.
(6) Reference Position Update report.

221. The surface report.

a. When making an INITIAL report, the full callsign is used. For subsequent reports the last two letters of the international callsign call may be used. The text should be in accordance with Chapter 1.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
INITIAL report		CTG THIS IS PAMA-NEW SKUNK 6130-250 RP 15 SKUNK 6130–OVER THIS IS CTG –ROGER–REPORT–OUT
AMPLIFYING report		THIS IS MA–SKUNK 6130–250–RP–15 TRACKING 340–SKUNK 6130–OUT THIS IS MA–SKUNK 6130–250–RP–15 4 DESTROYERS–SKUNK 6130–OUT THIS IS MA–SKUNK 6130–250–RP–20 SPEED 28–SKUNK 6130–OUT
SPLIT report	SKUNK splitting	THIS IS MA–SKUNK 6130–250–RP–20 SPLIT–SKUNK 6131 1 MILE NORTH OF SKUNK 6130–CTG OVER THIS IS CTG–ROGER–REPORT OUT

b. The ships of the formation should listen in, process the information in their plots, compare it with their own observations and calculations, and report important differences immediately.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
I MAKE report		CTG THIS IS UV–I MAKE SKUNK 6130 TRACKING 350-OVER

c. It is the duty of every ship to report amplifying information as it becomes available.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
FLASH report	important additional information	THIS IS MA–FLASH–SKUNK 6131–LAUNCHING MISSILES–NOW HOSTILE 6131–CTG OVER

222. The surface situation report (SITREP).

a. The compilation of the plots of individual ships is done by means of all available information.

b. The CTG periodically passes reports about the surface situation. These SITREPs must be considered as a check of the situation, which is given once every 20 to 30 minutes (if necessary, more often). The SITREP or part thereof should not last more than 30 seconds.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
SITREP	Check of situation	THIS IS CTG–SITREP–HOSTILE 6131–260 ZZ 025 – TRACKING 285 SPEED 28– HOSTILE 6131–265 ZZ 030–TRACKING 340 SPEED 26–TWO FRIGATES HIT BY GUNS TIME 1236 – UV OVER

223. The subsurface report.

a. On first (sonar) contact, an INITIAL or a FLASH report should be made, depending on the threat to the ships. These reports shall be made on the TG SURFACE net to all ships, as well as being promulgated on the TG MANEUVERING net in EXTAC 786 format.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
FLASH report	Torpedo detected.	THIS IS CD-FLASH-TORPEDO 180-GH OVER

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
INITIAL report	Initial sonar contact not considered an immediate threat to the force (the report contains some amplifying information)	ABCD THIS IS EFGH-NEW SONAR CONTACT 3236-135-10 SONAR CONTACT 3236-OVER THIS IS ABCD-ROGER-REPORT-OUT or CD THIS IS GH-NEW SONAR CONTACT 3236-090-CALLSIGN KL-10-SONAR CONTACT 3236-CD OVER THIS IS CD-ROGER-REPORT-OUT

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
AMPLIFYING report		THIS IS GH–SONAR CONTACT 3236 CONSIDERED SUBMARINE–091–CALLSIGN KL–10–TRACKING 035–SPEED 8–SUBMARINE 3236–OUT

b. The ships of the formation should listen in, process the information in their plots, compare it with their own observations and calculations, and report important differences immediately.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
I MAKE report		CG THIS IS CTG– I MAKE SUBMARINE 3236 NON–SUBMARINE– WREC– NOW NON–SUBMARINE 3236–OVER

224. The subsurface SITREP

Like the surface picture, the subsurface picture is also compiled with all available information from own sensors and reports from other units.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
SITREP		THIS IS AB–SITREP–CALLSIGN CD AND KL PRESENTLY IN CONTACT. POSITION OF SUBMARINE 3236 IS 090–CALLSIGN HV–25. CALLSIGN MN IS NOT IN CONTACT. HV OVER

225. Tactical and other information.

Signal groups from EXTAC 768 may be passed on nets other than the TG MANEUVERING net. The operator is alerted to the fact by the proword SINGALS preceding the signal. Other traffic may be passed as a plain-text message and will be preceded by the proword MESSAGE.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
	1. Communications should be established on another net. 2. Captain of ship A requests to speak with captain of ship B.	ABCD THIS IS EFGH-SIGNALS-CM5-DESIG VHF CHANNEL 72-ABCD OVER KLMN THIS IS OPQR MESSAGE-REQUEST YOUR CAPTAIN ON THIS NET - KLMN OVER

SECTION III – REPORTS ON THE AIR NET

230. General.

a. The TG AIR Net is used for the exchange of information concerning the compilation of the air picture.

The CTG should promulgate the distance to which air contacts must be reported. If the number of contacts becomes too large to report them all accurately, FRIENDLY and HOSTILE tracks have preference.

b. The launch or recovery of friendly aircraft (including helicopters) must also be passed on this net.

231. Air reports.

A ship detecting a new contact which may present a danger to the TG must immediately initiate a FLASH report using break-in procedure, if necessary. If the new contact is assessed to be no immediate threat, a normal INITIAL report should be initiated, followed by relevant reports (amplifying/miscellaneous).

232. Positions.

All air contact positions are to be reported in bearing and distance from the reporting unit or from a(n) RP, to be designated in the Tasking Message.

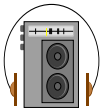
Source: EXTAC 1004, "Chapter 2, The Communication Nets," July 1994.

Exercise 13

In your notebook, answer these questions. Check your answers on the answer pages.

1. What are the TG Communication nets used for?
2. What reports can be made on the SURFACE net?
3. What are SITREPs? How long should these reports last?
4. Under what condition should a ship initiate a FLASH report?

LISTENING/SPEAKING SKILLS



Exercise 14

For this exercise, you will listen to and repeat the "Example Procedures" from Figure 6-11, pages 6-19 and 6-20. Stop the tape after each example and repeat the procedure.

FUNCTION

Expressing Opinions and Engaging in Hypothetical Situations in Group Discussions

The reading selection "Military Group Discussions" in Unit 2 addressed the three forms of group communication used in the military—the informal conference, the formal conference, and the seminar.

Now you will learn some ways to express opinions, express agreement and disagreement, as well as engage in hypothetical situations in group discussions.

Opinions

During a group discussion, you can give or request *personal opinions*. Here are a few expressions which introduce personal opinions. Learn to recognize and use them. They will help you avoid confusing a *personal opinion* with *factual information*:

Giving Opinions

- In my opinion/view/estimation ...
- If you ask me ...
- I think (that) ...
- It seems/appears (to me) (that) ...
- My conclusion/assessment is (that) ...
- From my point of view...
- I have the idea/the impression (that) ...
- In my judgment ...
- I believe/think/feel (that) ...
- It's my impression/belief (that) ...

Requesting Opinions

- What is your view …
- What do you think about …
- From your point of view/viewpoint…
- From your frame of reference…
- In your opinion/estimation …
- How do you assess …

Exercise 15

Read the following phrases and, in your notebook, write a request for and a reply to a personal opinion about it.

Sample topic:

The achievement of peace by people from different cultures

Sample elicitation of opinion:

In your opinion, can people from different cultures achieve peace?

Sample expression of opinion:

I feel that people from different cultures cannot have true understanding; thus, true peace cannot be attained.

Other topics:

1. Cross-cultural training needed for multinational operations
2. The most important traits needed for cultural adjustment
3. The role of women in the military
4. The most important benefit of a NATO enlargement for your country
5. Subjection of military personnel to civilian control

Expressing Agreement or Disagreement

Here are a few ways to express agreement.

- You're absolutely/definitely right.
- That's correct/true.
- That's just what I was thinking/how I feel/what I believe.
- That's my opinion/view/belief, too.
- Definitely.
- I agree with that.
- I support that view.
- I can go along with that.

In a formal discussion, we soften our disagreement so that we do not appear impolite or do not hurt another person's feelings. The expressions below clearly express disagreement, but do so politely.

- I respect your opinion, but I think…
- I am not sure if I agree with you completely on that.
- I understand what you're saying, but in my opinion …
- Yes, that's true, but my feeling is that …
- You could be right, but ...
- You have a point, but don't you think that …

Asking for Agreement or Disagreement

One of the functions of a discussion leader is to check for group agreement. This is especially important if members are trying to negotiate. The following expressions check for agreement and disagreement.

- Does everyone agree with Petty Officer Brown's proposal?
- Do you share CAPT Morse's view on that?
- Do we all go along with LT Kim's assessment?
- Does anyone disagree with what was just said?

Before moving to another topic, a discussion leader should check for agreement on the topic just covered.

- Before we move on to the next question, do we all agree?
- Before we go on to the next problem, are we in agreement?
- Before we take up the next point, does anyone disagree?
- Before we proceed to the next item, do we all go along?
- Does anyone have a different idea/ opinion/viewpoint/plan/ conclusion/proposal?
- Are there any other ideas/comments/ suggestions on this?

Exercise 16

Read the following propositions and, in your notebook, write a request for and a reply to agreement/disagreement.

Sample proposition:

Overcoming stereotyping probably plays a significant part in the adjustment process.

Sample elicitation of opinion:

Do you agree that overcoming stereotyping is a significant part in the cultural adjustment process?

Sample expression of an opinion:

I agree because, when we hold on to stereotypes, it is difficult to appreciate the personal achievements and qualities of a person from a different culture.

1. The lack of common standards, a common language, and a common type of government will make an expanded NATO impossible to manage.
2. Having a common military culture is enough for international troops to be able to work together.
3. The UN does not offer sufficient protection against armed attacks for its members.
4. The countries of Eastern and Central Europe need a strong security framework in order for them to develop into stable democracies.
5. An armed attack against one of the members of NATO will result in a compulsory armed support from all NATO nations.

Hypothetical Situations

A discussion leader may ask participants to consider an unreal or hypothetical situation in order to get reactions, proposals, or ideas for future planning. Using hypothetical situations, the group can discuss a variety of possible reactions and choose the best one in anticipation of the proposed situation's actually occurring. Below are a few phrases commonly used to start hypotheses.

- (Let us) suppose / imagine / presume / assume (for a moment) that …
- Assuming that …
- Working on the assumption that …
- Given a situation in which …
- Let me give you a hypothetical situation. What would you do if…?
- Suppose your unit is attacked. What are you going to do?

Exercise 17

discourteous: impolite; rude

Read the following hypothetical questions and, in your notebook, write hypothetical responses.

Sample hypothetical question:

If you were sent to the US for training, what would your biggest cultural adjustment be?

Sample hypothetical response:

If I were sent to study in the US, besides language, my biggest cultural adjustment would be getting used to American food.

Other topics:

1. Suppose you could talk to your Minister of Defense. What would be the one thing you would ask him?
2. Assuming that you meet an officer from another country and you cannot tell whether or not he is your superior, would you salute him first?
3. Assume that you are in a group of international officers, some of whom have differing perceptions of the concepts of property; from their cultural frame of reference, items that belong to one of the members of the group belong to the group, not to the individual. How would you handle a situation in which someone uses an object belonging to you without asking your permission?
4. Let's suppose you were selected to work with NATO as a representative from your country. How would you prepare for your position?
5. Let's suppose you could make some changes to the Security Council of the UN. What would those changes be?

Interrupting Politely

Although in everyday conversation, it is generally considered impolite to interrupt a speaker in the middle of a sentence, it is not necessarily **discourteous** at all times. A seminar speaker may, in fact, even welcome a polite interruption by a listener who requests clarification or paraphrasing in order to better understand a difficult point.

To interrupt politely, practice the following expressions:

- Pardon me, but …
- Sorry to interrupt, but …
- I hate to interrupt, but …
- Excuse me, but …
- Do you mind if I say something?

READING SKILL

Exercise 18

Pre-reading

Before you read the following article, in your notebook, write answers to these two questions.

1. What might motivate military personnel in multinational exercises to be successful?
2. What factors facilitate or hinder communications between sailors in combined military exercises?

Read the story as quickly as you can. Next, without looking back, complete the multiple choice exercise. Then reread the story to check your answers.

BALTOPS '97: Building New Friendships

Just a few hundred miles south of the Arctic Circle, and even closer to the often frozen Scandinavian coastline, the Baltic Sea stands as a cold and unforgiving barrier, separating Europeans from their Nordic neighbors. The shallow waters make modern warfare tactics such as submarine tracking difficult, and the legacy of ancient Viking long ships **howls** in the sharp winds that **perennially** blow over its surface. For centuries, control of the rich, dark waters has been short-lived.

For 25 years, the annual Baltic Operations (BALTOPS) exercises here have shown that the people who grow up by these waters know the sea well even if they haven't **tamed** it. The US invitational exercises regularly attract most of the Baltic nations as well as Russia, Germany, Poland and the United Kingdom.

As the political landscape changes in the region, participation grows. The 13 nations who participated in this year's two-part exercise brought a total of 50 ships and conducted more than 250 training events using assets from smaller nations, like Estonia, alongside much larger, more experienced forces.

Recent history brought the fall of the Soviet Union and a new era of growth for the Baltic nations. This set the stage for an even greater role for the Navy during BALTOPS'97.

"There's something nice about completing missions with foreign ships. We may not all speak each other's languages, but we learn to communicate to get the job done," said Operations Specialist 1st Class (SW) Stuart M. Crowder in the Command Information Center aboard the *USS Anzio* (CG 68). "It feels good to know that we can operate in any environment, with any of our allies, no matter what language they speak," said the *Anzio* **plank owner** and Ft. Worth, Texas, native.

In the 25 years the United States has been sponsoring BALTOPS, the exercise has developed into a unique experience for many sailors and their foreign **counterparts**. The focus of the surface and air exercises was not on war-fighting tactics, but on improving the nations' cooperative

howls: makes a loud cry like a wolf or dog

perennially: lasting forever or for a long time

tamed: trained to be gentle, especially an animal or wild thing

plank owner: a member of the first assigned crew to a newly built ship

counterpart: a person or thing that serves the same purpose or has the same position as another

scenarios: outlines of a planned series of events, real or imagined

customs: regulations or procedures for inspecting baggage or goods entering a country

boundaries: borders or limits

swapping: trading or bartering

squinting: peering with eyes partly closed

frigate: a small, fast-moving ship

forecaster: a person whose job includes predicting the weather based on meteorological knowledge

shed: sent forth or spread about; radiate or diffuse; "to shed light on something" means to make it clearer

abilities. **Scenarios** tested the collective forces' ability to respond to maritime disasters, conduct coastal surveillance, provide **customs** enforcement and a variety of other maritime operations.

"Our true enemy is instability and chaos," said Rear Adm. James B. Hinkle, Commander, Cruiser Destroyer Group 8. "We know that a US presence improves stability, which means the people who live in this wonderful part of the world have a better chance of living in peace."

Overcoming **boundaries** and creating closer, personal bonds with foreign services have always been highlights of these exercises. One of the favorite tasks of the first week's Phase I exercises was "cross-decking," the time-honored tradition of ships **swapping** sailors for a period of time so they could become familiar with other ships' operations.

Squinting slightly at the unidentifiable foreign **frigate** on the horizon, Crowder leaned on the rail, his back to the wind, reflecting on his own experience with cross-decking.

"The [HNLMS] *Jan Van Brakel* [F 825] was highly efficient. I was very impressed with their professionalism. I've been in the Navy 16 years, and that was one of the most important things I think I've ever gotten to do. I think it's more important that we learn how our allies work so we can work with them," Crowder said.

On the subject of foreign visitors aboard his own ship, Crowder smiled when recalling the things they considered luxuries.

"Things like nonskid and three hot meals a day amazed some of the guys we had aboard. It made me think twice about a lot of the things I take for granted being an American sailor," he said.

Even the summertime winds of mid-June had a bite in them as Aerographer's Mate 1st Class (SW) James B. Goble and AG2 Nathan J. Gogel of the Naval Atlantic Meteorology and Oceanography Center prepared to launch a weather balloon from *Anzio's* flight deck. Their Danish counterpart, Knud-Jacob Simonsen, a civilian **forecaster** for the Danish army, was there watching the familiar ritual. His stay aboard *Anzio* during Phase I helped the flagship weather office better understand the weather in this region.

"We wanted to get a better understanding of what Americans are looking for in a weather forecast," said Simonsen.

"We wanted to learn the same—what the customer is looking for in a forecast and how to tailor it to the product everyone needs," said Gogel.

Before they could find common ground, the three weathermen had obstacles to face. As minor as it may look in hindsight, simple terminology posed a defining challenge.

"Terminology differences are difficult for most forecasters. 'Mainly fair' to [Simonsen,] is 'partly cloudy' to us. But after a week, we've settled into a common language," said Goble.

Recent NATO expansions and increasing world pressure to break down old Cold War divisions has **shed** light on the importance of the Baltic region. The mission of the sailors here is driven by political forces, and the success of the exercises is a signal of political success, but Hinkle shares the sentiments of many sailors concerning the reward of what kind of experience BALTOPS has evolved into. "When sailors from this many nations get together, we realize we have a common bond—the sea," said Hinkle.

While the second week of the exercises, or Phase II, focused on interoperability of NATO forces, most of the sailors' memories will be of that first week, where international boundaries were lowered, many people speaking new and different languages communicated and many new friendships were born.

Source: JO2 Rodney J. Furry, "BALTOPS '97: Building New Friendships," from *All Hands* (Nov 97, pp. 12-15). Reprinted by permission.

Exercise 19

Circle the letter next to the best answer.

1. Who participates in BALTOPS?
   a. only the Baltic Nations
   b. the US, the Baltic nations, Russia, Germany, Poland, and the UK
   c. any nation wishing to participate
2. What was one of the highlights of this exercise?
   a. learning about forecasting
   b. cross-decking
   c. learning new skills
3. What was the focus of the surface and air exercise?
   a. enhancing war-fighting tactics
   b. learning about other cultures
   c. improving cooperative abilities
4. What obstacles did the three weathermen face?
   a. lack of a common terminology
   b. difficult terminology
   c. what the customer is looking for
5. What common bond do sailors from different nations have?
   a. naval culture
   b. the sea
   c. the task

WRITING/SPEAKING SKILLS

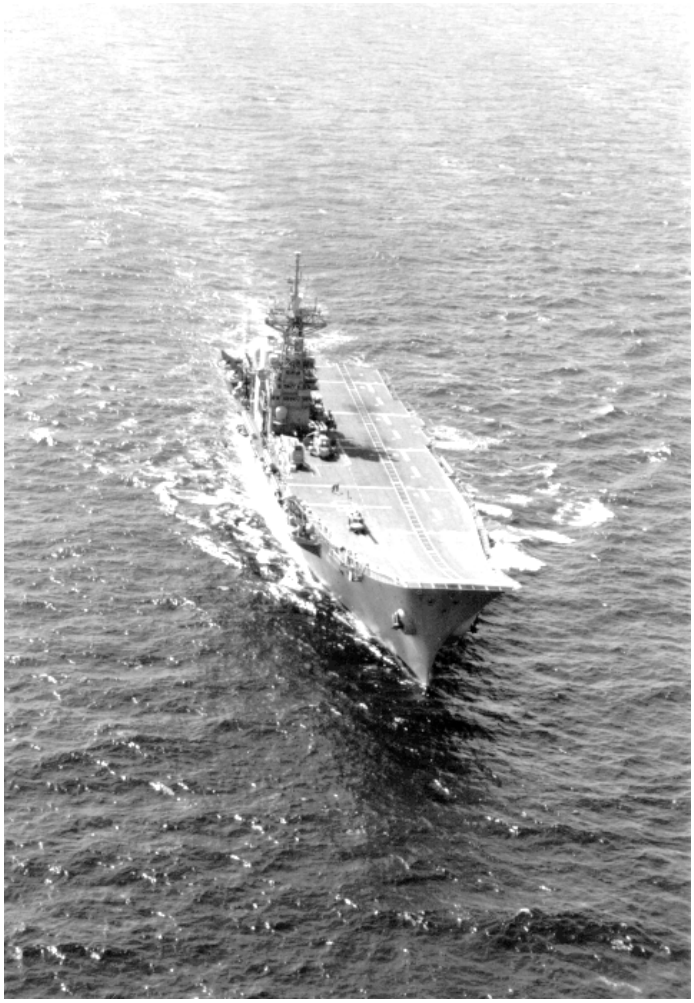
Outlining Your Presentation

Learning Strategy

Avid reading will improve your ability to recognize words and will enlarge your vocabulary.

Exercise 20

Now that you have gathered the necessary information for your presentation, organize in outline form the main points of the presentation you are to give during the two-week course.



GLOSSARY

Objective Vocabulary

addressee (ad-dress-EE) n: the person to whom messages, etc., are addressed

The addressee is the person who receives messages.

allied (AL-lied) adj: united by kinship, treaty, agreement, etc.

France, Germany, and Great Britain are allied countries.

bearing (BEAR-ing) n: a true or relative line extending from an object and expressed in degrees

The bearing of the submarine was 230.

circuit (CIR-cuit) n: a specified radio frequency used for sending and receiving data

The specified circuit for the maneuvering exercise was TA200.

component (com-PO-nent) n: serving as one of the parts of a whole

A computer has several components.

detach (de-TACH) v: to send (troops, etc.) on a special mission

The USS *Saratoga* was detached to the Mediterranean to participate in the exercise.

directive (di-REC-tive) n: a general instruction or an order issued authoritatively

My unit received a directive which specified the details of the multinational operation.

disperse (dis-PERSE) v: to spread about, distribute widely

The training procedures were dispersed to all of the PfP countries.

duration (du-RA-tion) n: the time that a thing continues or lasts

He has been assigned to this company for the duration of this exercise.

environment (en-VI-ron-ment) n: the arena in which a unit operates such as air, surface, subsurface, or land

Sonar is utilized by ships and submarines in the subsurface environment.

execution (ex-e-CU-tion) n: a carrying out, doing, performing

Our commander always expects prompt execution of his orders.

frequency (FRE-quen-cy) n: the number of periodic oscillations, vibrations, or waves per unit of time, usually expressed in hertz

243.0 is the frequency used for military air distress.

inconsistent (in-con-SIS-tent) adj: not in agreement or harmony; incompatible

This statement is inconsistent with the previous ones.

interval (IN-ter-val) n: a period of time between two points of time, events, etc.

The message was sent at five-minute intervals.

precedence (PREC-e-dence) n: the act, right, or fact of preceding in time, order, rank, priority of messages (routine, immediate, flash)

This project takes precedence over any other.

promulgate (PRO-mul-gate) v: to make known officially, to make widespread

The information was promulgated throughout the task force.

proword (PRO-word) n: a word placed before another word

SIGNAL is a proword a caller uses before sending the actual signal.

restore (re-STORE) v: to bring back to a former or normal condition, as by repairing, rebuilding, altering, etc.

Our internet service has been re-stored.

sonar (SO-nar) n: an apparatus used to find submarines, depth, etc., that transmits sound waves through water and registers the vibrations reflected from an object,

Using sonar, the minesweeper located the limits of the minefield.

subsurface (SUB-sur-face) n: lying below the surface, esp. the earth, the oceans, etc.

A submarine is generally a subsurface vessel.

surface (SUR-face) adj: intended to function or be carried on land or sea, rather than in the air or under water

Surface warfare is a career specialty for naval officers which involves the manning of surface ships.

track (TRACK) n: a course or line of motion or action, route, way; the projection of a flight path of an airplane, rocket, etc., on the surface of the earth; a contact and/or position

The exhaust of an airplane sometimes shows its track.

vested (VEST-ed) adj: fully and conditionally guaranteed as a legal right or privilege

Captain Lunsford swore in the new naval officer by virtue of the power vested in him.

visual (VIS-u-al) **communication** (com-mu-ni-CA-tion) n: communication that is or can be seen; the transmission of information by visible means using flags and flashlights

At night we use light signals to transmit information; we use visual communication.

voice callsign (VOICE CALLsign) n: a means of identification by using spoken code

A voice callsign can be three or four letters of the ship's international callsign or code name assigned for an operation or an exercise.

voice radio communication (VOICE RA-di-o com-mu-ni-CA-tion) n: communicating over a distance by converting voice sounds into electromagnetic waves and transmitting these directly through space without connecting wires to a receiving set, which changes them back into sounds

Voice radio communication is used to communicate from ship to ship and ship to shore in the absence of computer equipment.

voice report (VOICE re-PORT) n: a report using voice communication circuits to the commander of a task group designated in the tasking message

Voice reports are done in English unless otherwise agreed upon.

Exercise 21

Read the sentence and then choose the correct word and mark a, b, or c.

1. An **addressee** is _____.
   a. a station sending a message
   b. a station receiving a message
   c. a message being sent
2. The ship belonged to an **allied** country.
   a. related
   b. foreign
   c. watchful
3. A **circuit** is _____.
   a. a switch
   b. a radio frequency
   c. a training area
4. I bought a new **component** for my home video system. A component is a _____.
   a. film
   b. part
   c. cleaning agent
5. The USS *Aurora* was **detached** from her regular fleet. The *Aurora* was _____.
   a. lost
   b. separated
   c. chosen
6. The ships were **dispersed** by the storm. They were _____.
   a. destroyed
   b. sunk
   c. scattered
7. Each ship is assigned a **frequency**. A frequency is _____.
   a. a position
   b. a particular number of radio waves
   c. a place in a circuit
8. Their action was **inconsistent** with their plan.
   a. Their action wasn't in agreement with their plan.
   b. Their action wasn't in time with their plan.
   c. Their action was the same as their plan.
9. The _____ system of a submarine is necessary to determine its position.
   a. solar
   b. sonar
   c. solid
10. The course of a target on a radar screen or plotting board is called a _____.
    a. trace
    b. track
    c. tow
11. Flags and flashlights are used for _____.
    a. maneuvering
    b. phonetic signaling
    c. visual communication
12. Circuits and callsigns for _____ will be promulgated in the tasking message.
    a. voice procedures
    b. voice radio communication
    c. voice backup
13. Voice reports include different _____, depending on the type of report being made.
    a. constituents
    b. components
    c. voice messages

Maritime Acronyms

CHOP: Change of Operational Control

CTG: Commander Task Group

EXTAC: Experimental Tactics

RP: Reference Point

SITREP: Situation Report

STBD: Starboard

TACOM: Tactical Command

TACON: Tactical Control

TE: Task Element (subordinate to task unit)

TG: Task Group

TU: Task Unit (subordinate to task group)

ZZ: Control Ship

Exercise 22

Fill in the blank with the appropriate acronym.

1. Reports are made by individual units of Task Groups to their _____.
2. The _____ is the smallest part of a Task Group.
3. A _____ is subordinate to a Task Group.
4. _____ is the authority who assigns ships to specific tasks within an exercise or operation.
5. _____ is the authority to direct and control the movements or maneuvers of ships to accomplish the exercise or operation.
6. During all exercises and operations participants will be organized into a _____.
7. _____ occurs when responsibility for TACOM and/or TACON shifts from one task organization commander to another or between national and allied task organization authority.
8. The _____ provide guidelines for PfP operations or exercises.
9. The TUs and TEs receive their orders from the CTG who is in the _____.
10. A _____ is given at reasonable intervals so as not to interfere with important communication and should be no more than 30 seconds in duration.
11. _____ is the authority to assign ships during an operation or exercise.
12. _____ is the right side of a ship or an aircraft when facing forward.

Maritime/Military Terms

Identity Definitions

Contacts can be given a STANDARD identity (applicable under all circumstances) or an EXERCISE identity (applicable under exercise circumstances).

Standard Identity

PENDING: a contact which has not been subject to the identification process but is available for reporting

ASSUMED FRIEND: a contact which is assumed to be a friend because of its characteristics, behavior, or origin

FRIEND: a contact belonging to a declared friendly nation

NEUTRAL: a contact whose characteristics, behavior, origin, or nationality indicate that it is neither supporting nor opposing friendly forces

SUSPECT: a contact which is potentially hostile because of its characteristics, behavior, origin, or nationality

HOSTILE: a contact which is eligible to be engaged

UNKNOWN: an evaluated contact which has not been identified

Exercise Identity

FAKER: a friendly contact acting as a HOSTILE for exercise purposes

JOKER: a friendly contact acting as a SUSPECT for exercise purposes

Note: Identities HOSTILE and SUSPECT are NOT to be used during exercises.

Source: EXTAC 1004, "Annex Alfa," July 1994.

Exercise 23

In your notebook, copy the following sentences and insert the correct identity definitions.

1. A contact which is available for reporting, but who has not been subject to the identification process is called _____.
2. A contact from a declared friendly nation is a(n) _____.
3. A contact that hasn't been identified is called _____.
4. A contact who has been on relatively good terms with us in the past is called a(n) _____.
5. A contact with whom we might engage in action is called _____.
6. During an exercise a friend who acts as a hostile entity is called a(n) _____.
7. A contact who is neither for nor against us is called _____.
8. During an exercise an entity who acts as a suspect is called _____.
9. A contact who has the potential of being hostile is called a(n)_____.

Brevity Codewords

The following brevity codewords can be used to make voice reports clear, fast, and simple.

ABORTING: Cancel mission; or I am (or contact designated is) unable to continue mission.

ALTITUDE: height of contact reported in hundreds of feet in three digits (for example, ALTITUDE ZERO ZERO FIVE equals 500 feet). If altitude is unknown, it is to be reported as NO ALTITUDE.

ANGELS: height of a friendly aircraft in thousands of feet (for example, ANGELS ONE DECIMAL FIVE equals 1500 feet; ANGELS DECIMAL FIVE equals 500 feet).

ANYFACE: Airborne Early Warning aircraft.

ATTACK(ING): Attack; or am commencing attacking run with weapon indicated; direction/bearing from which the weapon will be coming may be given.

BALL: ASW helicopter transducer.

BENT: equipment indicated is inoperative; canceled by OKAY.

BOGEY: an air contact detected by radar.

BREAK(ING) DIP: helicopter raises the transducer clear of the water.

BREAK RIGHT/LEFT: perform an immediate maximum performance turn in the direction indicated.

BREAK OFF: discontinue approach but maintain contact unless otherwise indicated.

BROTHER: attacking ships of surface ASW (Anti-submarine Warfare) unit.

CAP: combat air patrol.

CEASE FIRE: do not open fire/cease firing.

CEASE REPORTING: information on the contact is no longer to be reported but plotting and assessment of classification, course, speed, altitude, identification and closest point of approach is to be continued. Reporting is to recommence automatically for changes in classification, or identification, or for significant alterations of course, speed, or altitude.

CHANGING PORT/STBD: contact is altering course (to port/starboard).

CHICKS: friendly fighter aircraft.

COLD: I have lost sonar contact or sonar contact is not held.

COMING LEFT/RIGHT: ASW is altering course in direction indicated (to course indicated).

CONFIRM: verify the existence of the contact designated.

CONTINUE PORT/LEFT: continue turning port/left at present rate of turn to magnetic heading indicated (3 figures) or continue turning to port/left for number of degrees indicated.

COUNTDOWN: I am about to open fire within ___ seconds.

DATUM: last known position of a submarine after contact has been lost.

DECK CLEAR: deck now ready to resume launching or landing operations.

DECK FOUL: unable to launch or land aircraft (followed by a numeral to indicate minutes anticipated before ready to resume operations).

DEEP: contact is below layer depth.

DEMONS: depth in meters.

DEVILS: submarine depth in tens of feet.

DIP: conduct search with helicopter sonar search and attack.

DRONE: friendly remote controlled air vehicle.

DROP TRACK: the order to drop the track from the plot.

EMERGENCY BREAK OFF: discontinue ASW action, maneuver to avoid collision, resume action as soon as clear to do so.

ESTIMATE: provide a quick estimate of the height/depth/range/size of designated contact, or I estimate that height/depth/range/size of designated contact is ____.

FAST: any detection with a groundspeed of 300 to 599 knots.

FEW: two to seven aircraft.

FLIGHTLEVEL: ICAO term giving height in hundreds of feet (for example, FLIGHTLEVEL 250 equals 25,000 feet).

GADGET: radar or emitter equipment (type of equipment may be indicated using plain text description).

GERTRUDE: underwater telephone equipment.

GOBLIN: submerged object detection.

HARD PORT/LEFT: alter heading to port/left in a tight turn in magnetic heading indicated (3 digit group) or

number of degrees indicated (1 or 2 digit group followed by the word DEGREES).

HARD STBD/RIGHT: alter heading to starboard/right in a tight turn to magnetic heading indicated (3 digit group) or number of degrees indicated (1 or 2 digit group followed by the word DEGREES).

HIGH: between 25,000 and 50,000 feet.

HOLD FIRE: Do not open fire/cease firing. The direction to hold fire should be repeated at the end of a transmission.

HOMEPLATE: home airfield or home carrier.

HOT: sonar contact is held.

I GO (_____): I am leaving my patrol-mission now/in _____ minutes.

I HOLD: This may be used when a unit reports a track.

I MAKE: My information to amplify or clarify the appropriate plot, which differs from that reported previously, is _____.

KEEP CLEAR: Keep clear of contact bearing _____ degrees (true or magnetic) _____ miles from me or reference point.

LIFEGUARD: Submarine or surface ship designated for SAR operations or a submarine or surface ship stationed geographically for precautionary SAR assistance. Also the name of the unit designated to recover a man overboard for vessels conducting alongside operations.

LOST_____: reporting unit doesn't hold radar contact anymore on a track for which it has reporting responsibility.

LOW: between 500 and 5,000 feet.

MANY: eight or more aircraft.

MARK(ING) DIP: helicopter come (coming) to hover and commence (commencing) sonar search.

MAYDAY: the international radio telephony distress signal which indicates that a ship, aircraft, or other vehicle is threatened by grave and imminent danger and requests immediate assistance.

MEDIUM: target altitude estimated to be greater than 5,000 feet MSL, but not greater than 25,000 feet MSL.

MERGED: tracks have come together.

MIX UP: mixture of friendly and hostile aircraft.

MORE HELP: Further target positional information is required.

MOTHER: parent ship.

NOJOY: I have been unsuccessful or I have no information.

OKAY: equipment indicated is operative; cancels BENT.

ON STATION: I have reached my assigned station.

ON TOP: I am over datum, target, object, or position indicated.

ORBIT(ING): orbit (or am orbiting) position indicated (position may be any visible object, standard reference position, or properly defined point, as long as it can be clearly understood).

PAN PAN: the international radio telephony urgency signal meaning the calling station has a very urgent message to transmit concerning the safety of a ship, aircraft, or other vehicle or the safety of a person.

PANCAKE: land, or I wish to land (reason may be specified; for example, PANCAKE-FUEL).

PIGEONS____: the magnetic bearing and distance of HOMEPLATE (If

PIGEONS are not to base, the destination must be specified).

PLAYMATE: FRIENDLY ship, submarine, or aircraft with which I am cooperating.

PRONTO: as quickly as possible.

RANGE: the distance to an object or target in hundreds of yards, normally limited to less than 10,000 yards.

REPORT: report contact designated frequently (every _____ minutes).

RISER: a radar contact which has suddenly appeared.

SHALLOW: contact is above layer depth.

SHINING: radiating on electronic equipment (specify type if desired).

SINGLE: one object.

SINKER: a radar contact that later disappeared.

SISTER: assisting ship of surface ASW unit.

SKUNK: a surface contact detected by radar.

SLOW: any detection with a ground speed of 200 knots or less.

SMOKE: smoke marker used to mark a position or datum.

SNORT: visually sighted submarine snorkel.

SNORTING: submarine contact is snorkeling.

SOUR: equipment indicated is not operating efficiently.

SPLITTING: contact is dividing.

STEADY: am on prescribed heading, or straighten out immediately on present heading or heading indicated.

STEER: set magnetic heading indicated to reach me (or_____).

STRANGER: an unknown contact not associated with action in progress (bearing, range, and altitude relative to you).

STRANGLE: switch off equipment indicated.

STRENGTH: indicates the numerical strength of a track.

SWEEP: keep all-round search and report any new contacts.

SWEET: equipment indicated is operating efficiently.

VECTOR: alter heading to magnetic/true heading indicating; (magnetic or true to be established before operation commences); heading ordered must be in three digits, for example, VECTOR ZERO SIX ZERO (for homing, use STEER).

VECTOR LEFT/RIGHT: alter course to left/right of present course.

VERY FAST: any detection with a ground speed of 600 knots or greater.

VERY HIGH: above 50,000 feet.

VERY LOW: below 500 feet.

WAVE OFF: do not land; further approach dangerous; clear ship.

ZIP LIP: hold communications on this circuit to a minimum.

Source: EXTAC 1004, Annex Bravo. July 1994.

Exercise 24

Match Column A with Column B

1. __ break off	a. used when a unit reports a track
2. __ deck clear	b. urgent international radio telephony transmission concerning the safety of a vessel or a person
3. __ I hold	c. operator-on-duty is getting ready to leave in a certain number of minutes
4. __ marking dip	d. helicopter raises transducer clear of water
5. __ mix up	e. discontinue approach but maintain contact
6. __ more help	f. mixture of friendly and hostile aircraft
7. __ pan pan	g. now ready to assume launching operations
8. __ wave off	h. discontinue ASW action, maneuver to avoid collision
9. __ zip lip	i. do not land, further approach dangerous, clear ship
10. __ breaking dip	j. helicopter hovering to commence sonar search
11. __ emergency break off	k. hold communication on circuit to a minimum
12. __ I Go	l. further target positional required

Exercise 25

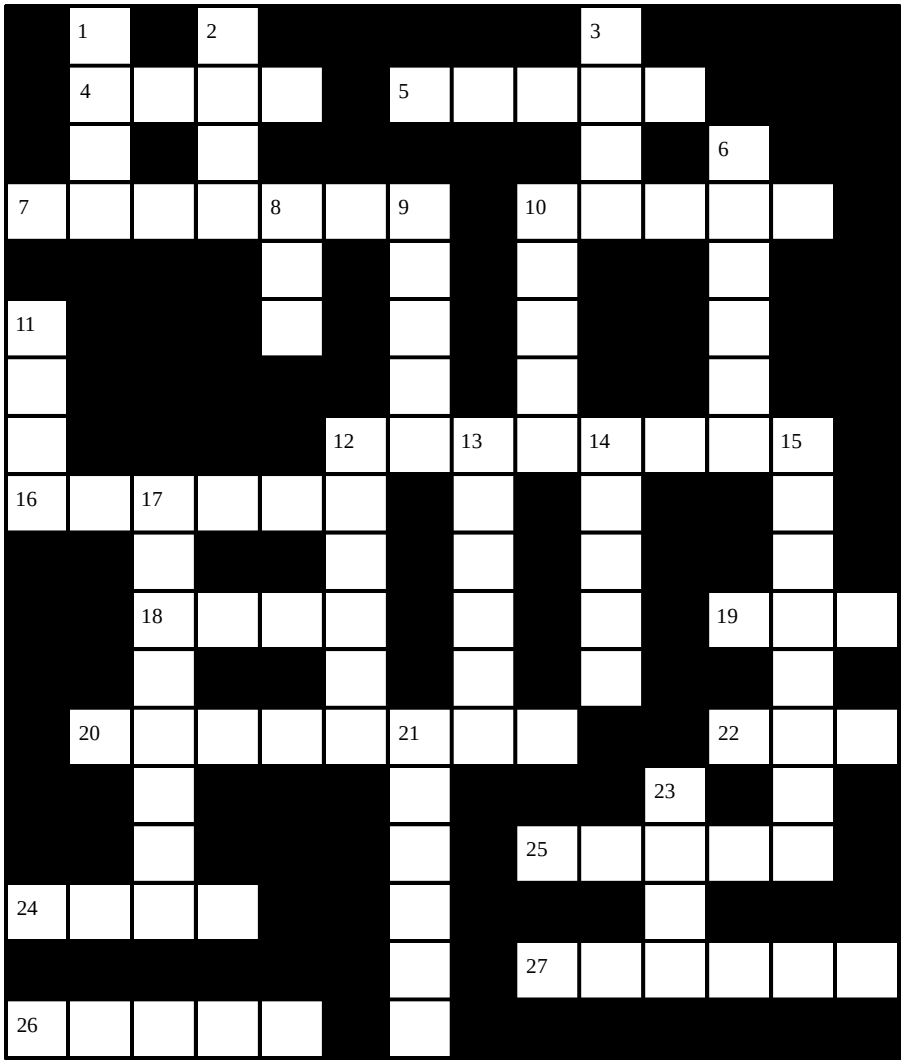
Use the cues below to complete the crossword puzzle on the next page.

Across

4. equipment indicated is operative; cancels BENT
5. keep all-round search and report any new contacts
7. attacking ships of surface ASW unit
10. set magnetic heading indicated to reach me (or_____)
12. underwater telephone equipment
16. as quickly as possible
18. ASW helicopter transducer
19. conduct search with helicopter sonar search and attack
20. indicates the numerical strength of a track
22. combat air control
24. between 25,000 and 50,000 feet
25. friendly remote-controlled air vehicle
26. an air contact detected by radar
27. target altitude estimated to be greater than 5,000 feet MSL, but not greater than 25,000 feet MSL

Down

1. equipment indicated is not operating efficiently
2. any detection with a ground speed of 300 to 599 knots
3. equipment indicated is inoperative; cancelled by OKAY
6. tracks have come together
8. sonar contact is held
9. the distance to an object or target in hundreds of yards, normally limited to less than 10,000 yards
10. equipment indicated is operating efficiently
11. contact is below layer depth
12. submerged object detection
13. report contact designated frequently (every _____ minutes)
14. a radar contact which has suddenly appeared
15. provide a quick estimate of the height/ depth/range/size of designated contact, or I estimate that height/ depth/range/size of designated contact is _____.
17. orbit (or am orbiting) position indicated (position may be any visible object, standard reference position, or properly defined point, as long as it can be clearly understood)
21. radar or emitter equipment (type of equipment may be indicated using plain text description)
23. have lost sonar contact or sonar contact is not held



acoustically: referencing hearing or with sound as it is heard

penetrating: passing into; forcing a way into or through

periscope: an optical instrument consisting of a tube holding a system of lenses and mirrors or prisms, so arranged that a person looking through the eyepiece at one end can see objects reflected at the other end: used on submerged submarines, etc.

imagery: images generally, like statues etc.

attaining: gaining through effort; accomplishing; achieving

ENRICHMENT ACTIVITIES

Troublesome Grammar: quite a few vs. a great deal of

quite a few (many)

1. *Quite a few* is used with countable nouns in affirmative statements, affirmative questions, and negative questions:

Examples:

There are quite a few (many) briefings scheduled for this week. (affirmative statement)

Were there quite a few (many) people at the change-of-command ceremony? (affirmative question)

Aren't there quite a few soldiers missing from formation? (negative question)

2. *Quite a few* cannot be used in negative statements.

a great deal of (much)

1. *A great deal* of is used with non-countable nouns.

Examples:

There is a great deal of (much) ice on the roads.

He spends a great deal of (much) time studying.

2. *A great deal of* is used in affirmative and negative statements and in affirmative and negative questions.

Examples:

There is a great deal of enthusiasm being shown for the project. (affirmative statement)

There isn't a great deal of enthusiasm being shown for the project. (negative statement)

Was there a great deal of opposition to the plan? (affirmative question)

Wasn't there a great deal of opposition to the plan? (negative question)

Exercise 26

Copy the sentences in your notebook. Insert *a great deal of* or *quite a few* in the blanks.

1. _____ sailors from the PfP countries took part in the exercise.
2. CAPT Walters spent _____ time preparing this morning's briefing.
3. The captain had made _____ transparencies for the OHP (overhead projector).
4. There has been _____ excitement about the upcoming war games.
5. _____ money has been spent on the preparations.
6. _____ soldiers will be ready to go on maneuvers at a moment's notice.

Authentic Readings

Read the following short articles and answer the questions.

Where We're Going in Submarine Radio Communication

Communicating via radio frequencies or **acoustically** at much higher data rates is one of the most pressing needs for the future. Part of the solution lies in the submarine High Data Rate (HDR) system, which is nearing completion and will be tested within the next year. The HDR system will consist of a non-**penetrating** mast/antenna group and receiver capable of operating in both the super high frequency (SHF) and EHF spectra. The multiband antenna will allow the submarine, while at **periscope** depth, to transmit and receive voice , data, video, and **imagery** and will be capable of **attaining** data rates up to 1.544 megabits per second (TI capacity full-motion video). This improved submarine communication suite, which will provide a 200-fold increase in the submarine data transmission rate, will enable the submarine to receive lengthy data messages quicker and will enable the conduct of real-time video transmission from the submarine to the joint task force commander-or any other commander that some future mission may require.

We also are investigating other ways to increase data rate capability, such as changing the size and shape of the submarine sail, which would allow for installation of antennas of much wider **apertures**. This larger sail also would **expand** the submarine's **payload** and give greater flexibility for the size and types of weapons carried.

In addition to higher data rate capabilities, submarine communications systems are heading toward increased automation,

leading ultimately to an unmanned radio equipment space. Besides automated message preparation and signal routing, the submarine radio room of the future will include remote control of communications equipment and an automated antenna distribution system. This capability should be in the fleet before 2000.

In July, the Navy had the opportunity to take the future to sea during the Joint Warrior Interoperability Demonstration 1997 (JWID97). This annual exercise focuses on the C^4I aspects of war fighting and brings government and private industry together to demonstrate new and **emerging** technologies that could shape the battlefield of the future. A U.S. and allied **coalition** operation led by Commander, Carrier Group Six, acting as Commander, Coalition, Task force (CCTF), JWID97 conducted combined operations at the joint component commander level. Navy participants included the John C. Stennis (CVN-74), San Jacinto (CG-56), Nassau (LHA-4), Atlanta (SSN-712), Scranton (SSN-756), and Coronado (AGF-11), in addition to Marine, Army, Air Force and allied units.

For the exercise, the Atlanta operated under the tactical command of the CCTF, Special installations provided for seamless participation on the **common** operating picture with full **connectivity** allowed key data and information exchange, including real time imagery and enhanced data delivery, collaborative planning, and integrated **sensor**-to-sensor and sensor-to-shooter technologies. The end result was the previously unavailable ability for

aperture: an opening; or diameter of an opening; hole; gap

expand : to enlarge upon an idea, etc., develop in detail

payload: a load that consists of anything carried by an aircraft, rocket, etc. that is not essential to its flight operations, including warheads, satellites, spacecraft, or passengers

emerging: to become apparent or known

coalition: a temporary alliance of factions, nations, etc., for some specific purpose

common: refers to that which is met with most frequently or is shared by all or most individuals in a group, body, etc., and may imply prevalence or usualness

connectivity: the relation between things that depend on, involve, or follow each other, causal relationship

sensor: any of various devices designed to detect, measure, or record physical phenomena, as radiation, heat, or blood pressure, and to respond, as by transmitting information, initiating changes, or operating controls

commanders to plan and conduct military operations taking full advantage of the submarine's unique warfighting capabilities.

Exercise 27

In your notebook write answers to the following comprehension questions.

1. What is the name the system that will improve submarine radio communication?
2. What will this system consist of?
3. What will the system be able to do while at periscope depth?
4. How would the installation of a larger sail improve the submarine?
5. What will the submarine radio communication room include?

Source: RearAdm E.P. Giambastiani,Jr., "Where We're Going in Submarine Radio Communication," from *Proceedings* (October 1997, pp.49-50. Reprinted by permission.

Strong Resolve: Black Humor in a Black Boat

There are a lot of things you are not allowed to do in a submarine: Go out and get some fresh air whenever you feel like it, for example, take a shower whenever you feel like it, that's another; smoke, a third; mention the word "horse", or bring a backpack aboard is a fourth one. No wonder dolphin humor is darker and dirtier than the crew's shorts after one and a half weeks.

"You become a little bit special being on a submarine. It's no life for a woman," says Lieutenant Commander Olav Lie. The 34-year-old with the controversial views is a Commanding Officer of the Svenner, the newest of the old Norwegian "Kobben-submarines."

Svenner is four years younger than the boat's commanding officer and is expected to stay operational for another eight to ten years.

"Do you have any women aboard?"

"Just on weekends,"

"Why not?"

"It wouldn't be possible to have women as part of the crew as we live and breathe so close to each other" says Lie.

We understood what he meant after reading the submarine's newspaper. The articles don't **mince** words.

mince: to express or do with affected elegance or daintiness

On Monday (17 March) "Svenner" sank seven enemy ships in the fjords around Harstad before docking here on Tuesday morning. The crew of 21 has been at battle stations constantly for one and a half weeks.

"We wouldn't have docked if we didn't have to. But our communications system broke down. We're going out again in a few hours," says the Commanding Officer.

The submarine came in with yellow flag flying, the international signal for plague aboard, but during the exercise it means the same thing as "time out."

Being in a submarine demands flexibility, not only physically but socially as well.

"We live on top of each other; should anybody have a fight or fall out, the whole crew would suffer." At the same time, Lie knows you have to be a little bit crazy to function in such an environment.

He and his crew relieve a lot of **aggression** by playing different games such as Risk, Ludo, and Trumps. These are the crew's favorites and if they don't play or sleep, they work.

"It's been a lot of hard work, especially after phase III started," says Lieutenant Lie. In the last three days, he only slept ten to eleven hours.

The crew sleeps **squashed** together like sardines on the Svenner. The submarine is 48 meters long and just five meters at its widest point. Thirteen officers and eight soldiers live in this **sealed** container. Just imagine, locked up in this stale air and all you can hear is the constant **drone** of the radarscope.

"We've heard that sound a lot the last few days. It's exhausting and we're all **on edge**. But you learn to live with it," says Olav Lie, who longs to get back to the war effort.

He can't be bothered to change clothes yet. Even though he hasn't changed his shorts for a week and a half. The only thing Olav Lie thinks about is going out to war again.

Exercise 28

Answer these questions on the reading.

1. What kinds of things are not allowed on a submarine?
2. Who is older, the ship or the commanding officer?
3. Why did the "Svenner" have to dock?
4. What is the international signal for "plague"?
5. How does the crew relieve tension?

Source: Strong Resolve: Media Resource*s, "Black Humor in a Black Boat," May 3, 1998. [www.fkn.mil/no/resolve98/presse/el80398.html]*

Combined Endeavor

The U.S. European Command, in cooperation with the German Ministry of Defense, will sponsor the fourth annual "Combined **Endeavor**" communications and interoperability exercise at Sembach Air Base, Germany, 7-21 May 1998.

This year's Combined Endeavor exercise is the most extensive multinational communications event ever conducted, bringing together 29 NATO and Partnership-for-Peace nations. The participating nations face the challenge of finding technical solutions for successful communications in a multi-service, multinational scenario that increasingly characterizes the operational environment in the European theater. From the first Combined Endeavor exercise in 1995 when only ten nations took part, it has grown into one of the largest exercises of its kind conducted in Europe.

Participating nations will attempt to satisfy a series of technical tasks designed to test the compatibility of systems and equipment across a broad range of capabilities. Testing will include four different areas: switchboard, radio relay, LAN/WAN, and high-frequency systems. Communications networks will be built as testing progresses.

Each year, Combined Endeavor improves communications interoperability. A side benefit of the exercise is what Colonel Ron Vandiver, Test Site Director, has termed "the fostering of human interoperability." This year, following daily testing, the 400 participants will

aggression: forceful attacking behavior, either constructively self-assertive and self-protective or destructively hostile to others or to oneself

squashed: pressed or squeezed tightly or too tightly

sealed: closed completely so as to make airtight or watertight

drone: to make a continuous and monotonous humming or buzzing sound

on edge: nervous, uneasy

endeavor: an earnest attempt or effort

engage in a wide range of sporting events which serve to build esprit de corps and camaraderie. Participants also take part in cultural activities and trips during a mid-exercise break.

Source: Navy News Service, "Combined Endeavor Gears Up," eur98018.txt, May 8, 1998. [www.navy.mil]

Exercise 29

Answer these questions based on the reading.

1. How is the 1998 Combined Endeavor exercise different from those held in the past?
2. Who is participating in this year's exercise?
3. How many nations participated in the exercise in 1995?
4. What series of tasks are tested during this exercise?
5. What are the benefits of this exercise?

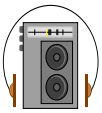
LISTENING SKILLS

Listen to the News and Take Notes

Exercise 30

Listen to or view at least three news broadcasts in English this week. Use the News Broadcast Listening/Viewing Form in Appendix G as a guide. As you listen, take notes. Ask the information questions that you learned in Unit 1: Who?, What?, Where?, When, and Why? Then, in your notebook, write answers to the questions.

Exercise 31



Authentic Radio Communications

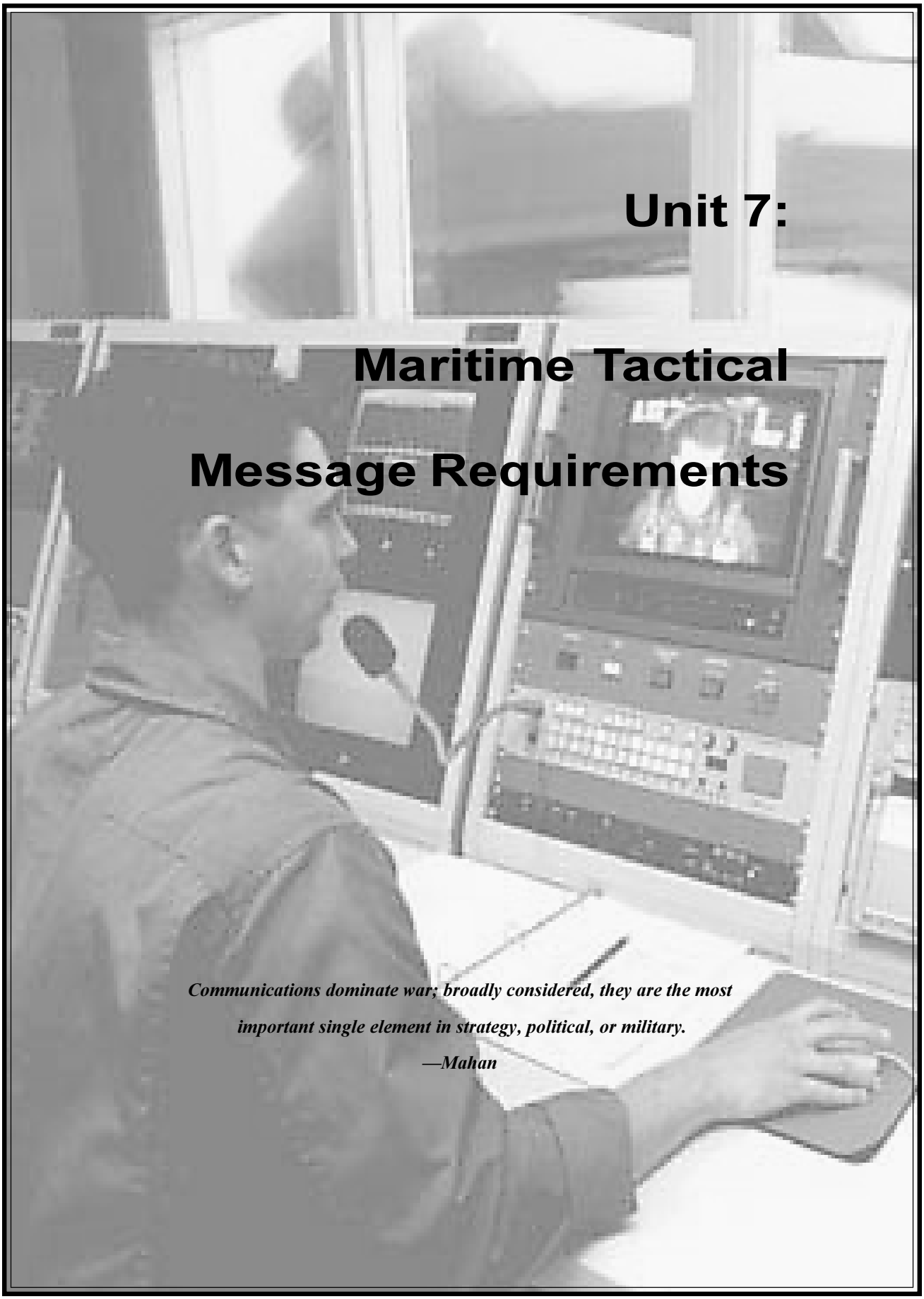
Now listen to some authentic radio communications.

LEARNING STRATEGY

Keeping a Learning Log

Exercise 32

Follow the instructions for completing the Language Learning Log that were given in Unit 1.



Unit 7:

Maritime Tactical Message Requirements

Communications dominate war; broadly considered, they are the most important single element in strategy, political, or military.

—Mahan

Resources

You will need Unit 7of this course, the Unit 7 recording, a tape/CD player, notebook, pen or pencil, and your copy of *Webster's New World Dictionary.*

Objectives

In this lesson you will

1. hypothesize about actions and conditions.
2. review the three types of conditional sentences.
3. use objective vocabulary, military terms, and military acronyms in the glossary.
4. become familiar with *EXTAC 1006* and its contents.
5. define the MTMS and discuss its purpose.
6. develop an OPSTAT Unit message for a particular ship.
7. become familiar with *EXTAC 1005* and its contents to include exercise planning and order table formats.
8. define the following terms as they apply to exercise planning: OSE, OTC, OCE, OCS, and SUBOPAUTH.
9. describe the OTC's responsibility to ensure good communications during exercises.
10. use the *EXTAC 1005* "Order Table" to develop a PRE-EX for a communications exercise.
11. write the preliminary draft of your oral presentation based on your outline and notes.
12. listen to electronic communications; take notes or write summaries.
13. read models of technical/military material and answer comprehension questions.
14. read authentic military articles and answer comprehension questions.
15. practice a variety of language learning strategies.

Table of Contents

LEARNING STRATEGIES

In this course you have been presented with many learning strategies. Think about the ways you can apply these strategies to your future learning.

Planning

Exercise 1

Look at your schedule for Unit 6. Did you study more or less than the original plan required? Fill in the schedule below, and after you complete this unit, give yourself a reward for sticking to your study schedule.

Unit 7 Schedule

Day	Plan	Actual
Mon	_____	_____
Tues	_____	_____
Wed	_____	_____
Thu	_____	_____
Fri	_____	_____
Sat	_____	_____
Sun	_____	_____

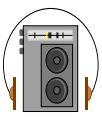
VOCABULARY

Structured Messages

EXTAC 1006 Structured Messages is the source of the vocabulary readings in Unit 7. *EXTAC 1006* is a publication that is used in operations involving NATO and non-NATO navies. It is a ***reference*** source for messages commonly used at sea. The contents of *EXTAC 1006* relate to tactical command, control, coordination and information dissemination. Before you continue, think about the following questions:

1. What types of messages does your navy use to communicate operational instructions and information?
2. What distinguishes a well-written message from a poorly written message?
3. What does an individual need to learn in order to be proficient in reading and writing messages?

Skim the reading titled "Maritime Tactical Message System (MTMS)" in order to get a general idea of the topics covered. Notice how the reading is broken up into sections. Briefly look over paragraph and subparagraph headings. Read words that are specially marked (for example, bold, italicized, capitalized).



Now listen to the reading and follow along. The new words are in italics. As you listen to the reading, underline or circle any words you do not know.

Learning Strategy

When you understand the general or main idea of a reading, it is easier to understand the details.

Maritime Tactical Message System (MTMS)

Learning Strategy

Repeating new sounds, words, and sentences gives you a feel for them.

formations: ordered arrangements of two or more ships proceeding together

aide-mémoire: something that serves as an aid to memory, such as a mnemonic device

free text: message text consisting of unformatted narrative information

alphanumeric: having both alphabetical and numerical symbols

Purpose and Type

The MTMS consists of ***standardized*** messages and may be used for the following purposes:

- to convey operational instructions or intentions.
- to pass operational information to tactical commanders at sea.
- to report operational information between commanders and from subordinate to higher **formations**.
- to notify organizations of impending and actual operations of units engaged in maritime warfare.

The following message types are used in the MTMS:

- OPGEN (Operational General Matters) is used for general matters of policy, instructions and aspects common to all forms of warfare, and detailed instructions for warfare responsibilities retained by the Officer in Tactical Command (OTC).
- OPTASK (Operational Tasking) is used for giving detailed information concerning specific aspects within individual areas of warfare and for tasking resources.
- OPSTAT (Operational Status) is used for aspects of information exchange, particularly reporting of operational status.

Application and Description

The OPGEN will normally be originated by the OTC, while OPTASKs may be originated by the OTC or by specific Warfare Commanders/Coordinators when delegated. The OPSTATs will be originated by the authorities making status reports.

The MTMS permits promulgation of a ***comprehensive*** range of instructions and information and also serves as an originator's **aide-mémoire**. It is designed to be flexible and provides the following:

- a ***stand-alone*** OPGEN for small ***scale*** operations.
- an OPGEN amplified as necessary by OPTASK messages for larger scale operations.
- a means to issue changes covering additions, deletions, and ***amendments*** to previously promulgated messages.

Messages are presented as a statement of purpose, section titles, general instructions, and structure, including section details and examples.

Messages are structured so that the contents of their component sections appear in **free text**, or in ***established*** sequences which are repeatable and may be amplified as required. Each section is prefixed by an **alphanumeric** identifier and a ***self-explanatory*** abbreviation.

Drafting Instructions

Alphanumeric Identifier

The alphanumeric identifier is followed by a ***slant***, a self-explanatory abbreviation, an additional slant, and text. Each section, with its associated identifier, abbreviation, and text is to be started on a new line.

Example:

B4/AAWPICK/....

B5/NADGE/.....

Readability

Readability may be improved by indenting the second line and subsequent lines after the self-explanatory abbreviation.

Free Text

Free text sections appear as shown in the example.

Example:

D1/MISSION/**DETER** OPPONENT FROM LANDING PRIOR TO THE **COMMENCEMENT** OF **HOSTILITIES**. LOCATE ALL OPPOSING FORCES IN THE **VICINITY** OF AREA BRAVO. AT **GENERAL ALERT**, DESTROY OPPOSING AMPHIBIOUS FORCES PRIOR TO **DEBARKATION**. IF **LANDINGS** HAVE COMMENCED, **ENGAGE** ALL OPPOSING SUPPORT FORCES IN AREA BRAVO.

Established Sequence

There are two methods of presenting an established sequence.

The first method consists of blocks of required information separated by slants. Within blocks of information, required items are separated by periods, spaces, hyphens, etc., but not by a slant. In addition, slants are not to be used for abbreviations such as N/A, A/C, etc. These must be written as NA, AC, etc., or in complete words. To ensure that the required sequence of specified information is maintained, hyphens are to be entered where there is no information except as ***exempted*** in the detailed instructions, or if it is clear that the correct sequence will not be lost.

Example:

B4/AAWPICK/BRISTOL/R6F/360ZZ80

The second method consists of identifying, by paragraph and ***sub***paragraph numbering, those items of required information and their sequence—as specified in the appropriate instructions for each section. This method produces longer messages than does the use of slant separation.

Example:

B4/AAWPICK/
(1) BRISTOL
(2) R6F
(3) 360ZZ80

Amplifying a Sequence

In sequences using slants, ***elements*** may be ***amplified*** by inserting the ***appropriate*** text after the element, separated by a ***dash***. In amplifying an entire sequence, appropriate text may be inserted at the end, separated from the last element by a slant.

Example:

E4/SAFESECT/GOLF/VICTOR LIMA/100 NM NORMALLY - FROM 182000Z1 TO 182200Z3 150 NM//235M/10/ FL100/ **DISESTABLISHED** 220001Z5.

The same principle applies when paragraph and subparagraph numbering is used. Amplifying text is separated by a dash. However, the entire sequence is amplified by using the next paragraph number.

Example:

F4/SAFESECT/
(1) GOLF
(2) VICTOR LIMA
(3) 100 NM NORMALLY – FROM 182000Z1 TO 182200Z3 150 NM
(4) 235M
(5) 10
(6) FL 100
(7) DISESTABLISHED 220001Z5

Repeating a Sequence

Sequences using slants may be repeated as follows:

Continuous repetition of the sequence without separation. In the interest of readability, this format is to be used only for short sequences requiring little repetition.

deter: keep or discourage from doing something

commencement: start; beginning

hostilities: open acts of war

vicinity: area surrounding a particular place

general alert: signal for manning battle stations

debarkation: the unloading of troops with their supplies and equipment from a ship

landings: acts of coming to shore

engage: to enter into conflict with (the enemy)

disestablished: no longer set up or instituted

ACFT: aircraft

Example:

B3/SURFAAW/KIDD/GOLF/
000ZZ30/ROGERS/GOLF ALFA/
120ZZ10/BROADSWORD/GOLF
BRAVO/240ZZ10

Repeating the alphanumeric identifier and self-explanatory abbreviations on a different line for each sequence. This format is appropriate for lengthy sequences. Even though the length of messages may be increased, readability is improved.

Example:

G1/EMCON/ALFA/A-14E-18A-
40P-51P-66U-8IUV-82A-90EB-B-
14E-40P-51P-68U-82H-90EB-L-
10U-40P-60U-80M-84U
G1/EMCON/BRAVO/A-10U-30U-
60U-80U-B-10U-20U-40P-60U-
80U-L-10E-20E-40P-85U

Repeating the sequence on a new line without an alphanumeric identifier and self-explanatory abbreviation. This format is appropriate for shorter sequences requiring much repetition.

Example:

B3/SURFAAW/KIDD/GOLF/
000ZZ30/
ROGERS/GOLF ALFA/060ZZ10/
BROADSWORD/GOLF BRAVO/
120ZZ10/
NEUSTRASHIMYY/ECHO/ZZ/
MACDONOUGH/HOTEL/180ZZ5/
KASHUB/HOTEL ALFA/240ZZ10/
ALGONQUIN/HOTEL BRAVO/
300ZZ10

Learning Strategy

When you accomplish an objective, give yourself a little reward. Planning the reward as part of planning a goal works best.

The only method of repeating sequences using paragraph and subparagraph numbering is to repeat the alphanumeric identifier and self-explanatory abbreviation for each sequence.

Amplifying Repeated Sequences

When slants or paragraph and subparagraph numbering are used, all repeated sequences in the same section are amplified by adding, at the end of the section, the same alphanumeric identifier and self-explanatory abbreviation, followed by amplifying text.

Example:

B3/SURFAAW/KIDD/GOLF/
000ZZ30/
ROGERS/GOLF ALFA/060ZZ10/
BROADSWORD/GOLF BRAVO/
120ZZ10/
NEUSTRASHIMYY/ECHO/ZZ/
MACDONOUGH/HOTEL/180ZZ5/
SPRUANCE/HOTEL ALFA/
240ZZ10/
SILNYY/HOTEL BRAVO/300ZZ10/
B3/SURFAAW/ON DETECTION
OF **ACFT** THREAT STATION
RANGES ARE TO BE IN-
CREASED BY 10 NM WITHOUT
FURTHER ORDERS.

To avoid lengthy messages, it is essential that originators ***omit*** sections which are not necessary.

All times should be expressed as four figures followed by a time zone letter and checksum.

A checksum is a single number derived from the sum of all numbers of the field to which the checksum applies. When the total sum is more than a single digit, only the last digit of that sum is used.

Example:

checksum of 2468 = 0
checksum of 246 = 2.

The examples used in the various messages that ***comprise*** the MTMS are not

intended to ***conform*** to current editions of tables, but are written for ***illustrative*** purposes only.

Between frequencies and checksums, letters K, M and G will be used as follows:

K - KHZ (kilohertz)
M - MHZ (megahertz)
G - GHZ (gigahertz)

To avoid confusion caused by errors in transmission, checksum digits are to be used when specified by the message ***format***.

Changing Instructions

Previously promulgated MTMS messages can be modified, in the course of an operation by two methods.

Changes can be made to promulgated messages. This method has the advantage of allowing separation to some degree of ***perishable*** and non-perishable information, thus reducing repetition of the same text in subsequent messages. Changes can be made in the following ways:

- Changes are identified by message id (MSGID, message identifier) followed by the title of the message being changed, followed by "CHANGE", followed by a three-figure number indicating the change serial, followed by the effective **DTG** of the change, with each separated by a slant. The complete message identifier is not given because, as explained in section A l REF (reference section) of each message structure, ***referencing*** the message to be changed is ***mandatory***. (See page 7-9.)

Example:

MSGID/OPTASK AAW/CHANGE/
003/021200Z5

- To delete a section in an existing message, the appropriate section alphanumeric identifier is listed, followed by "Delete."

Example:

E3/DELETE

- To add a new section to an existing message, its complete text, including the alphanumeric identifier and self explanatory abbreviations, is inserted.
- For major amendments to a section in an existing message, the complete section including the alphanumeric identifier, self-explanatory abbreviation and revised text, are inserted. For minor amendments, only the alphanumeric identifier and self-explanatory abbreviation and directions for the amendment are necessary.
- The order of the contents of a change message is to conform to the structure sequence of the message to be changed.

Messages can also be changed by the promulgation of a ***replacement*** MTMS message under the next sequential serial number. This message will automatically ***supersede*** its ***predecessor*** at the first time listed in section A2 (period section) of the replacement message.

In this unit, the OPGEN and the OPSTAT Unit messages will be covered in detail.

After you turn off the recording, read the paragraphs again. Then, complete Exercise 2.

Source: EXTAC 1006 Structured Messages, April 1995.

Learning Strategy

Taking a break from your study and work is important.

DTG: day-time-group

Exercise 2

Find the answers to the following questions by scanning the previous reading. Write your answers in your notebook. Check your answers against those in the answer pages at the end of this unit.

1. What is the purpose of the MTMS?
2. What types of messages are used in the MTMS?
3. According to the reading, how are messages structured?
4. Where is each section of a message (with its identifier, self-explanatory abbreviation and text) started?
5. What are two ways to amplify an entire sequence?
6. What does 021200Z5 in the example in the section titled "Change Instructions" represent?
7. Here is section A2 of a replacement MTMS message:

   A2/PERIOD/ 102200Z5DEC-151800Z5JAN

   When is the replacement to be promulgated?

Learning Strategy

Center your learning by directing your attention to specific things.

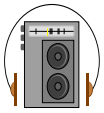
Exercise 3

Write a word(s) that can replace the underlined word(s) in each of the sentences.

1. The MTMS allows a way to make additions, deletions and improvements to messages.
2. Each section begins with an easily understood abbreviation.
3. Blocks of information in a message are separated by diagonal lines that are also known as slashes.
4. The OPGEN, OPTASK and OPSTAT make up the MTMS.
5. A replacement message takes the place of the original message.

VOCABULARY

Skim the reading titled "The OPGEN" in order to get a general idea of the topics covered. Notice how the reading is broken up into sections. Briefly look over paragraph and subparagraph headings. Read words that are specially marked (for example, bold, italicized, capitalized).



Now listen to and repeat the italicized words. After you turn off the tape, read the selection titled "The OPGEN." As you read, underline or circle any words you do not know and find them in the glossary or your dictionary. Also, study the examples that are provided. Look at the sample OPGEN message (Figure 7-1) and the Duty Table (Figure 7-2). These will help you become familiar with the format and content of the OPGEN.

The OPGEN

The purpose of the OPGEN is to enable the OTC (Officer in Tactical Command) to promulgate general matter of policy, instructions and aspects common to all forms of warfare, and detailed instructions for warfare responsibilities that the OTC retains.

Certain general information required for the conduct of operations in one or more warfare areas may be found only in the OPGEN. Therefore, the OPGEN must be signaled for all operations/exercises and must be addressed to all participants, including not only units of the force, but also cooperating/supporting commanders and units both afloat and ashore.

Learning Strategy

Use your new language to converse, read, and write. Make practicing your new language your goal.

OPGEN Message Structure

ORIGINATOR: OTC (Officer in Tactical Command)

ADDRESSEES: All TF/TG units, cooperating/ supporting TF/TG Commanders, appropriate Shore Authorities

SUBJECT INDICATOR CODE: ..... as appropriate

SPARE **LINE FOR CODE WORD(S):** If exercise or operation code names are desired for specific identification, they shall be inserted in the line prior to the message identification line using EXER/ or OPER/.

Example:

EXER/US BALTOPS 94 *or*
OPER/CHAIN PLATE

MESSAGE IDENTIFICATION: This message shall be identified by MSGID/OPGEN followed by the originator's message address, followed by a three (3) figure serial number, followed by the month, with each being separated by a slant.

Example:

MSGID/OPGEN/CTF 410/002/AUG

A1 REF Reference is given in the following sequence:

(1) Alphabetic designator.
(2) Reference identification.

Example:

A1/REF/A/EXTAC1006/B/EXTAC 1003/ C/EXER-CISE OPORD

A2 PERIOD Period covered by Message (Time ZULU) is given as DTG to DTG with checksum digits applied to each DTG. If end time is not known, use UFN.

Example:

A2/PERIOD/281400Z5DEC - 031400Z8JAN

B1 TASKFORG Own Task Organization is given in the following sequence:

(1) ***Designation*** of Task Force, Task Group, Task Unit, or Task Element. Commence with lowest command designation level.

(2) Name or title of designated commander for organization in (1).

(3) Name of unit in which commander ***embarked***, unless the commander is CO of that unit.

(4) Name of unit(s) in organization from (1), unless already included in a lower command designation.

Note: This information is to be included only if not previously promulgated.

Example:

B1/TASKORG/TU 401.02.02/COEMDEN/-/EMDEN-ISAAC SWEERS-PIET HEYN/TU 401.01.01/CO ROMMEL/-/ROMMEL-ALABAMA-EVERTSEN/ TU401.01.01/CO TROMP/-/TROMP-HURON-MOUNT WHITNEY/TG 401.02/CINCGERFLEET/ROMMEL

HVU: high value unit

RECCE: reconnaissance

PBF: patrol boat, fast

deployment: positioning of forces into a formation for battle

SAG: surface action group

VA: visual approach

C1 GENSIT General Situation is a brief description of overall assessment of own and enemy forces. Own force **HVU** priority may be listed.

Example:

C1/GENSIT/OPPOSING AMPHIBIOUS FORCES CONSISTING OF MANY LANDING SHIPS ESCORTED BY SMALL AND LARGER ESCORTS ARE REPORTED IN POSITION 092 HH 36 AT 281635Z5 APPROACHING OWN TERRITORY. OPPONENT HAS INCREASED AIR **RECCE** ACTIVITY DURING LAST HOURS. OWN **PBF** IN **DEPLOYMENT** AREAS, ORGANIZED AS: TU 503.01.01-3 PBF 143 CLASS (**SAG** ALFA) TU 503.01.02-5 PBF 148 CLASS (SAG BRAVO) SUPPORT BY OWN **VA** NOT AVAILABLE DURING NIGHT 28-29 JAN.

C2 THREAT Threat Assessment in Order of Priority is a description of exercise enemy weapons considered being of danger to own forces in order of priority.

Example:

C2/THREAT/GUNS-BOMBS-MINES

C3 FRIFORCE Friendly Forces is a brief description of forces not assigned but being involved in or likely to affect operations.

Example:

C3/FRIFORCE/TG 408.01 ENGAGED

C4 ATTACH Attachments denotes forces joining the task organization during the period of the OPGEN.(Only to be included if not previously promulgated).

Example:

C4/ATTACH/TG 410.12 TO JOIN TF 401 AT 301200Z6

C5 DETACH Detachments indicates forces detaching the task organization during the period of the OPGEN. (Only to be included if not previously promulgated).

Example:

C5/DETACH/TU 40I.06.01- DETACHED 0I000IZ2

C6 CDREVAL Commander's Evaluation of the Situation.

Example:

C6/CDREVAL/AMPHIBIOUS LANDING EXPECTED BY FIRST LIGHT 02 JAN IN AREA BRAVO. INCREASED OPPONENT AIR ACTIVITY EXPECTED PRIOR TO LANDING. LANDING EXPECTED TO BE PRECEDED BY **MCM OPS** AND **PARADROP**.

D1 MISSION Mission.

Example:

D1/MISSION/**HAMPER** OPPONENT LANDING FORCES PRIOR TO DEBARKATION.

E1 PLAN Outline of Plan is the OTC's decision, intentions and general concept of operations, including deception/ evasion plans, as detailed as necessary to allow ***compliance*** by all units.

Example:

E1/PLAN/OPPONENT TO BE ATTACKED **NLT** 010100Z2 JAN OR IF SIGHTED DUE WEST OF POINT ALFA. SURFACE UNITS SUPPORTED BY ATTACK AIRCRAFT... ETC

E2 READINES Degree of Readiness means the minimum degrees of readiness required by the OTC.

MCM OPS: mine countermeasures (ship) operations

paradrop: delivery by parachute of personnel or cargo from an aircraft in flight

hamper: hinder; impede

NLT: on or before but no later than

Example:

E2/READINESS/ASW-2/ASUW-3/AAW-2/MW-1

E3 DTLDTASK Detailed Task.

Example:

E3/DTLDTASK/TU 500.01.01 TO LEAVE **DEPL** AREA 021000Z3 AND PROCEED VIA **SOUND** TO REACH ASSIGNED AREA NORTH OF MOEN NLT 1450Z0, PASSING FALSTERBO 1410Z6, **EP** COVERT. SURFACE PICTURE TO BE ESTABLISHED BY PASSIVE MEANS AND **SEAKING** EMPLOYED IN AREA SEARCH. OPPOSING **FPB** ONLY TO BE ATTACKED OUT OF THE SHELTER OF THE COAST ON OPPORTUNITY.

DEPL: deployment

sound: a long body of water connected to the sea

EP: emission control plan (EMCON Plan)

SEAKING (Sea King): a ship-based antisubmarine helicopter

FPB: fast patrol boat

Duty Table: see Table 1, page 7-21.

Warfare Commander: the officer designated as being in charge of a paricular warfighting area

F1 DUTY ***Allocation*** of General Duties Using the **Duty Table** from *EXTAC 1006*

Example:

F1/DUTY/CTG 401.06-30/CTG 401.01-20-50

F2 RETAIN Retention of responsibilities by the OTC indicates those responsibilities normally assigned to warfare commanders/coordinators which the OTC intends to retain as taken from Responsibility Table numbers in EXTAC 1005.

Note: Any responsibilities not indicated as retained are assigned to the appropriate **Warfare Commander**/ Coordinator in accordance with EXTAC 1005.

Example:

F2/RETAIN/152-161-203 F2/RETAIN/ALL

GI DISPOSN Disposition.

Example:

G1/DISPOSN/TF401-AREA BROWN/TF 402-AREA GOLD/TF 410-AREA TAN
GI/DISPOSN/4W/TG 401.01-PQ1516/TG 401.06-GPO406 MINUS NP06

G2 FORM Formation Instructions include Formation type and any amplifying instructions.

Example:

G2/FORM/TG 401.01 FORMATION 90 DELTA. ASSUME FORMATION 40 AT POINT OSCAR.

G3 SCREEN Screen Instructions include Screen type and any amplifying instructions.

Example:

G3/SCREEN/TU 401.01.01 SECTOR SCREEN FOR AMPHIBIOUS **URG**

URG: Underway Replenishment Group

G4 DEPART Departure denotes information on and instructions for departure.

Example:

G4/DEPART/CTG 401.01 PROVIDE DETAILED IN-STRUCTION FOR DEPARTURE OF TF 401 FROM NORFOLK.

Learning Strategy

Center your learning by directing your attention to specific things.

G5 ENTRY Entry details information on and instructions for entry.

Example:

G5/ENTRY/UNITS ARE TO PROCEED FROM PT OSCAR IN FORM ONE TO HARBOR VIA PT ALFA.

Note: GI to G5 are to be used as necessary to order the distribution of the elements of a command within an area and the deployment of subordinate forces.

G6 SPEED Operational and Stationing Speed is given in knots.

Example:

G6/SPEED/26KTS8-20KTS2

H1 PIM Position and Intended Movements (PIM) are given in the following sequence:

(1) Verified Position in latitude and long

(2) Time of Position

(3) Course

(4) Speed

(5) Period in hours (if required) for which course and speed are in force.

Note: If several changes of course and speed will be in effect, course, speed and period in force should be repeated as necessary for each change.

Example:

H1/PIM/3150N902010E3/280600Z6/310T4/6KTS6/ 10HRI/355T3/18KTS9/39HR2

H2 GRIDORIG Grid Origin denotes Position and effective time. It should be coordinated to ensure compatibility with **DLRP** for **link equipped units**. (Repeat as necessary).

Example:

H2/GRIDORIG/3200N5 02000E2-280600Z6/3500N8 01500E6-301200Z6

H4 REFPOINT Reference Points.

Example:

H4/REFPOINT/ALFA ALFA-3230N8 02000E2

H5 CONTRLPT Control Points are fixed geographical positions which are given a name or number and used as an aid to navigation or control of ships or aircraft.

Example:

H5/CONTRLPT/SHORE BASED VA USE **BLACK TOWER** FROM 290100Z2 TO 290700Z8

H6 RNDZVOUS **Rendezvous** Instructions.

Example:

H6/RNDZVOUS/TG 401.06 JOIN TG 402.09 AT 290100Z2 AT CHARLIE CHARLIE

I1 AIRASSET Intended Employment of Air Assets is a general description of OTC's intentions with regard to employment of all types of air assets.

Example:

II/AIRASSET/CTG 401.01 TO PROVIDE EARLY WARNING COVERAGE WHENEVER OWN AIRCRAFTS NOT AVAILABLE

I2 AIRCOORD Instructions for Aircraft Coordination, Responsibility Retained by OTC is self-explanatory.

Example:

I2/AIRCOORD/HELICOPTERS REMAIN BELOW 300 FEET **MPA** OPERATE NORTH OF 57N2

I4 AIRTASK Detailed Instructions for any Air Tasking Responsibilities Retained by OTC is only required if OTC retains air-tasking responsibilities and does not wish to promulgate an OPTASK AIR.

Example:

I4/AIRTASK/**ACU**/LUEBECK-OTTAWA-011200Z4-020800Z0-**HCU**/SPAREDEK/ BDITELNYY-220800Z2-221200Z7

DLRP: data link reference point

link equipped units: ships or aircraft equipped with a computer data link capable of exchanging tactical information in a near real-time way

black tower: control point or position used as a navigation aid

rendezvous: a prearranged meeting at a given time and location from which to begin an action or phase of an operation, or to which to return after an operation

MPA: Maritime Patrol Aircraft

ACU: Aircraft Control Unit

HCU: Helicopter Control Unit

J1 SUBASSET Intended Employment of Supporting Submarines gives a general description of OTC's intentions with regard to employment of all types of submarine assets.

Example:

J1/SUBASSET/**SEC** EMBARKED IN BRISTOL TWO **SSC** IN DIRECT SUPPORT

J2 SUBAREA Submarine Areas defines the limits of the Integrated Support Area (ISA) and/or Submarine Intended Movement (SIM).

Example:

J2/SUBAREA/ . . . . (free text as required to accurately promulgate ISA and/or SIM)

K1 AAWINST Instructions for Conduct of AAW Including **ASMD,** if required, amplify the OUTLINE OF PLAN (E1) in sufficient detail to enable **AAWC** to provide detailed instructions.

Example:

K1/AAWINST/FROM 291600Z8 TO 292300Z6 **NAEWFC** WILL PROVIDE SUPPORT FOR TG. OUTSIDE THESE TIMES **ORGANIC** EARLY WARNING IS TO BE **ON STATION**. IN VIEW OF AIR THREAT, FORCE AAW **POSTURE** TO BE GIVEN HIGHEST PRIORITY

L1 ASWINST Instructions for Conduct of ASW, if required, is used to amplify the OUTLINE OF PLAN (E1) in sufficient detail to enable ASWC to provide detailed instructions.

Example:

L1/ASWINST/ . . . . (see K1 for additional example)

M1 ASUWINST Instructions for the Conduct of ASUW, if required, is used to amplify the OUTLINE OF (E1) in sufficient detail to enable ASUWC to provide detailed instructions.

Example:

M1/ASUWINST/ . . . . (see K1 for additional example)

N1 AMPHIB Information on or Instructions for Amphibious Related Operations. If required, the OTC may amplify the OUTLINE OF PLAN (E1) or promulgate information or instructions to enable the Amphibious Commanders to prepare detailed plans.

Example:

N1/AMPHIB/ . . . (narrative as required or self-explanatory abbreviations from OPTASK AMPHIB)

SEC: Submarine Element Coordinator

SSC: submarine, coastal

ASMD: anti-ship missile defense

AAWC: anti-air warfare commander

NAEWFC: NATO Airborne Early Warning Forces Command

organic: forming an integral part

on station: at the assigned ship location

posture: the present condition of a thing

O1 MWOPS Information and Instruction Pertinent to Mine Warfare Operations. If required, the OTC may amplify the OUTLINE OF PLAN (E1) with information on or instructions to Mine Warfare Commanders and instructions to those of his forces which may be required to operate in support of MW operations.

Example:

O1/MWOPS/ . . . (free text as required)

RAS: replenishment at sea

replenishment: the process of supplying food, fuel, stores, ammunition and personnel to combatant units

Q1 LOGISTIC Instructions for **RAS** and Logistics. If required, OTC promulgates policy or instructions for **replenishments** at sea, and/or logistic arrangements.

Example:

Q1/LOGISTIC/ . . . . (free text as required)

COMPLAN: communications plan

COMCHECK: communications check

authentication: communication security measure designed to prevent fraudulent transmissions

R1 COMSTASK Instructions for Communications. (Self explanatory abbreviations as in OPTASK may be used). The OTC is required to promulgate the communications plan for the force. If the OTC chooses not to send an OPTASK COMMS, appropriate paragraphs from the OPTASK COMMS may be included in the OPGEN.

Example:

R1/COMSTASK/**COMPLAN**/XY-COMPLAN-ALFA-210-213-405-0500-1700/**COMCHECK**/ 261400Z3-ALL CIRCUITS-200-BRISTOL/ CALLSIGN/INTERNATIONAL CALLSIGNS

crypto: prefix "crypto-" meaning secret or hidden; cryptography: a system for changing classified information in plain text to unintelligible text

R2 CODING **Authentication** Policy, Codes and **Crypto** are given in the following sequence:

(1) Authentication policy in force

(2) Description of use of code or crypto

(3) Code or crypto short title and effective edition

(4) Code or crypto zero time [(2), (3), (4), repeat as necessary].

Example:

R2/CODING/ALFA/AUTHENTICATION/AMSA 1607NM/ 0001/SECURE VOICE/AKAK 338B/ 0300/RECOGNITION/AMSI 1OH/NA

track block: a block (group) of numbers assigned to a unit for identifying tracks (positions of moving objects)

TI TNBLOCK Track Number Block Allocation is given in the following sequence:

(1) Unit name or unit type. For example, SARATOGA or FRASER

(2) **Track block** assigned.

Example:

T1/TNBLOCK/SARATOGA/2300-2477/FRASER/
2500-2677

V1 SAR Information on or Instructions for SAR is self-evident.

Example:

V1/SAR/ . . . . (free text as required)

X1 REPINST Special Reporting Instructions are instructions and procedures for any special reporting ***requirements*** and requests.

Example:

X1/REPINST/ .... (free text as required)

Y1 SPECINST Special Instructions is to be used as necessary.

Example:

Y1/SPECINST/ . . . . (free text as required)

Y2 SPECINFO Special Information is to be used as necessary.

Example:

Y2/SPECINFO/ . . . . (free text as required)

Z1 ACKNLDGE ***Acknowledge*** denotes addressees required to acknowledge. Use with ***discretion***.

Example:

Z1/ACKNLDGE/HURON/CTF 410

Learning Strategy

Closing your eyes and visualizing a situation helps you experience your new language.

Source: EXTAC 1006, Structured Messages, April 1995.

Exercise 4

Circle T or F to indicate whether each sentence is True or False.

1. The OPGEN contains detailed instructions for responsibilities kept by the Officer in Tactical Command. T F
2. The OPGEN has to be sent to all exercise participants by supporting shore units. T F
3. An exercise code name can be put above the message identification line. T F
4. Information on the message identification line is separated by dashes. T F

Exercise 5

Find the word that completes each sentence and write it in the space.

conform	comprehensive
appropriate	established
exempted	elements
perishable	compliance
scale	predecessor

1. News coverage of the disaster was _____.
2. The UN was _____ in 1945.
3. He was _____ from sea duty for medical reasons.
4. Everyone must _____ to naval regulations.
5. Units that are not in _____ will be identified during the inspection.
6. The new CO's _____ was respected by the crew.
7. Safety precautions are _____ in any situation.
8. The _____ of the map is 1:1,000,000.
9. Food that is _____ must be kept refrigerated.
10. All _____ of the plan must be successfully implemented.

Exercise 6

Select the word which best completes the meaning of each sentence.

1. The ships will _____ troops at 1800.
   a. wait
   b. embark
   c. conform
   d. supersede
2. All of the _____ parts are stored until they are needed.
   a. sufficient
   b. useless
   c. illustrative
   d. spare
3. An _____ policy is necessary to ensure security.
   a. addressee
   b. adequate
   c. amendment
   d. amplifying
4. The requirement that addressees acknowledge receipt of an OPGEN is at the _____ of the originator.
   a. signal
   b. rendezvous
   c. formation
   d. discretion
5. The OPGEN includes information about the _____ of forces involved in an exercise.
   a. disposition
   b. structure and sequence
   c. alphanumeric identifier
   d. readability

Sample OPGEN Message

This sample message is unclassified.

RAAUZYUW RUDJABT **DDDHHMM-U**UUU— .
ZNR UUUUU
R 121345Z SEP 98
FM COMDESRON X
TO ALL EXERCISE PARTICIPANTS
INFO SENIOR COMMANDERS IN TASK FORCE/GROUP
OTHER ADDRESSEES AS REQUIRED
BT
UNCLAS //**N03120**//
EXER/SAMPLE STAR 98//
MSGID/OPGEN/COMDESRON X//
REF/A/DOC/CINGERFLEET/95APR01//
NARR/REF A IS EXTAC 1006.//
POC/LT CDR SMITH/OPS OFFICER/COMDESRON X/-/TEL:PHONE NUMBER//
RMKS/
1. PURPOSE. TO PROVIDE STANDARDIZED OPERATING PROCEDURES FOR ALL PARTICIPANTS DURING EXERCISE PERIOD.
2. OPGEN. IN EXTAC 1006 FORMAT.
A1/REF/A/**DOC**/CDS-50/98MAY13/EXERCISE OPORDER
A2/PERIOD/250001Z-272359ZMAY98
B1/TASKORG/**NAVFOR**/

COMMAND	CALLSIGN	AAWC **C/S**
COMDESRON X	DB	-
USS CROMMELIN	PT	AW/D
HMS GRAFTON	MR	AC/J
QENS BARZAN	LJ	T
QENS HUWAR	VE	Y
QSB	FC	X
COLLECTIVE	B	W
USS CROMMELIN	SH-60B	EASYRIDER
HMS GRAFTON	LYNX	NAVY
P-3C MPA (USN)	SEASHELL	
QEAF 11TH SQUADRON	ALPHA JET	HUNTER

Figure 7-1. Sample OPGEN Message

DDDHHMM: for julian date, hour, and minute

U: Unclassified

R: routine. Other precedence categories are P=priority; O=immediate; Z=flash

FM: from

INFO: for information only

BT: break

N03120: this is a subject indicator code

NARR: narrative

DOC: document

NAVFOR: Naval forces

C/S: callsign

6TH ANTI-SURFACE VESSEL SQUADRON SALAM

C1/GENSIT/EASTERN SAILOR IS AN ANNUAL MULTINATIONAL NAVAL SURFACE

EXERCISE THAT COMBINES FORCES FROM THE UNITED STATES, UNITED KINGDOM, AND QATAR. EASTERN SAILOR 98 WILL BE CONDUCTED IN THE SOUTH CENTRAL ARABIAN GULF OVER A PERIOD OF THREE DAYS AND WILL INCLUDE LAND BASED AIR SUPPORT FROM THE QATAR AIR FORCE AND NAVY.

C2/THREAT/REAL WORLD**/IAW** NATIONAL DOCTRINE.

C2/THREAT/EXERCISE/IAW INDIVIDUAL SERIALS AS DICTATED BY OCS AND ANNEX D (INTELLIGENCE) TO THIS **EXOPORDER** (REF A).

IAW: in accordance with

C4/ATTACH/RFA BRAMBLELEAF TO JOIN FOR **EVT** 26100 - ASTERN RAS TRAINING.

EXOPORDER: exercise operation order

C5/DETACH/**RFA** BRAMBLELEAF (BRAM WILL DETACH UPON **FINEX** OF EVT 26100.

D1/MISSION/TO DEPLOY EASTERN SAILOR FORCES TO THE SOUTH CENTRAL ARABIAN GULF NORTHEAST OF QATAR FOR PURPOSE OF ACCOMPLISHING THE OBJECTIVES LISTED IN THIS EXOPORDER.

EVT: event

RFA: royal fleet auxiliary (tanker)

E1/PLAN/1/CONDUCT OPERATIONS IAW EASTERN SAILOR 98 STANDING CONCEPT OF OPERATIONS AND SCHEDULE OF EVENTS, REF A.

FINEX: end of exercise

E1/PLAN/2/UPON COMPLETION OF EASTERN SAILOR 98, ALL UNITS PROCEED IN ACCORDANCE WITH NATIONAL ORDERS.

S: secondary

F1/DUTY/CDS/10-11-222-236

/CRO/20-23-42(**S**)-104-109-110-223-219-238

ADEX: air defense exercise

/GRA/20(S)-23-40-42-104-109-110(S)-218-223

/BAR/23-40(S)-42-44-109-223

RDVU: rendezvous

/HUW/23-42(S)-109-223

SOE: schedule of events

NARR/WARFARE CDR AND ADD'L DUTIES IAW INDIVIDUAL SERIALS AS DIRECTED BY OCS.

G1/DISPOSN/EASTERN SAILOR TG - **ADEX**/SURFACE OPAREAS

G4/DEPART/SORTIE FROM PORT DOHA AM 25 MAR IAW EVT PRE-EX. **RDVU**

ADEX OPAREA IAW REF A **SOE**.

G6/SPEED/25KTS7-18KTS9

H4/REFPOINT/	SAILOR	2540.2N3	05156.5E2	"QATAR" RACON BUOY
	MAVERICK	2600.0N8	05200.0E7	GEOGRAPHIC POSITION
	ANGLER	2550.0N2	05220.0E9	GEOGRAPHIC POSITION
	SUMMER	2554.7N3	05134.6E9	RA'S LAFFAN LIGHT

I1/AIRASSET/IAW EASTERN SAILOR 98 INDIVIDUAL SERIAL **RQMTS**.

I2/AIRCOORD/IAW ANNEX E TO REF A, AIR COORDINATION AND SAFETY INSTRUCTIONS.

K1/AAWINST/IAW REF A STANDING AIR DEFENSE PRE-EX SIGNAL, STANDING AIR DEFENSE PLAN AND OCS SUPPLEMENTAL GUIDANCE AS **REQD** TO AMPLIFY INFO FOR CONDUCT OF EVENTS.

L1/ASWINST/**NEGLIGIBLE**.

M1/ASUWINST/IAW REF A SAG BLUE/RED COMMANDER INSTRUCTIONS AND ANNEX D INTELLIGENCE SCENARIO. SAG CDR PROMULGATE SUPP GUIDANCE AS REQD TO AMPLIFY INFO FOR CONDUCT OF EVENT.

Q1/LOGISTIC/IAW EVT 26100 - ASTERN RAS TRAINING. **BRA** TO PROMULGATE PRE-EX OPTASK RAS AS REQD.

X1/REPINST/1/REPORT CONTACTS IN RANGE AND BEARING FROM ANY REF PT.

REPORT AIR CONTACTS IN RANGE AND BEARING FROM FORMATION CENTER (ZZ).

/2/ASUWC/SAG CDR ASSIGN SINGLE REF PT FOR REPORTING DURING

ENGAGEMENTS. USE OF OTHER REF PTS NOT **AUTH** UNTIL ENGAGEMENT IS COMPLETE.

Y1/SPECINST/1/SAFETY IS PARAMOUNT. ANY UNIT OBSERVING AN UNSAFE

CONDITION MUST ANNOUNCE "STOP EXERCISE, STOP EXERCISE, STOP EXERCISE" ON ALL COMMON **CKTS** AND REPORT TO OCS/OCE VIA FASTEST MEANS. ONLY THE OCE WILL RESTART THE EXERCISE WHEN THE NATURE OF THE UNSAFE CONDITION HAS BEEN REMOVED. THE SIGNAL TO MANEUVER INDEPENDENTLY TO AVOID SHIPPING AND RESUME STATION WHEN CLEAR IS ALWAYS IN EFFECT.//

BT

RQMTS: requirements

REQD: required

NEGLIGIBLE: indicates that no submarines are participating

BRA: abbreviation for brambleleaf

AUTH: authorized

CKTS: circuits

Figure 7-1. Sample OPGEN Message, continued

Duty Table

From *EXTAC 1006*

Figure 7-2. Duty Table

DUTY TABLE

1 - 9 (Not to be used)

COMMAND

10 Officer in Tactical Command (OTC)

11 Composite Warfare Commander (CWC)

12 Screen Commander (SC)

13 - 19 Spare

ANTIAIR WARFARE (AAW)

20 AAW Commander (AAWC)

21 Sector AAW Coordinator (SAAWC)

22 Local AAW Coordinator (LAAWC)

23 AAW Picket (WATCHDOG)

24 TOMCAT

25 - 29 Spare

ANTISUBMARINE WARFARE (ASW)

30 ASW Commander (ASWC)

31 Sector ASW Commander (SASWC)

32 Local ASW Commander (LASWC)

33 Search and Attack Unit Commander (SAUC)

34 Spare

35 Submarine Element Coordinator (SEC)

36 - 39 Spare

ANTISURFACE WARFARE (ASUW)

40 ASUW Commander (ASUWC)

41 Sector ASUW Commander (SASUWC)

42 Surface Action Group Commander (SAGC)

43 Helicopter Attack Group Commander (HAGC)

44 Senior Officer FPB (SOFPB)

45 Surface Picket

46 - 49 Spare

AMPHIBIOUS WARFARE

60 Supporting Arms Coordination Centre (SACC)

61 Tactical Air Coordination Centre (TACC)

62 Primary Control Ship (PCS). Specify beach colour

63 Secondary Control Ship (SCS). Specify beach colour

64 Helo Control Ship (HCS)

65 Helo Direction Centre (HDC)

66 Boat Haven. Specify beach colour

67 Primary Casualty Receiving and Evacuation Control Ship (PCRS)

68 Secondary Casualty Receiving and Evacuation Control Ship (SCRS)

69 Central Control Ship (CCS)

70 Direct Support Naval Gunfire Support Ship (DSNGSS)

71	General Support Naval Gunfire Support Ship (GSNGSS)
72 - 79	Spare

DATA COMPILATION

80	Force Track Coordinator Air (FTC-A)
81	Force Track Coordinator Subsurface (FTC-SS)
82	Force Track Coordinator Surface (FTC-S)
83	Grid Reference Unit (GRU)
84 - 99	Spare

AIR COORDINATION/CONTROL

100	Air Coordinator (AC)
101	Force Marshaller (FM)
102	Air Resource Element Coordinator (AREC)
103	Helicopter Element Coordinator (HEC)
104	Helicopter Control Unit (HCU)
105	ASW Aircraft Control Unit (ASWACU)
106	AAW Aircraft Control Unit (AAWACU)
107	Attack Aircraft Control Unit (AACU)
108	
109	Air Control Unit (ACU)
110	Air Safety Cell (call EAGLE)
111	Air Safety Contact Cell (call FALCON)
112 - 119	Spare *Note*: For standby duties use (S) when promulgating the duty list.

SPECIAL DUTIES

200	Airstrike Safety Ship (SAFETY CELL)
201	Ballistic Windfinding Guardship
202	Bathythermographic Guard
203	Consort
204	Control Ship
205	Deception Group Commander (DCGC)
206	Delivering Ship
207	Disabled Ship
208	Duty Carrier
209	Emergency Landing Carrier
210	Firing Ship
211	Flank Marking or Rake Ship
212	Goalkeeper on HVU or Unit indicated
213	Host Ship
214	IFF Guardship
215	Illuminating Ship
216	Mainbody Group Commander (MBGC)
217	Man Overboard Recovery Ship
218	Medical Guard
219	Meterological Guard
220	Military Guard
221	Net Control Station (NCS) (Circuit/Line)
222	Officer Conducting Exercise (OCE)
223	Officer Conducting Serial (OCS)
224	Physical Barrier (Between Unit indicating and UnitBearing ____)
225	Radar Guardship

226	Radar Picket	237	TACAN Guard
227	RADHAZ Relay	238	Target Ship
228	Radio Link (on Circuit _____)	239	Tattletale
229	Ready Duty Ship	240	Towing Ship
230	Receiving Ship	241	Underway Replenishment Group Commander (URGC)
231	Recovery Ship	242	Unit Responsibility for Surfacing the Submarine
232	Replenishment Unit Guide	243	Visual Communication Duty Ship for Ship alongside (or for _____)
233	Rescue Destroyer (Station Number _____) (Duration of Duty _____ Hours) (Unit on which to take Station may be indicated). Rescue Destroyer is to take Station when Carrier indicates Readiness to operate Aircraft.	244	Visual Link between Ships indicated
234	Scene of Action Commander (SAC)	245	Weapon-carrying Helicopter Standby Ship
235	Search and Rescue (SAR) Ship	246	Weather Balloon Tracking Ship
236	Senior Officer Present Afloat (SOPA)	247	_____
		248	_____
		249	_____
		250	_____

Figure 7-2. Duty Table, continued

Source: EXTAC 1006 Structured Messages, "Table 5-4," April 1995.

GRAMMAR

Conditional Sentences

Read the material and work the exercises. Then check your answers against the answer pages at the end of the text. If you still do not understand the material, reread the section and rework the exercises.

Sentences containing **if** clauses are called conditional sentences. They are used to express possibilities, guesses, wishes, and regrets. Conditionals are common, even in daily conversation.

There are three kinds of conditions that give rise to conditional sentences: **present and future conditions**, **present unreal conditions**, and **past unreal conditions**.

Conditional sentences have two parts: **the main clause** (result clause) and **the if clause** (conditions).

Real Conditions

Certain **if** conditional sentences express something that may or will actually come to pass. Real conditions are those which presently exist, are probable, or are likely to happen. The simple present, the present progressive, or the present perfect tense is used in the **if** clause, and the future tense,

a modal, or the imperative form of the verb is used in the main, or result, clause.

Examples:

If you go to the message center, you should find CAPT Adams.

If you can't find CAPT Adams, check in the message center.

If you are looking for CAPT Adams, you can find him in the message center.

If you haven't found CAPT Adams yet, you probably won't. He may have already left!

When a conditional clause begins a sentence, a comma is used to separate it from the main clause.

Examples:

If you are running for exercise, I'll run with you.

When the **if** clause follows the main clause, a comma is not used to separate it from the main clause.

Example:

I'll run with you if you are running for exercise.

Exercise 7

Choose the one properly structured conditional statement, a, b, c, or d, which indicates a condition in the present.

1. a. If you will add a new section, insert the identifier, abbreviation, and text.

   b. If you are adding a new section, you will insert the identifier, abbreviation, and text.

   c. Insert the identifier, abbreviation, and text if you were adding a new section.

   d. Insert the identifier, abbreviation, and text if you are adding a new section.

2. a. You can indent the next line if you want to improve readability.

   b. You can indented the next line if you want to improve readability.

   c. If you wanted to improve readability, you can indent the next line.

   d. If you will want to improve readability, you can indent the next line.

3. a. You can use UFN if you didn't know the end time.

   b. You can use UFN if you don't know the end time.

   c. If you don't know the end time, you can used UFN.

   d. If you hadn't known the end time, you can use UFN.

Learning Strategy

Using new vocabulary words in sentences helps you remember them.

Unreal Conditions

Unreal or contrary-to-fact conditions are those that are impossible, improbable, or not likely to happen. They can belong to either the present or the past.

Present Unreal Conditions

We use the present unreal conditional to refer to unreal, or hypothetical, situations in the present time. The verb form in the **if** clause is in the past subjunctive mood, which is like the simple past tense, except for the verb **be**. **Were is used for both singular and plural subjects.** The verb form in the main, or result, clause is **would + simple form of the verb**.

Example:

If I **were** you, I **would take** the surface warfare course.

Could or **might** may be used instead of **would** with a slight difference in meaning. **Could** expresses ability or possibility, but does not include desire or willingness. **Would** indicates the desire to do something. **Might** indicates a slight possibility.

would

could + **the simple form of the verb**

might

Examples:

He **would** probably **feel** better if he exercised regularly.

Petty Officer Mills **could answer** the phone if he were at his desk.

If it weren't raining, we **might get** to class early.

Exercise 8

Choose the one properly structured conditional statement which indicates an improbable or contrary-to-fact condition in the present.

1. a. You could refer to the checksum if you will think that the DTG was wrong.

   b. You could refer to the checksum if you thought that the DTG was wrong.

   c. If you had thought the DTG was wrong, you will refer to the checksum.

   d. If you had thought the DTG was wrong, you could refer to the checksum.

2. a. You would refer to EXTAC 1006, if you will have to write an OPGEN.

   b. You will refer to EXTAC 1006, if you will have to write an OPGEN.

   c. If you had to write an OPGEN, you would refer to EXTAC 1006.

   d. If you had to write an OPGEN, you referred to EXTAC 1006.

3. a. If you used the change instructions, you can modify the message.

   b. If you used the change instructions, you could modify the message.

   c. You could modify the message if you have used the change instructions.

   d. You can modify the message if you have used the change instructions.

Past Unreal Conditions

Looking back at past times, we know whether events really occurred. By using conditional sentences, we can still talk about events that did not occur.

For the past unreal condition, the verb in the **if** clause is in a form which is like the past perfect tense. The verb in the main clause follows this example:

would

could + **have** + **past participle**

might

Examples:

I didn't know there was diving practice last night. I **would have been** there if I **had known** about it.

If Commander Redford **had left** at 0900, he **would have been** there by now.

Exercise 9

Choose the one properly structured conditional statement which indicates that the time has passed and the condition could not be fulfilled because the action in the *if* clause did not happen.

1. a. If you had put slants in the wrong place, the reader will be confused.

   b. If you had put slants in the wrong place, the reader had been confused.

   c. The reader would have been confused if you had put slants in the wrong place.

   d. The reader would have been confused if you put slants in the wrong place

2. a. If it had been required, we would include instuctions for conduct of ASW.

   b. If it had been required, we would have included instructions for conduct of ASW.

   c. We will include instructions for conduct of ASW if it had been required.

Exercise 10

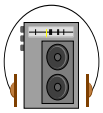
Copy the sentences in your notebook. Then complete each sentence with the correct form of the verb.

1. If I knew LT Kenny's phone number, I _____(call) him.
2. He would have made the rank of Chief Petty Officer if he _____ (pass) the exam.
3. We may have better communication if we _____ (get) a new captain.
4. If CDR Randall _____ (not, arrive) early, he would have missed the admiral's visit.
5. If I _____ (be) you, I would prepare for the briefing.
6. You may go now if you _____ (finish) the assignment.

Learning Strategy

Reviewing what you learned at the end of each chunk of instruction helps you learn the material better.

WRITING SKILLS



Summary

Exercise 11

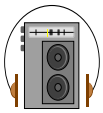
Listen to a lecture about *EXTAC 1006.* The lecture will be read three times. The first time you hear it, just listen. Take notes the second time, and the third time fill in any important points you missed. After you have heard the lecture three times, write a summary in your notebook from your notes. Check your spelling. The transcript of the lecture can be found in the answer pages.

Learning Strategy

Writing a summary or just giving a summary allows you to focus on the most important points.

VOCABULARY

Skim the reading titled "The OPSTAT Unit Message" in order to get a general idea of the topics covered. Notice how the reading is broken up into sections. Briefly look over paragraph and sub-paragraph headings. Read words that are specially marked (for example, underlined, bold, italicized, capitalized).



Now listen to and repeat the italicized words. Then read about the OPSTAT Unit. Circle any words you do not know and look up their meanings in the glossary or dictionary. Study the examples that are provided. Also, look at the sample OPSTAT Unit message (Figure 7-3). It will help you become familiar with the content and format of the OPSTAT Unit.

paras: paragraphs

The OPSTAT Unit Message

Purpose

There are various kinds of OPSTAT messages; however, for our purposes, we will only cover the OPSTAT Unit message.

The purpose of the OPSTAT Unit message is to provide the OTC and other authorities or units, as appropriate, with operational and administrative information. This message is originated by a unit on joining a force, when ordered by the OTC or as required. In the case of replenishment ships, it is used to provide customers with details of rigs and types of stores that can be delivered from ***respective*** transfer stations by using D1 and E3 only. It is sent to the OTC and appropriate authorities and units.

Instructions

1. Any heading not required will be omitted.
2. Adhere to the detailed drafting instructions.
3. When making a ***composite*** report for more than one unit, appropriate information, which may be reported in **paras** A3 to G1, should be listed sequentially for each unit followed by remaining paragraphs.

OPSTAT Unit Message Structure

ORIGINATOR: Unit

ADDRESSEES: OTC and appropriate commanders

CLASSIFICATION: . . as appropriate.

A1 REF Reference is given in the following sequence:

(1) Alphabetic designator

(2) Reference identification.

Note: Reference is mandatory if the message is a change to a previous OPSTAT.

Example:

A1/REF/A/SACLANT OPORD 540-94
A1/REF/B/EXTAX 1006

Learning Strategy

Closing your eyes and visualizing a situation helps you experience your new langauge.

A2 PERIOD Period covered by Message (Time ZULU) is DTG to DTG with checksum digits applied to each DTG. If end time is not known, use UFN.

Example:

A2/PERIOD/281400Z5-UFN

A3 UNITID Unit Identification is given as ship's name to specify information pertaining to that unit if it is not the originator. This paragraph may also be used to specify information in the same message pertaining to a number of units.

Example:

A3/UNITID/USS MILLER

B1 PERSDAT Personnel Data are given in the following sequence:

(1) Name, rank, and date of rank of commanding officer

(2) Number of officers, men, and doctors onboard

(3) VIP or Senior Officer (if embarked)

(4) Special riders, if any, and dates onboard (normally applicable to submarines only)

(5) Number and qualification of divers onboard, diving equipment carried, capabilities for ship maintenance, repair, or EOD.

Example:

BI/PERSDAT/JOHN SMITH-CAPT-6 AUG 80/17-191-1/ 4 MAB-BGEN BARKER/3 SHIPS DIVERS-SCUBA AIR, MIXED GAS-HULL INSPECTION, MINOR REPAIR

masthead: the top part of a ship's mast

endurance: the time a ship can continue operating, under specified conditions

cavitation: disturbance around revolving propeller blades, struts,etc., caused by collapse of transient-pressure disturbances resulting from flow of water over their surfaces

victualling: taking in and storing supplies of food and drink

B2 ACDAT Air Controller Data are given in the following sequence:

(1) Type of aircraft controllers

(2) Number and NATO GRADE for helo controllers.

Example:

B2/ACDAT/FIGHTER/2/HELO/2-BRAVO/1-CHARLIE

B3UNITDAT Unit Data are given in the following sequence:

(1) Ship designator

(2) Length in meters

(3) Draught in meters

(4) **Masthead** height in meters/Submarine height in meters

(5) Maximum speed available in kts (include any restrictions). Submarines indicate maximum surfaced speed-maximum submerged speed with **endurance** - normal submerged transit speed with endurance

(6) **Cavitation *inception*** speed in KTS

(7) Usable capacity of fuel in cubic meters (CUM)

(8) Fuel remaining in CUM

(9) Estimate fuel consumption in CUM per day for 15 kts in most economical ***configuration*** and for 25 kts.

Note: (6) to (9) are not normally applicable to submarines.

Example:

B3/UNITDAT/DDGH/120/7/35/32KTS5/10KTS1/5000 CUM/3910 CUM/28-40
B3/UNITDAT/SSK/86/8/15.3/13KTS4/15KTS6(30MIN)-5(12H)/-/40/10

B4 SPLYDAT Supply Data are given in the following sequence:

(1) **Victualling** stores endurance (in days)

(2) Emergency stores endurance (in days) (always to be included in initial OPSTAT Unit)

(3) Diesel percentage (if less than 95%)

(4) Hydraulic oil percentage (if less than 95%)

(5) Lube oil percentage (if less than 95%

(6) Demineralized water (if less than 95%)

(7) Fresh water (if less than 95%).

Note: Normally only applicable to submarines.

Example:

B4/SPLYDAT/56/14/-/93/-/90/85/

C1 SONARDAT Sonar Data are given in the following sequence:

(1) Sonars and their active frequencies

(2) Additional sonar or acoustic devices, give function, title and active frequency

(3) Towed Array on/off dates

(4) Hydrosounder/shaker fit. Type, serial number of power amplifiers (shakers), frequency of cassettes held, type of frequency generator fitted and frequency range, date of last hydrosounder/shaker ranging.

Note: (3) and (4) are applicable to submarines only.

Example:

CI/SONARDAT/SQS26CX-3.5KHZ SQS35-13KHZ/ TORPEDO DECOY SLQ25 17-88KHZ

C2 RADARDAT Radar and **IFF** Data are given in the following sequence:

(1) Radar/IFF type

(2) Magnetron frequency set

(3) Optimum magnetron frequency

(4) Frequencies of spare magnetrons

(5) Estimated time to change magnetrons

(6) RADHAZ if any. State external dangers to personnel, material and/or aircraft.

Note: (2) to (6) are not required for IFF.

Example:

C2/RADARDAT/SEAGULL/47111/9230-9288/9255/-/15 MIN/ DANGER TO PERSONNEL WITHIN 50 METERS

C4 NAVDAT Navigational Systems and Aids Data. Free text as required.

Example:

C4/NAVDAT/ADD SATNAV

C6 GUNDAT Gun Fire Control System(s) are given as system nomenclature which include gun type and maximum effective ranges for AA and SU.

Example:

C6/GUNDAT/TABLE HOTEL **SER** FORTY-5IN38 *or*
C6/GUNDAT/4.5INM8S-AA 7 **KYDS**-SU 20 KYDS

C7 WPNDAT Weapon Load Data are given in the following sequence:

(1) Torpedos. Given as type and number of each type onboard

(2) Short range ASW weapons. Given as type and percent (abbreviate as PCT) of total outfit of each type onboard

IFF: Identification Friend or Foe (system)

(3) Missiles. Given as type and number of each type onboard in order of SSM, SAM, PDMS, and ASW missiles (MOD and or Block if applicable)

SER: serial

(4) Gun ammunition. Given as caliber and percent (abbreviate as PCT total outfit for each caliber)

(5) Chaff and decoy rounds. Given as type and number each type onboard

(6) Mining gear. Given as Yes/No

(7) Torpedo loading rails and lifting bands given as Yes/No

Note: (6) and (7) are normally applicable to submarine only.

Example:

C7/WPNDAT/MK44-13 MK8-4/TABLE CHARLIE SER TWO-90PCT/TABLE GOLF SER THIRTY FOUR-6 SER SIXTEEN-26 SER TWENTY ONE-15 TABLE DELTA SER THREE-25/5IN-75PCT 4.5 IN-90PCT 20MM-88PCT/3IN ROCKET-60

C8 NAVWARN Navigational Warnings Held specify relevant warnings held and latest number.

Example:

C8/NAVWARN/COMGERFLEET 25-94

D1 AIRDAT Aircraft,Numbers and Air Operational Data are given as number of aircraft embarked, type, aircraft ***limitations***, aircrew restrictions, flight deck limitations.

Note: Sequence may be repeated for each type of aircraft.

Example:

D1/AIRDAT/35FL14-DELETE ASW 27B/20A6E-5 **AC DOWN** FOR MAINTENANCE-CAN ONLY LAUNCH WITH ONE HALF **WPN** LOAD
D1/AIRDAT/ONE SEAKING AVAILABLE FOR STORES VERTREP

E1 RASDAT Replenishment Data are given in the following sequence:

(1) Grade and alternate grade of fuel used

(2) Type of fueling connections and receiving stations; location in distance from the bow in meters and height above the water in meters.

(3) Receive capability for astern refueling given as Yes or No

(4) Locations of armament stores receiving stations in distance from the bow in meters and height above the water in meters

(5) Locations of miscellaneous stores receiving stations distance from the bow in meters and height above the water in meters.

Note: EXTAC 1003 refers.

Example:

E1/RASDAT/F 76/STATION 3 NATO B 60-6 **STBD**-STATION 4 PROBE 60-6 PORT/NO/STATION 1 AND 2 25-8 STBD AND PORT/STATION 1, 2, 3 AND 4

KYDS: thousands of yards

AC: aircraft

down: not in operation

E2 VERTREP Vertical Replenishment Data are given in the following sequence:

(1) Receiving capability as maximum load in kilograms

(2) Location of receiving station

(3) In flight refueling capability. Given as Yes or No

(4) Hot refueling capability. Given as Yes or No.

Example:

E2/VERTREP/1000 KG/FLTGHTDECK/YES/YES

E3 REPLDAT Replenishment Ship Data for use by replenishment ships are given in the following sequence:

(1) Station number

(2) Rig details, including type of end fitting for securing to the receiving ship's high point

(3) Type of stores that can be delivered from that station.

Example:

E3/REPLDAT/ONE/MANILA HIGHLINE-NATO STD LONG LINK/FRESH **PROVISIONS**/THREE/SPANWIRE-PROBE/F 76/NINE LARGE DERRICK NATO B/F 76

WPN: weapon

STBD: starboard

provision: something provided, prepared, supplied for the future

transceiver: combined radio transmitter and receiver

frequency separation: degree to which signals are ketp apart according to their frequency

multiplex equipment: combines independent channels into a complex signal and

FI RADIODAT Numbers of Transmitters, **Transceivers** and Receivers fitted are given in the following sequence:

(1) The total number of separate transmitters with indication of bands covered given in the following order: MF, HF, VHF, UHF, SHF and EHF. Indicate any side band and **frequency separation** requirements or limitations (for example: frequency, range, power)

(2) The total number of separate transceivers with an indication of bands covered given in the following order: MF, HF, VHF, UHF, SHF and EHF. Indicate any frequency separation required and any frequency, range and power limitations

(3) Total number of separate receivers with an indication of bands covered given in the following order: ELF, VLF, IF, MF, HF, VHF, UHF, SHF and EHF. Indicate any side band and/or frequency limitations

(4) For crystal frequency controlled transmitters give the number fitted and frequency bands of crystal held (for example: 1HF-1MF)

(5) For crystal frequency controlled receivers give the number fitted and frequency bands of crystal held (for example: 1VHF-1UHF).

Example:

FI/RADIODAT/1KF-2HF-2UHF/2HF-4UHF(1MHZ)/1LF-2MF-4HF-2UHF/1UHF/1UHF

F3 SATDAT Satellite Communications Data are given in the following sequence:

(1) SATCOM transmit lines. Give number and type (for example, UHF, SHF or EHF, RATT or DATA).

(2) SATCOM receive lines. Give number and type (for example: UHF, SHF or EHF, RATT or DATA).

Example:

F3/SATDAT/2UHF/ISHF-IUHF

F4 TERMDAT Communications Terminal Equipment Data are given in the following sequence:

(1) **Multiplex equipment**. Give number of sending channels and receiving channels

(2) Tone keyers. Give number and type

(3) **Frequency shift converters**. Give number and type

(4) Number of **on-line** broadcasts which can be **simultaneously** received.

Example:

F4/TERMDAT/16-16/ONE-SGCIA/THREE-URAI7/2

F7 TACANDAT TACAN Data are given in the following sequence:

(1) TACAN channel number

(2) Identity letters

(3) Ability to change channels at sea (given as Yes or No).

Example:

F6/TACANDAT/14/CHD/YES

F8 SLOTHOLD Slot Buoy Holdings are given in the following sequence:

(1) Number of slot buoys carried

(2) Number of each channel carried shown as channel, with number of buoys following in brackets.

Example:

F8/SLOTHOLD/10/25(3)/31(7)

Note: Normally applicable to submarine only.

G1 OPDEF Operational Defects which are current and which may affect tactical employment are detailed.

Example:

G1/OPDEF/ONE OF TWO SAM GUIDANCE RADARS IS DOWN **ETR UNK**

Y1 SPECINST Special Instructions are given as necessary.

Example:

Y1/SPECINST/ . . . (free text as required.)

Y2 SPECINFO Special Information is given as necessary.

Example:

Y2/SPECINFO/ . . . (free text as required.)

restores independent channels from a complex signal

frequency shift converter: electronic device used in telegraphy, teletypewriter, and facsimile

on-line: designating or of communication circuits (other than voice) controlled by a computer

simultaneously: happening or done at the same time

ETR: estimated time of repair

UNK: unknown

Z1 ACKNLDGE Acknowledge is used when addressees are required to acknowledge.
Use with discretion.

Example:

Z1/ACKNLDGE/KENNEDY/ARC ROYAL

Source: EXTAC 1006 Structured Messages, April 1995.

Exercise 12

In your notebook copy the following sentences and insert the appropriate words.

1. In the Unit Data section of the OPSTAT Unit, the height of the _____ is given in meters.
2. Section C2 includes radar data and _____ data.
3. The _____ of the gun fire control system(s) goes in C6.
4. Under D1, give information on the number of aircraft embarked, their types and their _____.
5. List _____ equipment, tone keyers and frequency shift converters in the TERMDAT section.

Write the answers to these comprehension questions in your notebook.

6. When is an OPSTAT Unit message prepared?
7. How should information in paras A3 to G1 be listed in a composite report?
8. What two fuel consumption estimates should be included in an OPSTAT Unit?
9. Are these bands covered by a unit's receivers listed in the correct order?

   VLF, EFL, EHF, SHF, UHF, VHF, IF, MF, HF

   If not, what is the correct order?

10. According to the example in section G1, when is it estimated that the down radar will be fixed?

Exercise 13

Review vocabulary by matching each word with its definition.

___ 1. reference	a. code name or number
___ 2. standardized	b. ability to continue
___ 3. predecessor	c. filling of stores
___ 4. compliance	d. process to convert text
___ 5. allocation	e. at the same time
___ 6. replenishment	f. source of information
___ 7. crypto	g. conforms with requirement
___ 8. designator	h. follows a norm
___ 9. endurance	i. distribution
___ 10. simultaneously	j. one that was before

Sample OPSTAT Unit Message

This sample message is unclassified.

R 140007Z MAY 98
FM WARSZAWA
TO COMSIXTHFLT
INFO
CTF
TF

BT
UNCLAS //00000//
MSGID/OPSTAT UNIT/ORP WARSZAWA/123/MAY/
A1/REF/A/EXTAC 1006/APR 1995//
A2/PERIOD/270005Z1JUN98-UFN//
A3/UNITID/ORP WARSZAWA//
B1/PERSDAT/JOHN DOESKY-CDR-JUNE 93//
B2/ACDAT/FIGHTER/2/HELO/3-ALPHA//
B3/UNITDAT/DDG/156.3/9.59/45.82/32KTS5/12KTS3/1721.4CUM/
774.6CUM/ 101.7CUM-221.5CUM//
B4/SPLYDAT/25/0//
C1/SONARDAT/
M/F HULL MOUNTED/ FREQ/
M/F VDS/FREQ//
C2/RADARDAT/
2- RN 231/ MAGNETRON FREQ SET/ OPTIMUM MAGNETRON FREQ/
SPARE FREQ
ESTIMATED TIME TO REPLACE MAGNETRON/ RADIATION HAZARD/
1- DON-KAY/ MAGNETRON FREQ SET/ OPTIMUM MAGNETRON FREQ/
SPARE FREQ/
ESTIMATED TIME TO REPLACE MAGNETRON/ RADIATION HAZARD/
1- HEAD NET-C/ MAGNETRON FREQ SET/ OPTIMUM MAGNETRON
FREQ/ SPARE FREQ/
ESTIMATED TIME TO REPLACE MAGNETRON/ RADIATION HAZARD/
1- BIG NET/ MAGNETRON FREQ SET/ OPTIMUM MAGNETRON FREQ/
SPARE FREQ/
ESTIMATED TIME TO REPLACE MAGNETRON/ RADIATION HAZARD/
2-PEEL GROUP/ MAGNETRON FREQ SET/ OPTIMUM MAGNETRON
FREQ/ SPARE FREQ/
ESTIMATED TIME TO REPLACE MAGNETRON/ RADIATION HAZARD/
2- OWL SCREECH/ MAGNETRON FREQ SET/ OPTIMUM MAGNETRON
FREQ/ SPARE FREQ/
ESTIMATED TIME TO REPLACE MAGNETRON/ RADIATION HAZARD/
2- BASS TILT/ MAGNETRON FREQ SET/ OPTIMUM MAGNETRON FREQ/
SPARE FREQ/
ESTIMATED TIME TO REPLACE MAGNETRON/ RADIATION HAZARD
1- SALT POT TRANSPONDER/ MAGNETRON FREQ SET/ OPTIMUM
MAGNETRON FREQ/SPARE FREQ/
ESTIMATED TIME TO REPLACE MAGNETRON/ RADIATION HAZARD//
C4/NAVDAT/SATNAV ADDED//
C6/GUNDAT/
4-76MM DP/MODEL TYPE/ MAXIMUM EFFECTIVE RANGE FOR AA AND

Figure 7-3. OPSTAT Unit Message

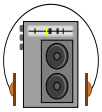
SU/
4- 30MM AK-630 GATLING AA/ MODEL TYPE / MAXIMUM EFFECTIVE RANGE FOR AA AND SU//
C7/WPNDAT/
5- 533MM TORPEDOS/ NO RELOADS/
2- RBU-600 (12 X 2)/
4- SS-N-26 STYX SSM/
2- SA-N-1 SAM (2 X2; 32 GOA MSL)/
GUN AMMO, CALIBER/ PERCENT FOR EACH CALIBER/
CHAFF AND DECOY ROUNDS,TYPE/ NUMBER ONBOARD/
MINING GEAR, YES OR NO/
TORPEDO LOADING RAILS AND LIFTING BAND, YES OR NO//
C8/NAVWARN/SPECIFY RELEVANT WARNINGS HELD AND LATEST NUMBER//
D1/AIRDAT/HELICOPTER DECK/LIMITATIONS//
E1/RASDAT/F76/STATION 3 AND 4, STBD AND PORT, NATO ROBB COUPLING PROBE, 45-10 METERS. STATION 7, STBD, NATO ROBB COUPLING PROBE, 117-6 METERS. STATION 8, PORT, NATO ROBB COUPLING PROBE, 114-6 METERS/ YES/STATION 1 AND 2, STBD AND PORT, 13-6 METERS. STATION 5 AND 6, STBD AND PORT, 75-6 METERS, STATION 5 INOP.//
E2/VERTREP/2000KG/FLIGHTDECK/YES/YES/2222K/FOCLE/NO/NO//
E3/REPLDAT/ONE/MANILA HIGHLINE-NATOSTD LONG LINK/ FRESH PROVISIONS/THREE/SPANWIRE-PROBE/ F 76/NINE/ LARGE DERRICK NATO B/F 76//
F1/RADIODAT/SIX HF/NINE HF/TWELVE UHF, ONE EHF//
F3/SATDAT/THREE UHF, ONE EHF/FOUR UHF, ONE EHF/YES/NO//
F4/TERMDAT/4-4/URA17/NO/10//
F7/TACANDAT/40/WZ/YES//
G1/OPDEF/ ONE OF TWO SAM GUIDANCE RADARS IS DOWN ETR UNK//
Y2/SPECINFO/ SHIP HAS COMPLETED ALL WORK UPS AND SEA TRIALS SINCE LAST EXTENDED MAINTENENCE PERIOD//
Z1/ACKNLDGE/ KENNEDY/ ARC ROYAL//

Figure 7.3. OPSTAT Unit Message, continued

Exercise 14

Practice developing an OPSTAT Unit message by writing one for a fictitious ship taking part in a multinational exercise. Refer to the previous reading and to Figure 3 above. Write the message in your notebook. Practice explaining the information that you put on each line. Do this with a partner, if possible.

VOCABULARY



Listen to the reading titled "Conduct of Exercises" and follow along. As you listen, circle the words you are not familiar with. Afterwards, you can see a sample pre-exercise message in Figure 7-4.

Conduct of Exercises

Content and Use

EXTAC 1005 designed for use by NATO nations when conducting exercises or operations with non-NATO navies. Areas covered include communications, antisubmarine warfare, antiair warfare, antisurface warfare, maneuverability, replenishment at sea, and search and rescue.

The following section provides introductory and explanatory material such as general instructions and guidance for the conduct of exercises and, where appropriate, special safety precautions.

Surface force exercises normally can be conducted external to the battle group environment; but integrated exercises should be conducted within the framework of the battle group to exercise all aspects of command, control, communications, and weapons ***employment***, from the level of the warfare commander down to individual operators and air crews.

Blue: the color of the friendly force during NATO exercises

Orange: the color of the force in the role of the enemy during NATO exercises

Command

Officer Scheduling the Exercise (OSE)

The OSE is the officer who originates the exercise and orders it to take place. He will issue basic instructions that will include the objectives of the exercise, the designation of the exercise areas, the allocation of forces, and the necessary coordinating instructions. He will also designate the officer conducting the exercise (OCE). In ASW exercises, the OSE will ensure that the existence of submarine danger areas are highlighted in the exercise order.

Officer in Tactical Command (OTC)

The OTC is the senior officer present eligible to assume command, or the officer to whom he has delegated tactical command. He shall ensure that all elements of an exercise requiring pre-exercise briefing are covered in the face-to-face briefing prior to conduct of the exercise.

Officer Conducting the Exercise (OCE)

The OCE is responsible to the OSE for the conduct of the exercise from both the **Orange** and **Blue** aspects. He will issue such necessary ***supplementary*** instructions as detailed orders to all participating units, safety precautions, reports required

from participants, and conduct of the exercise as it develops. The OCE shall ensure that participants in the exercise attend a face-to-face briefing prior to conduct of the exercise.

Officer Conducting the Serial (OCS)

The OCS is the officer designated to exercise tactical control over assigned forces for a specific exercise serial.

Submarine Operating Authority (*SUBOPAUTH*)

The SUBOPAUTH is the command exercising operational control over submarines, and is normally a submarine force commander. In certain cases, however, another naval commander may be specifically designated as a SUBOPAUTH.

Safety

Safety of participating units, including safety of personnel and the safeguard of equipment, is paramount in the conduct of any exercise. Departure from established safety rules and precautions for the sake of completing an exercise is never ***warranted***. All safeguards must be taken to ensure that the training environment does not create an actual hazard or bypass existing safety precautions or devices.

Violations of established safety procedures during an exercise shall be the subject of specific comment in a post-exercise ***critique***. A safety observer shall immediately inform the OCE during the conduct of an exercise of ***impending*** violations to safety precautions, or their ***infraction***, and the OCE, if in his judgment personnel or equipment will be endangered, shall ***terminate*** either the exercise or the exercise phase, until the reported condition is ***remedied***.

For gunnery and missile exercises, accepted basic rules will apply. For example, all ***exposed*** personnel will take cover whenever there is danger of fragments falling on a firing ship. The OTC shall ensure that general safety rules and precautions are covered in the face-to-face briefing prior to conduct of the exercise.

Aircraft Distress Signals

When aircraft are participating in an exercise, the signals used by an aircraft in distress and the actions to be taken are to be covered by the OTC in the face-to-face briefing prior to conduct of the exercise.

Submarine Operating Authority (SUBOPAUTH) Responsibilities

SUBOPAUTH responsibilities are the following:

- Exercise operational control of units assigned.
- Promulgate ***accountability*** reports and such area restrictions and safety regulations as may be required by local conditions for submarine safety.
- Promulgate necessary instructions and guidance concerning the use of exercise weapons.
- Ensure familiarization with all safety precautions by all units involved in submarine operations.

Safety Observers (Umpires)

Safety observers should be assigned at appropriate locations, but assignment should be limited to minimize interference with the conduct of the exercise. Safety observers have one responsibility—take immediate action to notify the OCE and responsible ships personnel of the ***incipient*** stages of a dangerous situation. By ensuring that safe procedures are used, safety observers aid in preventing serious casualties. Notwithstanding this, in all exercises, the primary responsibility for safety shall lie with the operating personnel.

Pre-Exercise Considerations

Pre-Exercise Message

Figure 7-5 provides a format that may be used for issuing the pre-exercise message for missile and gunnery exercises. When using the format, omit designators that are not required.

Pre-Exercise Briefing

To ensure that an exercise is completed safely and with a minimum of misunderstanding, it is mandatory that all participants in an exercise attend a face-to-face briefing prior to the conduct of the exercise.

The OCE should describe tactical maneuvers to be carried out, initial stationing for the exercise, and methods to be employed for maneuvering. The communication plan should be described in detail. Reports required and the methods of preparing and submitting them should be specified. Every item indicated in the exercise as requiring briefing shall be covered.

The pre-exercise briefing for an antisubmarine warfare (ASW) exercise shall include, as a minimum, the following items:

- Safety procedures for ships and submarines.
- Submarine disaster procedures, including search and rescue procedures to be followed.
- Torpedo recovery and search procedures, if the weapon is not immediately located (when exercise weapons are involved).
- Safety observers designated for the exercise and their duties.
- Submarine communication methods, including flares and disaster signals.
- Submarine and/or exercise target characteristics and limitations, including submarine safe depth requirements, depth tables to be used if required for the exercise, and the surfacing method to be employed.
- Exercise structure, including type of exercise to be completed, start and stop times, search plans and support methods, and any other ***parameters***.

Servicing Aircraft and Ship Considerations

Communications between servicing aircraft and serviced units will be conducted by voice radio. Provide servicing aircraft with the exact position, course, and speed of a ship, since aircraft may have difficulty identifying the ship with which they are to exercise. When aircraft are detected and identified, they may be **vectored** into position. It should be appreciated that a ship has a limited amount of time to devote to a scheduled exercise. It is therefore necessary for servicing aircraft to be ready on time.

vectored: guided by means of a course or compass heading

Missile and Gunnery Exercise Considerations

During a missile and gunnery exercise, the following aspects are to be considered:

Safety in conduct of the exercise and realism in training are twin goals. The OCE shall brief all participants prior to the

conduct of the exercise on the safety rules and precautions, including safety zones, safe fire areas, drones and drone control, aircraft overflights and aircraft towing targets, characteristics of weapons to be used, radar and/or visual surveillance of the firing area, posting and duties of safety observers, and so forth.

In preparing for a missile or gunnery exercise, the OCE should give attention to the selection of an appropriate tactical situation; however, simulation of an actual situation is limited by the need to maintain ***adequate*** safety measures and the restrictions on ammunition ***expenditure***. Satisfactory completion of elementary exercises should be followed by more advanced exercises which simulate realistic battle problems and test command and control coordination. Realistic simulated casualties to fire control, command and control, and ordnance installations should also be included in advanced exercises.

If it is desired to exercise techniques requiring use of a search plan, such plan must be fully described in the exercise order and covered by the OTC in a face-to-face briefing prior to conduct of the exercise.

recognition: the ability to identify and classify both friendly and hostile forces by visual or electronic means

identification system: a system for determining identity that distinguishes friendly and enemy forces

Exercise Preparations

Exercise preparations include the special attention given to presenting realistic situations to which participating personnel are expected to respond. Team leaders should prepare and discuss the exercise problem with the personnel involved.

An exercise may commence with the announcement of a general problem situation, simulated or actual. It is then necessary for the team leader to be prepared to brief participants on the exercise. He also ensures that personnel ***initiate*** all appropriate procedures before terminating the exercise.

Exercises included in this publication may be modified as required to meet operational requirements or weather restrictions. It is the OCE's responsibility to ***ascertain*** the specific parameters of a modified exercise prior to actual conduct of the exercise.

The imposition of a casualty or other situation may necessitate closing valves, opening switches, or stopping machinery. In every instance, umpires must inform the responsible personnel of the situation desired. The latter will operate the designated equipment. A casualty which cannot be imposed without danger of personnel injury or material damage shall be simulated.

The training of weapon control personnel requires that simulated attacks be as realistic as possible. A training weapon should be used when appropriate for realism, but even it may be simulated if an unsafe condition would otherwise arise.

Recognition training and its application to safety is of utmost importance and may be added as an integral part of an exercise when appropriate. Procedures to be used shall be in accordance with current directives and shall be covered in the face-to-face briefing prior to conduct of the exercise. It is highly desirable to practice the use of **identification systems** whenever possible; accordingly, instructions for their use may be added to an exercise where appropriate.

Communications

The satisfactory conduct of an exercise depends on good communications. Therefore, the OTC shall ensure that all communications preparations have been made prior to conduct of the exercise, that the exercise includes an adequate communication plan, and that the communication procedures and the details of the circuits required by the exercise are covered in the face-to-face briefing prior to the conduct of the exercise.

Voice radio is the primary means of communication between units participating in an exercise. Radio teletype will be used for planning and coordinating exercises. Unless otherwise agreed, English will be used in all voice and radioteletype communications. Communications with subma-

rines may use underwater telephone (UWT) or sonar sound transmission (SST). Control ships shall provide a time check prior to commencement of any live firing exercise.

EXTAC 1000 provides instructions for using signals and sequences of signals that may be useful during any exercise in this publication. The signals supplement the International Code of Signals adopted by the Fourth Assembly of the Inter-Government Maritime Consultative Organization.

Visual communication methods that may be employed on occasion include signal flag and flashing light. Visual communications are to be in accordance with the International Code of Signals. For antisubmarine warfare (ASW) exercises, signaling may include the use of colored flares or smokes and grenades. In surface maneuvering (MAN) exercises, signaling includes the use of standard hand signals.

Communication (COM) Exercises

The Order Table for Communication Exercises, at Figure 7-6, provides the format for planning messages used to advise all forces by signal of the scheduling of communication exercises and to issue detailed instructions for the conduct of these exercises. In using the Order Table, omit paragraphs that are not required. Reference EXTAC 1005, Annex 1B, in the message.

When ordering a radio communication exercise, the senior officer is responsible for obtaining clearance with appropriate authorities for the frequencies to be used. Units participating in such exercises are responsible for operating transmitters at the lowest ***practicable*** power and ***adhering strictly*** to the assigned frequency.

Note that the use of distress or emergency frequencies in any manner for operator training is prohibited.

Messages transmitted for the exercise of communication personnel will be identified by including the word "DRILL" at the beginning and the ending of all **plain language text** messages and messages that consist of ***random*** groups and shall be included in the message group count. The word "EXERCISE" will be used for all other exercise traffic intended to be acted upon when the exercise ***nickname*** or code word is not provided. If it becomes necessary to transmit an operational message during a communication exercise or on an exercise circuit, the words "DRILL" and "EXERCISE" will be omitted.

Exercise COM-7 also provides training in maneuvering through the use of a **plotting board**. The procedures to be used in this exercise should be covered in a face-to-face briefing prior to conduct of the exercise.

plain language text: text that has not undergone an encryption process; text in language anyone can read

plotting board: a polar coordinate "compass rose" superimposed on paper which can be used to perform vector analysis

COM-7 Radio-Visual Communication Drill (Simulated)

To exercise communication personnel in radiotelegraph and/or radiotelephone procedures and in maneuvering signals.

Provisions

The drill is to be simulated with respect to the ship's movement that will be carried out by plotting on maneuvering boards. The drill may be conducted either (1) in port when visibility is favorable or (2) underway when traffic and weather conditions permit.

Procedure

CONDUCTING SHIP

Promulgate the organization for the exercise using paragraph QQ in the Order Table.

Prepare a series of maneuvers and transmit via radiotelegraph or radiotelephone.

EXERCISE SHIPS

Repeat all messages of the conducting ship by radiotelegraph or radiotelephone.

Work maneuvering boards in accordance with prescribed procedure.

Signal information as requested by conducting ship.

CONDUCTING SHIP

At end of exercise, require all ships to signal simultaneously the following:

1. If in organization 1— Final course, speed, and station.
2. If in organization 2— Final formation, speed, and other pertinent data as required.

Source: EXTAC 1005 Exercise Manual (Rev. A).

READING/WRITING SKILLS

Write a Paragraph

Exercise 15

After reading the selection, write a paragraph about the roles of the OSE, OTC, OCE, OCS, and SUBOAUTH in exercise planning. Use the questions as a guide in your discussion.

1. Who initiates the planning of an exercise?
2. What does the OTC ensure?
3. What is the OCE's responsibility?
4. What is the OCS appointed to do?
5. What does the SUBOAUTH control?

FUNCTION

Hypothesizing

To hypothesize about an action or condition is to assume or suppose what would happen in a particular situation. To express hypothetical ideas, we use present and past unreal conditional sentences such as those you studied in the grammar section. Each type expresses a different meaning and is used for a different purpose.

Present unreal conditional sentences describe conditions that do not exist now. Their meaning is present time although the verb in the **if** clause is actually in the present subjunctive, which looks like the past tense. The verb form in the main clause, or result clause, is **would + simple form of the verb**. This type of sentence is often used to express a wish or give advice.

Example:

> If any personnel were in danger, the OCE would terminate the exercise.

Past unreal conditional sentences deal with things that did not happen. This type of sentence is often used to discuss

something which failed to occur, or to make apologies for something in the past. The verb in the **if** clause is in the perfect subjunctive, which is like the past perfect tense. The verb in the main clause, or result clause, is the perfect conditional form (would/could/might + have + past participle).

Example:

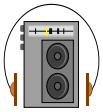
> If the OSE had provided instructions, necessary preparations could have been made.

Note: An **if** clause in the perfect subjunctive (like the past perfect tense) can be combined with a main clause that expresses a situation not true in the present. This type of sentence shows how something which failed to occur in the past can have an effect on the present. This construction occurs more frequently in speech than in writing.

Example:

> If the OSE had provided instructions, necessary preparations could be made right now.

Exercise 16



Dialogue

Listen to the dialogue "If You Hadn't Joined the Navy…." and follow along.

If You Hadn't Joined the Navy....

Jeff: If you were a civilian, what would you be doing now?

CDR Lee: If I hadn't joined the Navy, I'd probably be an artist. But I like being in the Navy.

Jeff: When you think back over your years in the Navy, what did you enjoy the most?

CDR Lee: I really enjoyed the BALTOPS 98 naval exercises.

Jeff: Did the exercises require a lot of preparation?

CDR Lee: Yes, they did; and if one unit had not been ready, the success of the exercises could have been jeopardized.

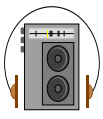
Jeff: What would have happened if your unit hadn't fulfilled its responsibilities during BALTOPS?

CDR Lee: If my unit hadn't done such a good job, I wouldn't have been promoted.

Jeff: If I were in the Navy, I think I'd like to be a member of your team.

CDR Lee: If I were you, I'd consider making that a reality.

Exercise 17

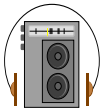


Listen to questions about the dialogue titled "If You Hadn't Joined the Navy...." The first time you hear them, just listen. The second time, write them. The third time, check what you have written.

Exercise 18

Write answers to the six questions from Exercise 17.

Exercise 19



Listen again to the dialogue titled "If You Hadn't Joined the Navy....". Take the part of CDR Lee as you follow the dialog on the tape.

WRITING SKILLS

Exercise 20

Prepare a PRE-EX for an imagined communications exercise to take place in the future. See the sample message (Figure 7-4) and pre-exercise message format on the following pages. Use the Order Table for Communication Exercises (Figure 7-6) for the format. Write the PRE-EX in your notebook. Practice explaining the information that you filled in on each line. Do this with a partner, if possible.

WRITING/SPEAKING SKILLS

Writing the Draft

Use the notes and the outline you prepared (for the presentation to be given during the seminar) to write the first draft of your speech.

Sample Pre-exercise Message

This sample message is unclassified.

RAAUZYUW RUDJABT DDDHHMM-UUUU— .

ZNR UUUUU

R 121345Z SEP 98

FM HMS SAMPLE

TO ALL SHIPS CONDUCTING SERIAL (PARTICIPANTS)

INFO SENIOR COMMANDERS IN TASK FORCE/GROUP

OTHER SHIPS IN TASK FORCE

BT

UNCLAS //N03120//

EXER/SAMPLE STAR 98//

MSGID/PRE-EX/OCS NAME//

REF/A/DOC/COMDESRON X/98SEP01//

REF/B/DOC/NTSA/96SEP01//

NARR/REF A IS COMDESRON X EXERCISE OPERATIONS ORDER. REF B IS EXTAC

1005 (REV A).//

POC/LT SMITH/OPS OFFICER/OCS SHIP NAME/-/TEL:PHONE NUMBER//

RMKS/1. IN ACCORDANCE WITH REFERENCE A, THE FOLLOWING INFORMATION IS

PROVIDED IN REFERENCE B FORMAT:

A. EVENT: **SORTIE** FROM PORT

B. OSE: COMMANDER, XX FLEET

C. OCE: COMDESRON X

D. OTC: HMS SAMPLE

G. FORCES:

1. SHIPS: CRO - GRA - BAR - HUW

I. TIME ZONE: -3 CHARLIE

J. COMEX: 250700

Figure 7-4. Sample Pre-exercise Message

SORTIE: departure

JJ. FINEX: **TBD**. UPON DEPARTURE OF ALL SHIPS FROM PORT

O. MANEUVERING INSTRUCTIONS TO SURFACE UNITS:

1. **CDS** WILL COORDINATE **EXPEDITIOUS** DEPARTURE TIMES WITH **QEN** AND PASS SORTIE TIMES TO SHIPS.

2. REQUEST QEN COORDINATE EXPEDITIOUS AND COMBINED DEPARTURE TIMES WITH DOHA PORT AUTHORITY.

S. SPECIAL INSTRUCTIONS:

1. SHIPS ADJUST COURSE AND SPEED NECESSARY TO RDVU IN POSITION 2540N1-05200E7 NLT 1130C.

2. MAKE UNDERWAY REPORTS TO OCE (CDS) VIA CKT ES09.

U. COMMUNICATIONS:

1. A. ES01 - UHF TACTICAL

B. ES09 - HF COMMAND

X. SPECIAL SAFETY INSTRUCTIONS: NATIONAL GUIDELINES FOR SAFETY DURING DEPARTURE FROM PORT APPLY. REPORT SAFETY INCIDENTS TO OCE.

Z. IAW EXOPORD SOE.//

BT

TBD: to be determined

CDS: Commander Destroyer Squadron

expeditious: efficient and speedy

QEN: Qatar Emeri Navy

Figure 7-4. Sample Pre-exercise Message, continued

Pre-exercise Message Format

Designator	Meaning
*A	Exercise to be conducted, designated by number of descriptive title
B	Officer scheduling the exercise (OSE)
*C	Officer conducting the exercise (OCE)
D	Officer in tactical command (OTC)
E	Chief umpire
F	Analyzing authority
*G	Friendly forces (ships and aircraft assigned) 1. Senior officer 2. Composition 3. Initial formation 4. Initial course and speed 5. Aircraft (type, configuration, number, call sign, and home field)
*H	Opposing forces (ships and aircraft assigned) 1. Senior officer 2. Composition 3. Initial position 4. Initial course and speed a. Target ship (call sign) (1) Initial position (2) Initial course and speed b. Tow ship (call sign) (1) Initial position (2) Initial course and speed c. Aircraft (type, configuration, number, call sign, and home airfield) d. Target type

Designator	Meaning
I	Time zone to be used throughout exercise
J	Date and time exercise is to start (COMEX)
JJ	Date and time exercise is to end (if the opposing forces have not by then left the area) (FINEX)
K	Duration of firing time
*L	Orders for gunfire 1. Ammunition 2. Number of runs 3. Number of rounds per run 4. Number of rounds per salvo 5. Special ammunition to be used
*M	Base course and speed
*N	Area of exercise 1. Firing area 2. Waiting area 3. Rendezvous point and date time group (when rendezvous is at different time and/or place than firing ships) a. Firing surface units b. Target ship c. Tow ship d. Aircraft
O	Maneuvering instructions to surface units

Figure 7-5. Pre-exercise Message Format

Designator	Meaning
*P	Anticipated runs to be made by target 1. To be assigned 2. Runs to be used 3. Runs to be briefed 4. Modifications to runs (specify)
Q	Firing general procedures 1. Type of shot (day or night) 2. Type of armament 3. Type of observation 4. Method of observation 5. Time of opening fire 6. Cease fire
R	Nonfiring zone (safe zone)
S	Special instructions for friendly forces
T	Special instuctions for opposing forces
*U	Communications 1. Voice frequency a. Primary b. Secondary 2. CRATT 3. TACAN/Homer a. Channel/ID (if none, so state) b. Homer frequency (if none, so state) 4. Other (must be covered in a face-to-face briefing prior to conduct of the exercise)

Designator	Meaning
V	Particular assignments 1. Aircraft control ship a. Primary b. Secondary 2. Miscellaneous assignments
W	Orders for action in emergency (downed aircraft) and lost communications procedures
X	Special safety instructions
XX	Aircraft altitude assignments
Y	Ships detailed for drone recovery
Z	Movements on completion of exercise
ZZ	Special instructions for transfer of observers, keeping of records, and forwarding data
*Signifies mandatory items to be included in pre-exercise message.	

Figure 7-5. Pre-exercise Message Format, continued

Source: EXTAC 1005 (Rev.A) Annex 1A.

Order Table for Communication Exercises

Designator	Meaning
A	Exercise to be conducted, designated by number of descriptive title. Add one of the following suffixes to indicate personnel who are to carry out exercises or work maneuvering boards: None Commanding officer assisted by CIC/AIO staff and signal staff 1 Officers of the deck/watch 2 CIC/AIO officers 3 Communication 4 Senior signal personnel 5 Junior signal personnel 6 Senior wireless personnel 7 Junior wireless personnel 8 CIC/AIO personnel
B	Officer scheduling the exercise (OSE)
C	Officer conducting the exercise (OCE)
D	Officer in tactical command (OTC)
E	Chief umpire
F	Analzying authority
G	Composition of exercising ships
H	Composition of target (assist) ships

Designator	Meaning
HH	Aircraft taking part in exercise
I	Time zone to be used throughout exercise
J	Date and time exercise is to start (COMEX)
JJ	Date and time exercise is to end (FINEX)
K	Initial position of exercising ships
L	Initial position of target (assist) ships
N	Base course for exercise ships
NN	Base course for target (assist) ships
P	Area of exercise or rendezvous point before commencement of exercise
Q	Special instructions for exercise ships
QQ	Special instructions for simulated maneuvers. Use one of the following suffixes: 1. Ships taking part, organized as ordered at the beginning of the exercise 2. Ships in formation, course and speed, and location of OTC (must be briefed prior to start of exercise)
R	Special instructions for assist ships

Figure 7-6. Order Table for Communication Exercises

Designator	Meaning
S	Special instructions for aircraft taking part in the exercise
T	Indication of commencement of exercise. Use one of the following suffixes: 1 At time indicated 2 Upon the order "Commence the
U	Communications means available. Use one of the following suffixes: 1 Voice radio with frequencies and call signs 2 Flashing light 3 Radio teletype 4 Other (must be briefed prior to start of exercise)
X	Special safety instructions for aircraft taking part in the exercise
Z	Movements on completion of exercise
ZZ	Special instructions for keeping of records and forwarding of data

Figure 7.6. Order Table for Communication Exercises, continued

Source: EXTAC 1005 (Rev.A) Annex 1B.

GLOSSARY

Objective Vocabulary

accountability (ac coun ta BIL i ty) n: obligation to account for or explain acts; responsibility

The new commander is demanding an increase in accountability for all officers within his command.

acknowledge (ac KNOWL edge) v: to notify originator that a message has been understood

You might have to acknowledge receipt of instructions from the OSE.

adequate (AD e quate) adj: sufficient; suitable

The steps taken to secure circuits used during the operation were more than adequate.

adhere (ad HERE) v: to follow; to stay firm in supporting or approving

Writers of structured messages must adhere to rules for drafting them.

allocation (al lo CA tion) n:a setting apart for a specific purpose; a distribution according to plan

The supply officer is responsible for the allocation of a ship's stores.

amendment (a MEND ment) n: improvement; correction; revision

The operation plan needs an amendment before it is put into effect.

amplify (AM pli fy) v: to develop more fully, as with details, examples, statistics, etc.

You can amplify on information given during a briefing by using charts and drawings.

appropriate (ap PRO pri ate) adj: right for the purpose; suitable; fit; proper

Make sure a message has the appropriate security classification before it is transmitted.

ascertain (as cer TAIN) v: to find out with certainty or sureness; to discover

The safety observer has to ascertain whether safety procedures are being followed during a repair action.

compliance (com PLI ance) n: conformity in fulfilling official requirements; act in accordance with request, wish, or demand

Compliance with orders is mandatory.

composite (com POS ite) adj: formed of distinct parts; compound

A composite photograph is made by combining several photographs.

comprehensive (com pre HEN sive) adj: dealing with all or many of the details; inclusive

Units provided the OCE with comprehensive reports after the operation.

comprise (com PRISE) v: to make up; form; constitute

The OPGEN, OPTASK and OPSTAT messages comprise the MTMS.

configuration (con fig u RA tion) n: arrangement of parts or elements

The configuration of the Sea King makes it ideal for use as a ship-based antisubmarine helicopter.

conform (con FORM) v: to be in accord or agreement

Message content must conform to an established sequence.

critique (cri TIQUE) n: a critical analysis, evaluation or review of an operation, exercise, etc.

Force commanders met in conference to complete a critique of the operation.

dash (-) (DASH) n: a punctuation mark that indicates a break

A dash is used to separate added details from a block of information in a message.

designation (des ig NA tion) n: a pointing out or marking out; indication; act of designating

TU 401.02.02 is the lowest command designation within TF 401.

discretion (dis CRE tion) n: consideration of the impact of an action

For security reasons, use discretion when deciding which units need to respond to a message.

element (EL e ment) n: member of a set such as data field, block of information in a message; component part

Elements within a section of a message are separated by slants.

embark (em BARK) v: to go aboard a ship or aircraft; to load troops and their supplies onto a ship; to begin a journey

All personnel will embark upon completion of final preparations for departure.

employment: (em PLOY ment) n: a making use; the state of being employed

It was decided that the employment of force would be necessary.

established (e STAB lished) v: specified; ordered

A formatted message consists of sets of information arranged in an established sequence.

exempted (ex EMPT ed) v: freed from a rule or obligation

No writer of messages is exempted from rules designed to standardize them.

expenditure (ex PEND i ture) n: the amount of money, time, etc. used up or spent; the act of expending

The exercise was kept short to minimize the expenditure of funds.

exposed (ex POSED) v: not shielded or protected

Exposed wires and cables are a safety hazard.

format (FOR mat) n: a specific arrangement; a specified form or style

The message format specifies that sections be put in alphabetic order according to their identifiers.

illustrative (IL lus tra tive) adj: an example used to help explain or make something clear

The sample pre-exercise message is illustrative of the arrangement used.

impending (im PEND ing) adj: about to happen; approaching; imminent; threatening

The ship changed course due to an impending storm.

inception (in CEP tion) n: the beginning of something; start

The surface warfare course has been successful since its inception.

incipient (in CIP i ent) adj: in the first stage of existence; just beginning to come to notice

It is better to deal with problems when they are incipient than to wait until they become full-blown.

infraction (in FRAC tion) n: violation; a breaking of a rule or law

Any infraction of the safety regulations will be punished.

initiate (in I TI ate) v: to bring into practice or use; start

Our forces are ordered to strike back if opposing forces initiate hostilities.

limitation (lim i TA tion) n: assigned or set boundary; something that bounds, restrains, or confines

Limitations in the message handling capacity of the network result in a slow down in communications.

mandatory (MAN da to ry) adj: authoritatively commanded or required; obligatory

It is mandatory that all forces be informed of scheduled exercises.

nickname (NICK name) n: two words which may be formally or informally assigned by any appropriate authority to an event, project, activity, place name, etc.

The nickname of the USS Constitution is "Old Ironsides."

omit (o MIT) v: to leave out

Do not omit any required sections of a message.

parameter (pa RAM e ter) n: a boundary or limit; a factor or characteristic

A pre-exercise message may include parameters such as the composition, initial formation, and course and speed of ships assigned

perishable (PER ish a ble) adj: easily injured or destroyed; liable to deteriorate

Perishable information is useful for a limited span of time while nonperishable information can be used for an indefinite period.

practicable (PRAC ti ca ble) adj: usable; workable; useful and sensible

The OTC ensures that there is a practicable plan for an operation.

predecessor (PRED e ces sor) n: a person or thing replaced by another

The new plan is better than its predecessor.

random (RAN dom) adj: characterized by procedures designed to obtain sets or elements of sets having equal probability of occurrence

A random selection of letters and numbers to replace letters or words in a message is used to transform a message into code.

readability (read a BIL i ty) n: ease with which written text can be read

The readability of large amounts of unorganized information is low.

reference: (REF er ence) n: a source of information to which a reader is referred

Each EXTAC in the series can be used as a reference during operations.

referencing (REF er enc ing) v: mentioning

Referencing the original message is required whenever a change is sent.

remedy (REM e dy) v: something that corrects or counteracts

Measures were taken to remedy the lack of tactical security and deny information to the opposing force.

replacement (re PLACE ment) n: a person or thing that takes the place of another

The commander's replacement arrives tomorrow.

requirement (re QUIRE ment) n: something required or needed; something demanded, as a condition

Certain requirements must be fulfilled to make a structured message conform to a standard.

respective (re SPEC tive) adj: as relates to two or more persons or things regarded individually; particular; separate

Participating personnel discussed the operation with the leaders of their respective teams.

scale: (SCALE) n: a relative degree or level

If the scale of an operation is too large to warrant an OPGEN alone, OPTASKs can be used to amplify the OPGEN.

self-explanatory: (SELF ex PLAN a to ry) adj: explaining itself; obvious without explanation

REF is the self-explanatory abbreviation for the Reference section of a message.

slant (/) (SLANT) n: short diagonal line; slash; virgule

In the section prefix G4/DEPART, the identifier and abbreviation are separated by a slant.

spare (SPARE) adj: not in use but kept for use if needed; extra

Spare parts are supplied for the maintenance or repair of systems or equipment.

stand-alone (STAND-a lone) adj: existing or functioning independently

A stand-alone computer is not part of a network and does not share hardware or software with other computers.

standardized (STAND ard ized) v: made to fit a single standard or made uniform

NATO standardized products are identified by a NATO code number.

strictly (STRICT ly) adv: exactly or precisely; following or enforcing a rule or rules with great care

Our obligation to strictly follow procedures was emphasized at the briefing.

sub- (SUB) prefix: forming a division into smaller or less important parts; subordinate

Sets of data in a message can be separated by numbering them as subparagraphs rather than by inserting slants.

supersede (su per SEDE) v: to take the place of

The latest instructions supersede the old ones.

supplementary (sup ple MEN ta ry) adj: additional; supplying what is lacking

Supplementary signals that are not provided in the International Code of Signals can be found in EXTAC 1000.

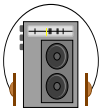
terminate (TER mi nate) v: to put an end to; cease

The rescue party can terminate its operation when the injured crew members have been safely taken aboard ship.

warranted (WAR rant ed) v: justified; called for; authorized

Extra caution during the handling of explosive ordnance is always warranted.

Maritime Expressions



Exercise 21

There are many expressions used in the military. A few are given here. Listen to and repeat the words and the sentences.

Battle group: naval task force; especially aircraft carriers with their aircraft and support vessels

The battle group included supporting AAW and ASW escorts.

Casualty: a person lost to service through death, wounds, sickness, capture, etc.; anything lost, destroyed, or made useless

A battle casualty incurred during hostile action differs from a loss that is not related to combat.

Chaff: general name for radar confusion reflectors

Aircraft, shells, and rockets can be used to release chaff in the atmosphere.

Clearance: access by an individual to classified information of a specific category; permission to proceed

To obtain a top-secret clearance, an extensive background investigation is needed.

Departure: the technical point at which a ship leaves an anchorage or harbor

All units participating in the operation received departure instructions.

Depth table: instructions to an exercise submarine to be at specific depths at specific times

The depth table is needed by the OCE to allow safe deployment of underwater detection devices at various depths.

Designator: a distinguishing name

A guided missile cruiser is assigned the ship designator CG.

Disposition: distribution of the elements of a command within an area

The disposition of the forces being deployed is indicated in section G1 of the OPGEN.

Duty table: a table of numbers assigned to various warfare commander duties that simplifies message writing

The CO of the ship was told to assume duties 20, 21, 43 and 64 in the duty table.

Field: the basic element of reported information in a message; a block of information

One field is distinguished from another one by the slant symbol between them.

Grid origin: a geographical point designated as the center point of a grid or screen

The grid origin has to be coordinated with all units that have data links to ensure a common reference point.

Group: the words or collection of letters in a cipher or code message

Say "groups 8" before transmitting an encrypted message that has 8 separate groups of letters.

Integrated exercise: an exercise with more than one warfare area

The integrated exercise utilized surface and subsurface areas.

Live firing exercise: an exercise during which ordnance is expended

All of the weapon systems on a ship may be employed during a live firing exercise.

Message structure: the arrangement of all the parts of a message; manner of organization of a message

An OPSTAT UNIT and PRE-EX have different message structures.

Nomenclature: name; designation; a system for naming

Officers need to be familiar with the nomenclature of equipment used in their specialty areas.

Order table: the format that the person planning the exercise uses to order the conduct of the exercise

For communication exercises, use the order table presented in Annex 1A of EXTAC 1005.

Originator: The command by whose authority a message is sent

The originator of a message appears on a line before the addressee.

Posting: an appointment to a place of duty

The officer's posting to a ship he served on before surprised him.

Radiotelegraph: wireless transmission of telegraphic codes

The International Morse Code is commonly used to broadcast messages by radiotelegraph.

Safe fire area: area where the impact of weapons has been approved; firing area

Ships involved in an exercise are given the location of each safe fire area in advance.

Screen: an arrangement of ships, aircraft and/or submarines to protect a main body or convoy

The OTC decided that an antisubmarine screen would be necessary.

Serial: sequence; an element or group of elements consisting of related or similar persons, things or events that form a series

Serial ASU-1 is a specific exercise in the ASU series.

Simulation: a training which allows persons to experience what real conditions are like

Many aspects of an operation at sea can be practiced while in port by means of a simulation.

Subject indicator code: a code assigned to a message according to subject matter content

The subject indicator code is used to effect distribution of messages.

Surveillance: systematic observation of areas, places, persons and things by some means

The movement of enemy aircraft is kept under surveillance by radar.

Team leader: a person who directs the action of a group of individuals

The team leader talked with each member of the team about his and her duties.

Warfare commander: the officer designated as being in charge of a particular war fighting area

The Anti-Surface Warfare Commander promulgated a message with detailed instructions for conducting an operation against opposing surface forces.

ZULU (Z): zone suffix for Greenwich Mean Time

The ships maintained their course until 2000Z.

Maritime Acronyms and Abbreviations

AA: Anti-Aircraft

AAW: Anti-Air Warfare

AAWC: Anti-Air Warfare Commander

ASUW: Anti-Surface Warfare

ASUWC: Anti-Surface Warfare Commander

ASW: Antisubmarine Warfare

CIC: Combat Information Center

DTG: Date-Time-Group

GHZ: Gigahertz

helo: Helicopter

IFF: Identification Friend or Foe (system)

KHZ: Kilohertz

KTS: Knots

MHZ: Megahertz

MSGID: Message Identifier

MTMS: Maritime Tactical Message System

MWOPS: Mine Warfare Operations

OCE: Officer Conducting the Exercise

OCS: Officer Conducting the Serial

OPGEN: Operational General Matters

OPSTAT: Operational Status

OPTASK: Operational Tasking

OSE: Officer Scheduling the Exercise

OTC: Officer in Tactical Command

PCT: Percent

PDMS: Point Defense Missile System

PIM: Position and Intended Movement

SAM: Surface-to-Air Missile

SAR: Sea-Air Rescue/Search and Rescue

SATCOM: Satellite Communications

SSM: Surface-to-Surface Missile

SST: Sonar Sound Transmission

SUBOPAUTH: Submarine Operating Authority

TACAN: Tactical Air Navigation (system)

UFN: Until Further Notice

UWT: Underwater Telephone

Exercise 22

After you study the list of acronyms and meanings, copy the list below in your notebook. In the blanks, write the corresponding meaning or acronym.

1.	_____	Megahertz
2.	_____	OTC
3.	_____	Mine Warfare Operations
4.	_____	Submarine Operating Authority
5.	_____	OSE
6.	_____	MTMS
7.	_____	Antisubmarine Warfare
8.	_____	AA
9.	_____	OCE

10. _____ Anti-Surface Warfare

11. _____ KTS

12. _____ MSGID

13. _____ Until Further Notice

14. _____ Officer Conducting the Serial

15. _____ DTG

ENRICHMENT ACTIVITIES

Troublesome Grammar: Two-Word Verbs with *Put*

Two-word verbs, sometimes called phrasal verbs, are those verb-preposition combinations that have a meaning different from that of the two words separately. Usually the two-word verb may be replaced with a single verb that has the same meaning. The basic difference between a two-word verb and a verb plus a preposition is illustrated by the following examples:

Examples:

The sentence "I called down the seaman." means that I reprimanded the seaman. **Called down** is a two-word verb.

The sentence "He called down the stairs." means that he shouted from upstairs so as to be heard down below. **Called down** is not a two-word verb; rather **called** is a simple verb with its usual meaning, and *down* is a preposition with stairs as its object.

The following are some common two-word verbs. Fuller listings and more detailed explanations may be found in idiom dictionaries. We use **put** with a variety of prepositions. Here are some combinations.

The commander tried to **put across** his ideas to the reporter. (explain)

It's wise to **put aside** some money for emergencies. (save)

Maintenance personnel must **put away** their tools when they're through. (return to its original place)

Don't forget to **put back** the books. (return to its original place)

Civilians often **put down** their military counterparts. (criticize)

Don't **put off** doing what should be done. (delay)

Put on your chemical gear. (don)

Put out the fire. (extinguish)

The proposal was **put to** the full committee. (propose)

Exercise 23

In your notebooks, copy the sentences and next to each sentence write the meaning of "put" used in the sentence.

1. Leaders should never put down their subordinates.
2. Put back the report in the file.
3. Don't put on your jacket.
4. The *In the Spirit* exercise was put off.
5. Put out the cigarette.
6. He was unable to put across his meaning.

Authentic Reading

Quickly skim the following reading from the Internet to get the general meaning. Think for a moment about naval exercises that you have participated in. What "firsts" can you recall?

BALTOPS 98 Phase 1 Ends: Most Successful First Phase

By LCDR Ed Buclatin

ROSTOCK, GERMANY-U.S. RADM W. Winston Copeland said the combined fleets of 13 nations, who ended the first phase of the U.S. BALTOPS 98 naval exercises, June 12, had achieved one of the most successful at-sea phases ever.

"The exercise this year achieved a stunning series of firsts during this phase," RADM Copeland said. "We noticed a remarkable increase in communication and language skills between the various fleet units, as compared to previous years. The men and women of BALTOPS 98 have definitely set a new standard for exercises to come."

During the first week at sea, the exercise hosted more than 3,000 personnel from 52 ships, submarines and airplanes, conducting numerous drills in basic and advanced seamanship and defensive skills. The first phase of BALTOPS 98 was an invitational exercise, held in the spirit of NATO's Partnership for Peace program.

Participating in Phase 1 were Germany, Poland, Denmark, Sweden, Latvia, Lithuania, Estonia, Norway, Finland, the Netherlands, France, the United Kingdom and the United States.

Among the achievements:

- Despite differences in equipment, the units of the exercise fleet swiftly established successful voice and data communications with each other.
- The fleet was broken into three international sub-units, or "task groups," all of which reported tremendous success in swiftly bridging language barriers and achieving flotilla cohesiveness.
- Ships of the various sub-units daily exchanged personnel with each other, giving sailors from many nations a chance to meet and compare professional experiences with their counterparts.
- The sub-units exercised in such professional skills as gunnery, anti-air warfare, small unit tactics and anti-submarine warfare. Of the more than 50 such exercises scheduled during the first phase, only three had to be canceled due to poor weather conditions.

BALTOPS 98 directors, drawing upon previous exercise lessons learned, achieved a number of "firsts" this year. The firsts included:

- BALTOPS 98 was the first exercise to successfully combine ships and aircraft of various nations into cohesive, multinational task groups.
- Exercise sub-units practiced nighttime interdiction and boarding operations with units of the Polish navy.
- Participating units had a chance to hone their anti-submarine warfare (ASW) skills against a participating submarine in the challenging environment of the Baltic Sea.
- France participated in the BALTOPS exercise, sending two warships.

"The officers and sailors who took part in Phase 1 of BALTOPS 98 were true professionals," said RADM Copeland. "After working closely with them for the past week, I can honestly say I'd be pleased and proud to work with any of them, anytime in the future."

Source: http://www.chinfo.navy.mil/navpalib/news/eurnews/eur98/eur98022txt

Exercise 24

Copy the comprehension questions in your notebook and answer them.

1. What did RADM Copeland say about communication and language skills?
2. Why were BALTOPS 98 directors able to achieve so many firsts?
3. In your opinion, which achievement during Phase 1 was the most significant? Why do you think so?

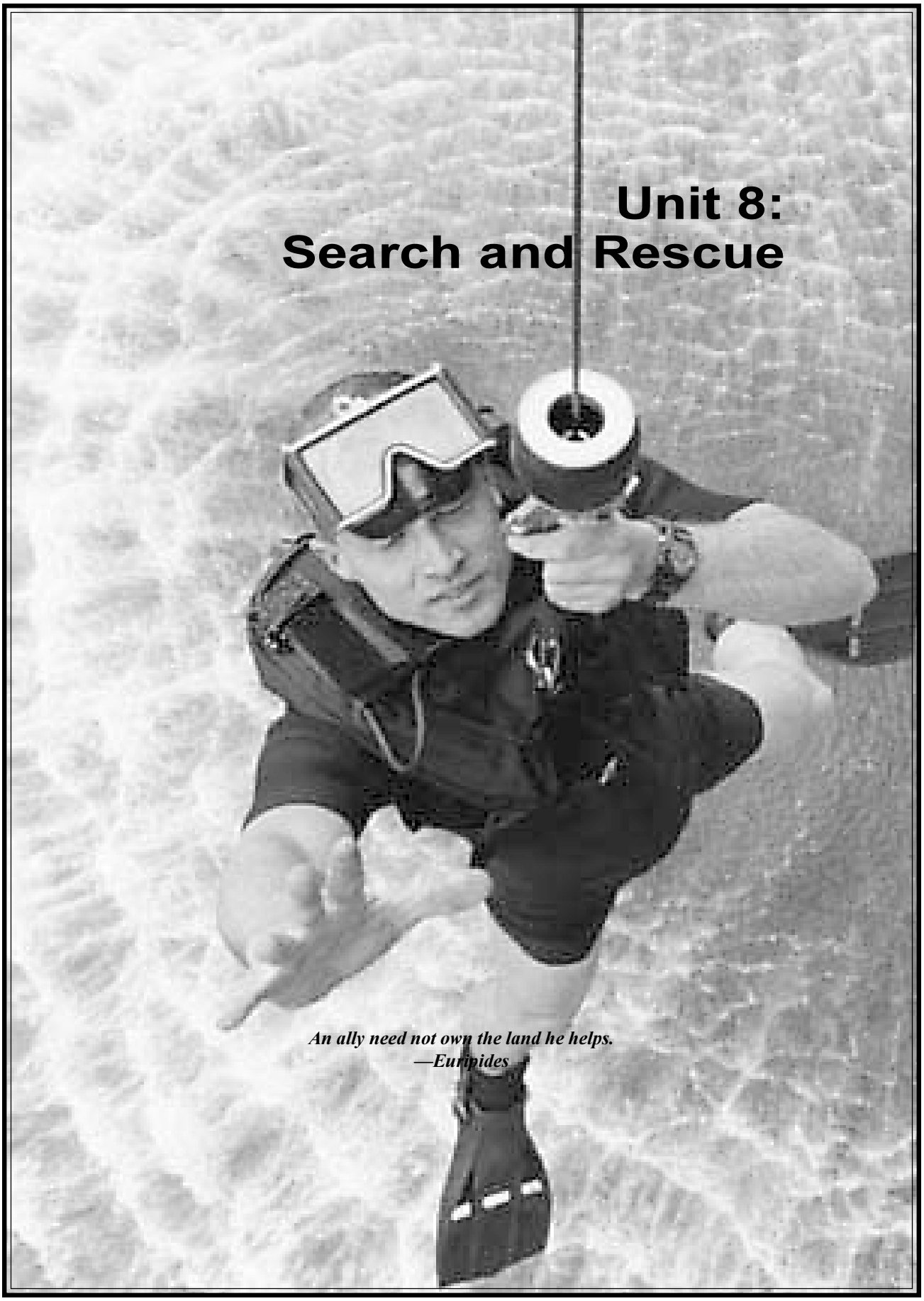
LEARNING STRATEGY

Language Learning Log

Exercise 25

Follow the instructions for completing the Language Learning Log that were given in Unit 1.

Unit 8:
Search and Rescue



An ally need not own the land he helps.
—Euripides

Resources

You will need Unit 8 of this course, the Unit 8 recording, a blank tape, a tape/CD player, notebook paper, pen or pencil, and your copy of *Webster's New World Dictionary.*

Objectives

In this lesson you will

1. inquire about and describe search and rescue operations.
2. review the use of simple past tense versus present perfect tense.
3. use objective vocabulary, military expressions, and maritime acronyms found in the glossary.
4. explain what a search and rescue operation is.
5. define the five-level SAR hierarchy.
6. define the obligations of all SAR resources and organizations.
7. explain the stages of SAR.
8. explain the different SAR techniques and how they work in different distress situations.
9. write the final draft of your oral presentation.
10. listen to electronic communications, including news broadcasts; take notes or write summaries.
11. read articles about maritime operations; answer comprehension questions.
12. read authentic military/NATO material and answer comprehension questions.
13. practice a variety of language learning strategies.

Table of Contents

LEARNING STRATEGIES

In Unit 8 you will encounter new learning strategies as well as review some that you learned in previous units.

Planning

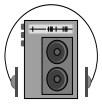
Exercise 1

Look over your schedules for the previous units. Remember that setting aside time to study is necessary for you to achieve your learning goals.

Unit 8 Schedule

Day	Plan	Actual
Mon	_____	_____
Tue	_____	_____
Wed	_____	_____
Thurs	_____	_____
Fri	_____	_____
Sat	_____	_____
Sun	_____	_____

VOCABULARY



Listen to the readings titled "Introduction to SAR" and "The Navy's Role in SAR" and follow along. The new vocabulary is in italics. As you listen to the reading, notice how the new vocabulary is used in each sentence. Circle any words you do not know.

Introduction to SAR

A SAR (Search and Rescue) is best defined as the use of all available resources to assist persons and property in **potential** or actual distress. The Geneva Convention ***addresses*** SAR in this manner: ". . . every nation shall require the master of a ship, insofar as he/she can do so without serious danger to the ship, crew or passengers, to ***render*** assistance to any person found at sea in danger of being lost and to proceed with all possible speed to the rescue of persons in distress. . . ".

A SAR system exists when an arrangement of components is activated, as needed, to assist efficiently and effectively persons or property in potential or actual distress.

You will be involved in a SAR mission at some time during your career. It may happen as soon as a ship has reported that it is underway or at the worst possible time. Unlike exercises or missions with a clear commencement/termination time, the Tactical Action Officer (TAO) or PfP equivalent must be prepared for SAR contingencies 24 hours a day.

Learning Strategy

At the end of each day, review your new vocabulary words. Make sentences with the new words.

potential: possible

The Navy's Role in SAR

What is the role of the Department of the Navy with respect to SAR? In a nutshell, we can say that for Navy personnel, the Navy will provide units for the search. These units may be under the control of task force/tactical commanders or under the control of the Area SAR Coordinator. The SAR mission organization will depend on the circumstances on scene. In general, "The Navy takes care of its own."

In other cases, the Navy will assist with units on a not-to-interfere basis. Those units participating will be under the control of the SAR Coordinator for the area (Maritime, Inland, or Overseas).

Source: Joint Pub 3-50 National Search and Rescue Manual, Vol. I: National SAR System, Feb 1991.

After you turn off the recording, silently read the paragraphs again. Next, in your dictionary or in the glossary of this unit, look up the meaning of the words you do not know. Then complete Exercise 2.

Exercise 2

Select the correct answer for each number.

1. The SAR manual _____ many important issues.
   a. addressed
   b. addresses
   c. addressing

2. The most important job of any SAR mission is to _____ aid.
   a. random
   b. rank
   c. render

In your notebook write the answer to the question.

3. What is the role of the Navy in SAR missions?

VOCABULARY

Listen to the reading titled "SAR Hierarchy" and follow along. The italicized words are the new vocabulary words. Circle any words you do not know. If instructed to do so, repeat the words. Use the dictionary or glossary to help you.

SAR Hierarchy

Any SAR incident may have the following: a SAR Coordinator (SC); a SAR Mission Coordinator, (SMC); an On-Scene Com-

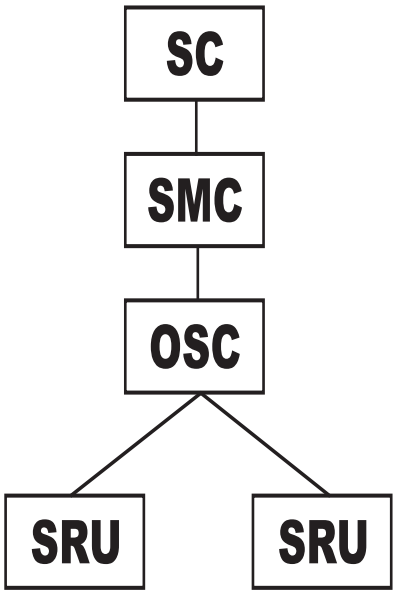


Figure 8-1. SAR Hierarchy

mander/Incident Commander OSC/IC; and a Search and Rescue Unit (SRU).

Figure 8-1 illustrates a typical SAR mission organization. The following is a description of each component.

SAR Coordinator (SC)

The SAR Coordinator (SC) is at the highest level of command concerned with any one particular SAR effort. When notified of a distress, the SAR Coordinator will do the following: identify resources; establish agreements with other services, government agencies, or countries; assign a SAR Mission Coordinator (SMC); and maintain a smooth, accurate communications ***link*** up and down the chain of command. Only the SAR Coordinator has the authority to suspend SAR operations.

SAR Mission Coordinator (SMC)

The SAR Mission Coordinator (SMC) is ***designated*** by the SAR Coordinator. He will manage the mission by exercising full operational authority including planning, coordinating, and controlling all rescue units. Duties will include establishing search patterns, managing aircraft fuel, monitoring safety of flight, directing helo deck availability, ***disseminating*** weather at datum and divert fields, and responding to the orders of the On-Scene Commander.

On-Scene Commander (OSC)

The On-Scene Commander (OSC) may be designated as such by being the first rescue unit on-scene or through coordination with other rescue units, or by the SAR Coordinator. The OSC is responsible for mission accomplishment. The OCS's duties include the following:

- establishing and maintaining communications with the SMC
- assuming operational control of all rescue units assigned
- carrying out the SMC's SAR plan or filling in the gaps in the plan if necessary
- receiving Operations Normal ("ops normal") reports
- providing initial briefs and search instructions
- receiving and investigating all sighting reports from the rescue units
- being responsible for safety
- obtaining search results from departing rescue units
- passing duties to the most capable rescue unit
- briefing the new OSC
- advising the SMC
- making ***serialized*** situation reports (SITREPs) to the SMC at regular ***intervals*** when developments occur or at least daily.

The OSC must not leave the SAR scene until properly relieved.

Search and Rescue Unit (SRU)

The SRU performs search, rescue, or similar operations. Responsibilities include the following:

- contacting the OSC 15 minutes before arrival with Estimated Time of Arrival (ETA), operational limitations, communication capability, planned search speed, and on-scene ***endurance***
- executing the SAR plan
- after the search, reporting to the OSC the area searched, the results, and weather conditions
- maintaining communications with OSC
- notifying the OSC with all ***pertinent*** information when survivors, wreckage, oil, raft, etc., are spotted
- marking the spot where sighting was made

Learning Strategy

Making sentences with the new vocabulary words helps you remember them.

- notifying OSC with all pertinent information if any radio, radar, sonar, emergency, etc., signal is received.

Source: Joint Pub 3-50 National Search and Rescue Manual, Vol. I: National SAR System, Feb 1991.

Exercise 3

Match the vocabulary word with its correct definition.

1. ____ endurance	a. the time between events
2. ____ serialized	b. relevant, to the point
3. ____ disseminate	c. ability to last
4. ____ link	d. name for an office or duty; appoint
5. ____ designate	e. related items coming one after another in regular sequence
6. ____ intervals	f. spread information, news, etc. over a wide area
7. ____ pertinent	g. connection

Learning Strategy

Matching words with their meanings helps you learn them.

GRAMMAR

Simple Past versus Present Perfect

In discussing past events, you may sometimes have to decide whether to use the simple past or the present perfect tense.

Simple Past

Example:

I **did** my work yesterday.

The simple past (**did**) indicates that a situation or activity started and ended at a specific time in the past (yesterday).

Present Perfect

Example:

I **have** already **done** my work.

The present perfect is a verb phrase made up of the present form of the auxiliary **have** (i.e., **has** or **have**) and a past participle. It indicates or gives the idea that something happened or didn't happen (e.g., I **haven't done** my work yet.) at some indefinite time in the past. *When* it happened is not important. If a specific time is indicated (yesterday), the simple past is used. However, when no specific time in the past is indicated (the work is done, but it doesn't say when it was done), the present perfect is used.

Exercise 4

Put the correct form of the verb, either simple past or present perfect, in the following sentences.

1. The ACLANT team (move) _____ into their new quarters last week and they (be) _____ there ever since.
2. The vice admiral (have) _____ a briefing last week in his old office, but he (move) _____ the briefing to his new office.
3. I (meet) _____ never _____ anyone who could play soccer like Petty Officer Harris. He (be) _____ the best in his command.
4. a: Are you going to watch the training video on SAR Techniques?

   b: No, I (see) _____ it already. In fact, I just (see) _____ it yesterday.

Simple Past with *When*

If a sentence contains the word *when*, and uses the simple past in both clauses, the action in the clause containing *when* occurs first.

Examples:

When the sailor *heard* the explosion, he *hit* the alarm.

The sailor *hit* the alarm when he *heard* the explosion.

In either sentence the action of the clause beginning with *when* took place before the action of the other clause. The hearing of the explosion occurred before the sailor hit the alarm.

Present Perfect Showing Repetition of a Past Activity

The present perfect can express an activity that has happened repeatedly in the past. The exact time of the action or occurrence is not important.

Examples:

The helicopter **has flown** over the search area at least four times.

The activities of the SRU **have been evaluated** many times.

Exercise 5

Circle the verbs that correctly complete the sentences.

1. Everybody (has jumped / jumped) when the bomb (has exploded / exploded).
2. The admiral (has visited / visited) that beautiful port many times.
3. When the telephone (has rung / rang), the company clerk (has answered / answered) it.
4. I (have finished / finished) my report late last night.

Present Perfect Used With *For* and *Since*

When the present perfect is used with *for* or *since*, a situation or activity is indicated which started in the past and continues to the present. *For* indicates duration, and *since* indicates a specific time.

Examples:

The admiral **has been** here *for* almost an hour.

"For almost an hour" indicates a duration of time beginning at an <u>indefinite</u> point in the past and continuing up to the present.

Examples:

The admiral **has been** here *since* 0900.

"Since 0900" indicates a time beginning at a specific point in the past and continuing up to the present.

Exercise 6

In the following sentences, use the correct form of the verb, either simple past or present perfect. Use *for* or *since* where appropriate.

1. LCDR Datko (buy) _____ his computer two years ago. He (use) _____ it almost every day _____ the day of the purchase.
2. I first (meet)_____ LT Kronke when we were at the academy together. He was in Italy _____ several years, but he (be) _____ in France _____ January 1.
3. I joined the Navy in 1984. I (be) _____ a sailor _____ over 13 years.
4. a: _____ you ever (be) _____ to Morocco?

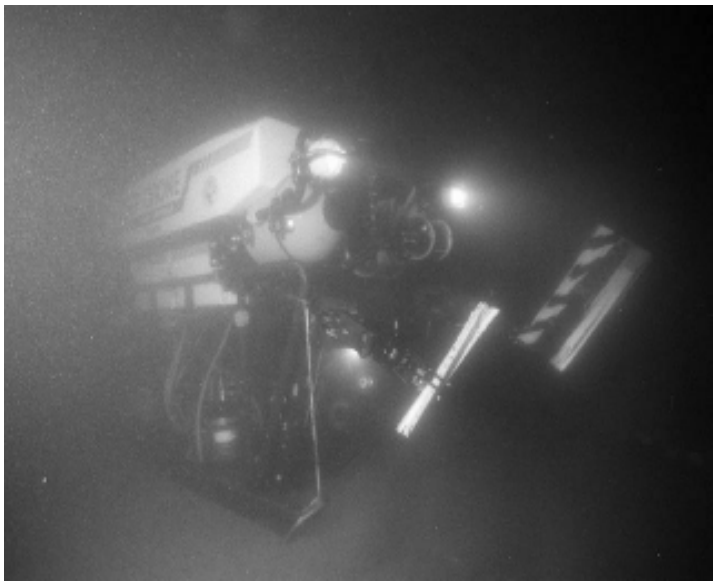
   b: I (not be) _____ there _____ 1996.
5. a: How long (be) _____ Captain Landon _____ in the British Navy?

   b: He (be) _____in the Navy for 31 years, but he will retire next month.

interagency: of or having to do with two or more government agencies

sponsored: endorsed by a person or agency

polar: of or near the North or South Pole



READING SKILL

Exercise 7

SAR Organizations and Resources

Read the following article titled "SAR Organization and Resources." This article is mostly facts and details. Scan the reading for the most important information. Then answer the questions at the end of the reading.

Organizations

Multiple organizations and resources may participate in a SAR operation in a variety of capacities, ranging from direct support in the search or rescue, to indirect support or information provider. The most common participants are listed below, although countless additional units may become involved.

- *The International Civil Aviation Organization* (ICAO) has 150 member nations.
- *The International Maritime Organization* (IMO) is similar to ICAO except it is for ships.
- *The International Telecommunications Union* (ITU) coordinates worldwide radio frequencies for emergency use, alerts, distress, etc.
- *The Search and Rescue Satellite-Aided Tracking* (SARSAT) is an **interagency**, internationally **sponsored** system of low altitude, near-**polar** orbiting satellites and ground receiving stations. It detects emergency signals on the distress frequencies of 121.5 and 243.0 MHz. They have an accuracy of 12 NM or less.

- *The International Red Cross* (IRC) coordinates disaster relief on an international basis without regard to political considerations.

Resources

Resources available for SAR response include any SRU, station, operational activity, or other resources that can be used during a SAR mission.

The ones that follow are the most common. The abbreviations are also provided.

Aircraft Search and Rescue Units

Fixed wing

Short-range (radius of action of 150 NM, plus ½ hour search remaining) SRG

Medium-range (radius of action of 400 NM, plus 2.5 hours search remaining) MRG

Long-range (radius of action of 750 NM, plus 2.5 hours search remaining) LRG

Very Long range (radius of action of 1,000 NM or more, plus 2.5 hours search remaining) VLR

Extra-long range (radius of action of 1,500 NM or more, plus 2.5 hours search remaining) ELR

Helicopters

Light (maximum capacity 1 to 5 persons) HEL-L

Medium (maximum capacity 6 to 15 persons) HEL-M

Heavy (capacity is more than 15 persons) HEL-H

General operational considerations are the following:

Range and endurance

Speed/Altitude

Maneuverability (less important over large flat areas)

Weather

Lookout transport

Electronic capabilities which may determine SRU ability to navigate effectively and to complete a SAR mission:

(1) Accurate navigation is essential for safety, area coverage, and survivor reports.

(2) Communication must be maintained with OSC.

(3) Sensors such as DF (Direction Finding) and radar will aid in detection of object/survivor(s).

(4) Some SRUs are not equipped to fly under IFR (instrument flying rules). If IMC (instrument meteorological conditions) are forecast for any portion of the mission, the aircraft must have full instrumentation and a pilot licensed for instrument flight.

Learning Strategy

Before you begin, examine your purpose for reading. Then apply an appropriate reading rate.

Marine Search and Rescue Units

The Marine SRUs include the following:

SAR Boats, 30 to 65 feet in length, with average search endurance (variable, depending on the situation, up to 3 days)

SAR Patrol Boats, 80 to 110 feet in length; search endurance is 3 days

SAR Vessels (include USCG and USN ships) can operate considerable distances from base

Merchant Vessels cannot be ordered to assist but should be thanked if they do

Fishing Vessels

Pleasure Craft

Hydrofoil Marine Craft

Amphibious Marine Craft

Specialized Marine Craft

General operational conditions are the following:

- radius of action
- **seaworthiness**
- speed - must be maintained to **cope** with sea conditions
- maneuverability - considered with respect to (WRT) crowded harbors, irregular shorelines, and high-density traffic areas
- water depth
- lookout capability
- electronic capabilities - navigation equipment may reduce errors; communication with OSC; use of DF and radar
- surface delivery - reliable for delivery of damage control and support equipment
- surface recovery
- rescue and **illumination** equipment
- specialized equipment
- survivor support - especially important for large groups
- helicopter platform.

Source: Joint Pub 3-50 National Search and Rescue Manual, Vol. I: National SAR System, Feb 1991.

seaworthiness: cabability of putting to sea and meeting sea conditions

cope: contend with successfully

illumination: source of light

Exercise 8

In your notebook copy the following questions and write the answers to them.

1. What is SARSAT responsible for?
2. What is the capacity for the HEL-H?
3. What is the radius of the VLR?
4. Which marine SRU cannot be ordered to assist?
5. What are four considerations for marine SRUs?

VOCABULARY

Listen to the reading titled "SAR Stages" and follow along. The new vocabulary is in bold italics. In your glossary at the end of this unit or your dictionary, look up any words you may not know.

SAR Stages

A typical SAR mission develops through five ***stages***: Awareness, Initial Action,

Planning, Operations, and Mission Conclusion.

Awareness Stage

The awareness stage begins when the SAR system first becomes aware of an emergency or a potential emergency. It may be reported by persons or a craft in distress or by nearby persons observing an incident; or, an uncertainty may exist due to lack of communication or to non-arrival. Information must be gathered and evaluated to determine the nature of the distress, appropriate emergency phase classification, and necessary action.

Initial Action Stage

This is the stage in which the SAR system begins a response. Some activities such as evaluation, however, begin in the Awareness Stage and continue through Planning and Operations Stages. Initial Action includes SMC designation, incident evaluation, emergency phase classification, SAR facility alert, and communication searches.

Incident evaluation requires consideration of a few key elements:

- type of incident and ***severity;***
- location of incident;
- urgency of response (daylight remaining, terrain, climate, survivor's training and skill, endurance, medical condition, and survival equipment);
- SRUs available.

It should be assumed that all survivors are ***incapacitated***, capable of surviving only a short time, under great **stress**, experiencing

stress: distress

Learning Strategy

Read the entire text once to get the whole picture. Then reread the text and catch the details.

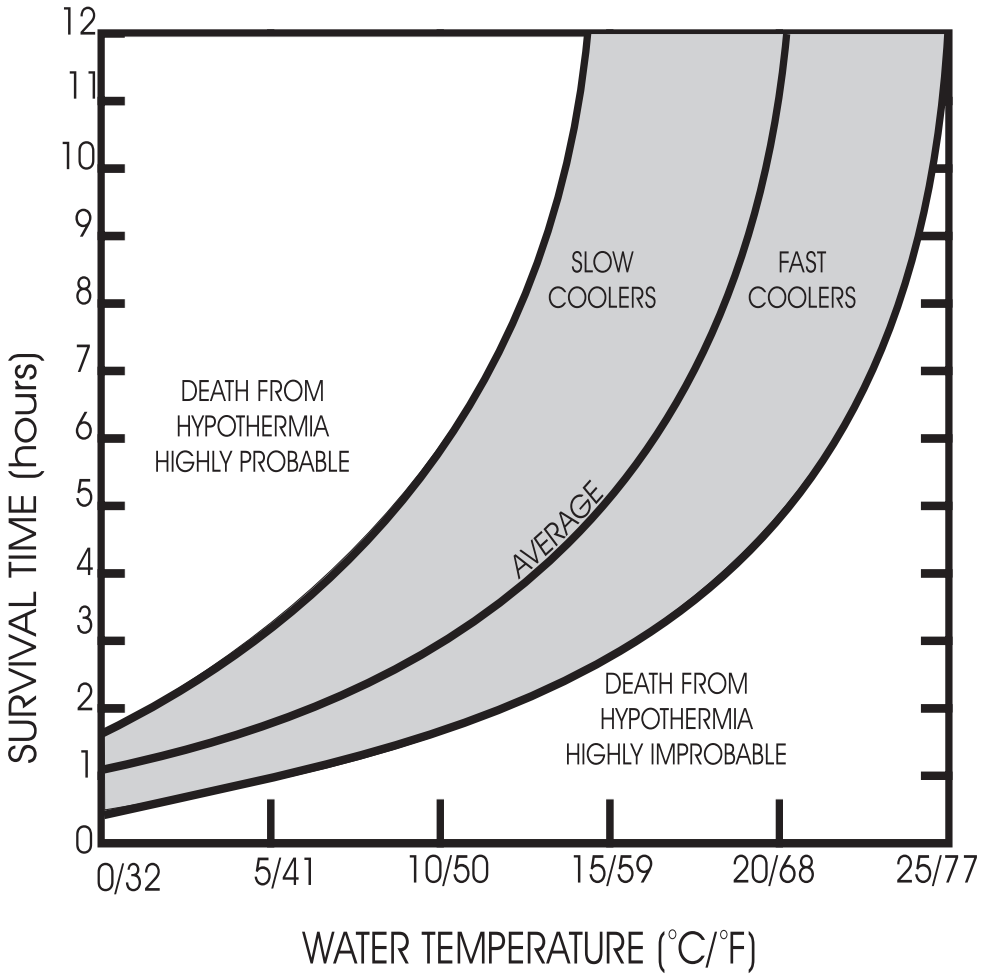
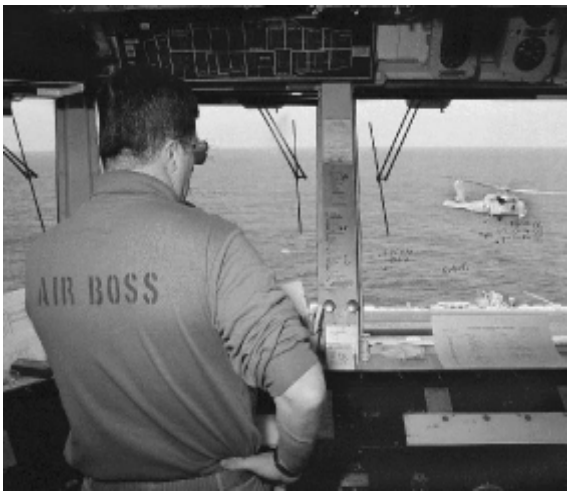


Figure 8-2. Survival Time/Water Temperature Graph

shock, and requiring emergency medical care.

Figure 8-2 shows the survival time (in hours) of people ***exposed*** to the effects of cold air, wind, or water. This results in ***hypothermia***.

After you have stopped the recording, silently read the paragraphs again. Next, in your dictionary or the glossary of this unit, look up the words you do not know, and write their definitions in your notebook. Then complete the next exercise in the text.



Exercise 9

Copy the following sentences in your notebook. Then insert appropriate words from the reading.

contingent: dependent (*on* or *upon* an uncertainty)

1. The SAR system begins a response in the _____.
2. Due to the _____ of the accident, many rescue units were notified.
3. The captain of the ship could not radio for help because his communications system was _____.
4. Some of the crash victims suffered from _____ because they had been _____ to freezing temperatures for several hours.

Let's continue with the reading titled "SAR Stages." The next selections you will read about are the "Planning Stage," "Operation Stage," and "Conclusion Stage." Follow along with the recording and underline or circle any words you may not know; then check the meaning of those words in your dictionary.

Planning Stage

Search planning is required when the location of a distress is not known or significant time has passed since the search-object's position was last known. This stage consists of the following actions:

- determining datum and search area
- developing an ***attainable*** search plan
- selecting search patterns
- planning on-scene coordination
- transmitting search plans to OSC/SRUs
- reviewing search plans

Datum is the most probable location of a search object, corrected for drift (movement over time). Since datum is considered movable, it is recomputed ***periodically***. Determining datum is **contingent** on the following considerations:

Initial Search. The location where the distress occurred is called the *initial position.* Based on initial information, one of three situations usually exists:

Position Known. The incident is witnessed/reported by radar net, another craft, or the distressed craft itself, or position is computed from a previously reliable position. If the position is known, datum can be computed.

Track Known. The ***proposed*** track is known, but the position along the track is unknown, or a single line of position, such as a direction finding (DF) bearing, is known. If only the proposed track is known, a datum line, that is, a known proposed track corrected for drift, can be established.

General Area Known. Neither the position nor the intended track is known, but the general area is known. In this case, datum area is developed. The datum area computations may be reasonably exact, or only a best guess.

Computation of Datum. Following the initial cause for distress, environmental forces act to ***displace*** search objects. A ***resolution*** of the object's most probable **real-time** location is obviously desired for an effective and successful search and rescue. The primary influence in displacing the distressed object is drift. Within the category of drift, a few variants may apply: surface drift forces and aerospace drift. Although predictions should be used in the absence of actual drift information, the use of calculated or observed drift may reduce search time and significantly affect the end results.

Composing a Search Area. When very specific locating information is lacking, a datum will be expanded into a ***squared-off*** area FOC (farthest off circle) equivalent by including factors for error and safety. For confined (non-open ocean) areas, a standard six-NM radius may be applied to create the search area in cases of less than six hours' **time-late**. In all cases, as time increases and search patterns are completed with unsuccessful results, the search area will increase and will be recentered based on new datum calculations; it will most likely ***overlap*** previous areas. The figure below illustrates this procedure.

real-time: local time as opposed to Greenwich time

time-late: time passed from first distress call

*Search Plan **Variables**.* The goal of search planning is to cover as much of the search area as possible with reasonable probability of detection (POD). Area coverage is a function of the number, speed, and endurance of SRUs used. POD is the probability that a search object will be detected; it is a function of coverage factor (sweep width divided by track spacing) and total number of searches. The SMC may designate a desired POD or state the attainable POD.

Other variables include:

- number of SRUs
- Search Time Available (T)

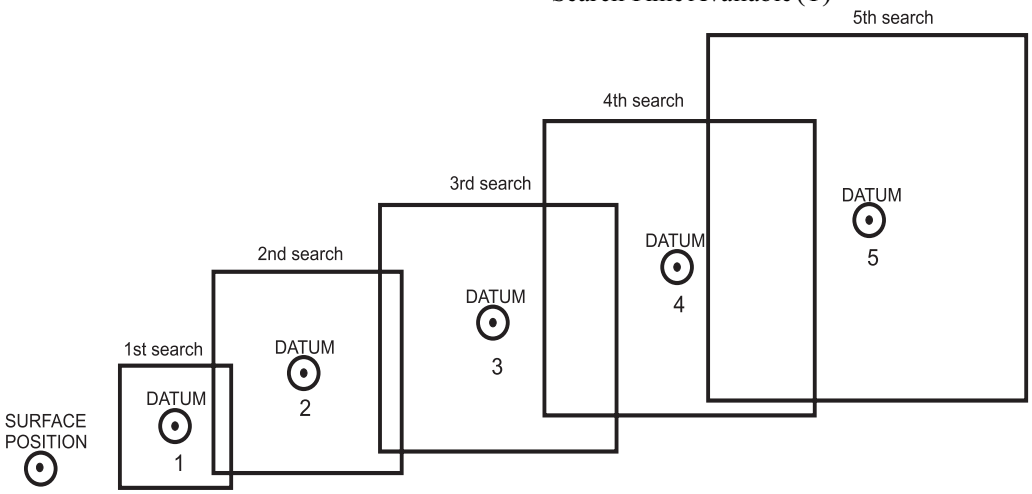


Figure 8-3. Search Areas - Moving Datum Point

high sea-state: high tide

freeboard: height of ship above the water line

perpendicular: at right angles to a given plane or line

elongated: made longer, stretched

- SRU Ground Speed (V)
- Track Spacing (S)
- Sweep Width (W)

Orienting Search Areas. Search patterns should be ***oriented*** to maximize target exposure to SRUs. This orientation is especially important in any combination of **high sea-state**, low target **freeboard**, and low search height. Under these circumstances, use of a search leg heading **perpendicular** to seas or swells (whichever is ***dominant***) is recommended, which will also minimize any rolling motion of surface SRUs. The following figure illustrates.

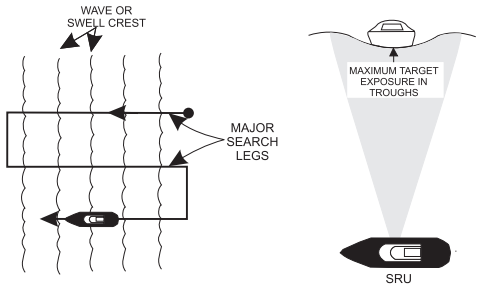


Figure 8-4. Search Leg Orientation

Search Pattern Selection. The use of standard search patterns allows the SMC to calculate probable search effectiveness while ensuring that a search area is uniformly searched. The standard patterns in use are the following:

a. *Trackline* is best used for known intended routes of a search object such as a transiting vessel that is overdue.
See Figure 8-5.

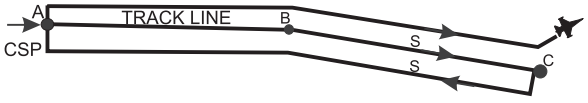


Figure 8-5. Trackline

b. *Parallel* is best used for large rectangular or square areas where only an approximate initial position is known and uniform coverage is desired. Look at Figure 8-6 below.

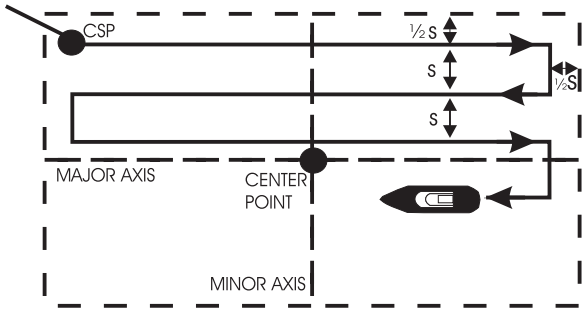


Figure 8-6. Parallel

c. *Creeping line* is a specialized type of parallel pattern which covers one end of an area first or is used to change the direction of search legs when sunglare or swell direction dictates.

See Figures 8-7 Creeping Line-Rectangular and 8-8 Creeping Line - **Elongated**.

d. *Square* patterns are for small areas where some doubt exists about the distress point. The first leg is usually oriented into the wind or current. The precision of this pattern requires the full attention of the navigator.

e. *Sector patterns* are for reliable positions of distress or for a small area where a concentration of efforts is desired at datum. Datum must be recomputed after each search. CSP may be at pattern radius or at datum.

See Figure 8-9 Sector Pattern Square and Figure 8-10 Sector Pattern Radius.

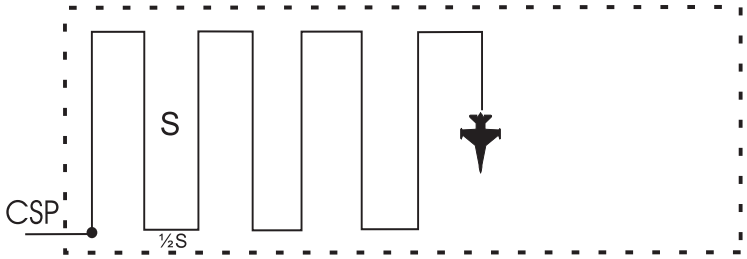


Figure 8-7. Creeping Line - Rectangular

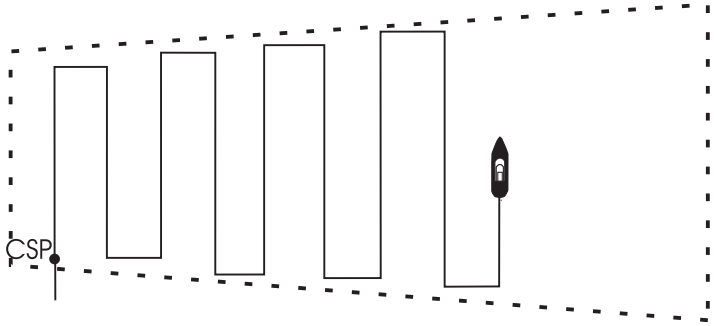


Figure 8-8. Creeping Line - Elongated

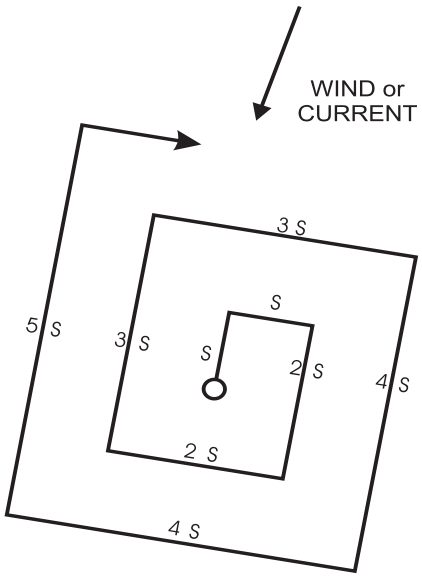


Figure 8-9. Sector Pattern Square

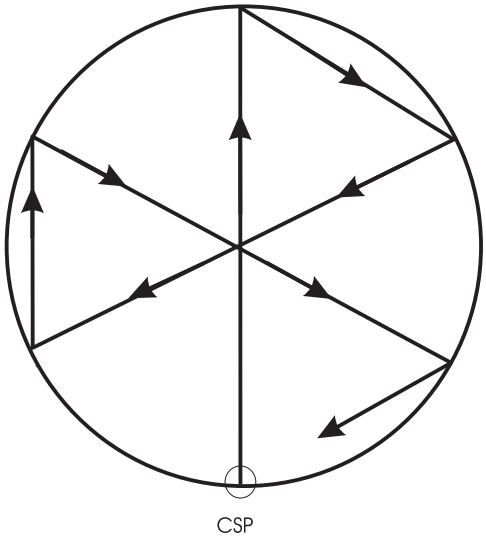


Figure 8-10. Sector Pattern Radius

dispatch: a sending off

documentation: records; paperwork

Operations Stage

The operations stage should begin with the least possible delay, starting with SRU briefing and **dispatch**, and ending when the search objective is located or the search is suspended. An important element for an efficient (shipboard) SRU during the operations stage is the SAR mission checklist (Figure 8-11). Other elements that must be preplanned are selection of rescue methods, selection of rescue facilities and units, and special medical considerations. Some of these medical considerations are delivery of trained medical personnel to the scene, and transit and delivery of injured survivors to the appropriate site.

Conclusion Stage

The conclusion stage occurs either upon location of distressed person(s) or craft or upon suspension of mission. The decision to suspend the mission is a difficult one and is only partly ***subjective***. The factors that are considered are these:

- probability of survival of initial incident;
- probability of survival after incident occurred;
- probability that the victim or victims are within range;
- quality of the search effort;
- consensus of search planners.

For military involvement in searches, the SAR effort is usually carried as far as other operational tasking considerations will allow. Following completion or suspension of the SAR, all participants complete their post-mission **documentation** and analysis for possible system improvements. This post-mission report is done via the SAR Report and must be submitted within seven days, regardless of simplicity of mission or its success.

After you turn the recording off, read the paragraphs again. Take time to look at the different pattern designs. Then complete the next two exercises.

Source: Joint Pub 3-50 National Search and Rescue Manual, Vol. I: National SAR System, Feb 1991.

Exercise 10

In your notebook, copy the following sentences and insert the appropriate vocabulary words.

overlap	displace(d)	attainable
periodically	proposed	resolution
square(d) off		

1. If datum is computed accurately, a quick _____ of an object's location is _____.
2. The OSC receives search information _____.
3. The _____ plan was to _____ two areas of five and six NMs.
4. Many times an object is located where two search areas _____.
5. The _____ object was relocated by using the radar from one of the SRUs.

SEARCH AND RESCUE OPERATIONS CHECKLIST
AND SEARCH PLANNING CHECKLIST

Upon receipt of information that a SAR incident exists, or may exist, units should take the following actions:

DTG/Notes

Check positions of distressed craft or persons _____

Divert to distress location (tactical situation permitting) _____

Monitor appropriate SAR frequencies _____

Notify OTC and regional SC of incident and intentions. _____

If first unit in the area or first units in contact with distressed persons, assume duties as OSC until relieved by OTC or SMC _____

Once on scene, CHOP to SMC or OSC as appropriate _____

Prepare and submit reports as necessary; include cognizant regional SAR coordinator on all messages. _____

a. **Initial Report** _____

b. **SITREPS** - As significant developments occur, as directed by SMC, or at least every 24 hours. _____

c. **Termination Report** _____

d. **Rescue Report** - Post-mission report required regardless of success by all units with vehicles or personnel involved in SAR _____

Upon receipt of information that a SAR incident exists or may exist, the SMC shall take the following actions:

Determine the search object's description as completely as possible (e.g., a person in the water with floatation life raft, with **drogue,** etc.) _____

Determine last known position; specify if the position is an aerospace or surface position and if it is a point, trackline, or area position. _____

If the SAR incident involves an aircraft, calculate the aerospace drift using the aircraft glide (if applicable) heading, airspeed, aerospace trajectory, winds aloft, parachute opening altitude, and parachute glide. _____

Determine the weather conditions on scene at the time of the incident. _____

Deploy a datum marker **buoy** as soon as possible. _____

Determine the time that the search will commence on-scene. _____

Record past, present, and forecast weather conditions to calculate leeway, wind, current and swift widths.

_____

Determine the sea current or record the total water current from the datum marker buoy. _____

Determine the navigation method (or error) used to determine the search object's last known position. _____

Calculate datum, drift, and the search area. _____

Ascertain the search assets to be used and their time on scene, sensors, search speed and altitude. _____

Designate the OSC and brief all units. _____

Record all coverage factors and calculate the probability of detection for each search.

Prepare for rescue and alert appropriate medical facilities. _____

drogue: device used to slow rate of movement

buoy: floating object anchored in water to warn of a hazard, etc.

ascertain: to find out with certainty

elicit: to bring out; evoke

Figure 8-11. SAR Mission Checklist

Exercise 11

Match the vocabulary word with the corresponding meaning.

1. ___variables	a. based on personal feelings
2. ___orient	b. ruling; controlling
3. ___subjective	c. adjust to a special situation
4. ___dominant	d. changeable qualities or quantities

Learning Strategy

Reading more will help you improve your reading rate. Like other skills, reading requires regular practice.

FUNCTION

Inquiring About and Describing SAR Operations

Inquiring About SAR Missions

If you are not already familiar with SAR operations, or if you would like to learn more, you can use the question words from an earlier unit to elicit descriptions of such operations. These descriptions may be very informative for you. The following questions are some examples:

When was the last time you participated in a SAR mission?

What was the mission?

Why was the mission started?

Who took part in it?

What were some consequences of the mission?

How long was the mission?

You can practice formulating additional questions.

Exercise 12

Formulate questions about someone's or your own experience(s) in a SAR mission.

1. Where _____?
2. Which _____?
3. How _____?
4. How many _____?
5. How long _____?
6. How successful _____?
7. _____?
8. _____?
9. _____?
10. _____?

You can use these and comparable questions to learn about others' experiences in SAR operations, and they can use similar ones to learn from your experiences.

Describing SAR Operations

You can share your knowledge about SAR operations and improve your speaking fluency when you converse with others about your experiences.

Exercise 13

Get a helpful partner to ask you questions such as those you formulated. Answer in detail. If you cannot get a helpful partner, use your tape recorder to tape your questions. Play each one and then answer as thoroughly as possible to improve your fluency. Save your recorded responses for critiquing.

READING SKILL

Exercise 14

Skim and scan the following article called "Search Techniques." Then go back and read it more carefully. Now write the main points of the article in outline form in your notebook.

Search Techniques

What are some search techniques? Following are some quick tips for SRU.

1. Distressed craft/persons usually do not activate their limited supply of **expendable** visual detection aids until they see or hear an SRU. Use own ship signals generously; however, use caution because survivors may use a whistle, horns, etc. Listen carefully as well as look carefully.

2. During daylight searching the use of a whistle, horn, smoke, etc. to make its presence known may cause the distressed object to set off their detection aids. But when using these devices be careful not to confuse other SRU's.

3. For night search increase the use of lights as much as possible. Again, be careful that your lights don't interfere with other SRU's night devices.

4. The SRU is most effective in audio searching when they are **downwind** of a sound source. Use extra concentration when on **upwind** side.

5. Radar search also has its own guidelines. Listen to the following:

   a. Best target detection is obtained when the radar signal is aimed downwind or **crosswind** to minimize **clutter**.

   b. En route to search area be sure to check detection ranges for targets of opportunity.

   c. Set the range scale just at maximum detection range for object.

   d. Use antenna **stabilization** versus ground stabilization.

   e. Whenever possible, detailed weather information should be obtained to help determine how **inversion** layers or other atmospheric conditions will be expected to affect radar performance.

   f. Minimize operator fatigue.(Pay attention to watch rotations, **nourishment**, etc.)

   g. When starting search patterns, every SRU normally begins its turn from one searchleg to the next before actually reaching the end of the searchleg. The marine unit should begin its turn short of the end of each searchleg by a distance equal to the "advance" of the craft for the search speed and amount of rudder used entering the turn.

expendable: equipment that can be used and then discarded

downwind: in the direction the wind is blowing

upwind: from the direction the wind is blowing

crosswind: blowing at any direction across the line of flight or course of a ship

stabilization: system that hold radar beam steady

clutter: things scattered about in disorder

inversion: temperature reversal in the atmosphere

nourishment: the state or act of providing substances to sustain life or power

Learning Strategy

Making an outline assists you to relate new information with old information.

h. SITREPs should be submitted when the OSC arrives on scene and when time-critical information needs to be **passed on** to the SMC, but no less often than every four hours.

i. Lookouts (searchers)/Scanners need training and regular station rotations. Always remember that searching is more difficult at night. Position lookouts high and forward, if possible, but also ensure full 360° coverage. Remember searchers should never look directly into the sun. When looking into the sun, a searcher must **contend with** glare, reflection, and haze **diffusion**. If problems arise, scanners should be provided with dark Polaroid sun glasses or goggles. See Figure 8-12.

passed on: information given either written or verbally

contend with: tolerate

diffusion: something spread out in all directions

Source: Joint Pub 3-50 National Search and Rescue Manual, Vol. I: National SAR System, Feb 1991.

Figure 8-12 Sun Position -Target Detectability

Exercise 15

Copy the following statements in your notebook. Indicate if each is true (T) or false (F).

1. A distressed vessel will use its expendable equipment immediately.
   T F
2. At night you must consider other searchers' light devices.
   T F
3. It is not a good idea to minimize operator fatigue.
   T F
4. Make SITREPs once a day.
   T F
5. Ensure full 360° coverage.
   T F

READING/WRITING SKILL

Paraphrasing

Exercise 16

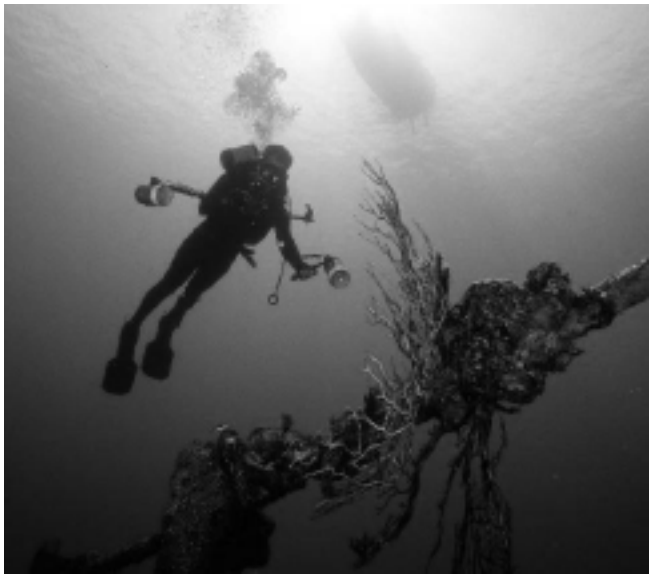
One of the most important skills in writing and speaking is paraphrasing. Read the following article on paraphrasing.

A paraphrase is a restatement of written or oral text. A written paraphrase is about the same length as the original and is written in complete sentences. Paraphrasing technical or military material that is difficult to summarize will help you to understand, word for word, what you read.

Read the following news article; in your notebook, paraphrase the article.

NORFOLK - USS *Grapple* (ARS 53) and members of Mobile Diving and Salvage, Unit Two Detachment Charlie are underway to assist in the search for and recovery of victims and wreckage from the SwissAir Flight 111 crash. *Grapple*, homeported at Naval Amphibious Base Little Creek, Virginia, was in Philadelphia when tasked to get underway September 7, 1998. Thirty-two Navy divers, using *Grapple* as a diving platform, will employ the most current high technology sonar and diving equipment to assist in the recovery. *Grapple* is the Navy's newest rescue and salvage vessel and brings to the crash site the best in diving and salvage support. "This ship brings very experienced divers and a highly-trained crew to assist our Canadian neighbors and help provide **closure** to the families whose loved ones died in the crash of SwissAir Flight 111," LCDR Dave E. Davis, *Grapple* Commanding Officer, said. *Grapple* provides the on-site recovery team with additional experienced divers and a lift capability of up to 300 tons. The ship's Mark 21 diving system allows the Navy to conduct diving operations 190 feet beneath the surface safely and efficiently. *Grapple* is expected to arrive

closure: a finish; an end



in the vicinity of Peggy's Cove, Nova Scotia, September 9, 1998.

Source: Navy Wire News http://www.navy.mil/NWSA8sep-1.

WRITING SKILL

Contrasting

Exercise 17

In your notebook, write a paragraph contrasting your nation's SAR organizational structure with the international structure you have read about in this unit. Be prepared to share what you have written during the two-week seminar.

LISTENING SKILL

Listen to the News and Take Notes

Exercise 18

Listen to or view at least three news broadcasts in English this week. Use the News Broadcast Listening/Viewing Form in Appendix G as a guide. As you listen, take notes. Ask the information questions that you learned in Unit 1: Who?, What?, Where?, When, and Why? Then, in your notebook, write answers to the questions.

WRITING/SPEAKING SKILL

Continue to Write the First Draft

Exercise 19

Continue to write the first draft of the speech that you will give during the two-week course.

GLOSSARY

Objective Vocabulary

address (ad DRESS) v: to deal with; to treat

The President addressed various issues at the conference with the Joint Chiefs of Staff.

attainable (at TAIN a ble) adj: something that can be accomplished

Success of the mission is attainable if all units work together.

designate (DES ig nate) v: to point out; to specify

ENS Lowe was designated by CDR Smith as the OSC for this mission.

displace (dis PLACE) v: to move from its original position

The wreckage of the F-14 was displaced when the storm lashed over the area and created large waves and strong winds.

disseminate (dis SEM i nate) v: to spread far and wide

The new information was disseminated to all SRUs.

dominant (DOM i nant) adj: ruling, prevailing, controlling

The dominant aspects of any SAR mission are to locate and rescue people as quickly as possible.

endurance (en DUR ance) n: the ability to tolerate or last

The Haitian refugees managed to survive at sea for twenty-one days because of their strength and endurance.

expose (ex POSE) v: to lay open to danger, attack, etc.

People on a capsized boat are exposed to various weather conditions as well as sea creatures.

hypothermia (hy po THER mi a) n: a subnormal body temperature

Many of the passengers on the HMRS *Titanic* died of hypothermia.

incapacitate (in ca PAC i tate) adj: unable to function

Since no signal was coming from the jet, it was believed that all crew members and passengers were incapacitated.

interval (IN ter val) n: a space between two things

The distress signal came at regular intervals.

link (LINK) n: a connecting structure or element

Radio communication was the link between the search helicopter and the merchant vessel.

orient (or i ENT) vt: to adjust to a particular situation

Because the storm started to hamper search efforts, the OSC oriented the search pattern in a slightly different direction.

overlap (o ver LAP) v: to cover something partly

It is normal for some SAR patterns to overlap each other.

periodically (pe ri OD i cal ly) adv: happening at regular intervals

All SRU must report periodically (sometimes as often as every half hour) all information to the SMC and SC.

pertinent (PER ti nent) adj: relevant

To keep the SC informed of the latest developments of a search and rescue mission, only pertinent information is given to him.

proposed (pro POSED) adj: something that is being considered for a reason

The proposed search plan was the parallel plan.

render (REN der) v: to give aid to

The SRU rendered aid to the distressed craft.

resolution (res o LU tion) n: a thing determined upon; a determining

The resolution of the object's location was the most important issue for the SAR personnel.

serialized (SE ri al ized) adj: sequenced by time, letter, or number

The rules for SAR are serialized in the Navy manual.

severity (se VER i ty) n: the seriousness of something

The severity of the mishap was realized when information was received that there were over 200 casualties.

squared-off (SQUARED-OFF) adj. area measured in a square shape

The search was concentrated on a nine-mile squared-off area.

stage (STAGE) n: a level in a process of development

The search and rescue mission was a success because each stage was completed effectively and efficiently.

subjective (sub JEC tive) adj: influenced by personal feelings

Sometimes a decision to stop a SAR mission is subjective, but in most instances the facts determine the SC's decision.

variable (VAR i a ble) n: anything changeable, especially a quality or quantity that varies or may vary

Probability of detection, search time available, and sweep width are some of the variables to be considered in selection of a primary search plan.

Maritime Expressions

There are many expressions used in maritime operations. A few are given here. Listen, and repeat the words and the sentences.

In a nutshell: briefly said; using few words to explain or say something

I don't have much time, so tell me in a nutshell what the commander said at the briefing.

Melt away: to disappear

When the passengers saw the SRU, their fears just melted away.

Take care of one's own: be prepared to take care of one's personnel and not wait for help from another source.

The NATO navies are equipped and trained to take care of their own in distress situations.

Take on water: water entering a ship because of damage

The captain saw that his ship was rapidly taking on water, so he sent out a distress call immediately.

Under tow: bringing in a disabled vessel to port

The MEDEVAC took the passengers to the nearest hospital and put their burned ship under tow.

Maritime Acronyms/ Abbreviations

A: Search Area

A/C: Aircraft

C: Creeping Line Pattern

CAC: Combat Air Crew

CAP: Civil Air Patrol

CPA: Closest Point of Approach

CSP: Commence Search Point

CV: Aircraft Carrier

CV/N: Aircraft Carrier/Nuclear

d: Surface Drift

D: Total Drift

DC: Damage Control

DF: Direction Finding

DR: Dead Reckoning

ELR: Extra-Long Range

ELT: Emergency Locator Transmitters

EPIRB: Emergency Position-Indicating Radio Beacon

ETA: Estimated Time of Arrival

F/V: Fishing Vessel

FLIR: Forward-Looking Infrared Radar

FOC: Farthest on Circle

FXP: Fleet Exercise Publication

HEL-H: Heavy helicopter

HEL-L: Light Helicopter

HEL-M: Medium Helicopter

IC: Incident Commander

ICAO: International Civil Aviation Organization

IFR: Instrument Flying Rules

IMC: Instrument Meteorological Conditions

IMO: International Maritime Organization

IRC: International Red Cross

ITU: International Telecommunications Union

JCS: Joint Chiefs of Staff

LPH: Amphibious Assault Ship

LRG: Long Range

MCC: Mission Control Center

MRG: Medium Range

NM: Nautical Mile

OPREP: Operational Reports

OSC: On-Scene Commander

P: Parallel Pattern

PHIBRON: Amphibious Squadron

POB: Persons on Board

POD: Probability of Detection

RCC: Rescue Coordination Centers

RSC: Rescue Sub-Center

RU: Rescue Unit

S: Square Pattern

S: Track Spacing

SARSAT: Search and Rescue Satellite-Aided Tracking

SC: SAR Coordinator

SH: Assault Helicopter

SMC: SAR Mission Coordinator

SRG: Short Range

SRR: Search and Rescue Regions

SRU: Search and Rescue Unit

ST: Strike Team

SU: Search Unit

T: Search Time Available

T: Trackline Pattern

TAO: Tactical Action Officer

USCG: United States Coast Guard

USN: United States Navy

USS: United States Ship

V: Sector

V: SRU Ground Speed

VHF: Very High Frequency

VLR: Very Long Range

VP: Patrol Squadron

W: Sweep Width

WRT: With respect to

Exercise 20

Look at the following sentences. Copy them in your notebook. Supply the correct acronym for each blank.

1. The SAR Coordinator (_____) establishes Rescue Sub-Centers (_____) when the Rescue Coordination Center (_____) cannot exercise direct and effective control over SAR facilities in remote areas.
2. The On-Scene Commander (_____) uses situation reports to keep the SAR Mission Coordinator (_____) informed of on-scene mission progress and conditions.
3. Different conditions determine the Search and Rescue Unit (_____) pattern selection.
4. The fishing vessel (_____) was spotted 14 nautical miles (_____) to the east.
5. There was doubt about the distress point so the SC ordered the Search Units to use the square pattern (_____).

ENRICHMENT ACTIVITIES

Troublesome Grammar: *Yet* and *Already*

We use *already* to say that something happened before now or before this time. It is used in questions and affirmative statements.

Examples:

The SAR personnel *already* completed their mission.

The admiral is *already* here.

Are the commanders *already* in the conference room?

We use *yet* to ask or talk about something that did not happen before now or before this time, but might happen in the future. It goes at the end of the sentence. It is used in questions and negative statements.

Examples:

Has the medical site for the survivors been selected *yet*?

Can you wait ten minutes? The admiral isn't here *yet*.

Exercise 21

Fill in the appropriate word, *yet* or *already*, in each of the following sentences.

1. The units have _____ completed the SAR checklist.
2. Hasn't the captain read the report _____?
3. The election reports haven't arrived _____.
4. The OSC is _____ aware of the situation.
5. Has the admiral _____ briefed the visiting delegates?

Authentic Readings

Think about some facts you already know about SAR. Try to predict what you think will be covered in the two following selections: "USS *Leyte Gulf* Crew Assists Albanians in Adriatic" and "USS *Thomas S. Gates* Rescues Two Men At Sea."

USS *Leyte* Gulf Crew Assists Albanians in Adriatic

USS *Leyte Gulf* (CG 55) - On March 17, an SH-60 Seahawk helicopter crew from the cruiser USS *Leyte Gulf* spotted a powerless, 25-foot vessel that appeared to be taking on water **drifting** in the Adriatic Sea.

In 27 minutes, *Leyte Gulf* arrived on-scene 35 NM off the coast of Albania. The ship then launched a rescue boat with an investigation team.

The rescue boat recovered all 20 Albanian passengers. After the recovery, the rescue boat brought the drifting vessel under tow. The Albanian refugees were at sea for five days, three of them without food or fresh water. Of the 20 passengers, three were severely **dehydrated** and required medical assistance.

This was the third rescue of Albanians at sea by ships assigned to Joint Task Force

drifting: being carried along by wind/water current

dehydrate(d): having lost water from a compound, body tissue, substance, etc.

Silver Wake, the US operation tasked with evacuating American citizens out of Albania.

Source: Navy New Service, http://www.chinfo.navy.mil/navpalib/news/eurnews/eur97/eur97010.txt

Exercise 22

Copy the comprehension questions in your notebook and answer them.

1. Why did the vessel need help?
2. How many passengers were rescued?
3. Why did some passengers need medical assistance?

Tiger Cruise: accompanied cruise to homeport from last port

adrift: floating freely; not anchored

sloop: sailing vessel with a single mast

rigged: put together in hurried way

battered: to have the appearance of having been hit time after time

coxswain: person in charge of a small boat

Learning Strategy

Relating a real-life experience to any reading helps you understand it.

USS *Thomas S. Gates* Rescues Two Men At Sea

ATLANTIC OCEAN - At the end of their six-month deployment, USS *Thomas S. Gates* (CG 51) pulled into Bermuda to embark 39 of their family and friends for a two-day **Tiger Cruise** back to Norfolk, Virginia. The guided-missile cruiser received a distress call concerning a small boat **adrift** 25 miles north of Bermuda, whose crew was in need of assistance.

A two-man crew had been sailing the 30-foot French **sloop** *Glou Glou*, from Nantucket, Massachusetts, to Bermuda when bad weather came upon them and capsized their boat. David Dietz, the boat's captain, reported that the yacht was hit by 50-foot seas and 60 mph winds that tore off the mast and rolled the boat 360 degrees. With the mast gone and the engine shaft broken, Dietz, and his crewmember Eric Humphrey **rigged** a sail that allowed them to travel 250 miles. Unfortunately, just north of Bermuda, the winds shifted and started to push them away from the island. Dietz made an electronic distress signal which was picked up by aircraft from USS *John F. Kennedy* (CV 67). *Thomas S. Gates* was sent to make the rescue. When *Thomas S. Gates* arrived at the scene, the sloop looked **battered**. With the sloop barely visible from the ship's bridge due to the seas, the *Thomas S. Gates* deployed her Rigid Hull Inflatable Boat (RHIB) to aid the crew of the *Glou Glou*. The Navy cruiser had to position herself upwind of the two small boats to block the wind so that the RHIB crew could bring the sloop's crew safely aboard. "It was a good mission," said RHIB **coxswain** Boatswain's Mate Second Class (SW) Michael Marsden. "It really feels good to know that those two men will not have to spend another day adrift." Following their pick-up, the two rescued sailors were given a medical examination, a hot meal, and a ride to Norfolk.

Source: "USS *Thomas S. Gates* Rescues Two Men at Sea," from *All Hands* (February 1998, p.45).

Exercise 23

Copy the comprehension questions in your notebook and answer them.

1. Where did the rescue take place?
2. What was the cause of the distress call?

3. What two things had to be done to rescue the men?

Exercise 24

Read the following information about drawing a conclusion from something you have read. The ability to draw a conclusion is one of the best reading skills you can master.

Drawing a Conclusion

An important kind of reading comprehension skill is that of drawing conclusions. When you draw a conclusion, you look carefully at only the facts in order to figure out a reasonable explanation. Opinions are personal thoughts, not facts, and should not be considered. For example, if you see smoke coming from the engine room of your ship, you draw a conclusion that there is a serious problem that may need immediate attention.

Exercise 25

Read the authentic article about a SAR mission. Try to draw a conclusion from this article. Then answer the questions that follow the article.

Coast Guard Searches for Occupant of Overturned Kayak

BOSTON - Crews from two Coast Guard boats and two Coast Guard helicopters are conducting a search for the **occupant** of a **kayak** that was found **overturned** east of Gloucester, Massachusetts, earlier today. (1)

A 28-foot rescue boat crew from Coast Guard Station Boston was returning from a training mission in Gloucester when they **came across** a 6-foot kayak three and a half miles east of Ram Island at 3:30 p.m. (2)

It has not been confirmed if anyone was onboard prior to the boat's being found, or if it had **merely** washed out to sea. However, the kayak contained a life jacket, a blanket, and a leather jacket with keys in the pocket, which has lead the Coast Guard to believe that there may be someone in the water. (3)

A 41-foot rescue boat from Coast Guard Station Gloucester, as well as two rescue helicopters from Coast Guard Station Cape Cod, was called onto the scene to assist in the search. (4)

The Coast Guard intentionally left the kayak in the water to help searchers determine the direction that a person in the water would drift. (5)

The search will continue throughout the night and into the morning, weather permitting. Seas are expected to build to 3-8 feet and winds will be 25 to 35 knots. (6)

On an average day, the Coast Guard conducts 180 search and rescue missions. (7)

Source: Coast Guard News, March 30, 1997, http://www.d1dpa.com/039-97.html

kayak: a lightweight canoe consisting of a wooden frame completely covered with canvas or plastic except for an opening in the middle for the paddler

occupant: one who takes space in something

overturned: capsized

came across: found by accident

merely: only

Exercise 26

In your notebook answer the following questions.

1. The following is a good conclusion for the reading:

   Even though it is not always known that people are lost at sea, a SAR mission must be held until the SMC stops the mission. True False

2. Which paragraph is a good example of people drawing a conclusion?

Exercise 27

The following article appeared in the June 1998 issue of *All Hands* magazine. As you read it, take notes. Remember that notetaking is a valuable skill. If you need to, refer to the section on taking notes in Unit 2. Write your notes in your notebook.

amphibious: can operate on land or sea

abdominal: pertaining to the abdomen or belly

at first light: dawn

ailing: sick, ill

FRS: Fleet Replacement Squadron

hoax(es): trick(s) which make someone believe something that is not true and take action on the belief

smokestack: the tall chimney of a factory or building

USS *Guam* SAR Team Medevacs Croatian Mariners

Aboard USS *Guam* in the Atlantic—As the **amphibious** assault ship USS *Guam* (LPH 9) steamed across the Atlantic Ocean en route to its home port in Norfolk, it received a distress call from the bridge of a Croatian bulk carrier. The ship's master was requesting medical assistance for two mariners on board. One was suffering from severe **abdomina**l pain and the other was experiencing an irregular heart beat.

At the time of the call, the merchant vessel was about 350 miles from *Guam*. Staff members from Amphibious Squardrom (PHIBRON 2) immediately drew up plans to medevac the two sailors. The decision was made to steam toward the merchant ship and, once within range, launch a SAR team from Helicopter Squadron 6 the next morning.

At first light the helicopter crew was in the air and within minutes arrived on scene. Meanwhile, the **ailing** sailors were moved topside and prepared for the airlift.

The helo faced a few minor complications with the Croatian ship. For example, the Croatian ship had several 30-to-40 foot cranes on the weather deck which forced the rescue helicopter to hover about 75 feet above the deck. Most rescue hoistings are made at approximately 10 feet. Aviation Electronic Technician Third Class Kurt Violette of Waterbury, Connecticut, who was lowered to the deck to prepare the evacuees for the lift, said operating in five-to-seven-foot seas was a challenge.

Despite the obstacles, the mariners were safely transported back to the *Guam* and promptly treated in the ship's medical ward.

Source: JOC Doug Hummel, "Guam SAR Team Medevacs Croatian Mariners," from *All Hands (June 1998, pp.44-45).*

Exercise 28

The following article appeared in the August 1998 issue of *Approach* magazine. It was written by a helicopter pilot stationed at NAS Jacksonville, Florida. Quickly skim the reading to get the general meaning. This rescue is different from the usual SAR rescues. Think about an unusual or life-threatening situation you may have had.

Rescue From a Burning Smokestack

By Lt Drew Krasny, HAC, Airwolf 407

Besides their regular training duties, our **FRS**-squadron instructors serve as backup SAR crews for the Coast Guard in the greater Jacksonville area. The usual SAR call is to help recreational boaters in distress, and many of those calls turn out to be **hoaxes**. On March 25, 1998, I had the SAR duty when a call came in; it wasn't a hoax, and there were no boaters involved.

At 1200, our duty office reported an out-of-control fire at a **smokestack** at the Seminole Power Plant in Palatka. Tires and wood had ignited at about the 400-foot level, and the blaze had forced six maintenance workers to the top of the stack.

We launched at 1245 while the emergency crews already at the scene tried to put out the fire. We got bits and pieces of information as we flew to the site. The initial word was that our crew would be the **last resort** if the fire could not be extinguished. Ten minutes after we launched, the "last resort" became the only option.

The plant was 30 miles south of Mayport, a 15-minute flight. As we got our on-scene brief from the ground crews, I looked up at the stack and started asking questions. Six hundred and seventy feet about the ground somehow did not coincide with the Seahawk's normal 10-foot hover altitude.

I went through the charts in **NATOPS**, and the numbers indicated that we needed about 5,000 more shaft horsepower to hover safely at 670 feet. Since we could not **shoehorn** a MH-53 engine into our helo, I decided that a cautious approach would indicate what our power-available-required situation really was.

The winds were light but steady from 120. As we approached, we saw that the tower was 100 feet across with two large exhaust holes pouring forth thick, black smoke. The winds at the time were ideal.

After we made our approach and established the aircraft in a hover, conditions let us hover at 80 percent (normal power required for a 10-foot hover is 78 percent). This power margin increased the crew's comfort factor exponentially.

AW2 Heath Rominger quickly lowered AW1 Andy Zawolik onto the stack to prepare the six workers for pickup. Within five minutes, we were transitioning to forward flight with four grateful passengers. Unfortunately, we could not take everyone. Once we landed on the deck, the workers quickly disembarked, and we took off to finish the job.

I was sure we would get the other two civilians and our aircrewman in no time. By this time, Airwolf 403, a second HSL-40 aircraft, was on scene and circling to provide backup.

As we moved into position to retrieve the two workers and our crewman, we were sure the second pass would be as successful as the first. But almost as soon as we were over the stack, the winds changed and strengthened, pushing hot air and billowing smoke directly into air aircraft. The rotor vortices began drawing smoke and heat down through the rotor disk, and my window scupper created a vacuum, pulling smoke into the open cabin door.

As I tried to maintain my visual cues for a stable hover, we went **IFR** in a cloud of thick, hot smoke. Although hovering was extremely difficult, I got occasional breaks in the weather, which let me see a **railing** now and then. AW2 Rominger also provided critical position calls that helped me maintain a stable hover.

As we quickly pulled the last two civilians through the open hatch, Rominger lowered the hoist to retrieve his **compatriot**. At this point, everything went into slow motion. The hot air and thick smoke didn't contribute to the smooth operation of a turboshaft engine. As my No. 2 engine was winding down, my crewman yelled, "Compressor stall!" I saw a lot of red lights and felt the aircraft lose altitude. The crewman immediately cut the hoist cable, leaving the second crewman on the tower.

I froze the collective and slid the aircraft to the left to clear the railings of the tower. When I was sure my landing gear cleared the tower, I nosed the helo over about 35

last resort: last means if everything else fails

NATOPS: Naval Air Training and Operating Procedures

shoehorn: to force to fit

IFR: Instrument Flight Rules

railing: barrier or fence

compatriot: colleague

Nr: RPM for rotors

degrees for a single-engine recovery. As I pushed the nose over to gain airspeed, I checked the gauges. The No. 1 engine had about 144 percent torque, and **Nr** was a perilously low 85 percent.

To a helicopter pilot, turns (Nr) are life. Time seemed to drag as we plunged 200 feet and increased our speed from 0 knots to 100 knots and 85 percent Nr to 100 percent Nr. We were flying again, straight and level at 450 feet.

Everyone's first thought was rescuing our crewman.

"Call Four Oh Three to get him," I ordered.

We didn't know that within seconds of our forced departure, 403 had replaced us over the tower and picked up our stranded crewman. We made a textbook single-engine approach and landing to a nearby field with the last two civilians, who probably never knew how close they came to dying. Three of our crewmen were hospitalized for smoke inhalation, including me.

What could have been a disaster was one of the most flawless missions that I had ever flown. Our SAR brief that morning had covered everything, from the roles each of us would play in a SAR to what our actions would be in the case of an emergency.

Our CO decided to launch the second aircraft—just in case—and the second crewman is alive today because of that decision.

Source: "Rescue From a Burning Smokestack," from *Approach* (August 1998, p. 3).

Learning Strategy

Reading more will help you improve your reading rate. Like other skills, reading requires regular practice.

In your notebook, copy the following questions and answer them.

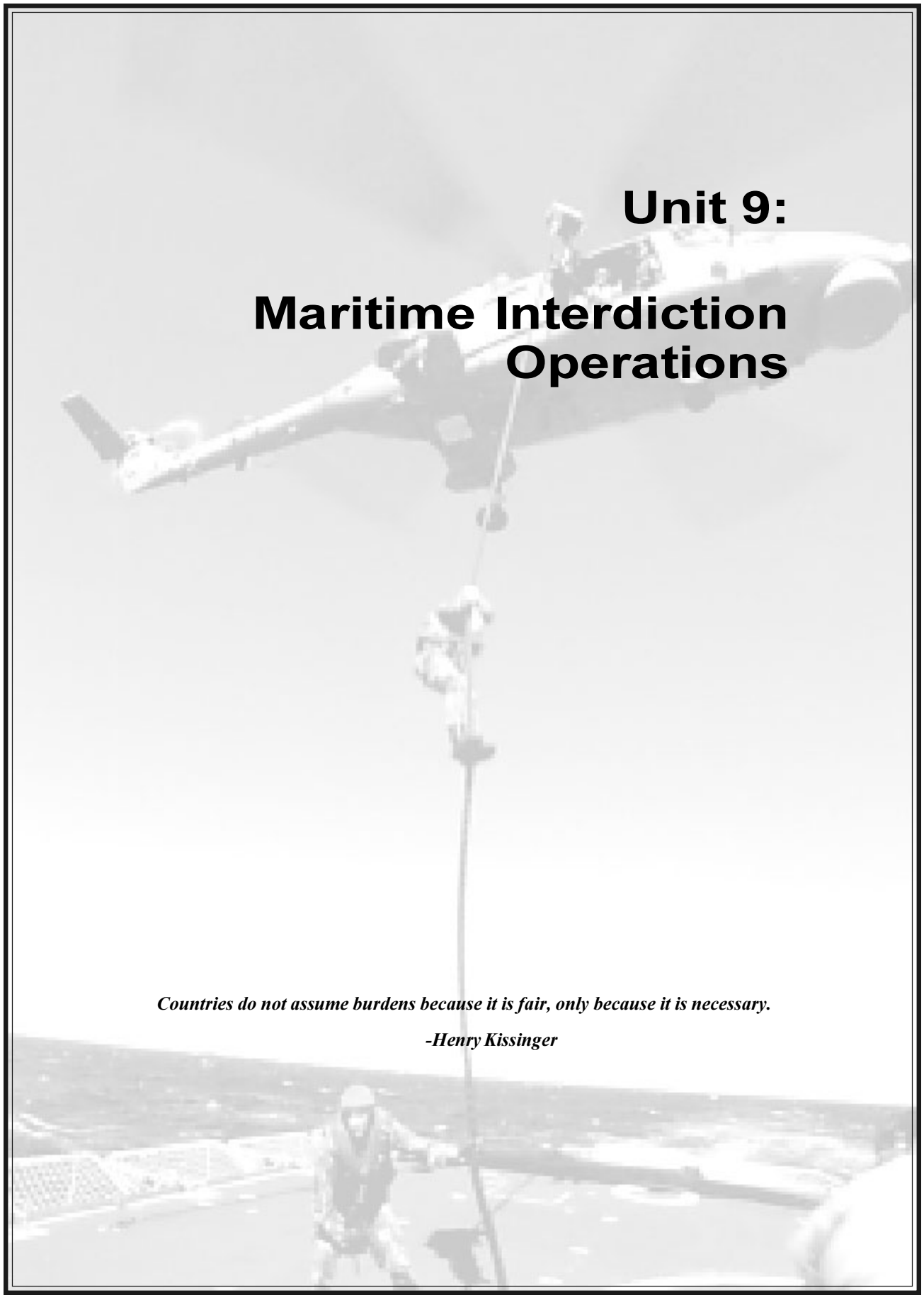
1. According to the article, what is the usual SAR call?
2. What prevented the second pass from being as successful as the first?
3. What decision saved the life of the second crewman?

LEARNING STRATEGY

Keeping a Learning Log

Exercise 29

Follow the instructions for completing the Language Learning Log given in Unit 1.



Unit 9:

Maritime Interdiction Operations

Countries do not assume burdens because it is fair, only because it is necessary.

-Henry Kissinger

Resources

You will need Unit 9 of this course, the Unit 9 recording, a tape/CD player, your notebook, a pen or pencil, and your copy of *Webster's New World Dictionary*.

Objectives

In this lesson you will

1. give suggestions.
2. review constructions that require a subjunctive verb in the *that* clause.
3. use objective vocabulary, military terms, and military acronyms in the glossary.
4. describe the different phases of a Maritime Interdiction Operations (MIO) mission.
5. explain the Navy's role in MIO.
6. describe the responsibilities of each person in the MIO chain of command in preparing for and conducting a MIO.
7. state the importance of the following when conducting MIO
   a. communications
   b. boarding procedures
   c. employment of force
   d. coordination with boarding teams members.
8. listen to electronic communications and take notes.
9. read models of technical/military material and answer comprehension questions.
10. read authentic military articles and answer comprehension questions.
11. practice a variety of language learning strategies.

Table of Contents

LEARNING STRATEGIES

In this course you have been introduced to a variety of learning strategies. Are you applying any of them in your daily studies?

Planning

Exercise 1

Did you stick to your study schedule for Unit 8? Fill out a schedule for Unit 9. As before, try to stay on schedule, and reward yourself when you do.

Unit 9 Schedule

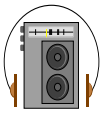
Day	Plan	Actual
Mon	_____	_____
Tue	_____	_____
Wed	_____	_____
Thurs	_____	_____
Fri	_____	_____
Sat	_____	_____
Sun	_____	_____

VOCABULARY

Pre-reading

Skim the reading titled "Maritime Interdiction Force Operations." Then answer the questions below.

1. What topics are covered in the reading?
2. Are you familiar with the topics?
3. What strategies help you understand and remember information that you read and study?



Learning Strategy

Planning your learning and sticking to your plan will go a long way in improving your English language skills.

Listen to the reading titled "Maritime Interdiction Force Operations" and follow along. The new vocabulary is in italics. As you listen, underline or circle any words you do not know.

Maritime Interdiction Force (MIF) Operations

Overview

Nations periodically use military forces to influence a country to conform with international standards of behavior. A maritime interdiction operation is the action of denying access to specific ports for import/export of goods to a specific nation or nations. These operations are measures intended to resolve disputes through actions short of armed conflict. They are designed to control the flow of arms and goods into and out of a target country. Commanders, commanding officers, and other key decision-making personnel should have a working knowledge of the principles and law of the sea involved prior to commencing MIF operations.

The United Nations (UN) will normally establish the provisions for an embargo and authorize the use of force in its enforcement through a UN Security Council Resolution. The right to impose an embargo may also be derived from the customary international law that defines the right of a nation, or a group of nations, to defend against a threat to the peace or actual breach of the peace (also termed "individual or collective self-defense").

interpretations: explanations; meanings; translations

questionable: that can or should be questioned or doubted; open to doubt

cargo: loads of commodities carried by a ship, airplane, truck, etc.; freight

merchant: of or used in trade; mercantile; commercial

take down: the act of inserting a HAF (heliborne assault force) aboard the COI (contact of interest) to gain control of key stations and force the COI to submit to search by a boarding party

unilateral: involving or obligating one only of several parties; done or undertaken by one only; not reciprocal

The authority establishing the MIF operation must address the following items in the resolution:

Force

The resolution should prescribe the level of force authorized in conducting the MIF operation. Generally, the ROE (rules of engagement) in force and national **interpretations** of the resolution will prescribe the conditions under which, and the extent to which, force may be used in enforcing the resolution.

Prohibited Items

The resolution itself will specify which items are prohibited. When dealing with **questionable cargo**, the MIF commander may require clarification of the prohibition status of specific goods.

Geographic Limitations

Although the resolution may set the geographic limitations for the MIF operation and authorize entry into the target country's territorial sea, the decision regarding whether to allow pursuit into the target country's territorial sea varies between participating nations.

Disposition

Normally, ships are not ***seized*** during a MIF operation. Those carrying prohibited items are diverted to an acceptable port or returned to their port of origin. However, in recent MIF operations, such as Operation Sharp Guard in the Adriatic, the UN resolution authorized the seizure and ***subsequent*** sale of the violating vessels and their ***contraband***.

For MIF operations to be recognized as lawful under international law, the provisions thereof must be applied to ships of all nationalities. This means that all ships in transit of the defined area, including those of one's own nation, must be subjected to an inspection. Force may be utilized, if required, to ensure compliance with interception operations.

There are two objectives of maritime interdiction. The primary objective is to determine if a **merchant** ship is in compliance with or in violation of the stated reason for the interdiction. The secondary objective is to gather intelligence about the merchant ship's ***itinerary***, its future intentions, and military and merchant activity in and around an embargoed nation's ports.

Mission

The mission of MIF operations is to conduct maritime interdiction of merchant shipping bound to, through, or out of a designated area in support of political authorities' stated objectives. Implementation of this operation is through the use of multinational combatants (ships and/or aircraft) to place boarding parties aboard merchant vessels. Force such as warning shots, non-disabling fire, and disabling fire, which is referred to as a "**take down**," may be required.

Note that the procedures and guidance provided are applicable only to peacetime MIF operations and do not address procedures for conducting a naval blockade in time of war or declared hostilities.

Examples of Maritime Interdiction

Ships from many nations have been tasked on several occasions to conduct MIF operations in support of various objectives. Examples of MIF operations are the enforcement of United Nations sanctions against Iraq in support of operations prior to, during, and after the Persian Gulf War and the enforcement of United Nations sanctions against the Republics of Yugoslavia.

Concept

MIF operations will have great political interest and, as such, require a highly flexible concept of operations. They may be carried out by multinational forces or single nations in support of specified objectives. **Unilateral** operations may be

conducted by naval forces alone or as part of joint operations involving one or all of the armed forces.

Commanding officers should prepare their crews to conduct MIF operations within a wide variety of command structures and operational environments.

Command Responsibilities

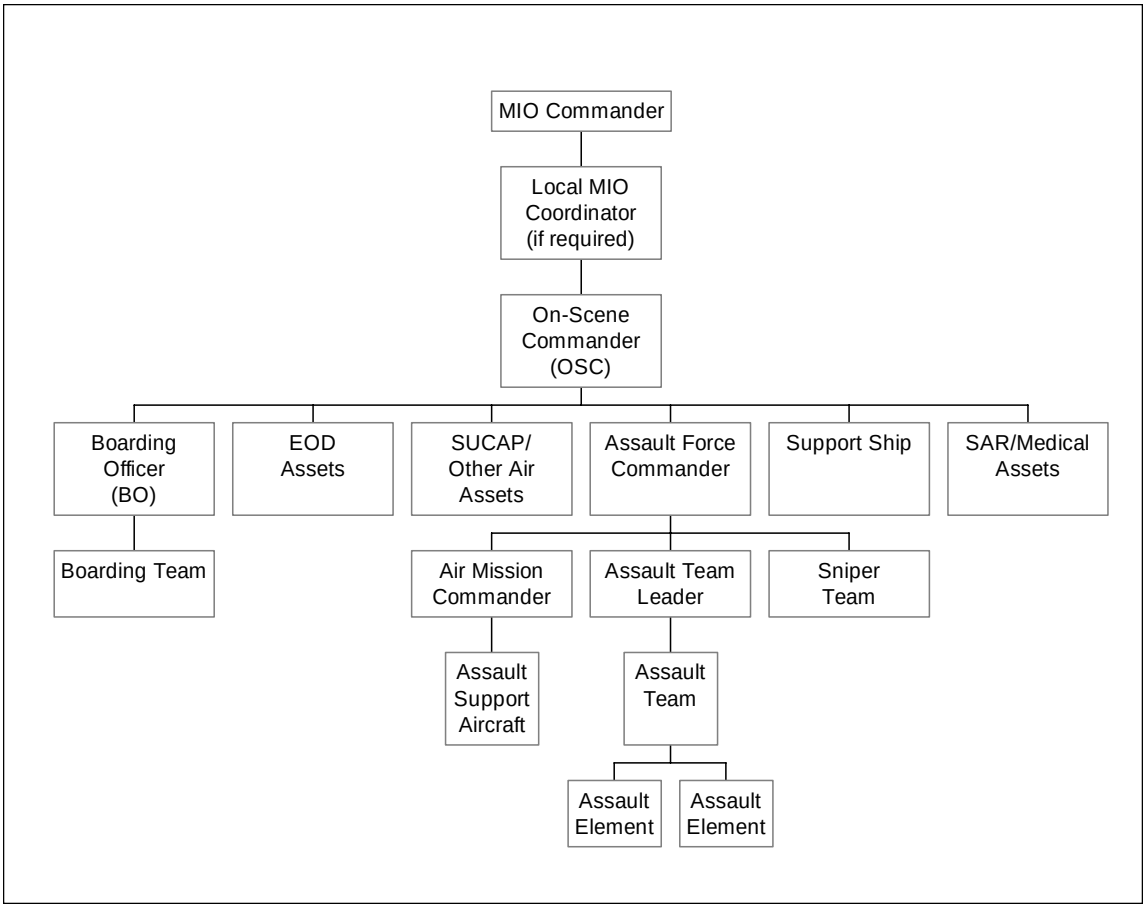
The following are key MIF personnel and their responsibilities:

- The Maritime Interdiction Force Commander (MIF CDR) is the officer in tactical command (OTC) of all forces assigned to conduct the MIF operation.
- The Maritime Interdiction Force Local Coordinator (MIF COORD) is assigned as required to provide command and control when geography prohibits operations in a single geographic area. There may be need for more than one MIF COORD.
- The On-Scene Commander (OSC) is the officer in tactical control at the scene of all forces assigned to conduct or support the boarding of a Contact of Interest (COI). The OSC is normally the commanding officer of the boarding ship.
- The Assault Force Commander (AFC) is the officer in control of the heliborne assault force (HAF) that conducts the take down of a COI.
- The Boarding Officer (BO) is the officer in control of the boarding party. He is responsible for visiting and searching the COI. He remains in control of the COI until the OSC directs him to turn over to the master of the COI or until he is properly relieved.

Learning Strategy

Underlining, highlighting, or circling new words helps you remember better or find them faster when you need them.

Figure 9-1. Command and Control



- The Air Mission Commander (AMC) is the aviation officer assigned as mission commander for all aircraft directly supporting the HAF.

Communications

The complex nature of MIF operations requires all participating units to pay particular attention to the compatibility of communications systems. The following actions can be taken to minimize problems:

nets: radio circuits designated for use during a given operation

- All helicopters and maritime patrol aircraft assigned should be equipped with bridge-to-bridge capable (maritime bandwidth) VHF/FM radios.
- Strict circuit discipline should be required on all boarding **nets** to ensure rapid transfer of urgent information.
- Code words should be established for key information in the event clear voice circuits must be utilized.

Title	Call Signs	Information
Commanding Officer (CO)	"Control"	Controls boarding team via the BO and ship's boat via coxswain, as required.
Boarding Officer (BO)	"Boarding Officer"	Controls the sweep team(s) and ship's boat while keeping CO informed.
Assisting Boarding Officer (ABO)	"ABO"	Controls security detail. Assists BO.
Security Team Leader	"Security"	Informs ABO of security matters.
Sweep Team Leader (#)	"Sweep (#)"	Informs BO of progress and/or problems.
Boat Coxswain	"Gig, RHIB, or Motor Whale Boat"	Receives orders. Reports boat status.

Figure 9-2. Boarding Party Communications

Source: EXTAC 1012 Maritime Interdiction Force Procedures, October 1996.

Exercise 2

Use the words in the box to complete the sentences.

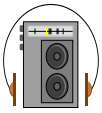
seized	itinerary
subsequent	contraband

1. The take down required warning shots and _____ disabling fire.
2. The ship's _____ was altered. Its current position is different than its original schedule.
3. The _____ which included illegally obtained weapons was _____ during the recent MIF operations.

Exercise 3

Read the questions below and underline the information in the reading that helps you answer each one. Then, check the answer pages at the end of the unit.

1. Which items are addressed in a resolution establishing a MIF operation?
2. What are two objectives of maritime interdiction?
3. Give two examples that demonstrate the role of the Navy in maritime interdiction.
4. The employment of forces during MIF operations is important because of the political interest involved. Name some ways that forces are used to carry out operations.
5. Who are the key personnel involved in preparing for and conducting interdiction operations at sea, and what do they do?
6. Good communications are critical due to the complex nature of a MIO (maritime interdiction operations). What can be done to minimize communication problems?



Listen to the reading titled "Detection and Surveillance" and follow along. The new vocabulary words are in italics. As you listen, underline or circle any words you do not know.

Detection and Surveillance

All contacts within the designated surveillance area should be tracked, identified, and interrogated for possible boarding. All available **sensors** should be used to detect, identify, and collect intelligence on merchant shipping within the assigned surveillance area. Every contact determined to be a COI (Contact of Interest) should be tracked, observed, and considered to be a potential target for a take down operation. The identification as a COI is generally determined by the MIF COORD. Maintaining an accurate database of merchant ships previously challenged and/or boarded is critical to prevent multiple interceptions of the same ship as it passes through a geographic area. Merchant contact information must be systematically shared by all units (not just those assigned to MIF duties) operating within the MIF area. Effective operations are critically dependent on support from shore authorities to compile, collate, and disseminate information on merchant ship movements. The generation and exchange of a comprehensive database is a valuable tool. Without significantly disrupting trade, it may not be possible to thoroughly search every merchant ship entering the area of interest. Therefore, intelligence is vital to target likely embargo breakers. Forces conducting MIF operations must be prepared for ships and/or agents to employ any ***subterfuge*** to break the embargo. These ***ploys*** may include having a mechanical breakdown, declaring false destinations, entering cleared ports close to the target area, and making a quick **dash** into territorial waters, making crew changes, or multiple changes of ownership.

Detection

Picture Compilation

In order to build the recognized surface picture (RSP), identification of all surface contacts in an area of interest must be made with positive identification of friendly, neutral, and suspect units. Units involved in MIF operations are to produce a plot of all surface contacts while covering the area of interest against defined targets. This can be done by continuous radar coverage or revisiting (with defined intervals) contacts in the area of interest. This plot of radar contacts must be disseminated to all units involved.

sensors: devices to detect, measure, or record physical phenomena, as radiation, heat, etc.

dash: a sudden, swift movement

Objectives of the Recognized Surface Picture (RSP)

The building of the RSP aims at one or more objectives as listed below:

- detecting all surface tracks in an area of interest
- identifying all surface tracks in an area of interest to a level required by the type of operation
- identifying a specific and defined COI in an area of interest

- identifying a specific type of COI in an area of interest
- tracking an identified COI or identified contacts in an area of interest
- vectoring a platform (air/surface) to identify a COI

nonorganic: not intrinsic

vessels: boats or ships, especially relatively large ones

EDT: Estimated Time of Departure

ETA: Estimated Time of Arrival

legal: of, created by, based upon, or authorized by law

Size of the Area of Interest

The size of an area of interest that can be covered depends on the following factors:

- the ***assets*** available to execute the operation
- the type of sensors available
- the objective for the building of the RSP
- the environmental conditions in the area of interest
- the target characteristics

Nonorganic Search Assets

Depending on the nature of the MIF operation, the following **nonorganic** assets may be available to assist in detecting merchant traffic that will enter the surveillance area:

- national intelligence sensors
- maritime patrol
- airborne early warning assets
- tactical data link from other units
- tactical exchange via voice circuits

Learning Strategy

Be aware of your body. Take a break if you feel tired or are having problems concentrating.

Organic Sensors

Organic detection assets vary from ship to ship. Every effort should be made to maximize all available sensors.

Surveillance

Surveillance of the COI is vital to collecting intelligence that the boarding party or take down forces may require later. As much intelligence as possible should be collected for future use in case the COI becomes noncooperative or hostile. The tasking in relation with surveillance will depend upon the type of MIF operation being conducted.

Embargo Operations

During embargo operations the MIF will identify suspect **vessels**, determine vessel's name, flag, destination, origin, cargo, port of registry, **ETD**, **ETA**, ship owner, and agent.

Drug Interdiction

During drug interdiction the MIF will identify a specific suspected vessel on which intelligence has been obtained, or track all contacts and determine which contacts are acting suspicious (suspect) and identify those contacts to the level required by the OTC.

Locate Suspected Vessels

The MIF will identify a specific vessel as designated by OTC or higher command.

Coast Guard/Environmental Patrol

The coast guard/environmental patrol will identify those contacts that are violating national and international laws and regulations; register those items required for **legal *prosecution***.

Sensor	Possible Level of Identification Range (nm)			
	DAY	NIGHT	DAY	NIGHT
Visual	Type: Superstructure Hull Colors Name/homeport Suspicious outfit	Type: Superstructure Hull Colors Name/homeport	10-15 5-10 <5 0.5-2 <0.5	<5 <2 1-2 <0.5 N/A
Electro-Optical (LLTV)	N/A	Type: Superstructure Hull Colors Name/homeport	N/A	5-10 <5 UNK UNK
IR (**IRDS**/**FLIR** IR-goggles	N/A	Type: Superstructure Hull Colors Name/homeport	N/A	5-10 5-10 1-2 <1
ESM	Radar type	Radar type	**RHR**	RHR
ESM Fingerprinting	Radar type Name	Radar type Name	RHR	RHR
Imaging radar (**ISAR**)	Type: Superstructure	Type: Superstructure	64-128 32-64	64-128 32-64
Acoustic (**NB**)	Noise sources	Noise sources	1-10	1-10

Figure 9-3. Sensor Level of Identification

Learning Strategy

Playing relaxing music in the background while you study sometimes helps you learn better.

IRDS: Infrared Detection Set

FLIR: Forward-Looking Infrared (radar)

RHR: Roughness Height Rating

NB: Narrow band

ESM: Electronic Surveillance Measures

ISAR: Inverse Synthetic Aperture Radar

superstructure: that part of a ship above the main deck

Searchwater: a surface search radar

database:any large or extensive collection of information

Fishery Patrol

A fishery patrol will identify those contacts, considered to be fishery vessels, that violate national and international laws and regulations; and register those items required for legal prosecution.

Sensors

Visual, Electro-Optical, and Infrared (visual, EO, and IR) identification and their corresponding ranges will strongly depend on the environmental parameters, such as temperature, humidity, fog, rain, background lights, etc. See Figure 9-3.

Identification by visual, IR, or EO means that a farther distance may be facilitated by the ability to compare a contact's silhouette with a picture or drawing. The following sources on merchant ships, hulls, and **superstructures** are presently available.

Lloyd's Register of Shipping

This publication lists data concerning self-propelled seagoing merchants of a Gross Tonnage of 100 and above. Examples of data listed are call signs, flag, port of registry, DW T (dead weight tonnage), hull, size, superstructure, decks, cargo facilities, and maximum speed.

Jane's Merchant Shipping

This publication lists general data concerning merchant shipping, including photographs.

Imaging Radar

Imaging radar is only fitted on some P3C Orion, S-3 Viking, and SH-60B Lamps

MK III aircraft. Furthermore, UK Nimrod and Sea King AEW aircraft are equipped with **Searchwater**, which has some imaging capability. To obtain a good imaging radar picture, the aircraft should be positioned in front or astern of the COI. Identification will take place by comparison of hull and superstructure with **database** information.

Source: *EXTAC 1012 Maritime Interdiction Force Procedures*, October 1996.

Exercise 4

Go back and scan the reading "Detection and Surveillance" for the information you need to answer the questions. Underline information that helps you answer each one. Write the answers in your notebook.

1. Effective detection and surveillance operations are critically dependent on support from shore authorities to _____, _____, and _____ information on merchant ship movements.
2. Name the first objective that the building of an RSP aims at.
3. What are some of the MIF operations mentioned in this unit?
4. Name some resources that help in identifying ships.

Exercise 5

Review words from the vocabulary selections by matching each word with its definition.

1. __ itinerary	a. an action or maneuver intended to outwit or disconcert another person
2. __ organic	b. record of a journey or detailed outline for a proposed journey
3. __ ploy	c. to take forcible legal possession
4. __ prosecution	d. a thing that is valuable and desirable
5. __ seize	e. any plan or action used to hide one's true objective
6. __ asset	f. belonging to
7. __ subterfuge	g. the conducting of any lawsuit

GRAMMAR

Special Verbs in *That* Clauses

In your study of English grammar, you may have noticed that speakers of English sometimes shift to the subjunctive mood in certain constructions involving noun clauses introduced by *that*. Not all *that* clauses in English contain a verb in the subjunctive. In fact, most do not, as you noted in the grammar sections on reported speech in this text. This segment will draw your attention to some constructions that do require a subjunctive verb in the *that* clause.

Note that instead of the usual forms of the verb in the *that* clause, the present form is used.

One of the most common of these constructions is that involving an anticipatory *it* followed by an adjective dealing with necessity, urgency, or importance. Look at the following model subjunctive forms that are used. The present subjunctive is like the simple form of the verb. It is like the infinitive without *to* or like the present tense indicative, but without the third person singular *-s*. The present subjunctive of the verb *to be* is likewise the simple form of the verb: *be*.

(The past subjunctive, which is used in certain other constructions in English, looks like the past indicative form of the verb, and the past subjunctive of the verb *to be* is *were*.)

Anticipa-tory "it"	Adjective of importance, urgency, etc.	Optional (that)	Noun Clause
It's	advisable best better compulsory critical essential important mandatory necessary required urgent	(that)	the Admiral leave now. the crew be alerted. the sub surface right now. all the evacuees fill out the census forms throughly. the SAR pattern be changed immediately. the NEO succeed.

Even if the tense of the verb following *it* is changed, the verb in the *that* clause may remain the same.

Example:

At that moment, it was critical that the submarine surface.

Exercise 6

Complete the following sentences with an adjective from the list given below. There is no one correct answer. Write the answers in your notebook.

advisable	urgent	mandatory
critical	essential	important

1. It's _____ that the patients take the medicine immediately.
2. It's _____ that this message get through to the captain.
3. It's _____ that all the crew wear dress uniforms.
4. It's _____ that we leave early.
5. It's _____ that the engines be kept in top condition.
6. It's _____ that no one violate the ROEs.

Exercise 7

Use the words that are given below to ask and answer questions. Look at the example. Write the questions and answers in your notebook. Then read them aloud.

Example:

Q: best/alert the Ambassador / problem?

A:

Q: Is it best that we alert the Ambassador?

A: Yes, it's best that we alert the Ambassador to the problem.

1. Q: required/everyone attend briefing?

   A:

2. Q: compulsory/search?

   A:

3. Q: necessary/sailor see dentist/before/goes/deployment?

   A:

Learning Strategy

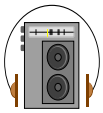
Learning formulaic phrases and patterns and using them can improve your communicative skills.

After Verbs of Necessity

A noun clause with a verb in the subjunctive is also used after certain verbs that express necessity and requesting. Some such verbs are these:

advise	insist
recommend	command
urge	suggest
ask (to request)	order request

Exercise 8



Listen to some sentences and write them in your notebook. When you have finished writing the sentences, underline the noun clause in each one.

Notice that in the main clause of the sentences you wrote, the tense of the main verb varies (e.g., recommends, suggests, insisted, ordered, insists, has recommended). This variation does not affect the verb in the *that* clause. After you have turned off the recording, continue with the next exercise.

Exercise 9

Copy the incomplete sentences in your notebook. Provide a suitable phrase to complete each one.

1. The Admiral commanded that ____.
2. The evacuee asked that ____.
3. The Security Officer urged that ____.
4. The Medical Officer advised that ____.

Contrasting Construction

You may want to contrast this construction with another one sometimes used with these verbs. The other construction used usually follows this pattern:

Subject/Verb of Urging or Commanding/ Direct Object/Infinitive (or Infinitive Phrase)

Look at the following examples of this pattern.

subject *verb* *d.o.* *infin.*

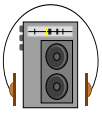
The Shore Patrol ordered the man to halt.

The sailor asked his mates to help him.

The Admiral ordered the Captain to take on the mission.

The doctor urged the patient to remain calm.

VOCABULARY



Read along as you listen to the selection "Interrogation, Approach, and Stopping." The new words are in italics. As you listen, underline or circle any words you do not know.

Interrogation, Approach, and Stopping

This phase sets the **tone** for all boarding operations, so **mature** judgment and caution are critical. An effort should be made to be ***cordial***, yet remain cautious, alert, and in control. This phase will

tone: the prevailing or predominant style, character, spririt, trend, morale, or state of morals of a place

mature: fully developed, as a person; a mind; etc.

present a major opportunity to gather intelligence. If a ship's helicopter is present, it should be utilized to the fullest extent possible, in concert with other aircraft that have been tasked to support the MIF operation. All helicopters should be equipped with bridge-to-bridge VHF radios to assist with interrogating merchants that are not within VHF range of ships.

Shipboard Requirements

Watch station manning requirements vary, depending on surveillance equipment installed. In general, normal underway watch stations should be ***augmented*** to provide extra bridge-to-bridge radio log keepers and increased surveillance capability. Bridge and combat information center (CIC) VHF monitoring stations should have a copy of the questions with blanks. A separate log should be maintained and a tape recording made, if possible, of all bridge-to-bridge conversations.

A Situation Report (SITREP) team should be formed and used to prepare timely reporting to seniors in the chain of command during boarding operations. This team may be comprised of the following members:

- SITREP Team Leader. The SITREP team leader acts as a ***liaison*** with the commanding officer, tactical action officer (TAO), and other key personnel and relays command perspective to the SITREP **composer**.
- CIC Liaison. The CIC liaison collects, ***correlates***, and relays pertinent information (i.e., position data, unknown aircraft, communications received from other units) to the SITREP composer.
- SITREP Composer. The SITREP composer properly formats information to ensure all required data is provided.

Interrogation Procedures

It is imperative that the overall tone of any hailing or interrogation be firm, yet cordial and **nonconfrontational**. The bridge watch of the COI may not be proficient in English and may have to locate someone who is; this person may not necessarily be the master. It is important to ensure the COI's master is present during hailing and interrogation, even if he does not speak English. Due to accents and **colloquialisms** the responses may not be easily understood with questions having to be repeated more than once. The hail should be broken down into short phrases to assist in translation or understanding by the COI's crew. Request that the COI spell words, if necessary. A list of ports in the area of operation should be prepared and used as a ready reference. While maintaining a polite attitude, remain alert for any delaying tactics.

composer: a person who writes

nonconfrontational: not opposing boldly, antagonistically, or defiantly

colloquialism: a localism or regionalism

Learning Strategy

When you understand the general or main idea of a reading, it is easier to understand the details.

Initial Interrogation

A ship or an aircraft may conduct the initial interrogation. The purpose of this interrogation is to obtain the information about the merchant vessel to determine whether or not a boarding will be required. Units should make initial contact with the vessel on VHF channel 16, having attracted attention at night by the use of appropriate colored light. Interrogation procedures are

then conducted on an assigned VHF working channel. In the absence of specific guidance, the following hail, used in the Arabian Gulf, is recommended:

> "Merchant vessel _____, this is (nation) Navy warship/aircraft. Request you state your port of origin, your flag, registry, international call sign, your cargo, your last port of call, next port of call, and final destination, over."

If it is determined that a boarding operation will not be necessary based on stated destination, the following may be used to ***dispatch*** the vessel:

> "Merchant vessel _____, this is (nation) Navy warship/aircraft. In view of your destination, we intend to conduct no inspection at this time. You are instructed to proceed directly to your destination of _____. Thank you for your cooperation."

consents: agrees

muster: to come together or gather as for inspection or roll call

Subsequent Interrogation

Prior to Boarding

If the decision to board is made, this should be relayed directly to the COI's master. If the COI's master **consents** to being boarded, the following additional information should be obtained:

- the total number of people on board the COI
- the preferred location for placement of the pilot's ladder

Instruct the COI's master to

- have his crew **muster** in a space in open view of the boarding ship and helicopters (to facilitate counting prior to boarding). A cautious master will not want to abandon key watch stations such as bridge and engineering watch standers. The crew members not present at muster should be clearly stated by the COI's master.
- turn on all interior lights (and exterior, if at night).
- have all unlocked spaces opened as much as possible and keys made readily available for locked spaces.
- have all the ship's papers and crew identification brought to the bridge.
- If boarding by boat, instruct COI to slow to bare steerageway. He should come to a course suitable for boarding or to stop, depending on tactical situation.
- If boarding by helicopter, advise master of course and speed to steer, position boarding team will transfer to, and actions to be taken by his crew.

Approach Procedures

The approach maneuver's purpose should be obvious while maintaining the secure posture of the boarding ship and should consider possible egress routes of the COI.

Single Ship Approach Procedures consist of the following:

- The boarding ship should be positioned abaft the beam on the windward quarter of the COI, if possible, at a safe distance until the threat of small arms or shoulder-fired weapons provides a clear arc of fire for the forward weapon system and can be ***assessed***. Remaining abaft the beam reduces exposure to ***ramming*** attempts while providing the best possible view of the bridge and superstructure.
- If the operation is being conducted at night, all available night vision devices and optical enhancement devices should be employed to observe the COI and gather intelligence.
- During daylight boarding, the sun should be kept behind the boarding ship to aid in observing the COI while making the reverse more difficult.
- The wake area of the COI should be avoided because of the threat of mines

or own ship's screw fouling objects deployed from the COI.

- Topside spaces should be cleared of all unnecessary personnel. Personnel remaining topside on the boarding ship should be instructed to observe the COI and report any activity by the merchant crew to the bridge, where an accurate record of activity should be maintained.
- The approach and initial time alongside should be characterized by extreme caution since the true intentions of the COI are unknown.

The dual-ship approach procedures consist of the following:

- The second ship (assist ship) should maneuver, when directed by the boarding ship, to the opposite quarter of the COI. The assist ship should remain outside of small arms **range** in case the boarding ship takes the COI under fire (remaining clear of the boarding ship's firing arc.
- If the assist ship is called upon to provide fire support, the boarding ship should open distance from the COI to avoid the field of fire from the assist ship. In effect, the boarding ship and assist ship switch positions with respect to range of the COI, while remaining on their respective sides of the COI.
- The assist ship should be prepared to take over as boarding ship and OSC in case the original boarding ship can no longer fulfill the duty.
- Movement of boats, helicopters, and weapon systems of both ships must be strictly coordinated.

Helicopter Support Considerations

During cooperative boardings, helicopters (if available and suitable) are preferred over the RHIB (rigid hull inflatable boat) because of reduced sea state restrictions and ability to more quickly embark the boarding team on a vessel with a high freeboard. A helicopter may be used to conduct routine boardings by first inserting a security team (by fast rope/rapid rope procedures if trained) and then the boarding team. If a heliborne assault force (HAF) is to be inserted, the assist ship, if equipped, normally provides the primary support to the HAF helicopter(s). Both ships should maintain a ready deck and manned refueling detail and be prepared for prolonged flight operations. Boarding ship's helicopter may be used as a sniper platform or a surveillance asset.

Diversion Procedures

Following an interrogation, it may become apparent that a ship is carrying illegal cargo and/or is proceeding to a prohibited port. Having this knowledge may present the option of simply diverting the COI to another port, if inbound, or returning it to a previous port, if outbound, ***vice*** conducting a boarding operation. Merchant ships may also have to be diverted to an inspection port or anchorage when weather conditions do not permit boardings, when it becomes apparent that the ship may be carrying prohibited cargo, or when its cargo cannot be easily checked by the boarding team.

range: the limits of possible variations of amount; degree

Diversion and Possible Cargo Seizure

If the COI is suspected of carrying illegal cargo, and guidelines have been established for diverting ships to a prearranged

port where their cargo will be seized, the following direction should be communicated to the COI's master:

> "Merchant vessel _____, this is (nation) Navy warship. It is believed that you are carrying cargo that is subject to interception under (the reason for interception), and you will not be allowed to proceed. You may, however, return to your port of origin at this time. If you do not decide to turn back, you will be directed to proceed to (port/anchorage) where this cargo will be taken into custody. (Nation) intends no harm to your ship, your cargo, or your crew. Master and crew will be free to leave as soon as your vessel has reached its new destination. Please do not resist. Cooperate in this action so that we can avoid any damage or injury and ensure the safety of the crew."

manual: a handy book of the facts, instructions; etc., for use as a guide, reference, or the like; handbook

Diversion to Port of Merchant's Choice

If no seizure of cargo is planned, it may be possible to allow the COI, if outbound, to return to its previous port or, if inbound to proceed to a port of its choice other than those that are prohibited. Depending on the situation, either an order or an offer to divert to a port of choice may be extended. This is an order to divert:

> "Merchant vessel _____, this is (nation) Navy warship. You are not authorized to proceed to (intended port) or any other port in (target country). If you choose this option, inspection may be avoided. What is your decision?"

Stopping Procedures

The measures taken to stop a vessel vary and depend on several factors. ROE and specific instructions from seniors in the chain of command must be taken into account. For the purpose of this **manual**, it is assumed that the boarding ship is fully aware of the limits to the ***magnitude*** and type of force it may employ. Stopping the COI may not mean coming to a stop, but slowing to bare steerageway or "dead slow ahead" (depending on engineering configuration and sea state) to support small boat operations. Ship's position must be closely monitored to prevent the COI from closing territorial waters if the boarding operation is not conducted while dead in water. In the absence of other guidance, the following should be used to inform the master that his ship is to be boarded:

> "Merchant vessel _____, this is (nation) Navy warship. At this time (nation) intends to exercise its right to board and inspect under international law in accordance with its previously published notice to mariners. (Nation) intends no harm to your vessel, its cargo, or your crew. Please stop/slow your vessel, and stand by to accept (nation) boarding team."

At this point, a cooperative vessel will comply with the request and stop/slow. (If a vessel refuses to consent to inspection, it must divert [if inbound], return to port of origin [if outbound], or be taken into custody, as appropriate).

The reply from an uncooperative vessel most likely will be that it must check with his home office, or that it cannot stop/slow because of engineering configuration. It must be noted that some ships need more than an hour to stop. A time limit should then be given to the subject vessel. It should be made clear that, at the end of the given time, if it has not complied, the actions to encourage it to stop will ***escalate***. The following are not the only options available, but suggest a possible sequence of events. These actions may have to be cleared through the chain of command, depending on the specific guidance in effect.

The use of force to stop and board a vessel should be predictable, proportional, and if needed, escalative. The uncooperative vessel should be given the opportu-

nity to comply before the level of force is increased. This should be reflected in preplanned levels of force.

Levels of Force

Nonviolent

The nonviolent level of force can involve

- warnings by different types of communications
- aggressive maneuvering
- turning and aiming of fire-control radar and/or gun mounts

Voice communications, flashing lights, flag hoist (in accordance with the International Signal Book), loud hailer, attention signal on the ship's whistle or a horn. The use of simple, clear, and pronounced English is important, as it will depend upon the nationality of the COI whether English is understood. Other commonly used languages at sea may include Spanish, Russian, and Arabic.

Aggressive maneuvers by ships, tactical air (TACAIR) support, or helicopters (if available). Maneuvering alongside could be performed, depending on the type of COI. In a "**fishtail**" maneuver, approach with an angle of 45º on the COI's course, using 1.5 times the COI's speed. When at 200 yards, slow to match speed and turn to parallel course. Remain slightly astern of the COI to enable early observation of course changes by watching the wake.

Deterrence

In the sequence of increasing levels of violence, the following methods of ***deterrence*** can be used.

The munitions that can be used to deter with harmless means are blank gun rounds fired towards the bridge of the vessel or thunder flashes or concussion grenades thrown overboard.

If the above methods fail to have any effect, shots across the bow may produce the intended results. Shots can be fired by ships, TACAIR, or helicopter (if available). Guns should be **optically** controlled to ensure proper targeting. Machine guns (20 mm or .50 caliber) or main battery guns utilizing HE (high explosive) or /PD (point detonating) rounds could be fired. Rounds should be placed so the effect of the blast does not damamge the COI.

Show of Force

Show of Force is the use of weapon systems and munitions to inflict limited damage with small caliber guns without causing injuries or structural damage.

If the actions listed above fail to gain compliance, the vessel is now considered to be opposing the MIF operation. At this point, a decision will have to be made by the cognizant authority as to whether to use small arms fire, disabling fire, or effect a take down operation.

Non-disabling Fire

Small arms fire to the bow, the masts, cargo on deck, or other area may be directed to persuade compliance without seriously damaging the COI. Warning should be issued to the COI so that the area to be taken under fire may be evacuated. In the absence of other guidance, the following warning may be used:

fishtail: the movement of an airplane or other vehicle from side to side while moving forward

optically: relating to, or using light; visually

Learning Strategy

Use reading subtitles to ask yourself questions about the reading.

"Merchant vessel _____, this is (nation) Navy warship. We will now fire on your (area to be fired upon). I am now giving you an opportunity to evacuate your crew from the (area to be fired upon) of your ship. You have one minute to clear your crew from (area to be fired upon)."

Disabling Fire (Structural Damage)

Disabling fire is the use of weapons systems and munitions to stop the COI (target areas include funnel, steering compartment, or engine room).

If the decision is made to use disabling fire, several options are available. Care must be taken to consider not only the effectiveness in stopping the COI, but also the consequences of taking a specific area under fire.

proximity: the state or quality of being near; nearness in space, time, etc.

inert: having few or no active properties

last resort: final recourse; place or person to turn to for help

The following, although not all-inclusive, should be considered when disabling fire is a possible course of action:

- threat of a major oil spill from ship's service tanks or cargo tanks
- threat of major fire from engineering space or cargo holds
- maneuverability of ship following disabling fire
- possibility of casualties
- damage to cargo
- ability to insert HAF by fast-rope or ship's boarding party by small boat following the disabling fire
- **proximity** of ***shoal*** or territorial waters
- weather forecast
- the number of hours of daylight remaining

If the decision is made to use disabling fire, targeted areas may include the rudder, stern area, or machinery spaces, if their location is known. Heat-sensing or I (Infrared) devices may be used to locate the machinery spaces. The ammunition used should be **inert** blank load and plug, if feasible. Weapons systems should be optically sighted.

Depending on specific guidance, the OSC may need to request instructions from the chain of command. The process of informing the chain of command may take some time, so the position of COI should be monitored to ensure he will not enter territorial waters while the OSC is awaiting a response.

Prior to commencing disabling fire, a warning, such as the following, should be issued to the COI:

"Merchant vessel _____, this is (nation) Navy warship. I now intend to fire on your vessel. I am now giving you an opportunity to evacuate your crew from the (stern/engine room/etc.). You have one minute to clear the stern/engine room/etc."

Self-Defense

Self-defense involves counter battery fire using weapons systems or munitions to neutralize the hostilities posed by the COI.

The use of force in self-defense of personnel engaged in interdiction operations is authorized when it becomes evident that this is the only means by which personnel on board ships or in boarding parties can be protected. Use of force should be as a **last resort** and proportional to the situation. When using force in self defense, the following factors should be considered:

- accuracy of the weapon(s) to be used
- capability of the weapon to penetrate coverage of the enemy

Full Force

Full force is the use of weapon systems or munitions to sink the COI.

Source: *EXTAC 1012 Maritime Interdiction Force Procedures*, October 1996.

After you have turned off the recording, silently read the paragraphs again. Next, in your dictionary or the glossary for this unit, find the meaning of the words you do not know. Then complete Exercise 10.

Exercise 10

Read the questions below and write answers in your notebook. Underline information in the reading that helps you answer each question.

1. During the phase that sets the tone for a boarding operation, which characteristics are critical?
2. How should the tone of any hailing or interrogation be?
3. Upon consent of the COI's master to board, what further information should be requested?
4. What should the COI's master be instructed to do about his crew before the boarding takes place?
5. Where should the sun be during an approach maneuver?
6. Where can a ship be diverted to?
7. What are some nonviolent levels of force?
8. What are four uses of weapons in a show of force?

Exercise 11

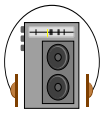
Review the vocabulary words in this section by matching each word with its definition.

1. ___augment	a. sincere
2. ___dispatch	b. evaluate
3. ___correlate	c. to expand step by step
4. ___cordial	d. a sand bar forming a shallow place
5. ___assess	e. the act of keeping someone from doing something
6. ___escalate	f. calculate or show the reciprocal relation between specifics
7. ___liaison	g. greatness as in size or extent of
8. ___ram	h. send out on official business
9. ___deterrence	i. intercommunication between units of the military
10.___magnitude	j. to make greater, as in quantity, size, strength, etc.
11.___shoal	k. to strike with force; crash

Learning Strategy

Repeating the new words in sentences gives you a feel for them.

VOCABULARY



Read along as you listen to the selection "Boarding and Searching." The new vocabulary words are in italics. As you listen, underline or circle any words you do not know.

Boarding and Searching

The boarding and search phase is the most important and most hazardous phase of MIF operations. Boarding and search procedures must be conducted in a nonthreatening and nonconfrontational manner. Members of the boarding party must be adaptive and able to think on their feet. Boarding parties must be relaxed, confident, and cordial while remaining mentally and physically alert to respond quickly, if required.

The boarding phase is potentially dangerous while getting the boarding team on and off the COI and during the actual boarding and search of the COI.

Boarding Party Composition

The boarding party should be comprised of a minimum of ten members designated as follows:

- *Boarding Officer*. The Boarding Officer (BO) is usually an officer of at least Lieutenant (LT/O-3) rank. He must have the complete confidence of the ship's commanding officer.
- *Assistant Boarding Officer.* The Assistant Boarding Officer (ABO) is usually a commissioned officer. Lieutenant (LT/O-3), Lieutenant junior grade (LTJG)/O-2), Ensign (ENS/O-1), who should be in training or who may be qualified as a BO. He must have the confidence of the ship's commanding officer.
- *Security Team Leader*. The security team leader should be a senior enlisted member of the boarding ship (Chief Petty Officer preferred).
- *Security Team*. The security team is a group of five men (usually enlisted).
- *Sweep Team*. The sweep team is a group of two of the most experienced and mature men on the boarding party (senior enlisted preferred).

All officers and enlisted men of a boarding party must be mature, in excellent physical condition, and small arms qualified.

Arming of Boarding Party

The boarding party should be armed with the standard service pistol and/or riot shotgun. At least four members, acting as security forces, should carry riot shotguns in addition to the pistol. Total weapon ***complement*** consists of ten pistols, four riot shotguns, and one semiautomatic rifle in the small boat. Weapons are also required for additional boarding party personnel, if utilized. All members of the boarding party, except those carrying shotguns, may carry the standard baton with speed ring, if qualified. Weapons should be loaded with the chamber empty.

All boarding party members are required to be current with their weapons qualifications and have exhibited to the commanding officer sound judgment and maturity. Every boarding party and boat crew member shall wear body armor (if available).

Boarding Party Communications

Protected/digitized secure voice (not necessarily crypto security) UHF portable radios are recommended; however, secure VHF radios are a suitable substitute. During prolonged boardings, the use of a backpack or comparable radio may be desired. When plain voice radios are used, code words should be established for key information such as intentions, levels of tension, ***discrepancies*** in documentation, and/or cargo and distress. A minimum of six radios is required.

Standard radio telephone procedures should be used. All transmission must be brief in order to allow for urgent transmissions from sweep or security teams. When communicating over nonsecure radios, using the ship's own name should be avoided. (e.g., "Neversail one, this is Neversail").

Boarding Team Brief

The boarding team brief is a working level briefing that addresses the actual conduct of the boarding about to take place. Issues to be addressed and resolved during this briefing should include, but not be limited to:

- intelligence brief on COI, including vessel characteristics
- last port of call
- home port
- port
- type of cargo
- emergency procedures
- possible threats

Cooperative Boarding Procedures

A cooperative boarding is defined as a boarding where the master and crew of the COI respond to hailing, the merchant vessel **heaves to** and accepts the boarding party, and the inspection proceeds without incident.

heaves to: to bring a ship to a halt

lee: side away from the wind; side offering protection; shelter

Small Boat Operations

When directed by the OSC, the boarding party will embark in the ship's boat for transfer to the COI. Because of severe speed limitations and exposure of the boarding party, the motor whale boat is the least desirable choice and should only be used when neither the gig nor a RHIB (rigid hull inflatable boat) is available. Standard boat fenders are of little use and may pose a hazard during alongside operations. Larger boat fenders, which may be purchased or made up locally from three or more standard boat fenders ***lashed*** together, should be used to prevent damage to boats during boarding operations. The ship should maneuver to make a **lee** for the launch of the small boat. Once clear, the ship must maneuver to maintain visual observation of the COI and provide covering fire if required. Careful consideration of winds, seas, navigation hazards, territorial waters and possible sudden maneuvers by the COI are required. When a small boat is used to transfer the boarding team, it might be efficient to place an armed protection team in a second boat.

Boarding the Contact of Interest

One of the most hazardous phases of boarding operations is the embarking of the boarding team from the boat to the COI. Getting off the boat and climbing a 10 to 20 meter ladder up the side of a merchant vessel is hazardous in the best of conditions. MIF operations may require this act to be conducted at night and/or in moderately foul weather conditions. Security team personnel should board first and secure the area around the ladder. Once the area is secure, the remainder of

the boarding party should follow. In the interest of safety, no more than two boarding party members should be allowed on the ladder at one time. If the ship's first mate or another ship's officer approaches to greet the boarding party, the security team leader must clear him prior to his approach.

Boarding Officer Procedures

Once aboard the COI, the BO, the ABO, one security team member, and the photographer, if assigned, will proceed to the pilothouse to meet with the ship's master. The remainder of the boarding party will muster the crew and remain with them. Sample introduction to the master is as follows:

> "I am the senior (nation) officer present, and I intend to inspect the cargo. Please follow all instructions. Your cooperation will be necessary to conduct this inspection. We would like to see your ***manifest*** first, and then we will inspect the cargo. Please inform your crew of our intent and for their own safety, direct them not to interfere with the inspection team. Please tell them to remain calm and to help us avoid any misunderstanding or confrontation. All crew members are safe, and no harm is intended. Thank you for your cooperation."

charter: the hire or lease of a ship, airplane, bus, etc.

consignee: person or dealer to whom something, especially goods, is assigned

Examination of Documents

The documents are only one of the "tools" available to help reach a conclusion regarding the true nature of a ship's identity, crew, and cargo. All the documents encountered can be very easily ***forged*** or altered, or details (cargo) may be deliberately omitted. The following documents should always be examined:

Certificate of Registry

The original certificate of registry is required to be aboard. The certificate indicates ship's nationality, and lists owner's name, address, etc.

Certificate of Charter

The original certificate of **charter** is required if ship is chartered. The certificate lists chartering party by name, address, etc., and gives details of the charter's duration.

Crew and Passenger List

The original crew and passenger list is required to be aboard. The list details passenger and crew names, nationalities, etc.

Ship's Log

The ship's log is required to be aboard. Some ships have an original and smooth log. Check both for discrepancies.

Cargo Manifest

The manifest is required to be aboard if the ship is carrying cargo.

Check for more than one manifest. Sometimes, they are separated by port of off load, and the master may only offer the papers for cargo bound for the restricted port. Review all cargo manifests, regardless of stated or "intended" destinations.

Look for the following in the manifest:

Manifests must be complete. As a minimum, the following should be clearly identifiable:

- port of on load
- intended port of off load
- shipper's name and complete address
- **consignee**'s name and complete address
- type and amount of cargo
- container sizes and ID numbers for containerized cargo

Look for obvious signs of omission, forgery, and alterations such as

- missing information
- poor quality photocopies
- information "***whited out"*** or crossed out
- manifests and bills of lading that do not match.

Make note of manifest items that

- are obvious military cargo regardless of destination
- have any military address, regardless of the cargo item
- have any military value such as chemicals, metals, or raw rubber.
- are listed as medical supplies
- are destined for any embassy or embassy officials. These are not automatically protected under diplomatic ***immunity*** and may generally be searched.

Bills of Lading

Bills of lading are not required to be aboard. When available, they generally **contain** more detailed information regarding the cargo, its origin, and destination. If available, cross-check these bills against the manifest.

Dangerous Cargo Manifest

The dangerous cargo manifest is generally kept separate from the regular manifest and usually must be requested. It should list the IMO (International Maritime Organization) classification of the cargo. Careful consideration should be given before boarding vessels carrying chemicals or dangerous substances in order to prevent exposing the boarding team to potential health risks.

Cargo Stowage Plan

The cargo stowage plan is for the proper inspection of cargo, especially in locating containers or break-bulk cargo.

Passports/Seaman Books

Passports and seaman books should be compared to the presented crew list.

Navigational Charts

Navigational charts give confirmation of the voyage so far and the voyage to the next port.

bills of lading: lists of goods carried, esp., on a ship

contain: include

Decision to Divert

To recommend diversion of a COI, the BO must firmly understand the principles of contraband and free goods. The final decision is normally made further up the chain of command; however, the BO's recommendation is critical in aiding seniors in making the proper decision.

The BO should move to a location where his communications cannot be overheard before discussing this and other sensitive matters. Code words should be developed locally for key information and briefed prior to boarding operations for contingency where nonsecure communications are required.

Control of the Boarding Party

In general, the BO will exercise control of the boarding party through the ABO. If required, a separate UHF/VHF protected voice circuit may be utilized between BO, OSC, and small boat.

vapors: the gaseous forms of substances which are usually in liquid or solid form

clear: from contact; not entangled, confined or hindered

Sweep Team Procedures

The function of a sweep team is to conduct the actual search of the COI. As critical positions on the boarding party, the importance of selecting the most experienced men cannot be overly emphasized.

An initial security sweep will be conducted to determine if there are any unaccounted for weapons or personnel on board the COI and to look for obvious safety hazards. Results of the security sweep are reported to the BO who will check with the crew list to make sure that the location of crew and passengers is clearly determined. The BO will direct the sweep teams to conduct a search of all or part of the cargo areas based on the cargo documentation presented by the ship's master and other relevant information.

Extreme caution must be exercised by the sweep team when entering cargo holds or tanks. Lighting is often poor or nonexistent; ladders may be structurally weak or damaged; decks and ladders may be oily; ***noxious*** or hazardous **vapors** may be present (especially in tanks); air may be oxygen deficient; cargo may not be securely stowed; and other hazards exist separate from the threat of armed resistance. It is important that members of the boarding party never open any hatch, door, package, container, etc. This is to avoid injury of the boarding party by badly stowed containers, boxes, or holds.

Have master or ship's officer open all doors and hatches and enter all spaces first. Ensure a COI officer is present when sealed containers are opened. COI may provide able-bodied seamen to assist in opening containers.

Sealed containers may not contain the cargo with which they are labeled, so check with the BO before continuing the search. A bore sight, which is an inspection device, may assist in determining the contents of a sealed container. Reseal all sealed containers and deliver broken seals to the master while using a form to document the container opened. Identify the general contents and list the seal number issued by the inspector.

Additional safety equipment will be brought aboard in the boarding kit. Safety is paramount and will not be sacrificed for any reason.

Security Team Procedures

The security team is responsible for containing the COI's crew during the boarding. It has extended personal contact with crew members and, as such, should be sensitive to the large variety of cultural and religious backgrounds often found on merchant crews. It is not uncommon for women and children to be among the assembled crew of the COI. Security team members must exercise mature judgment in dealing with the COI's crew. The presence of dogs and free-roaming animals on board poses a physical and health threat to the boarding team and should be avoided. Request that the master lock up all animals for the duration of the boarding.

Prolonged contact with crew members other than the master should be used to ***discreetly*** gather information about the ship's previous activities and schedule. Any discrepancies from the information provided in the reboarding brief or unusual activity should be reported to the BO. Care should be taken to prevent the master or other crew members from overhearing the report. Previous lessons learned suggest the single code word "**clear**" may be used to inform the BO that there is sensitive information to pass. Once the BO is ready to receive the report, he will indicate he is clear, and the report may be completed.

Merchant vessels often have multinational crews. The ship's officers are normally familiar with, if not fluent in, English, and other English speakers may be aboard. Previous records show that during the ***vast*** majority of boardings, the crew/passengers are cooperative and only desire the boardings to go smoothly so they can get back to their routine. This does not mean that the security team should assume the crew will not be hostile. Caution, alert

observation, and sound judgment are essential. Whenever feasible, at least three men should move together to provide cover for one another. The following lists provide some do's and don'ts developed from lessons learned in previous boarding operations.

DO perform the following:

- Be firm, but polite in issuing instructions.
- Utilize the COI's chain of command. Have the master or ship's officers give orders to the crew/passengers.
- Be sensitive to the religious customs of the crew/passengers, keeping safety of the boarding party in mind.
- Be very cautious when dealing with women and children.
- Place a security team member in position above the assembled crew/ passengers where he can observe the entire group, if possible.
- Keep crew/passengers a safe distance from security team members to prevent being overpowered or disarmed.
- Plan ahead for restroom use. Boarding operations have lasted in excess of eight hours in the past.
- De-escalate tense situations immediately.
- Look for possible "**planted**" military or intelligence personnel among the crew/passengers.
- Try to relax the crew/passengers.
- Be cordial and polite at all times.
- Allow meals and disrupt ship's routine as little as possible.
- During extended boardings, consider moving crew/passengers to their cabins, mess decks, or other controllable areas of comfort. If done, direct them to stay in place and maintain security in passageways.
- Bring along an interpreter, if possible.

DO NOT perform the following:

- Threaten or provoke the crew/ passengers.
- Accept food or drinks.
- Fail to be on guard. (The situation may change rapidly.)
- Allow any crew/passengers to leave the assembly area unescorted.
- Give away any information that may be useful to COI or the embargoed nation.
- Discuss boarding party procedures or intentions.
- Hesitate to call for assistance if any indications exist that a problem may be developing.

planted: placed a person/ thing in a way as to trick, trap, etc.

Uncooperative and Opposed Boarding Operations

If a COI is either uncooperative or has been determined to be opposing boarding, it may be necessary to conduct a take down operation prior to normal boarding. A take down is accomplished by placing a heliborne assault force (HAF) on board to force a COI to stop, secure it prior to search by a normal boarding party, or come to the aid of a boarding party that has been confronted by a hostile force. A take down should not be attempted from a small boat because of the ***vulnerability*** of the assault force during boarding. The objective of the take down will vary according to the mission, but in most cases, it will be utilized to secure the ship control and communication spaces of the COI.

Source: *EXTAC 1012 Maritime Interdiction Force Procedures*, October 1996.

Next, in your dictionary or the glossary for this unit, find the meaning of the words you do not know. Then continue with Exercise 12.

Exercise 12

Read the questions below and write answers in your notebook. Underline information in the reading that helps you answer each question.

1. In what manner is it important that boarding and search procedures be conducted?
2. Give the composition of a boarding party.
3. What issues should a boarding team brief include?
4. Which document is required to be aboard a ship carrying cargo?
5. In your opinion, why is coordination with boarding team members during an MIO important?
6. Why is an initial security sweep conducted?
7. What does a sweep team do?
8. Where should a security team member be placed to observe all assembled crew and passengers?
9. What should a security team member do without hesitation if he thinks there may be a problem?

Exercise 13

Choose the correct word to complete the sentence and circle a, b, or c.

1. The boat fenders were _____ together in order to prevent damage.
   a. tightened
   b. lashed
   c. dashed
2. Passports are easily _____ and sold illegally.
   a. missed
   b. fixed
   c. forged
3. The following information should be included in the manifest:
   a. consignee
   b. lessee
   c. nominee
4. The following documents found on the COI should always be examined:
   a. Certificate of Sale
   b. Certificate of Charter
   c. Certificate of Origin
5. Manifest items destined for any embassy or embassy officials are not automatically protected under:
   a. diplomatic immunity
   b. government security
   c. military justice
6. A total weapon _____ consists of ten pistols, four riot shut guns, and one semiautomatic rifle.
   a. selection
   b. arrangement
   c. complement
7. _____ generally contain more detailed information about the cargo.
   a. Bills of lading
   b. Bills of rights
   c. Bills of sale
8. A passport _____ information about its bearer.
   a. configures
   b. contains
   c. considers
9. The BO must firmly understand the principles of free goods vice _____.
   a. misdemeanor
   b. impasse
   c. contraband
10. The air in some holds can be _____.
    a. noxious
    b. notorious
    c. nefarious
11. The gaseous form of any substance that is normally liquid or solid is called _____.

a. varmint
b. vapor
c. valor

12. A good investigator asks questions _____.
a. directly
b. distinctly
c. discreetly

13. Records show that during a boarding operation the _____ majority of the crew/passengers are cooperative.
a. most
b. vast
c. very

14. The boarding team should act _____ and polite at all times.
a. constituent
b. contrite
c. cordial

15. A take down from a small boat should not be attempted because of the _____ of the assault force during boarding.
a. vulnerability
b. viscosity
c. vicinity

Exercise 14

The phases of an MIF operation and the measures taken are listed. Do you think the phases and measures are in order and correctly matched? If not, determine how you would rearrange the phases and measures.

PHASES	MEASUREMENTS
1. Boarding and Searching	Gather intelligence and position the boarding ship.
2. Detection and Surveillance	Embark to the COI and conduct an inspection.
3. Interrogation, Approach, and Stopping	Track and identify contacts within an area.

Which phase of an interdiction operation is most important? Explain why this is true. Write the explanation in your notebook.

Practice the vocabulary words from the readings by completing the crossword puzzles on pages 9-47—9-52. See Exercise 31.

FUNCTION

Making Suggestions

In the grammar section of this unit, you reviewed subjunctive verbs in noun clauses introduced by *that*. This construction is used to say that something is important or desirable.

It is imperative that the report **be turned in** today.

The commanding officer recommends that engineering **test** the engines.

These constructions also provide a way to make suggestions:

It is suggested that you **respond** to the message ASAP (as soon as possible).

I suggest that we **work** together on the project.

There are a variety of other constructions that can be used to make suggestions. Here are a few of them:

Perhaps we could wait before we respond.

We might wait before we respond.

Let's wait before we respond.

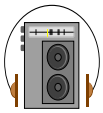
Why don't we wait before we respond?

What about waiting before we respond?

How about waiting before we respond?

Why not wait before we respond?

Exercise 15



Listen two times to the dialog "Watch Your Back." The first time just follow along. The second time underline the suggestions.

Watch Your Back

PO Hardy: What should I keep in mind if I'm sweeping a vessel by myself during a boarding operation?

LT Page: Let's consider what to do if you approach a compartment with a door that swings inward. In this case, I suggest that you approach the side of the door opposite the hinges.

PO Hardy: What do I do when I reach the door?

LT Page: You might forcefully open the door; then, try to look through the crack between the door and the bulkhead to see if anyone is behind the door.

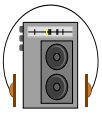
PO Hardy: Okay. If I can't see anyone behind the door, then what?

LT Page: How about extending your head rapidly in and out of the compartment just far enough to see inside? That's called a "quick-peek."

PO Hardy: Do you have any other tips?

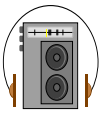
LT Page: Yes. Instead of standing normally, why not stoop down or stand on your tiptoes during a "quick peek?" This will make your height higher or lower than expected.

Exercise 16



Now practice the dialog. You will hear PO Hardy's part of the conversation. Repeat LT Page's part.

Exercise 17



Read the suggestions below; then, listen to some questions on the recording. As you listen, write the number of each question next to a follow-up suggestion.

a. Why don't you do a "quick peek?" ____

b. Perhaps you could kick it open. ____

c. What about moving close to the side opposite the hinges? ____

d. Let's move fast. ____

Exercise 18

In the January 2000 issue of *All Hands* magazine, several pages are devoted to US Navy development of new and improved ships, aircraft, and communications networks (see pp. 12-17, 32-53). Read over these pages and identify the advances and innovations.

Think of ways to improve existing ships you know, or imagine future ships that could be designed. Write down your ideas and discuss them with someone in English, if possible. At the same time, practice using forms for making suggestions.

READING SKILLS

Exercise 19

Read the questions below and write the answers as you find them in the paragraphs that follow.

1. List the required personnel equipment.
2. Name the items on the equipment belt.
3. What extra weapons are recommended?

Boarding and Sweeping a Vessel

Boarding Party Personnel Equipment

1. Life vest
   a. Sterns (best option), Mae West (inflatable), or Kapo
   b. Chemlite
   c. Whistle
   d. Strobe (optional)
2. Body armor
   a. Type IIIA (best option)
   b. Kevlar vest
   c. Flak vest
3. Uniform
   a. Paper
   b. Pens

Equipment Belt

1. Service pistol and holster
2. Handcuffs and case
3. Baton and holder (if trained)
4. Flashlight and holder
5. Magazine and **pouches**
6. Canteen and pouch
7. Leather gloves
8. **Goggles**
9. **Respirator**
10. Sunglasses
11. Gas mask (if required for all boarding party members)
12. Tear gas canisters (if required, sweep and security team members only)
13. Individual first-aid kit
14. Coveralls (no rank and insignia)
15. Ball cap (no rank insignia)
16. Steel-toed safety shoes
17. Rifle (boat engineer)

pouches: small leather, canvas, or nylon bags

goggles: large spectacles, esp. those fitted with side guards to protect the eye against dust, wind, sparks, etc.

respirator: a device, as of gauze, worn over the mouth and nose to prevent the inhaling of harmful substances

Extra Weapons

Shotgun (minimum of four members of the security team).

Radios

1. At least six UHF secure voice portable radios, or VHF FM secure radios if UHF is not feasible

2. Hand-held radio distribution:
   a. OSC
   b. BO
   c. ABO
   d. One sweep team member from each team
   e. Security team leader
   f. Boat coxswain

sounding tape: a weighted tape measure used to determine the amount and type of liquid found in an enclosed tank

tin snips: an instrument used to cut tin

bolt cutter: an instrument that is able to cut through metal bolts

pry bar: a tool for raising or moving something by leverge; lever, crowbar

unencumbered: not hindered or obstructed

mask: to shield; screen; conceal

Boarding Kit

1. Tape recorder
2. Tape measures (25 feet and 100 feet)
3. **Sounding tape**
4. Extra batteries (radio and flashlight)
5. **Tin snips**
6. **Bolt cutters**
7. **Pry bar**
8. Flex cuffs (plastic handcuffs)
9. Inspection mirror
10. Bore scope for visual inspection of sealed spaces and containers (not weapons bore scope)

Exercise 20

Read the questions below and write the answers as you find them in the paragraphs that follow.

1. What should security positions provide?
2. What should be done with weapons on board?
3. How should the crew of a COI be handled?

Boarding Procedures

Embarkation

During an initial embarkation, the security team should board first and set up security in the vicinity of the ladder prior to the embarkation of the remainder of the boarding party. The boat engineer (equipped with a rifle) should be positioned to provide cover for the boarding party as it embarks. The COI's pilot ladder may be in poor condition so no more than two men should be on the ladder at the same time. Remain clear of the area under the pilot ladder during embarkation to avoid objects that may fall from other members on the ladder. Once the boarding party is on board, use the 20 meter line with snap hooks to hoist the boarding kit and any other bulky equipment on board.

The following three principles for establishing security positions must always be considered:

Observation

Security positions should be selected that provide **unencumbered** observation of the entire area. Consider climbing onto a deckhouse or other high point to provide maximum visibility. The security position should be established so that every guard is within the field of view of at least one other guard.

Line of Fire

Security positions should provide a clear line of fire in the direction of the threat at all times. Personnel moving within the security area should be careful not to **mask** the line of fire of established security positions.

Triangulation

Forming triangularly oriented security positions should provide overlapping fields of view while providing a relatively clear line of fire for all members.

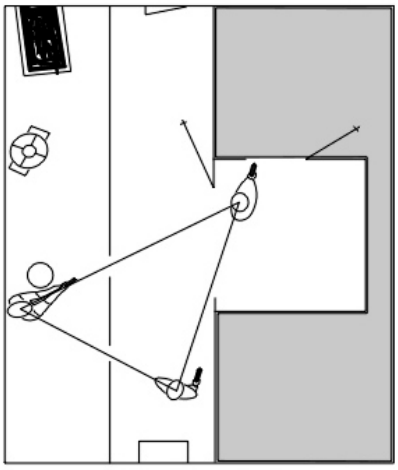


Figure 9-4. The Triangulation Concept

Command Presence

Command presence is the psychological process (conduct, speech, and procedure) the BO uses to convince others that he can deal with the situation. The BO's initial instructions may possibly make all the difference. He should advise the master and crew of his expectations from the **outset**.

Boarding Party Safety

The safety of the boarding party is **paramount**. It is essential that the presence, if any, of weapons aboard the COI be determined as soon as possible. (The OSC may have inquired about weapons aboard the COI prior to the arrival of the boarding party.) Recommended courses of actions for dealing with weapons aboard the COI are as follows:

- Secure weapons in the boarding bag
- Post a guard on the weapons
- Lock the weapons in a safe place
- Separate weapons and ammunition and secure them on the body (least desirable)

Crew Control

Every member of the boarding party must display the command presence described above when dealing with the crew of the COI. The following principles for crew control have been established from experience gained during US law enforcement operations and during the Persian Gulf Conflict:

- Adjust the security response as necessary
- Keep the COI's crew together
- Observe the COI's crew for signs of anger or resistance
- Be aware of and recognize changes in the degree of risk. If the degree of risk becomes unacceptably high, don't hesitate to call for help or depart the vessel and wait for help

Inspection

Based upon previous intelligence, checking the documentation and identification of the COI will help to determine the type of sweep or search to be conducted.

Completion/Debarkation

Upon completion of the boarding, the following options are recommended for the return of weapons:

- Leave weapons and ammunition separately with the master.
- Leave them where they were found.

The security team is the last to leave the COI. Caution must be exercised by the entire boarding party so as not to become **lax** or let its guard down during the debarkation of the COI.

outset: beginning

paramount: ranking higher than any other as in power or importance

lax: not strict or exact

Exercise 21

Read the questions below and write the answers as you find them in the paragraphs that follow.

1. When should a tactical sweep be conducted?
2. Why is a tactical sweep conducted?
3. How should you mentally prepare for a tactical sweep?
4. What items in addition to those on the belt could be carried during a search?

Complacency tempts fate: feeling of satisfaction without good reason runs the risk of failure by depending too much on luck

Tactical Sweep Procedures

A security and personnel sweep is a function of the operational environment. The sweep should be routinely performed at the onset of every boarding. A sweep is done to locate and neutralize all weapons, search for unaccounted personnel, and detect all obvious safety hazards. The security and personnel sweep should include an inspection of all common spaces and man-sized compartments aboard the vessel.

The security and personnel sweep normally should be performed by the sweep team. The master should be informed by the BO of a sweep with a statement similar to "Captain, a couple of men will now make a sweep of your vessel to check for obvious safety hazards, verify the identity of your vessel, and account for all crew members. They will not disturb the personal effects of your crew." The importance of a good sweep cannot be overly emphasized. There have been repeated instances where security sweeps have discovered that the master lied about the number of persons on board and found people hiding in staterooms, bilges, and even in holds. Additionally, unreported weapons and safety hazards are not uncommon and may be discovered with a proper sweep.

In any high-risk board, two aspects of tactical competence are tested: the physical mechanics of the movements made and the decision-making or tactical thinking that initiates them. In searching a vessel for unaccounted personnel who may be primed to attack, be competent in both aspects.

Tactical sweep procedures include observing proper safety precautions, light and sound discipline, appropriate entry and movement techniques, and a thorough examination of the vessel. The following mental preparations are important for safety:

- Never feel completely safe in securing any vessel. **Complacency tempts fate**. Always think and expect an attack, then base actions on tactics that will counter it.
- Keep in mind that no tactical concept is perfect. (Each involves a trade-off: sacrificing something to gain something else.) If a procedure does not work favorably, then think of something else. Remember that it is impossible to achieve total immunity from risk. Employ proven techniques that minimize risk.
- Be flexible. As each new problem on the search is approached, assess the threat potential it presents and select the tactical techniques that provide the greatest safety in that location at that time. Think about each situation before moving into it. Be able to change plans completely as matters progress and things are encountered.
- Do not try to search a vessel alone. A sweep team of two is required to search most vessels with any degree of safety. A very large vessel will require additional personnel.

When entering a compartment that may be occupied by a hostile suspect, the risk of injury is increased. If there is any other reasonable option, don't go in.

The greatest hazard when boarding is the ability of a person to hide and wait in an almost limitless number of spaces. Within

the **maze** of doorways, passageways, ladders, furnishings, cargo, closets, false compartments, **nooks and crannies** in a vessel, the natural odds overwhelmingly favor the hunted over the hunter. Yet, despite the infinite variables presented by a vessel at sea, be tactical in approaching any of them. It is true that there is no "**standard** vessel", but there are standard movements that can be adapted to the multitude of tactical problems encountered on a vessel.

Have the appropriate equipment when searching a vessel. In addition to the items on the belt, consider carrying:

- a piece or pieces of cord with a loop on the end for tying to doorknobs
- a tactical mirror (A good mirror (for sweeps) can be made by gluing a convex "fish-eye" mirror to a regular inspection mirror with a telescope handle. The mirror can then be used **in lieu of** the "quick peek" in all tactical sweep situations.)
- extra cuffs (thumb or flex cuffs)
- an ear mike for the radio
- a pen light in case the bulb burns out on the primary flashlight or it may be used as a door prop. (Rubber door stops can also be carried for this purpose.)
- a small roll of masking tape for marking previously searched compartments.
- a small notebook for recording information such as serial numbers, etc.

When deciding to enter a vessel on a personnel sweep, enter as tactically sound as any subsequent movement inside. Keep in mind that a hostile suspect can always be waiting just on the other side. Always expect the unexpected and always do the unexpected. If someone is waiting, his territory is being moved into.

Exercise 22

Read the questions below and write the answers as you find them in the paragraphs that follow.

1. What techniques are used to enter a compartment during a search?
2. Name some movement strategies used during a search.
3. How should you speak during a sweep if there is no **imminent** threat?

Approaching and Entering a Compartment

During any search, a key consideration is the proper use of search patterns. While moving up or down stairways or ladders, along hallways, and through rooms, keep the back toward, but slightly away from the bulkhead. Although the hostile suspect may be able to shoot through some bulkheads, this search pattern will generally provide the closest thing to cover available for your back. Not exposing your back will cause a comfortable feeling and provide the ability to concentrate on advancing. Remember, the potential threat locations are ahead. Be positioned to do the best fighting forward. If a team member finds himself in a compartment where he feels as if his back is not covered, chances are that he has failed to do something significant earlier.

The "Fatal Funnel"

The "fatal funnel" concept is usually thought of in terms of standing in or going through an opening. If a suspect is hiding along the same wall that the door is on, his arc of visibility through the opening door may be such that he can see (and shoot) even if someone is standing to the side of the actual doorway. To be truly clear of the "fatal funnel", stand as far back from the doorway as possible while it is being opened.

maze: a confusing, intricate network of winding pathways

nooks and crannies: small recesses or secluded spots; small narrow openings; cracks in the wall

standard: somethng established for use as a rule or basis of comparison

in lieu of: in place of; instead of

imminent: likely to happen; impending; threatening

pivoting: turning on or as if on a shaft or pin on which something turns

accommodate: adjust; adapt

dally: to waste time; loiter

threshold: door sill or entrance

When crossing the doorway, especially if the door is open, consider leaping rather than walking or crawling. It is noisier, but creates a faster moving target. Be sure to start up and end well to the sides of the door frame. Don't mimic movie police by swinging into the center of the doorway with the weapon pointed into the room, then **pivoting** to the other side. That slow-motion move prolongs exposure to the "fatal funnel". When you move, move quickly. When you shoot, shoot quickly. Do not try to **accommodate** both with the same tactic.

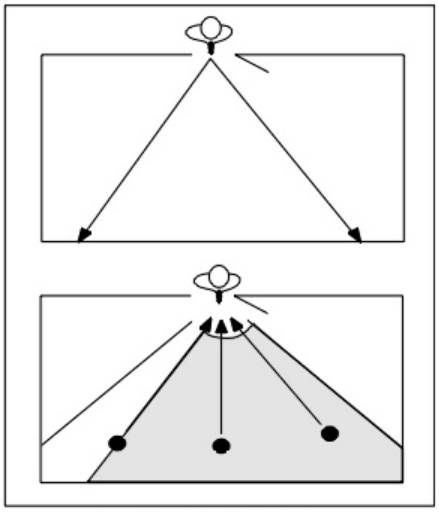


Figure 9-5. The "Fatal Funnel"

Be certain to avoid doing a tactical sweep alone, whenever possible.

When entering the door, the following should be performed:

- Strive for speed, surprise, and safety.
- "Quick peek" before moving, then get in and get low, protect the back, and get the area of responsibility under control as quickly as possible.
- Don't "**dally**" in the doorway.
- For speed, move in high with nothing lower than a slight crouch. (Going in low with the knees radically bent will be too slow.) Move in high, then get low.
- Once across the **threshold**, get away from the door.
- In essence, use a pattern, a tactical way of entering in minimum time with minimum exposure. Patterns are not absolutes, and getting in fast is more important than executing a perfect entry movement. Some of the more common methods are described below.

The "Crisscross"

The "crisscross" is the entry of choice for a dynamic entry. With the door closed, take up positions on opposite sides of the door. On signal, the man opposite the hinges opens the door and using the door as a shield during the initial 70°of the arc, quickly enters the compartment, assuming a position to the side of the doorway. Once clear of the doorway, the second man enters to the opposite side of the room. When the doorway is too narrow to enter simultaneously, the "crisscross" is an effective non-dynamic room entry because it is possible to see the destination before getting there.

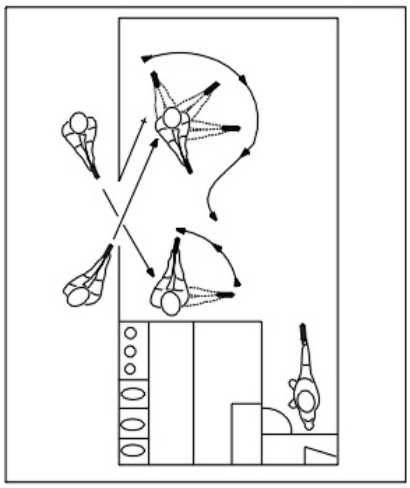


Figure 9-6. The Crisscross

The "S.A.S."

The "S.A.S." can be used as a non-dynamic room entry when it is possible to stand on both sides of the door. It is a technique where two or more men position themselves "heel to toe" on one side of the door, and one man holds onto the belt of the man in front of him. On signal, both men simultaneously rush into the room. As each man in line enters the compartment, he lets go of the belt and positions himself at a predetermined location inside the room.

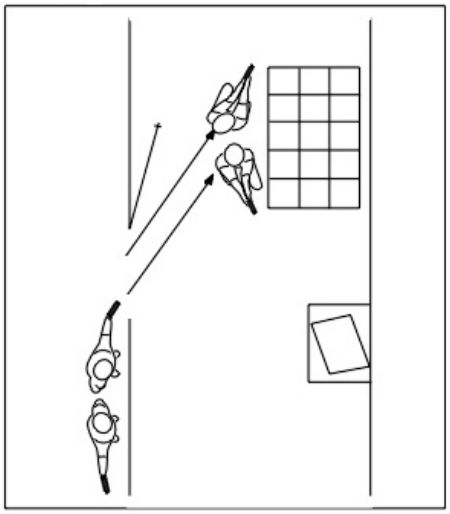


Figure 9-7. The S.A.S.

The "Israeli"

Many sweep teams do an "Israeli" move before they enter a compartment. On signal, immediately follow a "quick peek" with another "quick peek" with handgun being the "third eye." In other words, swing only the gun hand into the compartment from the **barricade** position, sweeping the area of responsibility, then move back outside to set up for a standard entry.

All entry tactics, while infinitely better than impulsively rushing into the room, are tricky to perform and require practice.

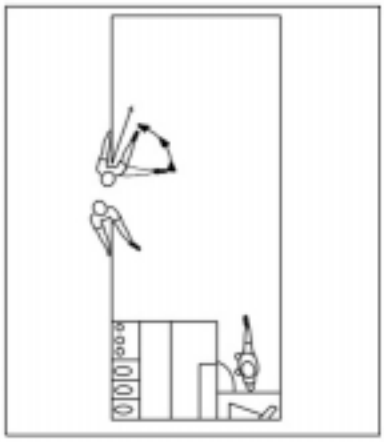


Figure 9-8. The "Israeli" Move

Movement Strategies During a Search

Employ the following strategies during a search.

Make sure that only one man moves at a time. (One covers while one moves.) This principle ensures that someone is always maintaining control and is prepared to provide reliable defense.

Look before leaping. **Spot** a covered or concealed position and plan the route to it prior to moving. Move by short **bounds** from one covered or concealed location to another. Keep low and don't hesitate to creep or crawl.

Take full advantage of shadows and dark areas after making certain that no one is hiding in a potential moving spot.

Shift positions slowly while moving. Don't wave the arms or rapidly turn the head.

Be conscious of self-made noises. The crewmen will probably know of the team's presence, especially once the team enters the compartment where he's hiding. Breathing alone may be enough to alert him. It is amazing how **acute** the senses can be when someone is hiding and waiting for someone. Don't help him by **jangling** keys, **jingling** coins in the pocket, carrying squawk radios, or wearing watches with alarms.

barricade: any barrier or obstruction

spot: detect; see, pick out

bounds: leaps or vaults

acute: keen or quick of mind; shrewd

jangling: making a harsh, inharmonious sound, as of a bell out of tune

jingling: making light ringing sounds in succession

Minimize noise by using the sides of the feet to lightly feel the floor, rolling forward with the whole length of the outer edge of the foot before putting any weight on it.

protruding: thrusting out; projecting

peripheral: lying at the outside or away from the central part; outer; external

Consider eliminating "visual noise," such as ball caps with **protruding** bills. At least turn it around backward if it is worn at all. Besides announcing the team's presence in maneuvers like the "quick peek," a hat bill will restrict the **peripheral** vision and may discourage the team from looking up, an important and often neglected part of searching.

Get rid of the "loudness" of unnecessary odors, too. The scent of cologne can give locations away as easily as being heard.

Search with a gun in hand. It is disadvantageous enough to encounter a threat without being slow to respond by having to draw a weapon. Keep the following in mind:

- When standing or moving, avoid the "movie cop" syndrome by holding the gun beside the head. There is a risk of shooting off a partner's head.
- Move with the gun pulled back snugly in a two-hand hold against the waist, at the belt buckle, and with the muzzle pointed slightly downward. Having the gun in this position provides good stability, even to release one hand to open doors or balance against a rocking ship. Then, if a threat comes unexpectedly from either side, the team member(s) will be on target (referred to as the "third eye" concept).
- Employ the "third eye" concept because as the body turns toward a threat, the gun (lined up in the center) turns, too. This turning is the essence of instinct shooting: what the gun sees as a "third eye"- it can hit.

When searching for a suspect:

- Avoid passing any potential hiding place without first checking and securing it. Do not dismiss any space for being too small or too unlikely. Motivated by the fear of being caught, humans can squeeze into amazingly small spaces.
    - When searching an area of a vessel without having found someone, keep the senses sharp by thinking "I didn't find anyone" and not "There is no one in there."
    - While searching, pause frequently and just listen. Remember, the crewman is excited and under stress, too. He may make a noise because his throat is dry, or he may get a muscle cramp.
    - Do not rush the search. Because the mind may be accelerating under stress does not mean the movements have to accelerate to match.

If a person is found, perform the following:

- Move him to a secure area.
- Handcuff and search him for weapons (one team member only, while the other provides cover).
- Move the suspect topside via a path that has been cleared or call for another sweep team to get him.
- Remember that if both team members leave the area, they will have to search their way to their previous location. Finding one unaccounted for crewman should be a flag to search for more.

After clearing a room, be sure that all doors and accesses behind have been closed and locked, if possible, before moving on. Place pieces of masking tape across the top of the door and collect them when passing these places on the way out. Also, make sure that none of the tape has been disturbed.

If a barricaded crewman is encountered and cannot be talked out, try to wait him out, smoke him out, or starve him out. Do not try to go in and get him. Leave that to the professionals. Lock him in, if possible, or post a guard and leave him.

Tactical Communications

Most communications with other sweep team members during the conduct of a sweep should be accomplished by using nonverbal signals.

Decisions dealing with who will go first, who will be high, who will be low, etc., are made simply by pointing and directing with the hands. Normally, the person in charge of a sweep team initiates the communication.

The sounds partners make while communicating should be soft, also. Instead of speaking out loud (a "hard" sound that can easily be **pinpointed**), whisper (a "soft" sound whose precise location cannot be so easily placed). Obviously, if a threat is imminent, shout out loud so there is no doubt that the warning is heard. While moving through the interior of the vessel, keep in mind that everyone may not always hear or see the same things, even though it may seem impossible that they wouldn't.

In addition to the above, keep the following in mind.

Be sure that communication does not require either partner to look away from his area of responsibility. Hand and head signals should be used only when they can be seen in direct or peripheral vision while attention is kept on the potential threat location. Normally, the man in front uses hand signals, while the man at the rear whispers, because his whisper will project forward. If in front, resist the impulse to look back to see if the other person got the message. When either partner receives a message, whisper or signal back to the other person that the message was received. Signals need to be very simple so they won't be forgotten or confused under stress.

Do not rub against walls while moving from one spot to another due to possible exposure and **ricochet** fire. To avoid being ambushed or surprised by someone on a different level, take care to check openings above and below while moving. In a situation where close attention must be given to the level above, cover the area into which the team is moving while one partner, walking backwards and guided by the other partner, covers the higher level away from the area into which the team is moving. If a possible threat is detected, the team should take cover and confront the threat.

Enter the passageways cautiously because they are ready-made for an ambush.

Source: *EXTAC 1012 Maritime Interdiction Force Procedures*, October 1996.

pinpointed: located precisely

ricochet: the oblique rebound or skipping of a bullet, stone, etc., after striking a surface at an angle

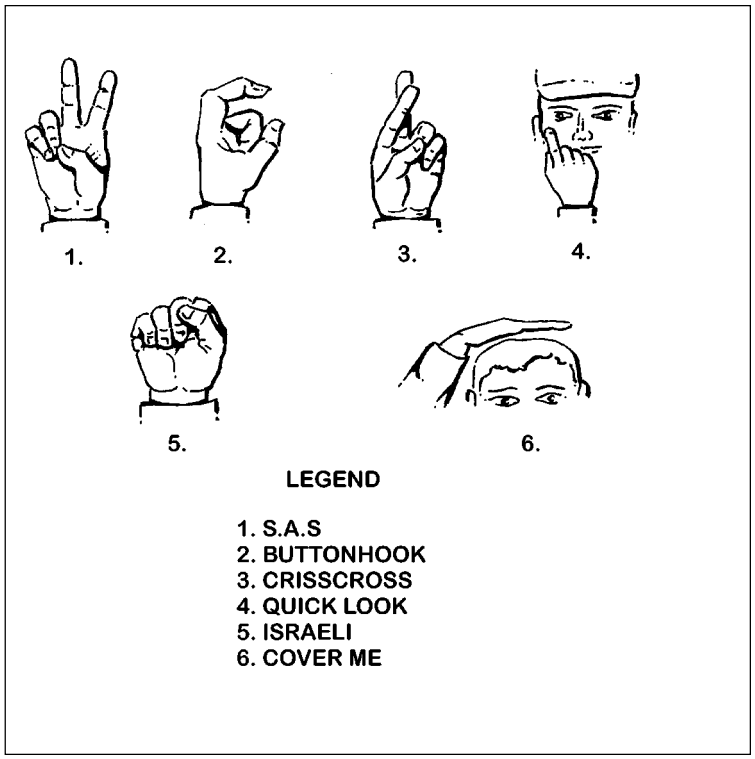
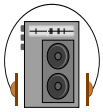


Figure 9-9. Nonverbal Signals

adversary: a person who opposes or fights against another; opponent; enemy

bunching: appearing in a cluster

LISTENING/WRITING SKILLS



Take Notes

Exercise 23

Listen to a short lecture. As you listen, number the topics below in the order you hear them discussed.

_____ Positioning

_____ Stationary/Moving Man

_____ **Adversary's** Field of View

_____ Clearing the Room

_____ Triangulation

_____ Weapon Preparation

_____ The Most Immediate Threat

_____ **Bunching** Effect

Exercise 24

Look at the table below. Numbers 1-8 are displayed along the top row. They represent the tactical movement strategies covered in the lecture. Ideas heard in the lecture are listed in the left column.

Listen to the lecture again. For each strategy, listen for a related idea listed in the table. When you hear one, put a check in the appropriate box.

	1	2	3	4	5	6	7	8
Stay low with back to wall								
Take positions around threat								
Check out threat locations								
Don't cluster together								
Remove risk of cross fire								
Meet force with force								
Think of what can be seen by another								
Only one moves at a time								

Exercise 25

Listen to the lecture a third time. Using your notebook, take notes as you listen. Write as much detail as you can.

WRITING/SPEAKING SKILLS

Edit and Rewrite

Exercise 26

Edit and rewrite the draft of your oral presentation. Gather and prepare any visual aids you may need. Then record, play, and critique your oral presentation with regard to content, organization, and delivery.

GLOSSARY

Objective Vocabulary

assess (as SESS) v: to estimate or determine the significance, importance, or value of; evaluate

He wanted to assess the usefulness of this weapons system.

asset (AS set) n: valuable or desirable thing to have

Education was one of his assets, experience was another.

augment (aug MENT) v: to make greater, as in quantity, size, strength, etc.; enlarge

He augments his income by working another job.

complement (COM ple ment) n: complete set; entirety

This hat is a complement to that uniform.

contraband (CON tra band) n: goods forbidden by law to be imported or exported; smuggled merchandise

He was arrested for carrying contraband.

cordial (COR dial) adj: warm and friendly; hearty; sincere; deeply felt

During a boarding operation an effort should be made to remain cordial.

correlate (COR re late) v: calculate or show the reciprocal relation between specifics

Computers can correlate data.

deterrence (de TER rence) n: the act of keeping someone from doing something

What method of deterrence did they use to keep the enemy from entering their ship?

discreetly (dis CREET ly) adv: acting carefully about what one says or does; prudently

He asked the questions discreetly.

discrepancy (dis CREP ancy) n: lack of agreement; inconsistency

Any discrepancies in the documents should be examined thoroughly.

dispatch (dis PATCH) v: to send off or out promptly, usually on a specific errand or official business

The vessel was dispatched to help with the SAR.

escalate (ES ca late) v: to expand step by step, as from a limited or local conflict into a general war.

It should be made clear that, at the end of the given time, if the vessel has not complied, the actions to encourage it to stop will escalate.

forge (FORGE) v: to make something false or imitate something genuine for purposes of deception or fraud

They forged the passports.

immunity (im MUN i ty) n: exemption or freedom from something burdensome or otherwise unpleasant; as a legal obligation

Items destined for any embassy or embassy officials are not automatically protected under diplomatic immunity and may generally be searched.

itinerary (i TIN er ar y) n: record of a journey or detailed outline for a proposed journey

The boarding party always checks the ship's itinerary.

lash (LASH) v: to fasten or tie with a rope

During the storm everything movable had to be lashed in order to stay secure.

liaison (li AI son) n: a person whose function it is to make and maintain a connection as between persons or groups

He acted as a liaison between the army and the navy.

magnitude (MAG ni tude) n: greatness as in size or extent of

I did not know the magnitude of the problem.

manifest (MANI fest) n: an itemized list of a ship's cargo, to be shown to customs officials

The officer inspected the ship's manifest.

noxious (NOX ious) adj: harmful to the health; injurious

The sailor fainted from the noxious fumes.

organic (or GAN ic) adj: made up of systematically interrelated parts; organized; essential

Ships use organic detection assets.

ploy (PLOY) n: an action or maneuver intended to outwit or disconcert another person

His usual ploy is to act happy, so everyone thinks everything is fine.

prosecution (pros e CU tion) n: the conducting of any lawsuit

The Judge Advocate prepared for the prosecution of the case.

ram (RAM) v: to strike with force; crash

The big ship rammed the small ship.

seize (SEIZE) v: to take forcible legal possession of; to confiscate

The police seized all of the cargo that had been smuggled into the country.

shoal (SHOAL) n: a sand bar or piece of rising ground forming a shallow place that is a danger to navigation, esp. one visible at low water

Shoals can be dangerous for ships.

subsequent (SUB se quent) adj: to follow close after

Our visit to the museum was subsequent to the discussion about history.

subterfuge (SUB ter fuge) n: any plan or action used to hide one's true objective

They employed a subterfuge to get into the secret file.

vast (VAST) adj: very great in size, extent, amount, number, degree, etc.

There was a vast number of ships in the harbor.

vice (VICE) prep: in place of

The COI can be diverted to another port if inbound, or returned to previous port if outbound, vice conducting a boarding operation.

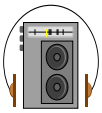
vulnerability (vul ner a BIL i ty) n: lack of protection or openness to attack

A take down should not be attempted from a small boat because of the vulnerability of the assault force during boarding.

white out (WHITE out) v: to make "invisible" on paper by using a white liquid that covers the print

Look for obvious signs of omission, forgery, and alterations such as information "whited out" or crossed out.

Maritime Expressions



There are many special words and expressions used in maritime operations. A few are given here. Listen to and repeat the words or expressions and the sentences.

Abaft: to the rear of; behind

The stern is abaft the bridge.

Anchorage: a place to anchor

They must go to the nearest anchorage.

Armor: covering worn to protect the body against weapons

The bullet did not kill him because he wore his armor.

Astern: behind a ship or aircraft

The fish was sighted astern.

Bare steerage way: the lowest speed at which a ship can be steered.

If boarding by boat, instruct COI to slow to bare steerage way and come to a course suitable for boarding or to stop, depending on tactical situation.

Beam: any of the heavy, horizontal crosspieces of a ship

Remaining abaft the beam affords the best view of the bridge.

Bill of lading: shipping document showing the name and address of the shipper and consignee and a list of cargo with weight and dimensions

The customs officer checks the bill of lading.

Bore sight: bore scope; instrument with mirror and eyepiece used to inspect interior shafts, tubing, etc.

He focused on the contents with the bore sight.

Break-bulk cargo: general cargo handled item by item as distinct from containerized cargo

Examine the cargo stowage plan for the proper inspection of cargo, especially in locating containers or break-bulk cargo.

Bridge: ship's structure, topside and usually forward, that contains control and visual communication stations

He stood watch on the bridge.

Bulge: a projecting part, as a military salient; something that protrudes

The bulges of the cannons could be seen from the distance.

Bulkhead: walls or partitions within a ship

The water splashed against the bulkhead.

Combatant: one playing a direct part in armed fighting

The unit consisted of combatants from five different countries.

Concussion grenade: a grenade that puts out a shock wave without shrapnel, generally used for riot control, etc.

In the sequence of increasing levels of violence, concussion grenades can be thrown overboard.

Dead in the water: a vessel that has stopped but is not moored or anchored

A boarding operation is usually conducted while a ship is dead in the water.

Dead slow ahead: slowing to bare steerage way; not coming to a complete stop

The captain ordered "dead slow ahead" to avoid a collision.

Delaying tactics: skillful method or procedure for postponing something

Remain alert for any delaying tactics.

Foul: impeded or obstructed; clogged by foreign objects; stormy

The foul anchor can't be hoisted up any further.

Gig: ship's boat designated for the use of the commanding officer

The gig was available to use for boarding the COI.

Hail: to call out to or signal to, as in summoning or greeting

The COI commander is present during hailing and interrogation.

Hull: the frame or body of a ship, excluding the masts, rigging and superstructure, etc.

The iceberg damaged the hull of the ship.

Interdiction: an official prohibition or restraint

A maritime interdiction operation can prohibit a ship from entering a specific port.

Motor whale boat: a small double-ended, diesel-powered ship's boat, sometimes called the lifeboat if held ready for quick lowering

The motor whale boat is the least desirable choice and should only be used when neither the gig nor a RHIB is available.

Muster: to come together or gather as for inspection or roll call

The crew mustered in the deck area.

Pilothouse: an enclosed place as on the bridge of a ship where the helmsman stands while steering and from which the ship is normally controlled

You can find the ship's master in the pilothouse.

Platform: horizontal surface usually higher than the adjoining area

Ships and aircraft are platforms.

Quick peek: rapid extension and return of the head while conducting a search

A good mirror for sweeps can be used instead of the "quick peek" in tactical sweep situations.

Rudder: a broad, flat, movable piece of wood or metal hinged vertically at the stern of a boat or ship, used for steering

We use the rudder to steer the ship.

Sniper: a person, especially a soldier, who shoots from a hidden position

Snipers kill many innocent civilians.

Squawk radio: radio used for interstation voice communication; intercom

Don't carry squawk radios or wear watches with alarms.

Steerageway: the minimum forward speed needed to make a ship respond to the helmsman's guidance

They got orders to slow to bare steerageway.

Sweep team: a team that conducts the search of COI

The sweep team is a group of two of the most experienced and mature men on the boarding party (senior enlisted preferred).

Surveillance: constant observation of a place or process

They kept the place under close surveillance.

Take down: an action preparing for a boarding party to enter a hostile ship

A take down is accomplished by placing a heliborne assault force (HAF) on board to force a COI to stop and securing it.

Topside: the part of the ship's side above the waterline

All topside spaces should be cleared.

Wake: the track or trail left in the water by a moving ship or boat

The wake area of the COI should be avoided because of the threat of mines deployed from the COI.

Maritime Acronyms and Abbreviations

ABO: Assistant Boarding Officer

AFC: Assault Force Commander; Automatic Frequency (of flow) Control

AMC: Air Mission Commander

BO: Boarding Officer

CAL: Caliber

COI: Contact of Interest

DWT: Dead Weight Tonnage

EO: Electro-optical

HAF: Heliborne Assault Force

IR: Infrared

IMO: International Maritime Organization

LTJG: Lieutenant Junior Grade

MIF: Maritime Interdiction Force

MIF CDR: Maritime Interdiction Force Commander

MIF COORD: Maritime Interdiction Force Coordinator

PD: Point-Detonating

RHIB: Rigid Hull Inflatable Boat

RSP: Recognized Surface Picture

TACAIR: Tactical Air

Exercise 27

After you study the list of acronyms and meanings, copy the list in your notebook. In the blanks write the corresponding meaning or acronym.

1.	_____	MIF
2.	_____	Assault Force Commander
3.	_____	RSP
4.	_____	Infrared
5.	_____	COI
6.	_____	Boarding Officer
7.	_____	DWT
8.	_____	Recognized Surface Picture
9.	_____	IMO
10.	_____	Lieutenant Junior Grade

ENRICHMENT ACTIVITIES

Troublesome Grammar: Words Often Confused

The words in the sets below are often confusing not only to a student of English as a second language, but also to a native speaker. The difficulty stems from the similarity in sound and spelling. Study each set carefully until you are thoroughly familiar with the differences between them.

accept except	all ready already	breath breathe
advice advise	all together altogether	
affect effect	beside besides	

accept (verb)

He accepted the job.

I accept your offer.

except (prep./verb)

All the students are in class except Tom.

He was excepted from PT because he had hurt his ankle.

advice (noun)

I need your advice.

My advice to you is to wait.

advise (verb)

The doctor advised him to stop smoking.

My teacher advised me to study lesson three very well.

affect (verb)

The political scandal affected the stock market.

Missing classes will affect your grade.

effect (noun)

The regulation went into effect today.

Don't look at the details. Consider the general effect.

all ready (adj. phrase)

The students are all ready to go on the tour.

We are all ready to go.

already (adverb)

I've already eaten lunch.

They've already left.

all together (adj. phrase)

It is safer if we travel all together.

They went to the concert all together.

altogether (adverb)

This is altogether too difficult.

It's altogether wrong.

beside (prep)

Please walk beside me.

The dog walks beside his master.

besides (adverb)

Besides visiting Hungary, Ted also visited Austria and Germany.

Besides cake they also had fruit and ice cream for dessert.

breath (noun)

It was so cold, his breath looked like steam.

Hold your breath when you put your head under water.

breathe (verb)

Breathe deeply.

Don't breathe in my face.

Exercise 28

Look at the words above, then write the correct word on the line.

1. I don't ask _____ from anyone _____ my father.
2. _____ having a fever and pain in his chest, he could hardly _____.
3. How did it _____ him when he heard that the new law had gone into _____ yesterday?
4. Heather and Ben were _____ to go when they heard that their group had _____ left.
5. This is _____ impossible.

   We can't _____ them to do something like that.
6. I can't_____ someone with bad _____.
7. The family was sitting _____ in the living room. My father was sitting _____ my mother with his arm around her.

Authentic Reading

Busted!

In the warm waters of the Eastern Pacific and the Caribbean, something is.

Established in September 1995, the Western Hemisphere Group (WESTHEMGRU) is responsible for naval operations in the region. WESTHEMGRU was created with two primary objectives. First, it allowed homeports to be adjusted so that ships would be closer to deployment patterns. This reduced fuel costs, underway time and response time for contingency situations.

Second, it reduced instability among battle group deployers within the Atlantic Fleet by concentrating ships on counter-drug operations and United International Antisubmarine Warfare (UNITAS) exercises. Through integration with the Joint Interagency Task Force (JIATF) East at Naval Air Station, Key West, Fla., and the U.S. Coast Guard, the 15 ships under its command make WESTHEMGRU the most significant force in counter-drug operations in the area.

"The western hemisphere is in one of the world's most democratic and economically dynamic regions," said RADM James B. Ferguson, commander, WESTHEMGRU. "But the potential for instability is always there. Here is where we must focus on different operations like drug interdiction, migration, human rights and humanitarian assistance."

Using intelligence gathering assets on land, sea and in the air, JIATF East conducts detection and monitoring efforts in the region. When a drug smuggling event is detected, the case is passed on to law enforcement agents who are then able to interdict the drugs and arrest the smugglers. In most cases, those agents operate onboard WESTHEMGRU vessels and conduct boarding and seizures directly from US Navy ships.

The boarding of a merchant vessel is a highly-orchestrated and specific procedure. After being directed to intercept, a US Coast Guard Law Enforcement Detachment (LEDET) will conduct right-of-approach and pre-boarding questioning via radio with the captain of the suspect vessel to determine legal guidelines for the boarding as well as to ensure the safety of the boarding party.

"We'll give them instructions on what to do with their crew. We will have them all muster in one location, usually on the exterior of the ship so we can see them as we come aboard," explained Quartermaster 1st Class Keith A. Robbers, assistant officer-in-charge of USG Leeds 5 Delta, from aboard USS *Ticonderoga* (CG 47).

At that point, the boarding officer will check cargo manifests and other documentation as the sweep team begins a systematic search of the ship looking for indicators of drug trade or traffic.

"[We look for] an old boat with new body work, slide marks, maybe a smell, things of that nature," said Boatswain's Mate 2nd Class Michael A. Ford, operations petty officer, USG Leeds 5 Delta. "We have testing gear now where we can wipe a certain area with a cloth and have it tested to let us know if there are drugs in that area."

With boarding performed on a routine basis, intelligence gathering is a constant priority and, according to Ford, crucial to counter-drug patrols.

"Every vessel we come across, we build up a data base of information on them. When we return to our unit, we send that information out so it gets distributed throughout the Coast Guard and throughout the intelligence network," Ford said.

That intelligence network, as well as a physical fleet presence, help create a deterrent that is key to the entire counter-drug philosophy. That's not to say that WESTHEMGRU ships don't ever get the bad guys.

In 1996, WESTHEMGRU ships participated in busts resulting in the seizure of 11.7 metric tons of cocaine at an estimated value of $199.1 million. One of those busts, by USS *Ticonderoga* (CG 47), netted more than half of that total making it the second largest maritime seizure in U.S. history.

Those results are not lost on *Ticonderoga* sailors, many of whom feel they have a personal stake in their mission.

Operations Specialist 2nd Class (SW) Paul F. Castenada, a counter-drug air coordinator aboard *Ticonderoga* is responsible for keeping track of the air assets gathering intelligence in the region. A native of Espanola, N.M., he said that being involved in counter-drug operations really hits home as a parent.

"I've got three children myself so that helps keep me going out here knowing that everything I keep out of our country is something that my kids or my family won't have to deal with."

"Drugs were a big deal where I grew up," said Mess Specialist 3rd Class Jose M. Huerta, who grew up in San Antonio, Texas. "Being out here makes you feel better. It's making the streets safer, not just in my area but all over. It bothers me because I have a daughter. Every time we make a bust, it makes me think that maybe she'll be growing up in better conditions than I did."

Source: JO1 Ron Schafer, "Busted!" from *All Hands*, July 1998, pp. 28-31. Reprinted by permission.

Exercise 29

Write a paragraph in your notebook describing the boarding procedure of a LEDET.

LEARNING STRATEGY

Exercise 30

Language Learning Log

Follow the instructions for completing the Language Learning Log that were given in Unit 1.

VOCABULARY

Word Puzzles

Exercise 31

If you have not already done so, complete the three crossword puzzles that begin on the next page with objective vocabulary, non-objective vocabulary, or maritime expressions from Unit 9.

Crossword Puzzle #1

Across

4. If a vessel, at the end of a given time limit has not complied with the boarding request, actions to encourage boarding will _____.

5. When someone is hiding and waiting for someone, his senses can be very _____.

6. The boarding crew should be positioned at a safe distance until the threat of small arms provides a _____ arc of fire for the forward weapons system.

9. Bills of lading generally _____ more detailed information concerning the cargo.

11. The Certificate of _____ gives the name of the chartering party, the address, and details about the charter's duration

12. It is critical for the MIF COORD to maintain an accurate _____ of merchant ships previously challenged and/or boarded.

13. The SITREP team leader acts as a _____ with the commanding officer, tactical action officer, and other key personnel.

16. The boarding party must exercise caution and not become _____ or let its guard down during the debarkation of the COI.

17. The manifests should be complete and include the _____'s name and complete address.

Down

1. In the sequence of increasing levels of violence, several methods of _____ can be used.

2. When going to move, move quickly. When going to shoot, shoot quickly. Do not try to do _____ both with the same tactic.

3. Generally, the ROE and national _____ of the resolution will prescribe the conditions under which, and the extent to which, force may be used in enforcing the resolution.

4. During boardings, helicopters are often preferred over the RHIB because of reduced sea state restrictions and the ability to more quickly _____ the boarding team on a vessel with a high free board.

7. To recommend diversion of a COI, the BO must firmly understand the principles of _____ and free goods.

8. It is easy to _____ or alter all documents.

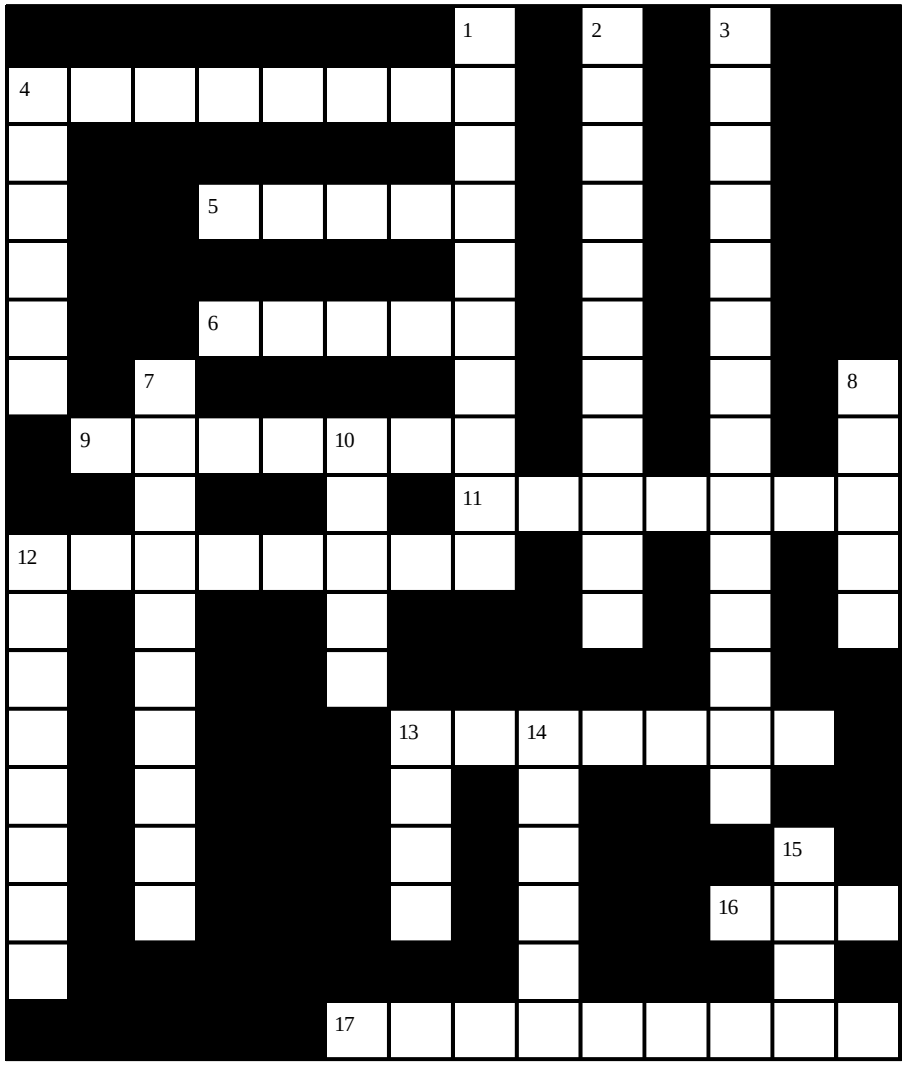
10. The boarding ship should be positioned _____ the beam on the windward quarter of the COI, if possible, at a safe distance.

12. A boarding team may _____ a merchant vessel by telling it that no inspection is intended at this time.

13. The boarding crew can _____ larger boat fenders together in order to prevent damage to boats during boarding operations.

14. During a boarding operation the boarding crew must _____ each problem for the potential threat it presents and the safest tactical technique it might select.

15. Complacency tempts _____. Never feel completely safe in securing any vessel.



Crossword Puzzle #2

Across

1. The boarding of a _____ vessel is a highly orchestrated and specific procedure.

3. The sweep team is a group of two of the most experienced and _____ men on the boarding party (senior enlisted preferred).

5. Strict circuit discipline should be required on the boarding _____ to ensure rapid transfer of urgent information.

9. Look for possible "_____" military or intelligence personnel among the crew/ passengers.

10. Consider eliminating "visual noise", such as ball caps with bills that _____.

14. Extreme caution must be exercised by the sweep team when entering cargo holds or tanks as noxious or hazardous _____ may be present (especially in tanks) and air may be oxygen deficient.

16. Cargo holds and tanks can frequently hold _____ or hazardous vapors.

18. Records show that during the _____ majority of boardings the crew and passengers are cooperative.

19. The boarding phase sets the _____ for the rest of the operation.

20. National intelligence sensors and airborne early warning assets are two examples of _____ assets assisting in detecting merchant traffic that will enter the surveillance area.

Down

2. If the boarding party remains abaft the beam it will reduce the possibility of damage if the COI would try to _____ them and also provide the best possible view of the bridge and superstructure.

4. Targeted areas for disabling fire may include the _____ stern area or machinery spaces.

6. Personnel remaining _____ on the boarding ship should be instructed to observe the COI and report any activity by the merchant crew to the bridge.

7. Look before leaping. _____ a covered or concealed position and plan the route to it prior to moving.

8. Never feel completely safe in securing a vessel. Don't _____ fate by being too complacent.

10. Identify those contacts that are violating national and international laws and regulations; register those items required for legal _____.

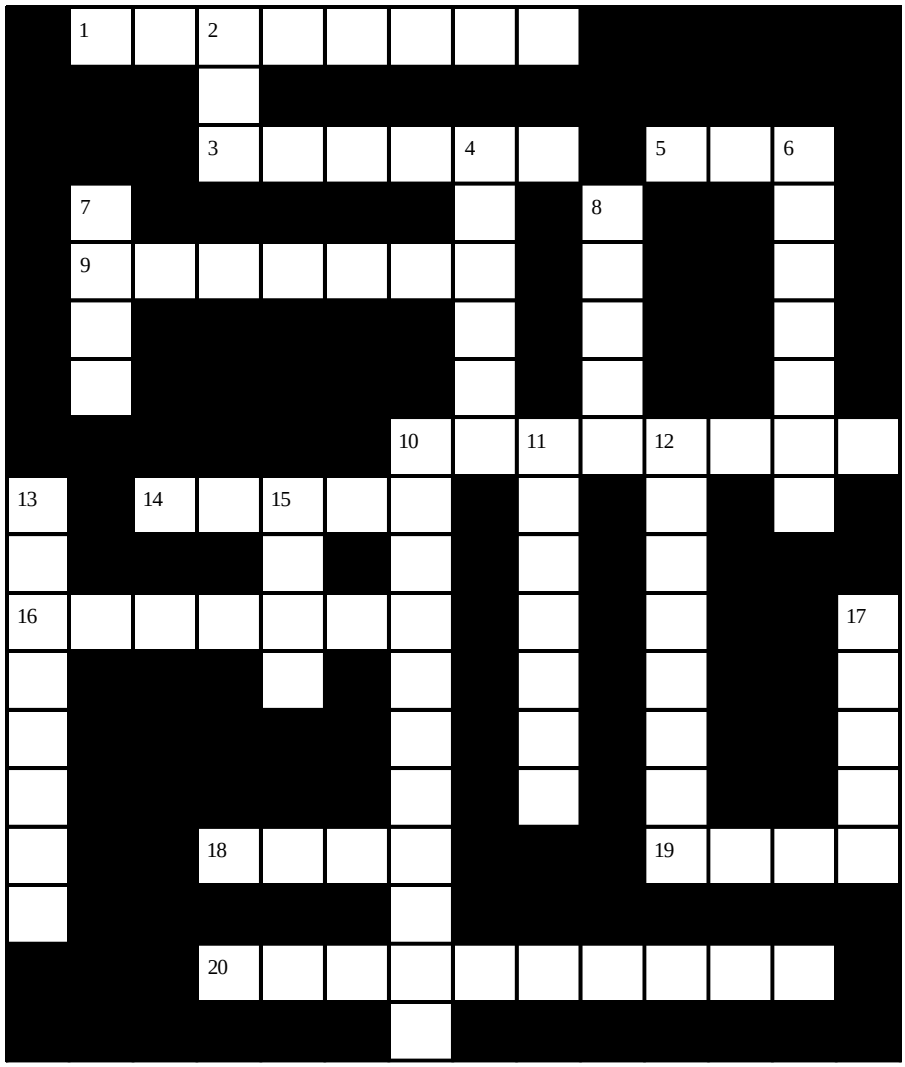
11. _____ detection assets vary from ship to ship. every effort should be made to maximize all available sensors.

12. Do not rub against walls while moving from one spot to another due to possible exposure and _____ fire. To avoid being ambushed or surprised by someone on a different level, take care to check openings above and below while moving.

13. It's very easy to _____ sounds and to trace their sources.

15. A mechanical breakdown is a _____ often used to break an embargo.

17. The corresponding _____ of an Infared identification will strongly depend on the environmental parameters.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Crossword Puzzle #3

Across

2. To _____ someone means to greet or welcome someone.

4. The wake area of the COI should be avoided because of the threat of mines or own ship's screw _____ ing objects deployed from the COI.

5. The disturbed water behind a ship is called the _____ of the ship.

7. Leather gloves, _____, respirator, sunglasses, gas mask, tear gas canisters are part of the equipment belt.

8. The Titanic sank because her _____ was split open by an iceberg.

9. All members of the boarding party, except those carrying shotguns, may carry the standard _____ with speed ring, if qualified.

11. Everyone shall wear body _____ for protection from gun shots.

13. The bay was on the _____ side of the island, so the ship was protected from the storm that could have destroyed it.

14. Implementation of the interdiction was through the use a _____ ship to place a boarding party aboard a merchant vessel.

18. The motor whale boat is the least desirable choice and should only be used during boarding operations when neither the _____ nor a RHIB is available.

19. Boarding ship's helicopter may be used as a _____ platform or a surveillance asset.

20. The approach maneuver's purpose should be obvious while maintaining the secure posture of the boarding ship and should consider possible _____ routes of the COI.

21. One _____ that may be used during MIF operations is Infared or I.

Down

1. Sometimes people are found hiding in a stateroom, a _____ and even a hold.

3. Since there is always potential instabilities in the western hemisphere, maritime _____ must focus on drugs, migration, human rights, and humanitarian assistance.

6. Merchant ships may also have to be diverted to an inspection port or _____ when weather conditions do not permit boardings.

9. If a crewman is found behind a _____ during a search, don't try to go in after him.

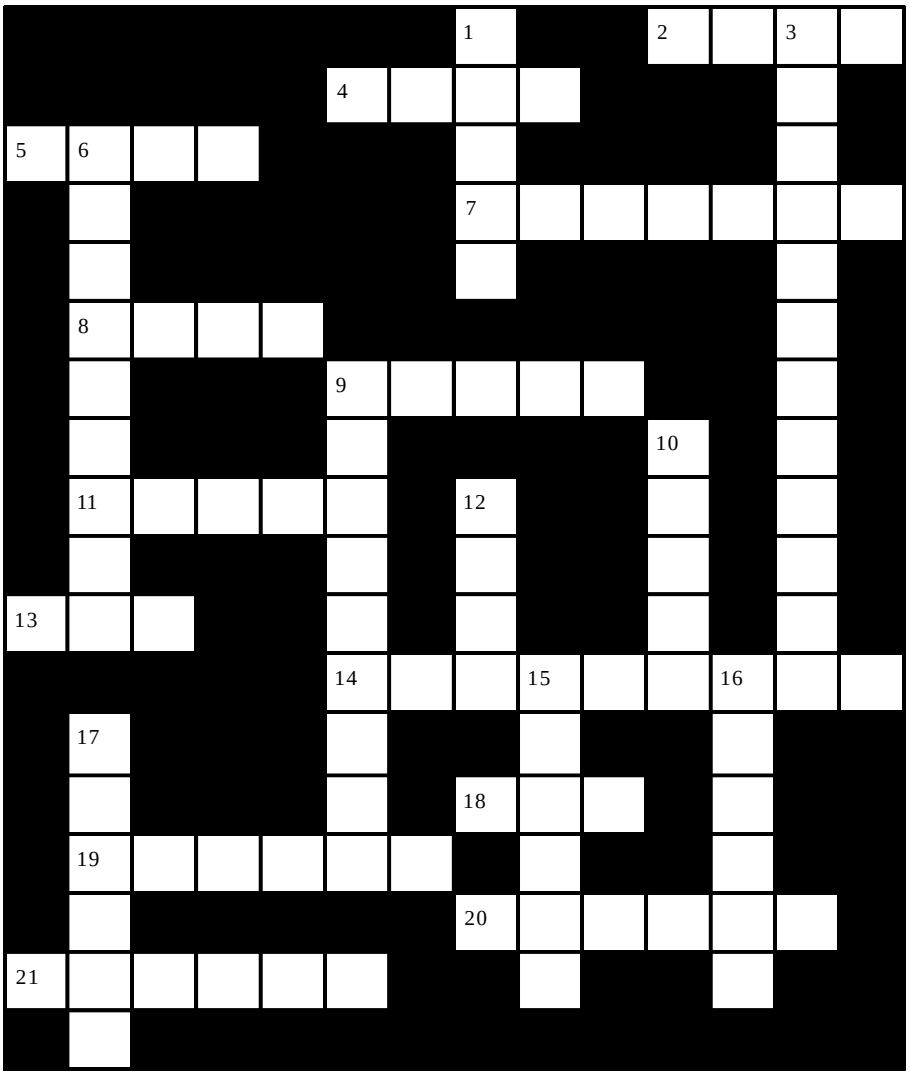
10. When using disabling fire, ammunition should be _____ blank load and plug, if feasible.

12. The boarding ship should be positioned abaft the _____ on the windward quarter of the COI.

15. Remaining abaft the beam provides the best possible view of the _____ and superstructure.

16. To avoid an _____ or surprise by someone on a different level, take care to check openings above and below while moving.

17. Have the crew _____ in a space in open view of the boarding ship and helicopters.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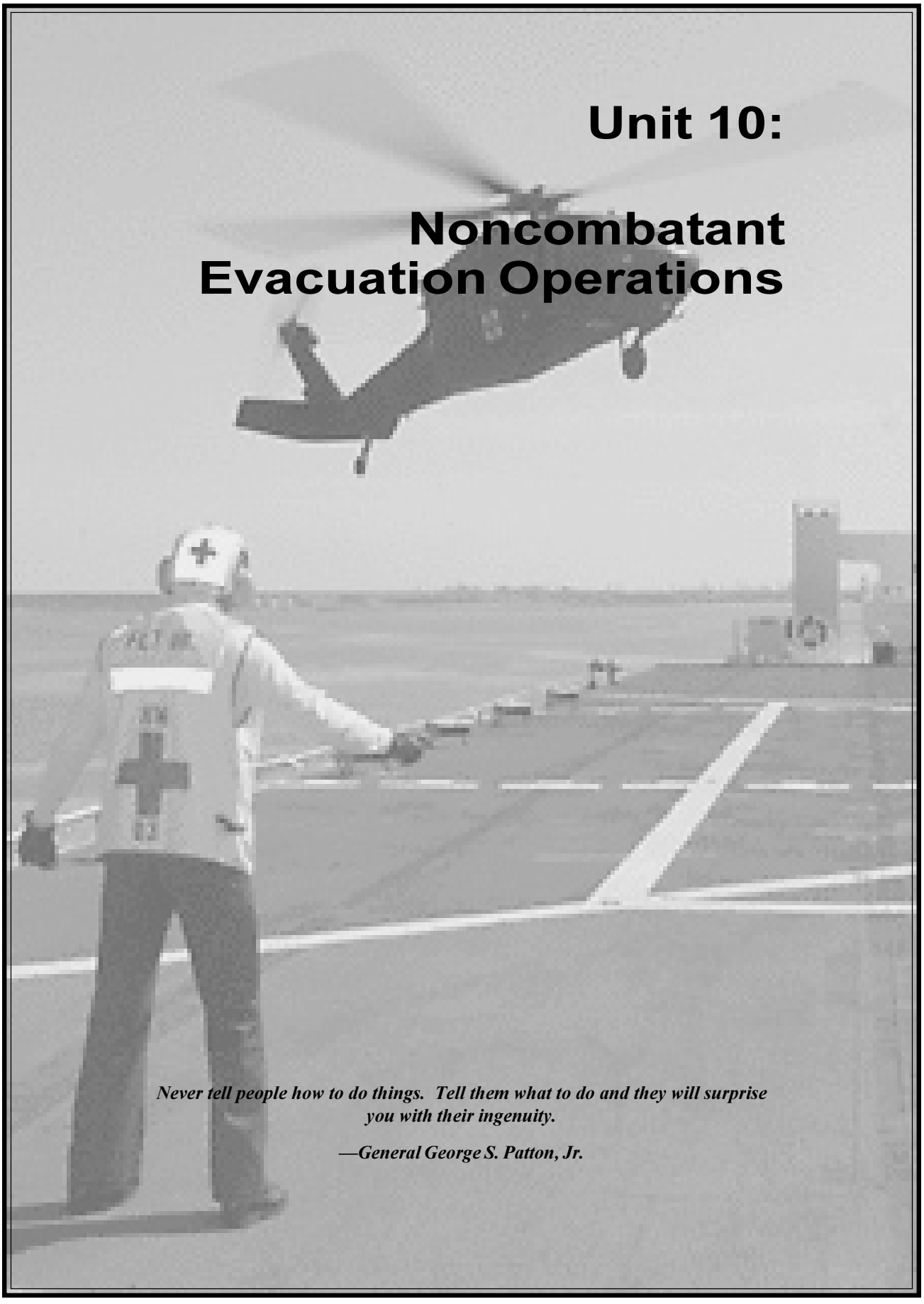
Unit 10:

Noncombatant Evacuation Operations



Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity.

—General George S. Patton, Jr.

Resources

You will need Unit 10 of this course, the Unit 10 recording, a tape/CD player, your notebook, pen or pencil, and your copy of *Webster's New World Dictionary.*

Objectives

In this lesson you will

1. explain the political aspects of noncombatant evacuation operations.
2. describe the responsibilities of key personnel in the Noncombatant Evacuation Operations (NEO) chain of command in preparing for and conducting NEO.
3. identify the differences of evacuation operations in permissive, uncertain, and hostile environments.
4. identify the advantages and disadvantages of executing NEO with either surface/amphibious assets or air/helo assets.
5. explain what tactical and non-tactical considerations must be taken into account in the planning and execution of NEO operations.
6. use and correctly pronounce the objective vocabulary, maritime expressions, and acronyms in the glossary.
7. read authentic military articles and answer comprehension questions.
8. practice language learning strategies.
9. read models of technical/military material and answer comprehension questions.
10. listen to electronic communications, including news broadcasts; take notes, or write summaries.
11. use an editing checklist to improve your writing.
12. identify navy ranks and/or NATO codes for officers and enlisted personnel.

Table of Contents

LEARNING STRATEGIES

In this course you have learned many learning strategies. Think about ways you can apply these strategies to your future learning.

Planning

Exercise 1

Continue to use your planning guide to help you stick to your schedule. Now, complete the schedule for Unit 10 in the same manner as you did those of the other units.

Unit 10 Schedule

Day	Plan	Actual
Mon	_____	_____
Tue	_____	_____
Wed	_____	_____
Thurs	_____	_____
Fri	_____	_____
Sat	_____	_____
Sun	_____	_____

READING SKILL

Exercise 2

Before you read the introduction to this unit, write in your notebook what you think the objective of a noncombatant evacuation operation is. From a military viewpoint, is it strictly a single military task, a humanitarian task, or both?

Read the following selection which is an introduction to noncombatant evacuation operations. Then, in your notebook, write the answers to the questions.

Introduction

Noncombatant evacuation operations (NEO) evacuate personnel from locations in a foreign (host) country. Frequently, those evacuated are civilians whose lives are in danger. Additionally, evacuation of the following personnel may be required:

- military
- host country nationals
- third country nationals.

A noncombatant evacuation operation is **suited for** teams of military personnel trained in amphibious warfare operations because it is similar to an amphibious raid involving swift **incursion** into, or temporary occupying of, an area. It ends with a planned withdrawal after completion of the mission.

In the Navy, NEO is one of the most important and traditional missions. For the Amphibious Readiness Group/Marine Expeditionary Unit Special Operations Capable (ARG/MEU[SOC]), it is the primary mission. Units must be ready to evacuate civilians from overseas in time of crisis. Throughout its lengthy history, the amphibious force has been called upon to

incursion: a sudden, brief invasion or raid

suited for: appropriate for; right for

land the Marines and evacuate Americans from locations such as the Middle East, Central America, and the Caribbean.

Although NEO missions may be conducted as an independent military task, they may also be conducted in the context of larger peace support operations. These missions help relieve human suffering, especially in circumstances where responsible authorities in the area are unable, or possibly unwilling, to provide adequate service support to the population.

In NEO, the maritime forces have significant characteristics which permit them to offer invaluable contributions to a NEO. For example, they have the ability to place their equipment, personnel, plans, etc., early in a crisis; they can operate in international waters; furthermore, they can maintain their position for long periods of time.

It differs from an amphibious raid since force used is normally limited to that required to protect the evacuees and the evacuation force.

Source: EXTAC 1010, "Information Sheet 18.13," August 1996.

Learning Strategy

Deciding the purpose of a particular article ahead of time helps you organize your thoughts on a topic you are about to study.

preempt: to cause to have no influence or force by means of taking action in advance

dissident: description given to an individual or a group that openly and strongly disagrees with an opinion or a group

Exercise 3

1. What is the primary mission of NEO?
2. Why do we say that NEO is a humanitarian operation?
3. What three abilities make the maritime forces the best for NEO?

READING/WRITING SKILL

Exercise 4

Read the following three paragraphs titled "Special Nature of Evacuation Operations." After you have finished, write the main idea of each paragraph in your notebook. Ask yourself, "What point did each paragraph make?" Then, answer the comprehension questions at the end.

Special Nature of Evacuation Operations

Evacuation operations differ from other military operations since control of the operation may not pass from the civilian diplomatic staff at the time of evacuation. And, since the decision to evacuate is based on the political rather than the military situation, the order to evacuate may be delayed until the last possible moment. In addition, prior coordination and site survey will probably have been restricted since this might be viewed as a tacit admission of political failure.

The evacuation force commander must be prepared to deal with the situation as it exists at the time of evacuation. Evacuation sites and timing of the operation will be determined by the diplomatic view of the local situation. Evacuation operations are politically sensitive and will certainly be monitored, if not controlled, from the highest level.

Rules of engagement (ROE) will probably be such that the evacuation force commander who has no authority to **preempt** hostile action by preventive military measures must, nevertheless, be prepared to defend the evacuation from **dissident** forces. Thus, if given the opportunity, the evacuation force commander must influence the ROE in such a way as to provide maximum leeway to the NEO force

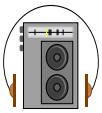
so as not to **unduly** restrain use of force, where necessary.

Source: EXTAC 1010 Noncombatant Evacuation Operations (NEO), August 1996.

Exercise 5

1. Why is the order to evacuate given at the last possible moment?
2. Who or what determines the timing of the operation?
3. What must the evacuation force commander be prepared to do?

VOCABULARY



Listen to the reading titled "Political Aspects" and follow along. The new vocabulary is in italics. As you listen to the reading, circle the words you do not know.

Political Aspects

Evacuation operations will probably be conducted in an environment where political considerations and constraints will be more important than in most other types of military operations. NEO participants will not be actively engaged militarily against the forces posing a threat to the noncombatants. Therefore, military action will be limited by the situation. Political constraints may also be imposed on the introduction of military personnel into a country prior to an evacuation operation, thus ***hampering*** planning and preparation.

Every attempt should be made to cooperate, without compromising mission needs, with diplomatic personnel, because they can keep the NEO forces fully ***apprised*** of the situation ashore.

unduly: improperly

Diplomatic Organization

Participating NEO nations may choose to establish an ***ad hoc*** NEO supervising organization ***chaired*** by a senior diplomat. Representatives of the defense ministries, senior military officers, and representatives from other appropriate departments and agencies of the participating NEO governments are members. Its responsibility is to ensure the coordination of planning and the implementation of the diplomatic and military plans for the protection or evacuation of the noncombatants.

Liaison groups may be established on the recommendation of the NEO supervising organization to ensure coordination of planning in the field, and provide advice and guidance in operational planning and execution.

Learning Strategy

When you understand the main idea or general idea of a reading, it is easier to understand the details.

Embassy Representatives

Maritime forces involved in NEOs should be familiar with the duties of the following diplomatic positions found in embassies:

The Ambassador/Chief of Mission (COM) is the senior official, military or civilian, in

the embassy. The ambassador is the senior diplomatic representative of his nation and reports to his national authority through diplomatic channels. He has the responsibility for overall direction, coordination, and supervision of his government's activities in the host country.

Deputy Chief of Mission (DCM) is the senior diplomatic official in the embassy below the rank of ambassador, and is nearly always a career foreign service officer. The DCM usually chairs the country team meetings and coordinates the embassy.

Chief of Military Mission (CMM) is the senior military person at the embassy. He maintains liaison with the host nation's military forces, and is authorized by law to perform certain military functions with the host country's military that are ***barred*** to others. The CMM is aware of the advance party forward command element (FCE). He is sent by the Joint Task Force (JTF) or Amphibious Ready Group (ARG) upon notification of the NEO.

Chief of Station (COS) is responsible for gathering human intelligence (HUMINT) and signal intelligence (SIGINT) and for informing the ambassador.

Defense Attaché Officer (DAO) is the military person attached to the embassy in a diplomatic status representing his national defense ministry or department. He can facilitate access to the daily embassy situation reports (SITREPs) and other written intelligence. All military personnel, even those not assigned to the embassy or under direct control of the ambassador, usually must coordinate their activities through the DAO. In some embassies, military personnel assigned to the embassy security detachment may report to an embassy security officer. The exception is the Marine Security Guard (MSG) detachment.

The Administration Officer (AO) is responsible for various activities at the embassy compound. It may include maintaining security at small posts; running the commissary, motor pool, and maintenance activities; and handling ***monetary*** aspects of the embassy business including foreign service national payroll, cash collection, and budget. The AO is often the third in command in the embassy hierarchy. In a small post with no security officer assigned, the AO will assume the functions of the security officer and have operational control of the security detachment.

The Political Officer is a career diplomat who reports on political developments, negotiates with the host government, and represents views and policies of his own government to his contacts. The political officer maintains regular contact with host government officials, political, labor leaders, and other influential citizens of the host country as well as third country diplomats. The political officer is a major contributor to the overall intelligence picture.

The Economic Officer is a career diplomat who analyzes, reports on, and advises superiors and diplomatic ministry personnel on economic matters in the host country. Economic officers also negotiate with the host government on trade and

financial issues. They may also work in close contact with relief organizations.

The Consular Officer's main duty is to ***screen***, process, and ***grant*** passports and visas. Other duties include attending to the welfare of his nation's citizens and administrative tasks such as maintaining a count of his own country's nationals within the host country. The consular officer can assist with screening documents of potential evacuees by providing appropriate personnel and instruction.

The Medical Officer is qualified for general practice and able to respond to and set up ***triage***, trauma, and mass casualty operations. The medical officer can also advise the NEO forces on ***indigenous*** disease ***vectors*** and proper ***prophylaxis*** necessary for forces introduced into country.

The Security Officer is responsible for the security functions of the embassy. The security officer oversees the personnel assigned to various security duties, including personal protective services for the ambassador, his deputy, and others. In some embassies, the military security detachment reports to the security officer.

The General Services Officer (GSO) is normally responsible for buildings, grounds, construction, vehicles, and maintenance.

The Country Team consists of the ranking representatives of embassy sections and other government agencies operating within a country. It is chaired by the ambassador or his deputy and meets regularly to advise the ambassador on national matters and to review current developments in the country.

The country team could include the following personnel:

- ambassador
- deputy chief of mission
- chief of political section
- political/military affairs officers
- consular officer
- administration officer
- economics officer
- various specialists

If available, the country team system facilitates rapid interagency/consultation/action on recommendations from the field and effective execution of national programs and policies.

Source: EXTAC 1010 Noncombatant Evacuation Operations, August 1996.

After you turn off the recording, silently read the paragraphs again. Next, in your dictionary or the glossary of this unit, look up the meaning of the words you do not know. Then, complete Exercise 6.

Exercise 6

Complete the following sentences with the correct form of the words from the list provided.

---

ad hoc	chair	prophylaxis
bar	apprise	monetary
screen	grant	triage
indigenous	vector	

1. A primary objective for the medical officer is to establish _____.
2. All applications for visas to visit the US must first be _____ by the US Consulate in the host country.
3. An _____ committee was created to deal with the problems created by the large number of refugees entering the country.

4. Major General Holmes _____ the committee that is responsible for budget matters.

5. The deputy chief of the mission kept the ambassador _____ of the NEO in his country.

6. The security officer _____ permission for the reporters to enter the embassy.

7. Captain Saenz trained his staff on procedures for treatments of the diseases that are _____ to Panama.

8. LT Andrews _____ all weapons from entering the Consulate.

9. Sometimes a court martial ruling results in a _____ penalty as well as prison time.

10. A series of inoculations is the proper _____ given to personnel going into regions that are known to have many tropical diseases.

11. In some areas of Central America, there are _____ that carry both fatal and nonfatal diseases.

GRAMMAR

Self-Test For Review Of Grammar

Exercise 7

This grammar self-test will review all of the points of grammar given in Units 1-9. Select the letter of the sentence that illustrates the correct use of the grammar structure. Write the answer in your notebook. Then check your answers in the answer section.

1. a. The order issued by the Admiral.
   b. The order was issue by the Admiral.
   c. The order was issued by the Admiral.

2. a. The speed of the vessel is reduce when the vessel approaches the mother ship.
   b. The speed of the vessel is reducing when the vessel approaches the mother ship.
   c. The speed of the vessel is reduced when the vessel approaches the mother ship.

3. a. The sailor must attends the meeting.
   b. The sailor must attend the meeting.
   c. The sailor must attended the meeting.

4. a. Military personnel don't have to drive military vehicles without authorization.
   b. Military personnel must not drive military vehicles without authorization.
   c. Military personnel must not to drive military vehicles without authorization.

5. a. The engineer couldn't had repaired the engine even if he had had help.
   b. The engineer couldn't have repair the engine even if he had had help.
   c. The engineer couldn't have repaired the engine even if he had had help.

6. a. The sailor didn't have to file the report.

   b. The sailor didn't had to file the report.

   c. The sailor had not to file the report.

7. a. If you see LCDR Schmidt, give him the message.

   b. If you have seen LCDR Schmidt, give him the message.

   c. If you seen LCDR Schmidt, give him the message.

8. a. If you receive more pay, what would you do with it?

   b. If you had received more pay, what would you do with it?

   c. If you received more pay, what would you do with it?

9. a. What would you have done if you had detected the goblin?

   b. What would you have done if you detect the goblin?

   c. What would you have done if you detected the goblin?

10. a. If a search pattern is not successful, what could you have done?

    b. If a search pattern is not successful, what do you do?

    c. If a search pattern is not successful, what did you do?

11. a. When the sailors are hearing the explosion, they hit the deck.

    b. When the sailors heard the explosion, they hit the deck.

    c. When the sailors have heard the explosion, they hit the deck.

12. a. We completed the SWOS training late yesterday.

    b. We have completed the SWOS training late yesterday.

    c. We had completed the SWOS training late yesterday.

13. a. The helicopter is hovering on the distressed craft.

    b. The helicopter is hovering over the distressed craft.

    c. The helicopter is hovering by the distressed vessel.

14. a. The brevity code word STRANGLE refers to switching on equipment.

    b. The brevity code word STRANGLE refers to switching from equipment.

    c. The brevity code word STRANGLE refers to switching before equipment.

15. The Admiral said, "I require promptness from everyone."

    a. The Admiral said that he requires promptness from everyone.

    b. The Admiral said that I required promptness from everyone.

    c. The Admiral said that he required promptness from everyone.

16. a. Just now the admiral told us that he requires promptness from everyone.

    b. Just now the admiral told us that he required promptness from everyone.

    c. Just now the admiral told us that he had required promptness from everyone.

17. a. He asked me did I enjoy my first tour of duty.

    b. He asked me if I enjoy my first tour of duty.

    c. He asked me if I enjoyed my first tour of duty.

18. a. The medical officer inquired if the evacuees were aboard and whether any were in need of assistance.

    b. The medical officer inquired if the evacuees were aboard and did any need assistance.

    c. The medical officer inquired if the evacuees were aboard and were any in need of assistance.

19. a. It is urgent that the SAR begin immediately.

    b. It is urgent that the SAR begins immediately.

    c. It is urgent that the SAR must begin immediately.

20. a. The MEDEVAC team insisted that the patient took his medicine.

    b. The MEDEVAC team insisted that the patient take his medicine.

    c. The MEDEVAC team insisted that the patient has took his medicine.

cognizance: the official authority over something

Learning Strategy

Avid reading will improve your ability to recognize words and will enlarge your vocabulary.

READING SKILL

Exercise 8

Before you read the following article, in your notebook write what you think the answers are to the questions that follow.

1. What are embassies and consulates required to have?
2. Normally, when does an evacuation take place?
3. What can be expected prior to the introduction of the NEO forces?

Read the story as quickly as you can. Without looking back in the reading, complete the comprehension questions at the end of the selection. Then, reread the story to check your answers.

Embassy/ Consulate Plans

Embassies and consulates generally have emergency action plans for the area under their **cognizance**. These plans and photographs include:

- evacuation sites (landing zones, ports, beaches)
- number of evacuees (total and by area)
- assembly areas
- command posts
- key personnel (name, location, means of contact).

Schedule

The national ministry of state, acting on the advice of the ambassador, will determine when evacuation of designated personnel will take place. Normally, evacuation will commence in accordance with the prepared emergency plans using scheduled airline, chartered flights, or surface transportation. If evacuation requirements exceed the capability of the diplomatic mission, the designated national authorities may request military assistance from NEO military forces. In this case, when directed by the NEO forces tasking authority, the military commander

tasked will initiate appropriate military operations.

Prior to the introduction of NEO forces into an evacuation situation, expect that other courses of action, including military fixed-wing airlift or sealift evacuation, will have been unsuccessfully attempted or have been determined to be **infeasible**. At this point, **cognizant** national authorities will direct the NEO force commander to conduct evacuation operations using available transport, including helicopters staging from amphibious ships operating in the evacuation objective area. The NEO force commander will coordinate with the ambassador and publish an operational order which specifies the evacuation force composition, launch times, force sequence, **ingress/egress** routes and procedures, and coordination and control instructions. Command relationships between the amphibious force and landing force commanders are essentially the same as for other amphibious operations.

Command and Control

Steps should be taken to ensure that the combined participation of diplomatic and military elements does not **blur** lines of command and control already established.

- Military NEOs are initiated only at the request of the senior diplomatic representative on scene. Until that time, the evacuation may be conducted as a civilian operation under the direction of the ambassador or his representative. When the security situation and risk to evacuees is unacceptable to the ambassador, a representative will request evacuation by military means and pass operational control to the on-scene military commander. Close military coordination up to the point of turnover of operational control will add to the overall success of the operation. Although the ambassador is not in the military chain of command and control, his decisions and actions, coordinated with his national ministry of state, can influence the course of the operation and the decisions made concerning the employment of NEO military forces.

- If the evacuation is an entirely amphibious operation, the relationship between the Commander Amphibious Task Force (CATF) and the Commander Landing Force (CLF) will follow established doctrine.

Source: EXTAC 1010 Noncombatant Evacuation Operations, August 1996.

infeasible: not easily done; impractical

cognizant: aware or informed

ingress: entrance; inbound path

egress: exit; outbound path

blur: to cause to be unclear or indistinct

Exercise 9

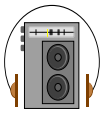
Circle *T* if the statement is true, and circle *F* if the statement is false.

1. The ambassador, under the advice of the national ministry, will determine when evacuation of designated personnel will take place. T F

2. The ambassador is in the military chain of command. T F

3. The ambassador's decisions and actions can influence the course of the operation and the decisions made concerning the employment of NEO military forces. T F

VOCABULARY



Listen to the reading titled "Evacuation Operations" and follow along. The italicized words are the new vocabulary. As you listen to the reading, circle the words you do not know.

Evacuation Operations

Evacuation operations are characterized by uncertainty. Alternative plans must be developed for permissive, uncertain, and hostile environments. Evacuation operations may be directed without warning because of sudden drastic changes in a country's government, reoriented political/military relationships with the NEO force nations, or a sudden hostile threat to evacuees from a force within or external to the host country. A ***premium*** must be placed on readiness to go from a day-to-day routine to a time-collapsed alert and execution of evacuation operations.

Permissive Environment

This condition ***envisions*** no resistance to evacuation operations and thus requires little or no assembly of combat forces ashore. Evacuees may or may not have been processed and assembled at designated assembly areas, evacuation points, and sites. In such an environment, the NEO forces can expect the host nation to concur with and support the evacuation. The NEO military commander should deploy the minimum forces necessary to provide security. ***Discreet***, ***prudent*** preparations should be made so as to enable the force which is conducting the NEO to respond to any threats to the evacuees.

Uncertain Environment

This is an operational environment in which host government forces, whether for or against evacuation operations, do not have total effective control of the territory or population in the intended area or country of these operations.

Hostile Environment

This condition envisions evacuation of personnel under conditions ranging from civil disorder to terrorist action to full scale combat. Under such conditions, the NEO forces must be prepared for a wide range of contingencies. In addition to normal logistic personnel evacuation, they may be required to

- conduct an amphibious landing
- establish defensive perimeters
- escort convoys
- participate in personnel recovery
- screen evacuees (this is usually done by a diplomatic official).

Hostile Forces

If an evacuation operation has developed over an extended period, detailed information on enemy order of battle should be made available. As the enemy advances and the threat becomes one of national survival for the host country, confusion will dominate and details of the enemy order of battle will tend to be lost. Enemy ***sympathizers*** or hostile guerrillas may take the opportunity to appear within the area and actively engage and disrupt friendly forces and the population.

Added to this ***indeterminate*** threat, evacuation planners may be uncertain as to mass action by the previously friendly population. At best, there will be some

need for crowd control. At worst, the population may turn against the evacuees and evacuation forces and actively attempt to destroy life and property. An evacuation operation that develops without warning because of sudden internal host country ***upheaval*** (either from internal or external forces) will also face an uncertain threat. The nature of such an occurrence defies any precise definition of hostile forces order of battle.

Source: EXTAC 1010 Noncombatant Evacuation Operations, August 1996.

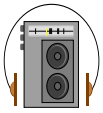
After you turn the recording off, silently read the paragraphs again. Look up any words you do not know and complete Exercise 10.

Exercise 10

Match the vocabulary word with the corresponding meaning.

1.___premium	a. person(s) that shows approval or agrees with the ideas of others
2.___upheaval	b. uncertain
3.___discreet	c. to imagine as a future possibility
4.___prudent	d. to put high value on
5.___sympathizer	e. careful about what is said and done
6.___envision	f. a sudden, violent disturbance
7.___indeterminate	g. sensible/wise

LISTENING/WRITING SKILLS



Dictation

Exercise 11

In your notebook copy the incomplete outline that follows. Then listen to the reading titled "Execution." As you listen, fill in the missing information in the outline. You may want to listen to the entire selection one time; then the second time you listen to it, fill in the missing information.

Execution

1. Locations of Evacuations
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____

Learning Strategy

Using an outline is a good way to organize your thoughts and ideas for an oral as well as a written presentation.

2. Selection of Transportation

   a. _____

   b. _____

   c. _____

3. Surface/Amphibious NEO

   a. _____

   b. _____

   c. _____

   d. _____

   e. _____

   f. _____

   g. _____

4. Air/Helicopter NEO

   a. _____

   b. _____

   c. _____

   d. _____

   e. _____

   f. _____

   g. _____

   h. _____

5. Combination

   a. _____

   b. _____

6. Moving initial pick up point

   a. _____

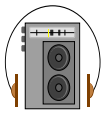
   b. _____

Source: EXTAC 1010 Noncombatant Evacuation Operations (NEO), August 1996.

Learning Strategy

Highlighting or circling important words and concepts helps you remember them better and find them faster when you need them.

VOCABULARY



Listen to the reading titled "Tactical Considerations" and follow along. The new vocabulary words are in italics. As you listen to the reading, circle any words you do not know.

Tactical Considerations

National ministries or state departments enter prominently into the planning of NEO. Embassies in each country have the responsibility to

- select and determine the number of evacuees
- inform and ***congregate*** evacuees at the evacuation site
- select and make diplomatic arrangements for safe ***havens*** for the evacuees in other countries.

Because of the political consequences, diplomatic personnel can be expected to participate in evacuation operations. The fact that evacuation operations are necessary shows that political relations with a particular country have ***deteriorated*** to the point where personnel must leave. Frequently, the order to evacuate is delayed until the situation is critical.

However, once the decision is made to introduce military force to conduct the evacuation and the execution order is received, control of the entire operation is transferred from the ambassador to the evacuation force commander. Execution of the military evacuation plan is initiated only at the request of the senior diplomatic representative on scene. Once this is done, local government officials and local

warring factions must be warned against attempts to restrict the force's access to and from the evacuation point(s).

Naval Force

Each NEO ***scenario*** is unique and requires close liaison with the embassies. The naval force will plan to transport, protect, land, and support the landing force. These plans will include: amphibious intelligence, communications, supporting arms, logistic/combat service support, ship to shore movement, and force defense planning against unknown, ***diffuse***, or ***sporadic*** threats.

Source: EXTAC 1010 Noncombatant Evacuation Operations, August 1996.

After you turn off the recording, silently read the paragraphs again. Next, in your dictionary or the glossary of this unit, look up the words you do not know and write their definitions in your notebook. Then complete the next exercise in the text.

Exercise 12

Choose the correct word for the blank space in each sentence. Copy the completed sentence in your notebook.

1. The diplomatic staff will _____ in the ambassador's office for the evacuation briefing.

   a. congregate b. control

2. The Red Cross shelter provided a perfect _____ for the three refugees of the war torn country.

   a. haven b. figure

3. Even after the peace talks, the relationship between the two countries continued to _____.

   a. deteriorate b. flow

4. Has the ambassador and his staff seen the _____ for the NEO?

   a. scenario b. haven

5. The gunfire was no longer regular, but _____.

   a. sites b. sporadic

6. The _____ fighting forced the ambassador to order the evacuation of his nation's personnel.

   a. diffuse b. direct

VOCABULARY

Now listen to the article titled "Nontactical Considerations." The new vocabulary is in bold italics. As you listen to the reading, circle the words you do not know.

Nontactical Considerations

Nontactical considerations for naval personnel are contained in the following paragraphs.

Medical Regulating

A medical regulating organization coordinates the movement of casualties from the evacuation site to a medical facility that is capable of providing the required treatment. The following organizations provide medical regulating and treatment:

- Fleet Surgical Teams (FSTs) are 16-person medical ***augmentation*** teams that are permanently assigned to fleet commanders to support deployed commitments. Their services must be requested well in advance.
- Medical Mobile Augmentation Readiness Teams (MMARTs) provide medical augmentation during peacetime contingencies, such as NEO, and have the following medical capabilities: surgery, specialty treatment, special ***psychiatric*** rapid intervention team, preventive medicine, and disaster support. It is important to note that not one team provides all of these services. Each is provided by separate teams which are normally located at naval hospitals. For a specific capability, the CATF can request and receive a specialized team within 24 to 48 hours.
- Medical regulating control center (MRCC) coordinates the movement of casualties with the Amphibious Objective Area (AOA). It is normally ***collocated*** with the primary Helicopter Direction Center (HDC) and manned by the Fleet Surgical Team (FST) or MMART personnel.
- Primary Casualty Receiving and Treatment Ships (PCRTSs) are ships with the best available medical treatment resources, normally LHD (Amphibious Assault Ship-Multi-Purpose), LHA (Amphibious Assault Ship - General Purpose), LPH (Amphibious Assault Ship - Helicopter), or CV/CVN (Multi-purpose Aircraft Carrier/Ocean Control Carrier) Class ships. These ships can also act as primary ships for handling mass casualties which may arise from a NEO mission. Mass casualty teams can also be formed from the Combat Service Support Element (CSSE).

Search and Rescue (SAR)

The need for SAR in an uncertain or hostile NEO environment is readily apparent. The SAR mission may be accomplished by the following means:

- A helicopter special detachment mission. Combat-capable, two aircraft detachment employing SH-60H Seahawks. Helicopter special mission squadrons are reserve units and are not available unless mobilized.
- MH-53 Pavelow helicopters may be integrated with the CVW (Carrier Air Wing) strike package.
- In the absence of the above assets, UH-1N helicopters from the ATF (Amphibious Task Force) may be used for SAR.

Medical/Dental

During evacuation operations, it may be difficult or impossible to insert and establish the medical support function ***inherent*** to the CSSE within time and operational constraints. Comprehensive and detailed casualty and medical support planning must be implemented to cover immediate medical and surgical treatment points. Special support units organized for this purpose may save lives and permit a more ***expeditious*** evacuation. Depending on the size and scope of the evacuation operation, there will be the potential for large numbers of both military and civilian casualties.

Exercise 13

Match each of the vocabulary words with its definition.

1.___psychiatric	a. enlarge the capabilities/ skills of some-thing
2.___collocate	b. relating to mental disor-ders
3.___augmentation	c. an essential part of something
4.___expeditious	d. to place together
5.___inherent	e. done with speed and efficiency

FUNCTION

Distinguishing Ranks Among NATO Countries

Distinguishing the insignia and ranks of officers and enlisted personnel is vital for effective interaction in multinational maritime operations. Refer to the January 2000 issue of *All Hands,* pages 22 and 23, to do the following exercise which was developed to help you distinguish ranks.

Fill in the appropriate information in the column titled "Your Country." The other columns have the NATO insignia/code and US insignia/code. Is there a difference in your country's insignias/codes and those of the US?

Figure 10-1. Rates

NATO INSIGNIA/CODE	US NAVY	YOUR COUNTRY
OR-9	Master Chief Petty Officer E-9	
OR-8	Senior Chief Petty Officer E-8	
OR-7	Chief Petty Officer E-7	
OR-6	Petty Officer First Class E-6	
OR-5	Petty Officer Second Class E-5	
OR-4	Petty Officer Third Class E-4	
OR-3	Seaman E-3	
OR-2	Seaman Apprentice E-2	
OR-1	Seaman Recruit E-1	

Figure 10-2. Ranks

NATO INSIGNIA/CODE	US NAVY	YOUR COUNTRY
OF-10	Fleet Admiral O-11	
OF-9	Admiral O-10	
OF-8	Vice-Admiral O-9	
OF-7	Rear-Admiral (upper-half) O-8	
OF-6	Rear-Admiral (lower-half) O-7	
OF-5	Captain O-6	
OF-4	Commander O-5	
OF-3	Lieutenant Commander O-4	
OF-2	Lieutenant O-3	
OF-1	Lieutenant Junior Grade, O-2 Ensign O-1	

EVACUATION CENSUS FORM

1. Form serial number: _____
2. Name: _____
3. Passport number: _____
4. Country of passport issue: _____
5. Nationality of subject: _____
6. Place of birth: _____
7. Date of birth: _____
8. Citizenship: _____
9. Sex: _____
10. In company with: _____

    Name: _____
    Last First Middle

    _____ _____ _____ _____
    Sex Age Form No. Relationship

11. Person to be notified: _____

    Name: _____
    Last First Middle

    Address: _____

    Relationship: _____
12. Occupation: _____
13. Languages (translate/interpret): _____
14. Medical problems: _____
15. Allergies to medication: _____
16. Location (ship embarked): _____

Figure 10-3. Evacuation Census Form

safekeeping: kept in safety; protection

preclude: prevent from happening

indoctrination: instruction; to teach

berthing: relating to sleeping quarters

messing: relating to eating arrangements

nursery: place where parents can temporarily leave their children

billeting: assigning of sleeping quarters

READING/WRITING SKILL

Exercise 14

Before reading the next selection, scan the material first. Consider the following questions: What is the difference between a beach evacuee processing and a board ship evacuee processing? What are the special considerations found in both? What security measures are stated? If you were in charge of an evacuee processing, what are some of the problems you might encounter? How would you handle them?

Evacuee Processing

Evacuee processing may take place on land, on board ship, or both. In either case, a comprehensive plan for reception and care of evacuees should be in effect. Caring for civilians and maintaining order in and around the evacuation site are the prime responsibilities.

Beach

Use the following procedure for the handling of evacuees if evacuation processing takes place on land:

- establish an Evacuation Control Center (ECC) to process evacuees;
- use military police when available;
- use recognizable markings on NEO personnel, vehicles, and equipment;
- disarm evacuees prior to evacuation processing;
- provide for **safekeeping** and security of valuables during processing;
- provide interpreters for bilingual information at control sites;
- upon initial screening, use tags for visual identification;
- establish provisions for handling women, children, and disabled/injured;
- use diplomatic personnel of the same sex as evacuees to conduct searches;
- have medical personnel present;
- establish procedures for VIPs,government officials, and third-country nationals;
- organize evacuees and establish a single point of contact between the evacuee group and the military commander. Contact with civic officials may increase control/response for the evacuation;
- move evacuees to ATF ships via landing craft or helicopters.

Ship

Should the environment on land **preclude** processing ashore, evacuees will be processed aboard ship.

The pre-embarkation procedure includes the preparation of handouts and **indoctrination** material for evacuees, including the following:

- welcome aboard procedures;
- ship's capabilities and limitations;
- a sketch of the ship, showing evacuees' **berthing** and **messing** spaces;
- services available to evacuees including medical, laundry, valuable safekeeping and **nursery**;
- emergency procedures including abandon ship and fire on ship;
- **billeting** procedures and considerations involved in the assignment of berths;
- baggage handling procedures;
- ship's history and background information;
- two different colored tags, one color for hold baggage, the other for baggage

needed by evacuees in their compartments during the trip;

- locally prepared census, including **next of kin** information.

Reception planning and ship preparation shall proceed as follows:

- Prepare a berthing plan that will allow for emergency berthing as well as double or triple berthing of own ship's personnel. Consider the needs of women, children, elderly, and **infirm** evacuees with regard to requirements for isolation, privacy, and proximity to sick bay.
- Designate an initial holding area on the weather decks for welcoming evacuees aboard and conducting introduction briefings. Prepare the area in a way that prevents evasion of processing. Station **sentries** as required.
- Designate a sheltered census area where all evacuees will complete the locally prepared census forms.
- Assign berthing area supervisors, billeting guides, baggage handlers, ladder guards, and general assistance personnel.
- Identify bilingual ship's company for a translator **pool**.
- Prepare the medical department to screen all evacuees for treatment. Liaison with the ECC ashore will indicate the need for emergency treatment. In addition, make the following preparation:
  - prepare medical triage for administering first aid and **inoculations** as required.
  - prepare sick bay to receive medical emergencies as they arise.
  - prepare the isolation ward for evacuees with contagious diseases.
  - establish an infant feeding center stocked with plastic baby bottles, disposable plastic liners, disposable diapers, and one blender for food preparation.
- Prepare ID tags for each evacuee that will state their name and assigned berthing area. Assign berthing in accordance with following guidelines:
  - segregate NEO nation citizens from foreign nationals;
  - reserve **wardroom** and spaces for VIPs, government officials, and mothers with children three years and under;
  - assign no more than two families to six man rooms.
- Designate billeting guides to escort evacuees to their assigned berthing areas and to remain with them until relieved. Place an OIC (Officer in Charge) of all billeting guides and a CPO in charge of each berthing area.
- Prepare the CPO in charge of each berthing area to indoctrinate on messing, head facilities, and general information about the ship. Stow life jackets in vicinity of the evacuee berthing area.
- Designate **head** facilities in vicinity of evacuee berthing areas for the sole use of evacuees. Make provisions for separate male/female facilities.
- Establish and promulgate water hours.
- Assemble, brief, and post berthing area supervisors, billeting guides, baggage handlers, ladder guards, and general assistance personnel.
- Conduct a boat brief to include the following preparations:
  - Provide boats with adequate numbers of life jackets and cargo nets for baggage.
  - Provide minimum of six military personnel per boat. A minimum of two of these will be armed; weapons will be kept out of sight to avoid alarming the evacuees.

next of kin: nearest relative/relatives, usually blood relative

infirm: sick; ill

sentries: military guards

pool: a supply of trained personnel

inoculations: injections against diseases

wardroom: a room where officers gather to relax, sit, etc.

head: toilet and washroom

Learning Strategy

Keep a list of words that you want to learn. Reserve a special place in your notebook for this list.

bottlenecks: places where movement or progress is slowed up or halted because too much must pass through

  - Designate one boat as a patrol craft to control foreign craft around the ship's boarding ladders.

- Establish well-marked traffic routes. Avoid **bottlenecks** in the vicinity of ladders.

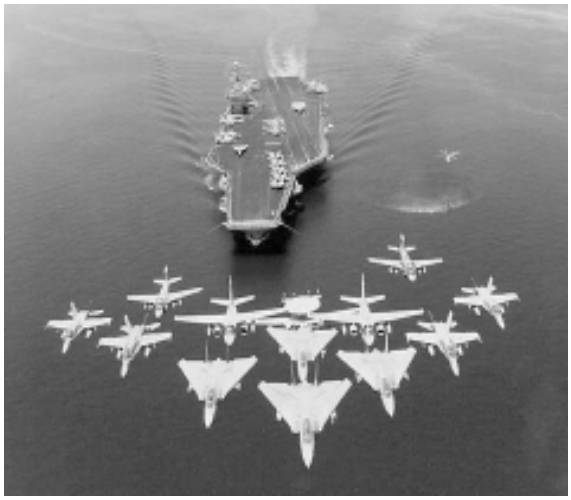
- Rig the accommodation ladder with safety lines.

- Instruct messmen and messdeck masters-at arms to adhere to the following procedures:
  - The infirm shall go to the head of the mess line.
  - Evacuees shall eat and clear the mess decks without delay.
  - Tea shall be made available, especially for foreign nationals.
  - Hold a full dress rehearsal for all receiving, processing, and security stations.

Embarkation procedures include the following:

- Assemble the various details and post on station such as security patrols and baggage handlers.

- Thoroughly search all personnel and baggage prior their boarding the ship. Once searched, alphabetically assemble all baggage to facilitate sorting, locating, and tagging. Separate the baggage into two categories:



  - hold baggage

  - baggage to be used by evacuees in their berthing area.

- Welcome evacuees aboard and brief them in the initial holding area.

- Collect personal data by using a form similar to that found in figure one and issue berthing assignments in the census area. Issue ID tags stating their assigned berthing to all personnel.

- Collect valuables at the census area. The evacuees will seal valuables in envelopes, label them with identifying data and turn them over to the ship's disbursing officer for secure storage. Receipts will be issued for envelopes that are collected.

- Screen evacuees for obvious medical problems, provide for on-the-spot first aid, and inoculate those evacuees in accordance with World Health Organization requirements. Any patient with a suspected contagious disease shall be admitted to the isolation ward. If there are several of these patients, designate a separate berthing compartment.

- Determine if there are doctors and nurses among the evacuees. Integrate them into the different medical departments.

- Following the processing in the census area, billeting guides who are under the direction of the OIC will escort the evacuees to their assigned berthing areas. The guides will remain there until relieved.

- The CPO in charge of each berthing area will indoctrinate evacuees on messing, head facilities, and general information about the ship. He will also distribute sheets, blankets, towels, and soap.

Procedures for transits over 48 hours are the following:

1. Establish a passengers committee consisting of two evacuees per

compartment. The passenger committee will meet daily with the ship's executive officer.

2. Publish for the evacuees a daily newsletter to serve as the principal **medium** for giving information. Supplement the newsletter with announcements on the ship's closed circuit television (CCTV) and the general announcing systems.

3. Schedule meal hours in a way that will avoid long waiting periods.

4. Establish general quarters stations for evacuees at their respective berthing areas.

5. In the event that emergency stations are ordered, guides will report to the berthing area and remain with their groups. Orders to evacuees will be passed over the general announcing system.

- The executive officer shall be in direct command of evacuees during an abandon ship evolution and shall direct their movements through the guides.

Debarkation procedures are the following:

- Disseminate the debarkation plan in writing to all evacuees. Use the passenger committee to explain the details of the plan.
- Debark in groups arranged by berthing area. Make a thorough inspection of the compartment for items that may have been left behind.
- Unaccompanied women with infants will debark first. Families will be united prior to debarkation.
- Debarkation processing consists of three phases: immigration/passports, customs, and accommodation assignment. If a suitable facility exists and the host nation is willing, all three shall be done ashore.
- Customs is a function of the host government.
- After debarkation, accommodations and travel are the responsibilities of embassy officials and consular agents.

medium: means of communications

Evacuees

Guidelines for treatment of evacuees are as follows:

- Evacuees are not prisoners of war (POW).
- Use minimum force required.
- Limit baggage to those carried by the individual. Exceptions are evacuees with small children and those carrying official documents.
- If possible, do not separate people from their baggage.
- Search baggage for firearms, explosives, ammunition, and similar contraband. Be firm but professional. The safety of all personnel is top priority.
- Do not permit pets to accompany evacuees.
- Do not accept gifts, tips, bribes, etc. Ensure that all personnel are aware of these rules.
- Refer all questions about an evacuee to the diplomatic representative.

Classification, Priorities, and Considerations for Evacuees

Update the total number and categories of evacuees periodically. These numbers, identification, movement, assembly, and location are critical to the success of the evacuation. Early coordination and compatibility between embassy and military are required for accurate estimates.

Classification

The following system will govern priorities of evacuations. Priority designators will include a combination of Roman numeral and capital letter indicating major and

minor priorities assigned to each individual.

Major categories:

- I - All NEO participating nation citizens
- II - Alien members of participating NEO nation families
- III - Alien employees of NEO participating nation government / businesses
- IV - Other designated aliens

Minor categories:

- A - Women obviously pregnanat
- B - Unaccompanied children under 18
- C - Aged and infirm
- D - Women with children
- E - Women 18 or older
- F - Men 18 or older

First Priority

NEO participating nation citizens in the following order:

- Those with current identification, such as passports, birth certificates, military dependent ID cards, seaman's papers, aircrew cards, and anyone designated as first priority by the Chief of Mission (COM) regardless of national **affiliation**. COM is the final authority.
- Those with expired NEO participating nation passports less than 10 years old.
- Those with expired NEO participating nation passports over 10 years old.

affiliation: connection with something or somebody

Considerations

- Persons of higher priority may elect evacuation in a lower priority to avoid separating families. In the event it is necessary to MEDEVAC a member of a family, the entire family will be MEDEVACed.
- Separate certain evacuees by type.
- Do not evacuate a NEO participating nation citizen against his/her will.
- "Standfast" - Standfast may be directed by the commanding officer if noncombatants would be placed in greater danger by evacuation than by remaining, or if transportation is not available.

Requests for Asylum or Temporary Refuge

- Let a diplomatic representative decide political asylum versus temporary refuge.
- Using established procedures, notify senior national authorities immediately of action taken in cases of requests for asylum or temporary refuge. Information addressees should include military national general staff, national ministry of state, and embassy and consular officers.
- No information shall be released to the media concerning requests for asylum until cleared by the appropriate national authority.
- Any requests by foreign governments for the return of an individual must be reported to the senior command. Until determination is made by senior diplomatic officials, safeguard all those who have requested asylum or temporary refuge. Do not release personnel against their will to a third party force.

Source: EXTAC 1010 Noncombatant Evacuation Operations, August 1996.

Exercise 15

Look at the following problems. If you were part of a NEO, what would you do? In your notebook, write the rule that authorizes you to execute the action.

1. A member of the embassy is carrying a 9mm gun. He says he must have it with him.
2. One of the evacuees speaks only Polish. You speak only English.
3. A fight breaks out among three men.
4. An evacuee is confused and does not know where his berthing space is.
5. There are three families in a six-person room.
6. A woman is very close to giving birth to her first child. She does not want to be separated from her husband.
7. You are informed that there is a possibility that some of the evacuees may have typhoid.
8. You see an elderly man in a wheelchair at the back of the mess line.
9. Evacuees are afraid that they will not know what is happening once they leave.
10. A newspaper reporter asks you who among the evacuees is asking for political asylum.
11. A representative of a foreign government insists you surrender the chief of police who is one of the evacuees. He tells you it will be for only one hour.
12. The families of several VIPs want to be the first to disembark.

LISTENING SKILL

Listen to the News and Take Notes

Exercise 16

Listen to or view at least three news broadcasts in English this week. Use the News Broadcast Listening/Viewing Form in Appendix G as a guide. As you listen, take notes. Ask the information questions that you learned in Unit 1: Who?, What?, Where?, When, and Why? Then, in your notebook, write answers to the questions.

Editing Checklist

Exercise 17

Rereading and rewriting are essential editing steps to improve your writing. Ask yourself the following questions as you reread your speech. Circle the answers honestly. Be prepared to make changes and rewrite.

CONTENT

1. Is the main idea clearly stated near the beginning? Yes No
2. Do all paragraphs support the main idea? Yes No
3. Do all paragraphs have a topic sentence? Yes No

ORGANIZATION

4. Are the paragraphs short with concise vocabulary? Yes No
5. Are your ideas presented clearly and logically? Yes No
6. Is the reader led to the conclusion, which summarizes? Yes No

LANGUAGE

7. Did you double-check those grammar points you usually have trouble with? Yes No
8. Do all verbs agree with their subjects? Yes No
9. Do all pronouns agree with their referents? Yes No
10. Did you reread slowly to check the spelling and punctuation carefully? Yes No

GLOSSARY

Objective Vocabulary

ad hoc (ad HOC) adj: for a special case/ situation only

Since there were no specific tests for the English class, the teacher used an ad hoc test to measure the students' progress.

apprise (ap PRISE) v: to inform

The ambassador must be apprised of all NEO operations so that he can keep the President informed.

augmentation (aug men TA tion) n: an addition or increase

The augmentation fleet for evacuee transport was very helpful during the NEO.

bar (BAR) v: to keep out; exclude

The single men are barred from entering the single women's quarters.

chair (CHAIR) v: to preside over as chairman

The Administration Officer chaired the emergency meeting which was held to discuss problems caused by the recent flood.

collocate (COL lo cate) v: to arrange; especially to set side by side

In order to save space, the Army and Air Force offices are collocated in the same building.

congregate (CON gre gate) v: assemble; collect

The evacuees were told to congregate at the north gate for processing.

deteriorate (de TE ri or ate) v: to make or become worse

The patient's condition deteriorated so fast that the doctor ordered that he be put in intensive care.

diffuse (dif FUSE) adj: spread out; not concentrated

The diffuse outbreak of malaria was almost impossible to control.

discreet (dis CREET) adj: careful about what you say or do

When the Vice President is answering reporters' questions, he is very discreet.

envision (en VI sion) v: to see something as future possibility

ENS Weaver envisioned himself an admiral someday.

expeditious (ex pe DI tious) adj: efficient and speedy

Carry out the commander's orders in an expeditious manner.

grant (GRANT) v: to give what is wanted or requested

The sailors were granted an extra day of leave.

hamper (HAM per) v: to keep from moving or acting freely; hinder

The panic among the people only hampered the quick evacuation to the ship.

haven (HA ven) n: a sheltered, safe place; refuge

The cove provided a safe haven for the sailboat during the storm.

indeterminate (in de TER min ate) adj: indefinite; uncertain

Not too much was known about the situation in Albania, so the date of the NEO was indeterminate.

inherent (in HER ent) adj: existing in someone or something as a natural and inseparable quality

The desire for freedom is inherent in us all.

indigenous (in DIG e nous) adj: existing or growing naturally in a region or country; native

The orchid is not indigenous to Texas.

monetary (MON e tar y) adj: of or having to do with money

At the present, there is a monetary crisis in Russia.

premium (PRE mi um) n: very high value

The instructor put a premium on punctuality.

prophylaxis (pro phy LAX is) n: a preventive treatment especially for teeth

Getting your teeth cleaned every six months is a recommended prophylaxis by many dentists.

prudent (PRU dent) adj: using good judgment in practical matters; cautious

When spending his money, ENS Walters is very prudent.

psychiatric (psy chi AT ric) adj: relating to or describing the treatment, study, or disorders of the mind

Because the sailor suffered a nervous breakdown, he was admitted into the psychiatric ward.

scenario (sce NAR i o) n: an outline for any planned series of events, real or imagined

The military officer presented the ambassador with the scenario for the city's evacuation.

screen (SCREEN) v: to interview or test so as to separate according to skills, personality, loyalty, etc.

The Security Officer carefully screened every person wanting an interview with the ambassador.

sporadic (spo RA dic) adj: not regular; not constant; happening from time to time

The evacuees could hear sporadic gunfire in the distance.

sympathizer (SYM pa thiz er) n: someone who shares or understands the ideas/ feelings of another

Even the cruelest leaders have many sympathizers.

triage (tri AGE) n: a system of assigning priorities of medical treatment based on urgency, chance for survival, etc. and used on battlefields and in hospital wards.

Triage helps save many lives during natural disasters as well as in battle areas.

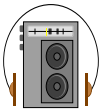
upheaval (up HEA val) n: a sudden violent disturbance

The NEO started earlier than expected because it was learned that several upheavals had taken place throughout the city.

vector (VEC tor) n: an animal, especially an insect, that transmits a disease-producing organism to a noninfected animal

Vectors indigenous to the Philippines are known to carry malaria.

Maritime Expressions



There are many expressions used in maritime operations. A few are given here. Listen and repeat the words and the sentences.

Time-collapsed (alert): effected or ordered when time is a critical factor to complete a mission

The NEO military commander ordered a time-collapsed alert when the hostile forces tried to overtake the embassy.

Court martial: court of justice for military personnel

Because the sailor left the ship without permission, he will face a court martial.

Abandon ship: order given to leave the ship because of an emergency such as sinking

The fire on the ship could not be controlled so the captain ordered everybody to abandon ship.

Sick bay: infirmary or first aid station aboard ship

LTJG Jones didn't feel well today so he reported to sick bay.

Weather deck: topmost deck of a ship, or any exposed deck

The sailors were on the weather deck saying goodbye to their families.

Standfast: firm, fixed position

The road to the evacuation site had been destroyed; therefore, the ambassador ordered a standfast.

Maritime Acronyms and Abbreviations

AO: Administrative Office(r)

AOA: Amphibious Objective Area

ARG: Amphibious Readiness Group

ATF: Amphibious Task Force

CATF: Commander Amphibious Task Force

CCTV: Closed Circuit Television

CLF: Commander Landing Force

CMM: Chief of Military Mission

COM: Chief of Mission

COS: Chief of Station

CPO: Chief Petty Officer

CSSE: Combat Service Support Element

CV/CVN: Multi-purpose Aircraft Carrier/ Ocean Control Carrier

CVW: Carrier Air Wing

DAO: Defense Attaché Officer

DCM: Deputy Chief of Mission

ECC: Evacuation Control Center

FCE: Forward Command Element

FST: Fleet Surgical Teams

GSO: General Services Officer

HDC: Helicopter Direction Center

HUMINT: Human Intelligence

ICTY: International Criminal Tribunal for the Former Yugoslavia

IPTF: International Police Task Force

JTF: Joint Task Force

LHA: Amphibious Assault Ship - General Purpose

LHD: Amphibious Assault Ship - Multi-Purpose

LPH: Amphibious Assault Ship - Helicopter

LZ: Landing Zone

MEU: Marine Expeditionary Unit

MMART: Medical Mobile Augmentation Readiness Team

MRCC: Medical Regulating Control Center

MSG: Marine Security Guard

NEO: Noncombatant Evacuations Operations

OIC: Officer In Charge

PCRTS: Primary Casualty Receiving and Treatment Ship

POW: Prisoner of War

ROE: Rule of Engagement

SIGINT: Signal Intelligence

SOC: Special Operations Capable

VIP: Very Important Person

Exercise 18

Some of the acronyms listed above are used in the following sentences. Write the full meaning of the acronym in the space provided or in your notebook.

1. Remember that evacuees are not POWs.
2. All evacuees watched the news on the CCTV.
3. The DAO was selected to chair the ad hoc committee.
4. All NEO's require close and early liason with the embassies and the military forces.
5. An important step in any evacuation operation is the set up of an ECC.

ENRICHMENT ACTIVITIES

Troublesome Grammar

Rise and Raise; Lie and Lay

Rise means "to go upward." **Raise** means to "to make something go upward." **Raise** is usually used with a direct object.

Examples:

direct object

The sailors rose when the **flag** was raised. ("flag" receives the action of **raised**)

direct object

PO Steward raises his own **vegetables**. ("vegetables" receives the action **raises**)

Present	Past	Past Participle
rise	**rose**	(has) **risen**
Present	Past	Past Participle
raise	**raised**	(has) **raised**

Lie means "to stretch out and rest." **Lay** means "to put something in a certain place." **Lay** is usually used with a direct object.

Examples:

The Medical Officer told the woman to lie down and rest for two hours.

direct object

Lay the Ambassador's **mail** on his desk. ("mail" receives the action of **lay**)

Present	Past	Past Participle
lay	**laid**	(has) **laid**

Present	Past	Past Participle
lie	**lay**	(has) **lain**

Exercise 19

Fill in the appropriate word, *rise, rose, risen, raise, raised, lie, laid, lain,* or *lay*, in the following sentences.

1. PO1 Andrews was hot and tired so he _____ the window and _____ down to go to sleep.
2. The sun _____ in the east and sets in the west.
3. The soldier told the man to _____ down his weapon and _____ his hands.
4. I can't remember where I _____ my notebook.
5. I better get up. I have _____ in bed for two hours now.

Authentic Reading

Exercise 20

Scan the thirty articles of the Universal Declaration of Human Rights. Then read the questions which follow these instructions. Skim the articles again for the answers to these questions. Write the answers in your notebook.

1. When did the General Assembly of the United Nations adopt the Universal Declaration of Human Rights?
2. What has the General Assembly proclaimed the Declaration as?
3. If an individual is charged with a penal offense, what are his/her rights?
4. What should be the basis of authority of government?
5. What is stated regarding employment?
6. Who has the right to education? How is education to be made available?
7. Which three articles do you feel are the most important? Why?

Universal Declaration of Human Rights

"On December 10, 1948, the General Assembly of the United Nations adopted and proclaimed the Universal Declaration of Human Rights, the full text of which appears on the following pages. Following this historic act, the Assembly called upon all Member countries to publicize the text of the Declaration and "to cause it to be disseminated, displayed, read, and expounded principally in schools and other educational institutions, without distinction based on the political status of countries or territories."

Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice, and peace of the world,

Whereas disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which human beings shall enjoy freedom

of speech, and belief, and freedom from fear and want has been proclaimed as the highest **aspiration** of the common people,

Whereas, it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law,

Whereas it is essential to promote the development of friendly relations between nations,

Whereas, the peoples of the United Nations have in the Charter reaffirmed their faith in fundamental human rights, in the dignity and worth of the human person, and in the equal rights of men and women, and have determined to promote social progress and better standards of life in larger freedom.

aspiration: strong desire or ambition

endowed: provided with some quality

degrading: humiliating or debasing

Whereas Member states have pledged themselves to achieve, in cooperation with the United Nations, the promotion of universal respect for the observance of human rights and fundamental freedoms,

Whereas a common understanding of these rights and freedoms is of the greatest importance for the full realization of this pledge,

Now, therefore, ***the GENERAL ASSEMBLY proclaims the Universal Declaration of Human Rights*** as a common standard of achievement for all peoples and all nations, to the end that every individual and every organ of society, keeping this Declaration constantly in mind, shall strive by teaching and education to promote respect for these rights and freedoms, and by progressive measures, national and international, to secure their universal and effective recognition and observance, both among the peoples of Member states themselves and among the peoples of territories under their jurisdiction.

Article 1

All human beings are born free and equal in dignity and rights. They are **endowed** with reason and conscience and should act towards one another in a spirit of brotherhood.

Article 2

Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, or other status. Furthermore, no distinction shall be made on the basis of political, jurisdictional, or international status of the country or territory to which a person belongs, whether it be independent, trust, non-self-governing or under any other limitation of sovereignty.

Article 3

Everyone has the right to life, liberty, and security of person.

Article 4

No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms.

Article 5

No one shall be subjected to torture or to cruel, inhuman or **degrading** treatment or punishment.

Article 6

Everyone has the right to recognition everywhere as a person before the law.

Article 7

All are equal before the law and are entitled without any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of this Declaration and against any incitement to such discrimination.

Article 8

Everyone has the right to an effective remedy by the competent national tribunals for acts violating the fundamental

rights granted him by the constitution or by law.

Article 9

No one shall be subjected to arbitrary arrest, detention, or exile.

Article 10

Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of his rights and obligations and of any criminal charge against him.

Article 11

1. Everyone charged with a penal offence has the right to be presumed innocent until proved guilty according to law in a public trial at which he has had all the guarantees necessary for his defence.

2. No one shall be held guilty of any **penal** offence on account of any act or omission which did not constitute a penal offence, under national or international law, at the time when it was committed. Nor shall a heavier penalty be imposed than the one that was applicable at the time the penal offence was committed.

Article 12

No one shall be subjected to arbitrary interference with his privacy, family, home, or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.

Article 13

1. Everyone has the right to freedom of movement and residence within the borders of each State.

2. Everyone has the right to leave any country, including his own, and to return to his country.

Article 14

1. Everyone has the right to seek and to enjoy in other countries **asylum** from persecution.

2. This right may not be invoked in the case of prosecutions genuinely arising from nonpolitical crimes or from acts contrary to the purposes and principles of the United Nations.

penal: of, for, constituting, or deserving punishment

asylum: refuge; a place of safety; refuge

Article 15

1. Everyone has the right to a nationality.

2. No one shall be arbitrarily deprived of his nationality nor denied the right to change his nationality.

Article 16

1. Men and women of full age, without any limitation due to race, nationality, or religion, have the right to marry and to found a family. They are entitled to equal rights as to marriage, during marriage and at its dissolution.

2. Marriage shall be entered into only with the free and full consent of the intending spouses.

3. The family is the natural and fundamental group unit of society and is entitled to protection by society and the State.

Article 17

1. Everyone has the right to own property alone as well as in association with others.

2. No one shall be arbitrarily deprived of his property.

Article 18

Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his religion or belief, and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in teaching, practice, worship, and observation.

Article 19

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive, and impart information and ideas through any media and regardless of frontiers.

Article 20

1. Everyone has the right to freedom of peaceful assembly and association.

2. No one may be compelled to belong to an association.

remuneration: pay or recompense for a service, loss, or expense

compulsory: mandatory; enforced

Article 21

1. Everyone has the right to take part in the government of his country, directly or through freely chosen representatives.

2. Everyone has the right of equal access to public service of his country.

3. The will of the people shall be the basis of the authority of government; this will shall be expressed in periodic and genuine elections which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures.

Article 22

Everyone, as a member of society, has the right to social security and is entitled to realization, through national effort and international cooperation and in accordance with the organization and resources of each State, of the economic, social, and cultural rights indispensable for his dignity and the free development of his personality.

Article 23

1. Everyone has the right to work, to free choice of employment, to just and favorable conditions of work and to protection against unemployment.

2. Everyone, without any discrimination, has the right to equal pay for equal work.

3. Everyone who works has the right to just and favourable **remuneration** ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection.

4. Everyone has the right to form and to join trade unions for the protection of his interests.

Article 24

Everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay.

Article 25

1. Everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing, and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age, or other lack of livelihood in circumstances beyond his control.
2. Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection.

Article 26

1. Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be **compulsory**. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit.

2. Education shall be directed to the full development of the human personality and to the strengthening of respect for human

rights and fundamental freedoms. It shall promote understanding, tolerance, and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.

3. Parents have a prior right to choose the kind of education that shall be given to their children.

Article 27

1. Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts, and to share in scientific advancement and its benefits.

2. Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary, or artistic production of which he is the author.

Article 28

Everyone is entitled to a social and international order in which the rights and freedoms set forth in this Declaration can be fully realized.

Article 29

1. Everyone has duties to the community in which, alone, the free and full development of his personality is possible.

2. In the exercise of his rights and freedoms, everyone shall be subject only to such limitations as are determined by law solely for the purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society.

3. These rights and freedoms may in no case be exercised contrary to the purposes and principles of the United Nations.

Article 30

Nothing in this Declaration may be interpreted as implying for any State, group, or person any right to engage in any activity or to perform any act aimed at the destruction of any of the rights and freedoms set forth herein.

WRITING/READING SKILL

Identifying Your Opinion

Exercise 21

Read the following explanation titled "Identifying Your Opinion." Then read the excerpts from the International Police Task Force (IPTF) report on human rights, abuses, and investigations. Then do the exercise that follows.

When you state your position on a subject, it is usually an opinion. An opinion is a view that is open to disagreement. The following is a statement that expresses an opinion.

- Monarchies no longer play a useful role in political decision making.

Proving opinions is difficult because they are based on personal values and judgments. They also include words that can be interpreted differently. For example, the word "freedom" does not seem to have the same meaning for everyone. However, most people don't need absolute proof to accept an idea; they are satisfied if the idea is simply shown to be reasonably, or probably, true.

Opinions explain, evaluate, predict, or advise.

Opinions that explain attempt to show why something happens, why something is the way it is, or what something means.

- One reason for the rise in violent crime in the U.S. is the uncensored occurrence of violence in movies and on TV.

Opinions that evaluate make a judgment about something, indicating its good and its bad points.

- The Admiral did a fine job of answering all the reporters questions.

Opinions that predict make claims about the future

- The UN International Police Task Force will find a way to stop human rights abuses in Bosnia.

Opinions that advise ("should" statements) present a view about what a person or an organization should do.

- All governments should ensure that all individuals indicted for war crimes are not allowed to serve in any capacity in law enforcement or government.

undermine: to injure or weaken efforts usually in a sly and hard to detect way

In conclusion, when you are writing a paper or report, be sure that you can support all your opinions with logical reasons or evidence. It is unreasonable to think that you can convince a reader by stating opinions such as the following:

- I think the Army is better than the Navy.
- I have a feeling that our candidate for president will win by a landslide.

This type of statement expects readers to trade their personal likes and dislikes for yours, nor can you expect readers to rely solely on your feelings. This style of writing is foolish.

When the time comes for you to write a report or to give a speech that involves some kind of persuasion, be ready to decide exactly what your opinion is. Once you have done that, your job is half way done.

Exercise 22

Read the excerpts taken from a report by Jennifer Schense, Leonard Sandler, Joanna Weschler and Andre Lommen, Human Rights Watch workers, titled "Human Rights Investigations," "Police Restructuring," and "Positive Developments" which are part of the report titled "Bosnia and Herzegovina: Beyond Restraint Politics and the Policing Agenda of the United Nations International Police Task Force (UNIPTF)." After you read them, in your notebook write some opinions that can be taken from these pieces.

Human Rights Investigations

Special Representative of the Secretary-General Kai Eide addressed the importance of a democratic police force to the creation of a human rights culture in Bosnia and Herzegovina in a November 1997 press briefing. He stated that what the United Nations International Police Task Force (IPTF) is trying to achieve is "to ensure that each and every citizen in Bosnia-Herzegovina will have a democratic police that serves the public with discrimination, and which is not an instrument of individual politicians, or political parties. Most important is to see that human rights are being respected without regard to ethnic or religious belongings." Clearly however, the ability of the international community to create a democratic police force that supports such a culture is **undermined** by the ongoing presence and influence of police officers who commit human rights abuses. The Security Council recognized this dilemma, and followed up on Secretary-General Kofi Annan's concern, passing Resolution 108 to empower the IPTF to take a more active role in protecting human rights through independent

human rights investigations of police abuses.

However, in an interview with Human Rights Watch, then IPTF commissioner Manfred Seitner presented a view of the IPTF's role that did not reflect the U.N. leadership's decision to expand the IPTF's mandate. He argued that the IPTF was not supposed to conduct independent investigations into allegations of human rights abuses by the police. Instead, he stated that it was the IPTF's primary responsibility to monitor the response of the local police to such allegations, because the IPTF was trying to train the local police to be able to take complaints and handle them properly. Furthermore, in his view, IPTF monitors, when approached by a civilian with a report of a human rights violation by the local police, were first required to take that individual to the local police to report the incident. He concluded that if an individual was unwilling to report the incident to the police, there would be no investigation and consequently no case.

Even the original mandate established by Resolution 1035 was not always **construed** so narrowly. The IPTF's instructions on interpretation of the mandate under resolution 1035 defined monitoring as "active engagement of policing and criminal justice activities throughout the country," requiring monitors to "intervene in situations when the police are observed to be violating internationally-accepted principles of policing." The instructions further emphasized the need for "careful documentation. . .and reporting of violations of international policing standards and human rights standards" by the IPTF.

Police Restructuring

Arguably the single most important task for the IPTF is to facilitate the creation of a new police force from which human rights abusers have been excluded; one that serves to protect all persons in Bosnia and Herzegovina from crime and human rights abuses. Certainly, the IPTF mandate identifies this process as one of its priorities, envisioning a radical departure for Bosnia and Herzegovina's police from their communist, authoritarian, and wartime past. Then IPTF Commissioner Peter Fitzgerald wrote that:

> Every police officer has the opportunity to facilitate or **impede** democracy. For Bosnia-Herzegovina, the police must realign their mission from the protection of the state to the protection of citizens' rights. Service to the public must become the police's calling. . . . A democratic police force is not concerned with people's beliefs or associates, their movements or conformity to state **ideology**. . . Instead, the police force of a democracy is concerned strictly with the preservation of safe communities and the application of criminal law equally to all people, without fear or favor.

The IPTF has acknowledged the importance of restructuring the Bosnian police and has a clear mandate to do so. And all this is, admittedly, not a simple task. As a high level U.N. official noted in an interview with Human Rights Watch, "following the war, it is difficult to find angels among the police force." The IPTF has taken several positive measures which have contributed to the degree of measurable and substantive progress that the **vetting** process has achieved. For several months, the IPTF placed a number of its own personnel at the Hague, for purposes of more effective coordination with the ICTY (International Criminal Tribunal for the Former Yugoslavia). As of the Human Rights Watch's October 1997 visit, no IPTF personnel were at the ICTY. As of May, we were told that the IPTF Local

construe: interpret

ideology: the doctrines, opinions, or way of thinking of an individual, class, etc.

impede: to bar or hinder the progress of

vetting: examining or expertly appraising

Police Selection and Training Section (which incorporates the Certification and Background Investigation Units) was exploring the possibility of placing one or two IPTF monitors at the Hague, to work for three month shifts on coordination of background information between the IPTF and the ICTY regarding police officer candidates. This arrangement could be in place as soon as early summer 1998. At one point, the IPTF circulated a questionnaire seeking information regarding the human rights histories of police candidates to local NGOs (Non-Governmental Organizations); it has run ads in newspapers to notify the public of identities of police applicants and to seek background information from citizens. Yet, over the last year, the IPTF has failed to vigorously implement its police restructuring mandate, experiencing serious yet avoidable setbacks over the last year due to practical gaps in the applications processes; deficiencies in the effort to publish candidate lists in newspapers; the irregular collection of vital candidate information and poor record-keeping; poor flow of crucial information among units within headquarters and between headquarters and the field; inconsistent application of the IPTF's own instructions regarding noncompliance and human rights investigations; and institutional memory lapses within the IPTF—**in sum** a reflection of a lack of resolve to overcome serious obstacles to the implementation of the vetting aspect of the mandate.

in sum: to put it briefly, in short

interim: in the meantime

Positive Developments

Against this backdrop of deficiencies and difficulties, however, the IPTF, in several instances, achieved significant human rights progress. These developments further reinforce our conclusion that the U.N.'s human rights work in Bosnia and Herzegovina has tremendous potential. At the time of the Human Rights Watch's October mission, the Human Rights Office had not yet been sufficiently staffed to undertake its work. In the **interim**, human rights investigations were conducted on an ad hoc basis by the operations division of the IPTF. Investigations had been initiated in response to massive human rights abuses by local police in six instances: in Mostar, Jajce, Drvar, Gajevi, Brcko and Sarajevo. The reports resulting from these investigations have addressed human rights issues in a comprehensive and commendable way and have put forth valuable recommendations, including the discipline and removal of implicated police officers.

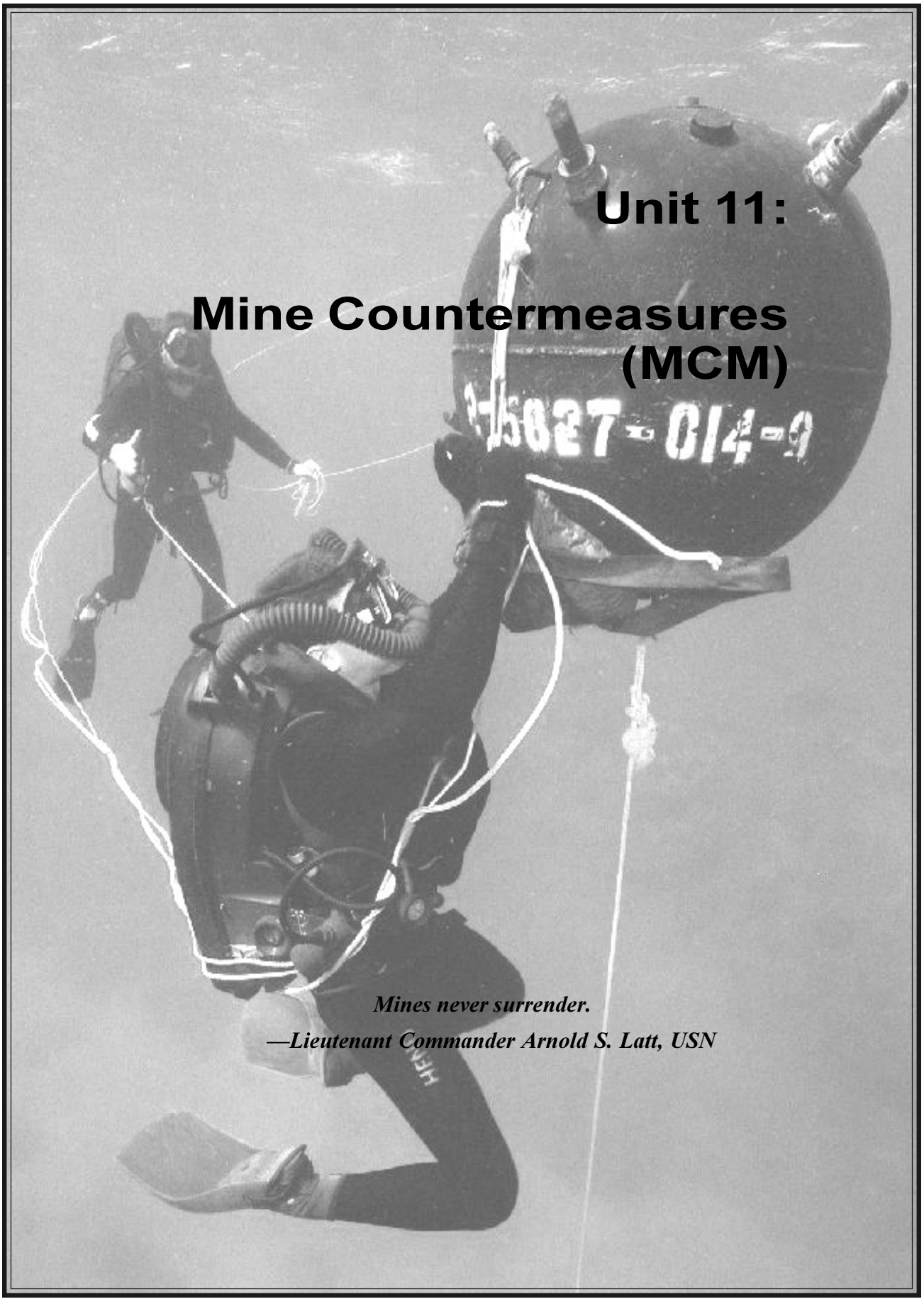
Source: *Bosnia and Hercegovina: Beyond Restraint; Politics and the Policing Agenda of the United Nations International Police Task Force;* June 1998; Vol. 10, No. 5 (D)

LEARNING STRATEGY

Keeping a Learning Log

Exercise 23

Follow the instructions for completing the Language Learning Log that were given in Unit 1.



Unit 11:

Mine Countermeasures (MCM)

Mines never surrender.

—Lieutenant Commander Arnold S. Latt, USN

Resources

You will need Unit 11 of this course, the Unit 11 recording, a tape/CD player, your notebook, a pen or pencil, and your copy of *Webster's New World Dictionary.*

Objectives

In this lesson you will

1. review giving and asking for clarification.
2. review the use of articles *a*/*an.*
3. correctly pronounce and use objective vocabulary, maritime expressions, and maritime acronyms in the glossary.
4. become familiar with *EXTAC 1007* and its contents.
5. understand MCM missions, techniques, and operations.
6. explain how environmental factors affect MCM.
7. listen to a conversation about MCM and take notes to answer comprehension questions.
8. understand the authorities and responsibilities in MCM.
9. outline ordering an MCM operation.
10. encode and decode mine warfare signals.
11. write the main ideas of the paragraphs in a semi-technical reading about mines.
12. go over your oral presentation using a checklist.
13. read models of technical/military material and answer comprehension questions.
14. read authentic military articles and answer comprehension questions.
15. practice a variety of language learning strategies.

Table of Contents

LEARNING STRATEGIES

Are you continuing to apply the learning strategies to your learning? Which strategies work best for you?

Planning

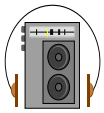
Exercise 1

Look at your schedule for the last several units. Did you study more or less than the original plan? Fill in the schedule below, and after you complete this unit, give yourself a reward for sticking to your schedule.

Unit 11 Schedule

Day	Plan	Actual
Mon	_____	_____
Tue	_____	_____
Wed	_____	_____
Thurs	_____	_____
Fri	_____	_____
Sat	_____	_____
Sun	_____	_____

VOCABULARY



Before you listen to the readings, think about anything that you may already know about sea mines and mine countermeasures. Write a few ideas in your notebook. Then, listen to "Introduction to Mine Countermeasures," "MCM Missions," and "MCM Techniques." New words are in bold italics. Circle any words you do not know.

Learning Strategy

Knowledge in your first language can be compared to new knowledge. If the knowledge is similar, it can be transferred to your new language.

Introduction to Mine Countermeasures (MCM)

Mine countermeasures forces consist of special purpose ships, aircraft, and diving teams. The purpose of MCM is to permit ships to use the seas and enter and leave ports as necessary without unacceptable damage or losses from sea mines. This aim can be achieved by

- Causing the mines to explode without loss, or with acceptable loss, to the shipping by using mine countermeasures forces

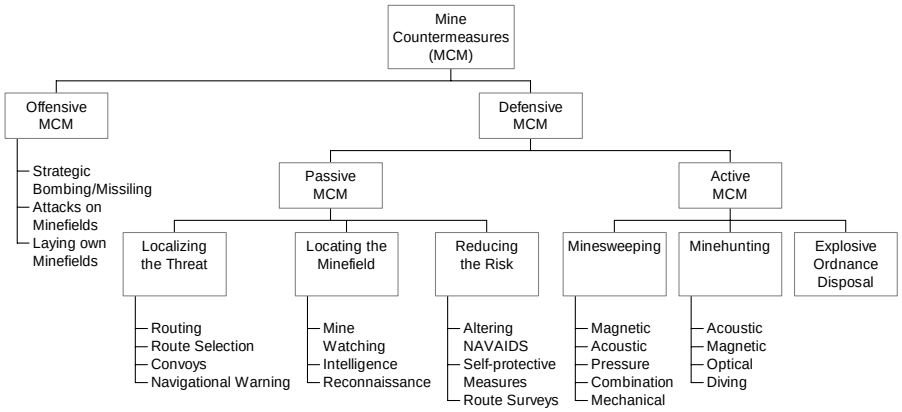


Figure 11-1. The MCM Family Tree

- Causing the mines to become ineffective by removing them to a safe place or by preventing the firing mechanism from operating
- Reducing the danger to shipping by directing ships to use routes in which hostile mines are ***scarce*** or nonexistent either because mines have not been laid in quantity or because their number has been reduced by the actions of MCM forces

MCM Missions

MCM missions are to reduce the effectiveness of enemy mining missions and to clear friendly mines. The achievement of an MCM mission may require that a number of specific goals be identified. These goals can be, but are not limited to

- Determining the presence or absence of mines
- Locating non-mined waters
- Reducing danger presented by ***avoiding*** or removing mines

MCM Techniques

Mine countermeasures can be broadly classified as passive or active. Passive MCM includes avoiding mined waters and self-protection measures taken to reduce the danger from sea mines. Active MCM employs equipment to locate and remove, ***disable***, or destroy sea mines. Figure 11-1 outlines different MCM activities.

MCM technique is the operation of a specific MCM vehicle and its equipment in a particular way. Factors such as mine type, environmental conditions, time, and available MCM resources must be considered when specifying an MCM technique. The two broad techniques of MCM are minesweeping and minehunting.

Minesweeping

Minesweeping is the neutralization of mines using mechanical or influence minesweeping equipment.

Mechanical minesweeping

This MCM technique cuts the anchor cable of moored mines. A mechanical sweep may consist of a wire, trawl, or net type sweep. Explosive or mechanical cutters may be employed. Mechanical minesweeping can be conducted by a single ship, two ships in team sweep, or by special purpose minesweeping helicopters.

Influence minesweeping

This MCM technique uses ***acoustic*** or magnetic devices to simulate the characteristics of a passing ship. The artificially created acoustic noise or magnetic field may ***induce*** an influence mine to explode a safe distance from the minesweeper. The acoustic and magnetic devices may be ***towed*** together to form a combination sweep. The combination sweep is designed to ***counter*** combination influence mines. Ships and minesweeping helicopters may use this technique.

Minehunting

Minehunting is actively searching for mines using sonar or ***optical*** sensors. When an underwater object is detected, it must be determined to be either a mine or a harmless underwater object. Specially trained Explosive Ordnance Disposal (EOD) divers and **Remote Operated Vehicles** (ROV) can be used to classify underwater objects as mines or non-mines. If a mine is found, either its position is recorded and the area avoided by all ships, or it is ***neutralized***. Neutralization involves the removal of the mine by an explosive charge. The explosive charge ***detonates*** near the mine, ***rendering*** the mine safe. The neutralization charge may be placed by EOD divers or an ROV. Mine neutralization renders a mine ***inert*** by ***rupturing*** the mine case, destroying the mine sensor, or causing sympathetic detonation of the mine.

Source: EXTAC 1007 Mine Countermeasures, January 1996.

After you turn off the recording, reread the paragraphs silently. Look up new words in the glossary of this unit or a dictionary. Write the new words and definitions in your notebook along with sample sentences. Then complete Exercises 2 and 3.

Exercise 2

Copy the following questions into your notebook. Find the answers in the previous text and write them.

1. What is the difference between active and passive MCM?
2. What is the difference between minehunting and minesweeping?

Exercise 3

Choose the correct word to complete each sentence and circle a, b, or c.

1. A mine case without explosives is ____.
   a. ruptured
   b. inert
   c. unavailable
2. Avoiding mined areas is one way to ____ the mine threat to naval forces.
   a. neutralize
   b. assign
   c. find
3. The magnetic field generated by a passing ship can ____ an influence mine to explode.
   a. determine
   b. dispatch
   c. induce
4. In areas already swept, mines should be ____ or nonexistent.
   a. acoustic
   b. scarce
   c. rendered
5. When minehunting, an MCM ship is searching for mines with sonar and/or ____ sensors.
   a. optical
   b. inert
   c. strong
6. To ____ mined areas, ships shall follow the convoy leader.
   a. affect
   b. ensure
   c. avoid
7. The detonation of an underwater mine can _____ the hull of a ship.
   a. release
   b. restore
   c. rupture

Remote Operated Vehicles: vehicles operated by radioed instructions or coded signals

Learning Strategy

Using new vocabulary words in sentences helps you remember them.

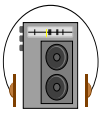
8. Active MCM methods try to locate, remove, destroy or _____ sea mines.
   a. disable
   b. control
   c. reroute

9. Disabling its firing mechanism from operating is one way to _____ a mine harmless.
   a. render
   b. avoid
   c. prevent

10. The combination sweep is designed to _____ combination influence mines.
    a. counter
    b. delegate
    c. direct

11. Explode, _____, and blow up all mean basically the same thing.
    a. render
    b. detonate
    c. counter

VOCABULARY



Look at the readings titled "Active MCM Operations," "Passive MCM Operations," and "Environmental Factors Affecting MCM" and listen. New vocabulary words are in bold italics. Circle any other words you do not know.

Active MCM Operations

The three principle active MCM operations are

- ***Precursor*** MCM operations: The sweeping or hunting of an area by relatively safe means in order to reduce the risk to Mine Countermeasures Vessels (MCMVs) in subsequent operations
- Exploratory MCM operations: Aimed at determining the presence or absence of mines in a given area
- Clearance MCM operations: Intended to achieve a high probability of sweeping/hunting any mine in an area

Further, a number of specific tasks are not considered as MCM operations but may be undertaken by MCMVs. Among these are

- Lead through operations: to assist ships in the transit of a mined area which previously has been subject to MCM efforts
- Danbuoy laying: marking areas for past, present, or future MCM operations. Also called 'danlaying'

Passive MCM Operations

Passive defensive MCM operations are prepared and will be ordered for ships other than MCMVs with the aim to protect them against the threat from hostile mines. Three passive MCM operations/techniques are

- ***localizing*** the threat (routing, navigational warnings)
- locating the minefield (intelligence, strategic reconnaissance, mine watching)
- reducing the risk (self-protective measures)

Environmental Factors Affecting MCM

In no other phase of coastal warfare do environmental considerations in both tactics and planning play a more dominant role than in MCM. Mine cases, mine sensors, target signals, and MCM sweeps, sonars, signals and operations are all affected in varying degrees by a large number of environmental factors. Many of these are of major importance and may decide a go/no-go situation or determine the selection of MCM equipment or procedures. *In fact, the basic decision in MCM, to determine the location and limits of minefields or to sweep or hunt an area and destroy the mines, is based to a large extent on an assessment of the environmental situation.* The procedures for selecting sweeping and hunting techniques similarly depend upon knowledge of the operational environment.

Influence of Stable Environmental Factors on Minesweeping Operations

The following stable environmental factors affect mechanical and influence minesweeping operations:

- water depth
- bottom **topography**
- bottom ***composition***
- underwater and surface obstacles
- ***prominent*** landmarks
- geographic location

Influence of Temporary Environmental Factors on Minesweeping Operations

Various temporary environmental factors influence minesweeping operations. These factors include

- tides
- tidal streams and currents
- climate and weather
- wind
- visibility
- wave action and **sea swell**
- marine life

Influence of Stable Environmental Factors on Minehunting Operations

The following stable environmental factors affect minehunting operations:

- water depth
- bottom topography
- bottom composition
- bottom **reverberation**
- **bottom clutter**
  - operational minehunting clutter (OPS MH CLUTTER)
  - minelike echo (MILEC)
  - minelike contact (MILCO)
  - non-mine bottom object (NOMBO)
- underwater visibility
- water density
- underwater and surface obstacles

Learning Strategy

Comparing old and new knowledge helps us remember the new.

topography: the configuration of a surface

sea swell: wind generated, non-breaking waves

reverberation: an effect or impact that resembles an echo

bottom clutter: non-mine, man-made objects found on the ocean bottom. Litter, trash, debris, etc.…

Influence of Temporary Environmental Factors on Minehunting Operations

Minehunting operations may be affected by temporary environmental factors such as

- tidal streams and currents
- climate and weather
- acoustic minehunting environment

Minehunting Sonar Forecast

bathymetric readings: measurements of water depth at various places in a body of water

sediment: the matter that settles to the bottom of a liquid

Minehunting Sonar Forecast Reports should become a standard headquarters service for minehunters which are not able to make their own calculations.

For this purpose the minehunter has to signal results of own sound velocity or **bathymetric readings** to the responsible headquarters.

Nevertheless, each minehunter should be equipped with real time performance measuring equipment to determine minehunting sonar performance at a specific time and place.

Effect of Stable Environmental Factors on Clearance Diving Operations

Clearance diving operations may be affected by the following stable environmental factors:

- water depth
- bottom topography
- bottom **sediment**

Effect of Temporary Environmental Factors on Clearance Diving Operations

The following temporary environmental factors might influence clearance diving operations:

- weather
- current
- water density
- sea water temperature
- marine life
- sea swell

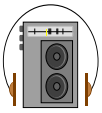
Source: EXTAC 1007 Mine Countermeasures, January 1996.

Exercise 4

Look back in the readings to find answers to the first three questions. Question four is to be answered by combining inferences from the reading with any personal experience you may have. Write the answers in your notebook.

1. How does bottom clutter affect minehunting?
2. How do water temperature and depth affect diving operations?
3. How does the presence of bottom obstacles affect minesweeping?
4. The decision to perform minehunting or minesweeping is based on what factors?

LISTENING SKILL



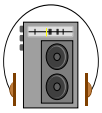
Exercise 5

Listen to the following conversation about environmental factors. The first time, just listen to the entire conversation. The second time, take notes to answer these questions.

Environmental Factors

1. Is the range of the operations area 20 to 60 meters deep, or from 40 to 50 meters deep?
2. What two types of bottom does the staff officer report as encountered in the operations area?
3. How well does the staff officer expect the sonar to perform based on the sonar conditions?
4. What is the forecast for the water temperature and how will it affect the divers?
5. Where will the minehunters operate?
6. Where will the minesweepers operate?
7. Who will draft the MCM Operations Directive?

VOCABULARY



Look at the reading titled "Authorities and Responsibilities in MCM" and listen. New vocabulary words are in bold italics. Circle any words you do not know.

Authorities and Responsibilities in MCM

The authorities and responsibilities related to the command levels can be summarized as follows:

The OPCON Level

- Controls assigned MCM forces in his area
- Coordinates the overall MCM effort
- Promulgates Exercise or Operations Orders including organization and acceptable risks to units
- Assigns operational responsibility for specific areas to subordinate commanders
- ***Collates***, analyses and disseminates intelligence information
- Establishes routes
- Initiates promulgation of navigational warnings
- Dispatches periodical reports to higher authorities

Learning Strategy

Putting things in groups helps you remember them better.

The TACOM Level

The Tactical Command Level has the responsibility for the tactical function of ordering tasks to allocated MCMVs within the area of command. The commander should be assisted in this function by a small staff. Preferably the commander is afloat in a suitable command/support platform. His responsibilities are to

- Coordinate the MCM effort in his local area and assign MCM forces to individual tasks which involve operational control of MCM forces in his local area
- Issue MCM task orders according to current orders, modifying these instructions as necessary to meet the threat
- Recommend to the OPCON authority the issuing of navigational warnings
- Order the temporary, partial or total closure of ports and anchorages within his area when authorized
- Dispatch appropriate reports to the OPCON authority

- ***Compile*** reports and records
- Order the appropriate task cycle if necessary for each type of MCM unit
- Provide support to assigned MCM forces

The TACON Level

The Officer in Tactical Control (OTC) is responsible for the actual conduct of tasks allocated to him. This implies the authority to direct and control the movements or maneuvers of ships to accomplish the exercise or operation.

Source: EXTAC 1007 Mine Countermeasures, January 1996.

After you turn off the recording, silently reread the last two VOCABULARY readings. In your dictionary or the glossary for this unit, look up the words you do not know. Write them in your notebook with sample sentences. Then complete the next exercise.

Exercise 6

Match each word with its correct definition. Write the letter in the blank.

---

1. ___ precursor	a. makeup or constitution
2. ___ prominent	b. standing out from a surface or line
3. ___ compile	c. to collect and arrange in meaningful order
4. ___ collate	d. one which precedes and often indicates the arrival of another
5. ___ composition	e. to keep within a specific area
6. ___ localize	f. to collect gradually

GRAMMAR

Using Articles

Introduction to the Two Functions of Articles: Classifying and Identifying

The article system in English consists of ***a***, ***the***, and an invisible article, called the "zero article", which is indicated in this lesson for the purpose of explanation as Ø. These markers are placed before nouns and serve to classify and identify the nouns.

Although the English article system looks simple due to the small number of components, the rules that govern when to use them are very complex. Using ***a***, Ø, or ***the*** depends upon many factors related to the relationship between the speaker, the listener and the target noun.

To introduce you to some general rules, we can say that the speaker's choice of article depends primarily on whether or not the speaker thinks the listener already knows about the target noun, and then on the countability of the noun. If the speaker thinks the listener does not already know about the target noun, he/she will classify the noun with ***a/an*** or no article (Ø). If the speaker thinks the listener knows about the target noun, he/she will identify the noun with ***the***.

The grammar lessons in this unit and the next aim to introduce you to using articles to classify (Unit 11) and identify (Unit 12) count and noncount nouns.

1. Classifying

   We use ***a*** (***an*** before a vowel) or Ø when we want to indicate <u>what class</u> something belongs to. We often use it to answer the question "What is it?"

   Example:

   We found <u>a bird</u> on the forecastle deck. It needs Ø <u>help</u>.

('a+bird' indicates what class of thing we found. 'Help' needs no article (indicated by Ø) because it refers to the class of thing the bird needs, i.e. anything that could be classified as 'help').

2. Identifying: We use ***the*** when we want to identify which specific thing in a class we are talking about. We use it to answer the question "Which one is it?"

   Example:

   The bird that we found was wounded. (the+bird indicates we are talking about a specific member of the class of all birds, i.e. the bird that we found and which was previously mentioned.)

Exercise 7

Examine the following paragraph and determine whether the nouns in the underlined noun phrases are *classified* or *identified.* Copy the paragraph into your notebook; then write C or I above each phrase.

A diver found a moored mine. The mine looked as if it had been there since WWI. The diver thought the mine could still be dangerous. He placed an explosive device on the mine and moved off to safety. Then he detonated the device, rendering the mine harmless.

You will notice the use of the "zero article,"Ø, in the above exercise. Normally, of course, we do not show the zero article— it is shown above to let you see that you need to know when to put NO visible article.

Classifying Nouns

When using a noun to refer to an entire class, we use ***a/an*** or Ø.

1. We use Ø when the noun is a noncount noun referring to a whole class of things, not a specific or identified example from that class (e.g. freedom, cream, energy, water, etc.).

2. We also use Ø when the noun is a plural count noun and refers to a whole class of things, again — not specific members (e.g. alert seamen, torpedoes, sunken ships, etc.)

3. We use ***a/an*** before a single count noun which refers to an unidentified member of a class (e.g. a bird, an officer, a ship, an item of clothing, etc.).

Examine these 2 sentences:

a. A ship was damaged last week.

b. Ø Ships need constant maintenance.

Sentence 'a' refers to the class of the single thing damaged. "What was damaged?" "A ship." We are not identifying which specific ship was damaged.

Sentence 'b' refers to the entire class of all things called ships. "What needs constant maintenance?" "Ø Ships do." We are not identifying which specific ships. We are generalizing that all ships in the whole class need maintenance.

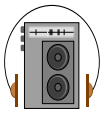
Exercise 8

Complete each sentence with *a/an* when necessary. Put Ø when the noun is noncount or plural. Remember, you are *classifying* these nouns when you use *a/an* or Ø.

1. ____ coffee is a source of caffeine.
2. ____ cup of coffee contains about 8 ounces of liquid.
3. ____ officer must have ____ college degree.
4. ____ hurricanes can cause ____ damage.
5. ____ nautical mile is about 6,076 feet.

See Unit 12 GRAMMAR for information on *identifying* nouns with *the.*

VOCABULARY



manuscript order: an order which is delivered by hand instead of by the usual radio communication

messages: electronic or voice transmissions of information or orders. Voice transmissions are sometimes referred to as a "signals."

drafter: writer of a maritime message, e.g. a member of the OTC's staff.

digit: any of the numerals 0-9

MW Signals: Mine Warfare messages beginning with the prefix "MW". Can be transmitted electronically (e.g. radio-teletype) or by voice.

Note: Any reference to an annex refers to those in *EXTAC 1007*.

Read "Ordering an Operation" as you listen to the recording. Look up any new words. Be prepared to complete an outline based on the reading.

Ordering an Operation

An MCM operation may be ordered by either an MCM Operation Order (OPORD), which is a **manuscript order**, or by the use of messages. For the ordering and conduct of MCM operations by **messages**, the two following messages/signals are used:

- MCM Operations Direction (MCMOPDIR)
- MCM Task Order

The difference between the two is the level of application, but the operation will be dependent on the care of the **drafter** when writing the orders from the OTC.

MCM operations are supported by structured orders and reports described below.

Types of Orders

Mine countermeasures orders consist of

- **MCM Operation Orders** (OPORD)
  The OPORD provides basic information to all participants and is the basis for all subordinate command levels. The format is explained in Annex A.
- **MCM Operations Direction**
  The MCMOPDIR is used by the Commander to order in general execution of MCM operations by subordinate commanders. MCMOPDIRs are identified by a three-**digit** number. They are numbered consecutively to facilitate identification and to make easy reference. All MCMOPDIRs must have a number, but the individual paragraph will only be used when applicable. For structure of the MCMOPDIR, see Annex B.
- **MCM Task Orders**
  The MCM Task Order provides specific instructions to a unit concerning his task given by his tasking authority. Instructions for drafting the Task Order are in Annex C. The format is the MW 125 Signal in Annex E. See Figure 11-2.

MCM Reports

Reports are used by all command levels to keep each other informed about progress and/or ***particularities*** in order to ***timely*** adapt tasks and tactics ordered.

Tactical Level

Units being controlled by an OTC will keep him informed by MCM reports stating the progress of work detailed to them by the appropriate task orders. Reports to be sent are stated in the task order. Units also report those observations and events which will affect their task.

Operational Level

Tasking authorities have to keep their OPCON Authority informed about the progress of work and the status of the enemy mine threat. The frequency of these reports will be ordered in the appropriate MCMOPDIR.

Types of Reports

MW Signals

One category of MCM reports are **MW Signals**, which are found in Annex E.

They will normally be applied within MCM Task Groups and by clearance divers. These signals are primarily made for voice transmission although the signals can also be used in other methods of communication. *The advantages of these signals are that only relevant letters and/or figures have to be transmitted; describing text is omitted.*

Structured Messages

Structured messages are to be transmitted by other means than voice (e.g. radio-teletype). Although MW Signals can also be transmitted by other means than voice, the advantage of structured messages is their format, which allows free text to be inserted into the formatted paragraphs. This offers more freedom to provide information to different levels of command.

The formats being used presently for MCM Operations Structured Messages are found in Annex F.

Source: EXTAC 1007 Mine Countermeasures, January 1996.

After you turn off the recording, reread the paragraphs silently. Look up new words in the glossary of this unit or a dictionary. Write the new words and definitions in your notebook along with sample sentences. Then complete the next exercise.

Exercise 9

Unscramble the underlined letters to write a word and complete the sentence. Check in the last reading for the correct spelling. Copy the sentences into your notebook.

---

1. MCM reports permit command levels to meltyi adapt tasks and tactics ordered.
2. All command levels use MCM reports to inform each other of progress and ticulpatirasire.

READING/WRITING SKILL

Exercise 10

Complete the outline with information from the previous reading, "Ordering an Operation."

Ordering an Operation

I. Two ways to order an MCM Operation

A. _____

1. Manuscript
2. Provides basic _____
3. Basis for all _____

B. Messages/Signals

1. _____ (MCMOPDIR)

a. Used by a commander to _____ by subordinate commanders.

b. Identified by a _____

2. MCM Task Order

Provides _____ given by his tasking authority.

II. Two types of reports support MCM Operations

A. MW Signals

1. Applied within _____ and by _____
2. Primarily made for voice transmission

Learning Strategy

Using tools like outlines, charts, and tables helps you understand the organization of ideas in a text.

3. _____ have to be transmitted

4. Omit _____

B. _____

1. To be transmitted by other means than voice (e.g._____)

2. Advantages:
   a. _____
      _____
      _____

   b. _____
      _____
      _____

Figure 11-2. Format for Mine Warfare Signals taken from *EXTAC 1007 Annex E.*

READING SKILL

Skim Figure 11-2 "Mine Warfare Signals." Become familiar with the format. Then answer the questions at the end of the figure.

off-task: not in the act of minehunting or minesweeping

prior to: before

convoy: a group of ships protected by an escort or under the same orders

MW 125 TASK ORDER

Task order number _____. Carry out elements of tasks ordered below:

A. Units (not necessary when addressed unit is to perform task)
1. Discretion of CTU
2. Call sign(s) of unit(s) to carry out task
3. _____ number of units to be on task

B. Time to commence
1. Immediately
2. Upon completion of present task
3. Upon completion of **off-task** period
4. _____ (DTG)
5. Complete **prior to** passage of **convoy**
6. Upon completion of repairs
7. To be signaled
8. As soon as weather permits
9. DESIG _____

C. Area or channel
1. Route number _____
2. Channel number _____
3. Anchorage name _____
4. Between points _____
5. Position within 3 miles of position _____
6. Within 3 miles **junction** on routes _____
7. Harbor name _____
8. DESIG _____

D. Type of MCM operations
1. _____ (use standard letter suffix from Annex I/two-digit stage number)
2. Digit code group from appropriate OPORD
3. Danlaying
4. Mine recovery
5. DESIG _____

junction: a place or point of meeting

transit: a passage from one place to another

E. Mine types that may be encountered
1. _____ (from Annex J)
2. As indicated in OPORD
3. No intelligence available
4. DESIG _____

F. Convoy information _____ Lead through order
1. Convoy title, name(s) of the independent(s) or task organization number.
2. Arrival position _____.
3. ETA (Zulu time) _____.
4. _____ Lead ship (number of convoy ships _____).
5. Lead through channel.
6. Stop convoy or independent unit until required clearance is obtained (two figures indicate required percentage where different from standard).
7. Do not lead through but pass required formations for **transit** of channel.
8. A. Call sign convoy commodore/OTC naval force _____ on board _____ (name/call sign of ship).
   B. Call sign convoy vice commodore/designated substitute of OTC _____ on board _____ (name/call sign of ship).
9. Ship data
   A. Name _____ type _____ IRCS _____ maneuvering/navigation limitations _____.
   B. Name _____ type _____ IRCS _____ maneuvering/navigation limitations _____.
   C. Etc.
10. Establish contact on _____ (name HF/UHF/VHF communications) at _____ (DTG).
11. DESIG _____

G. Communication instructions for MCM forces ____ (List A) and for unit(s) to be guided ____ (List B).

List A	List B
1. As indicated in COMPLAN	1. As indicated in COMPLAN
2. Line _____	2. Line _____
3. UHF _____	3. UHF _____
4. VHF _____	4. VHF _____
5. HF _____	5. HF _____
6. DESIG _____	6. DESIG _____

Figure 11-2. Format for Mine Warfare Signals taken from *EXTAC 1007 Annex E*, continued.

Learning Strategy

Learning formulaic phrases and when to use them can improve your communicative skills.

H. MCM reports
1. MINEREP _____ report each mine swept/hunted
2. MCMSITREP _____ daily by time indicated
3. Start/stop time _____
4. DESIG _____

I. Movements upon completion
1. Return to Port
2. Return to support ship
3. Anchor (in position _____)
4. Commence off-task period (at _____)
5. New task to follow
6. If mine is swept/hunted, commence clearance operations
7. Stop present task at _____
8. Commence task number _____ (or DTG)
9. DESIG _____

J. Effort requested
1. _____ runs per track
2. _____ runs on track
3.
4. _____ percentage coverage
5. _____ percentage clearance
6. _____ number of units on task continuously
7. _____ number of tracks
8. Track spacing _____ tens of yards
9. DESIG _____

keep clear: stay out of the way

abreast: side by side in a line

offset: a line a short distance from and parallel to a main survey line

K. Coordination orders
1. Coordinating authority
2. **Keep clear** of convoy
3. Hunters keep clear of sweepers
4. Sweepers keep clear of hunters
5. Sweepers keep clear of hunters having divers in the water
6. In accordance with chapter 9
7. DESIG _____

N. Danlaying /lay danbuoys
1. Number of danbuoys
2. Position _____ (or first dan **abreast** channel point ____)
3. **Offset** _____ tens of yards (A plus B minus)
4. Interval between dans _____ hundreds of yards
5. Direction between the dans and lettered
6. Lift danbuoy(s) in position (_____)
7. Are laid
8. From page E-22
9. Discretion of call sign _____

Figure 11-2. Format for Mine Warfare Signals taken from *EXTAC 1007 Annex E*, continued.

U. Mechanical
1. Single oropesa
2. Double oropesa
3. _____ meters depth setting
4. Not be armed
5. To be armed _____ (List A) with _____ cutters (List B)

List A	List B
1. Light	A. Explosive
2. Medium	B. Static
3. Heavy	C. Type

6. Length of sweep wire _____ meters.

V. Acoustic

1. Low frequency sweep
2. Audio frequency sweep
3. _____ inch **diaphragm**
4. _____ inch **crankshaft**
5. Continuous running
6. **Modulating** - build up _____ max _____ min _____ seconds
7. As indicated in OPORD.

W. Magnetic (_____)

1. WAVE FORM
   1) Square
   2) One-half sinusoidal
   3) Sinusoidal
   4) One and one-half sinusoidal
   5) One-half triangular
   6) Triangular
   7) One and one-half triangular
   8) Trapezoidal
2. CHANGE GEAR
   1) 4 seconds
   2) 8 seconds
   3) 12 seconds
   4) 16 seconds
   5) 20 seconds
   6) 24 seconds
   7) ZOT (Zero-off time)
3. _____ seconds on _____ seconds off
4. **Pulsing** sequence

   F or R F or F F or R F or R
5. AMPERAGE
   1) Maximum
   2) _____ AMPS
   3) Safe current against mine of _____ **nT**

X. Miscellaneous information following DESIG

Y. References following DESIG

Z. Acknowledge (if required)

diaphragm: a flexible disk which vibrates in response to, or to produce, sound waves

crankshaft: a shaft driven by, or driving, a crank to impart rotation

modulating: varying a signal or carrier in amplitude, frequency or phase

pulsing: throbbing at regular intervals

nT: nano-Teslas (10^{-9} x T) metric unit for measuring magnetism

Figure 11-2. Format for Mine Warfare Signals taken from *EXTAC 1007 Annex E,* continued.

MW 127 START/STOP TIME

Task order number _____ has _____ (List A) due to _____ (List B) at _____.

List A

1. Will start at (DTG)
2. Has started (DTG)
3. Has stopped (DTG)
4. Has been suspended (DTG)
5. Has **resumed** (DTG)
6. Will resume at (DTG)
7. Will be completed at (DTG)

List B

A. Sea state
B. Visibility
C. Breakdown of _____
D. In accordance with task order number (_____) or DTG
E. Off task period
F. Other mission (reference)
G. DESIG _____

resumed: started again

married to sinker: moored mine still attached to sinker or anchor, lying on the ocean floor

MW 128 MINE DETECTION/EXPLOSION REPORT

Mine Detection/Explosion report is used to inform the OTC that a mine has been positively identified or neutralized.

1. Mine _____, MRN _____
   A. Swept
   B. Hunted
   C. Visual observed
   D. Exploded
2. DTG (of the event) _____
3. Mine type (from Annex J)
4. Position _____ (geographical)
5. Location relative bearing _____ and range _____ to ship/helo _____
6. Course and speed of _____ name/number of the ship/helo
7. LRN _____
8. Status
   A. Located _____
   B. **Married to sinker**
   C. Identified by divers
   D. Identified by underwater vehicle
   E. Disposed of by
      1) Neutralization
      2) Render safe
      3) Countermine
      4) Recovery
      5) Removal

Figure 11-2. Format for Mine Warfare Signals taken from *EXTAC 1007 Annex E*, continued.

F. Sinker removed

G. Sinker in position _____

H. Destroyed by sweep (page E-22)

J. Destroyed by gunfire and exploded

K. Destroyed by gunfire and sunk in position _____

L. Destroyed and exploded with explosive charge by divers

9. DESIG _____

MW 129 MCM OPDEF (MCM OPERATIONAL DEFECTS).

MCM OPDEF is used to report a **casualty** to an MCM unit that affects its ability to carry out its assigned task.

1. Call sign(s) of unit(s) concerned
2. Position _____
3. ETA support ship/base _____
4. **Defective** equipment _____
5. Repairs can be **effected** by ship's crew
6. Non-operational
7. Equipment _____ operating at reduced efficiency
8. Request divers on arrival
9. Request replacement on arrival of damaged/defective equipment _____ (following DESIG)
10. Request replacement on arrival of lost _____ (page E-22)
11. Request base assistance on arrival
12. Estimated time of back on task is _____
13. **Rectified** time of back on task is _____
14. Remarks following DESIG

MW 130 MCM SITREP

The MCM SITREP reports mission progress to the OTC. The OTC will designate when and how often the SITREP is to be sent.

Task order number/sequence number _____.

Learning Strategy

Be aware of your body. Take a break if you feel tired or are having problems concentrating.

casualty: a person or thing injured, lost or destroyed

defective: below the norm; faulty

effected: performed or carried out

rectified: corrected

Figure 11-2. Format for Mine Warfare Signals taken from *EXTAC 1007 Annex E,* continued.

1. Task order number _____ stage _____ search _____ method.
2. Number of runs _____ on track _____ (A plus, B minus) _____ tens of meters or exact area covered by divers **relative to** reference points.
3. MRN _____ type _____ (from Annex J) status _____ position _____ LRN _____
4. If different from the one ordered, **segment** lies between points _____ and _____
5. Estimate navigational error _____ meters, lateral separation of tracks _____ meters, aggregate actuation width_____ meters.
6. Minehunting bottom conditions _____ (See para. 0408), underwater visibility _____ meters (1 or 2/horizontally/vertical) where 1 stands for human eye and 2 for ROV, aggregate actuation width _____ meters.
7. Percentage clearance achieved _____.
8. Percentage coverage achieved _____.
9. Remaining _____ percent fuel, _____ percent water, _____ number of mine disposal weapons.
10. Estimate completion of task at _____, next time on _____ and off task _____
11. Intentions/direction of search being **pursued**/further movements.
12. Remarks

relative to: compared to

segment: part, fragment

pursued: chased, followed

recompression: act of compressing again after too rapid a decompression In diving, recompression is used to treat decompression sickness.

MW 135 DIVING INCIDENT

Used to report a Diving Incident to the OTC

1. **Recompression** required (yes/no)
2. PIM _____
3. ETA _____

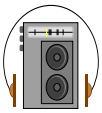
Figure 11-2. Format for Mine Warfare Signals taken from *EXTAC 1007 Annex E*, continued.

Exercise 11

Look back to the MW Signals in Figure 11-2 to answer these questions.

1. An MW 127 is a(n) ____.
   a. MCM Start/Stop Time
   b. MCM OPDEF
   c. Mine Detection/Explosion Report
2. You need to know about magnetic wave forms when drafting an ____.
   a. MW 125
   b. MW 127
   c. MW 129
3. An MW 128 is used to inform the OTC of ____.
   a. mission progress
   b. a positively identified or neutralized mine
   c. casualties
4. Details about danlaying are given in the ____.
   a. MCM SITREP
   b. Task Order
   c. MCM OPDEF

LISTENING/WRITING SKILLS



Look at the two following MW Signal message examples and listen to the recordings. The coded messages are what you would send. The decoded messages reveal what they mean. These are decoded by means of correlating with the MW formats in Figure 11-2 (Annex E in *EXTAC 1007*).

Sample 1: MW 135 Signal sent:

TO: CTG 1.1
FROM: CTU 1.1.1
MW 135

1. Y
2. 030 – 13
3. 1430Z

Sample 1: MW 135 Signal decoded means:

"There was a Diving Incident. Recompression is required. My course is 030 degrees, speed 13 knots. I expect to arrive at 1430Z."

Sample 2: MW 128 Signal sent:

TO: CTG 1.1
FROM: CTU 1.1.1
MW 128

1. D
2. 051245Z
4. 413000N8 – 0711700W6
8. H

Sample 2: MW 128 Signal decoded means:

"A mine exploded at the time 1245Z, on the 5th day of the month, in position 41°30´N 071°17´W, due to mine sweeping."

Learning Strategy

Knowing your strengths and weaknesses helps you plan your learning better.

Exercise 12

Decode the following message in your notebook. You can check your answer in the answer pages.

TO: CTG
FROM: CTU
MW 129

1. M03
2. 413100N9 – 0711800W7
4. DESIG: MAIN ENGINE
5.

12. 1800Z

14. DESIG: MAX SPEED 5 KTS

Exercise 13

Encode the following message in your notebook. You can check your answer in the answer pages.

"A mine was located by minehunting at 0800Z on the 7th day of the month in position 41°25´N — 071°22´W. The mine was destroyed by divers using an explosive charge."

Learning Strategy

Think about the progress you have made since you started this course.

FUNCTION

Asking for and Giving Clarification

To clarify means to make clear. When you can't understand what someone is telling you, you can ask for clarification:

- Could you please clarify what you just said?
- Would you expand on that, please?
- Could you explain further, please?
- Would you please rephrase your comment?

Instead of asking directly for clarification, you can state that you are having difficulty understanding what the speaker means:

- I'm having trouble understanding you.
- I don't understand exactly what you mean.
- I'm sorry, I don't follow you.

When you have been asked to clarify, you can respond the following ways:

- Let me clarify what I mean.
- Let me put that another way.
- Let me rephrase what I just said.
- Let me explain myself.
- What I mean to say is…
- In other words, …

Exercise 14

In your notebook, write a request for clarification for each proposition and a response to the request. Then practice saying them aloud to become accustomed to using the functions.

Sample proposition:

Wars are always fought over property.

Sample request for clarification:

Could you explain your idea further, please?

Sample clarification:

Let me explain what I mean. Many, not all, wars have been fought over land and the resources the land holds.

Other propositions:

1. The aircraft carrier played an important role in the Pacific in World War II.
2. A leader should be prepared to take any risk.
3. Computers have revolutionized weapons and warfare.
4. If a commander can't communicate, he can't command.
5. A navy improves as money is added to it.
6. Amateur military analysts talk strategy; professional analysts talk logistics.

READING/WRITING SKILLS

Exercise 15

Pre-Reading: Skim the article "Offensive Mining Capability" to answer these questions.

1. How many ways are mentioned in the article to classify sea mines?
2. Are drifting mines still in the US Navy's stockpile?

Offensive Mining Capability

Characteristics

Today's mines are designed for deployment against many different classes or types of ships to achieve a variety of results. However, to meet the challenges of the missions that they may be called upon to perform, mines are becoming increasingly complex. Moreover, the number of these missions is so large that no single type of mine can serve all purposes. And this is why the Navy's stockpile contains many different kinds of mines with the necessary built-in **versatilities** that provide the options needed for a wide variety of missions.

It should be noted that all mines discussed **herein** refer to sea mines, i.e. those mines which are emplaced in deep or shallow waters, coastal areas, harbor entrances, rivers, canals, and **estuaries**. It should also be noted that the term 'sea mines' also includes 'Destructors,' which are general purpose bombs containing influence firing mechanisms. Destructors, however, can be used as land mines as well as sea mines.

In general, some mines, with small explosive charges, are designed only for use against river boats and wooden vessels of small displacement. Other mines with large charges can destroy or damage most **capital ships**. Some mines are intended primarily for use against submarines.

Although it has been said that mines are becoming increasingly complex, it is largely because of the intelligence that is built into their firing systems. **Conversely**, the same technology that made mines more complex in some ways has made them simpler in others. The newer mines, for example, have features which make assembly, testing, and **stowing** much easier and safer than was possible with our older not-so-complex mines.

When deployed, mines may be used as offensive or defensive weapons. As offensive weapons, they may be planted in the enemy's waterways, harbors, anchorages, and channels or they may be planted in sea lanes removed from where the enemy's harbors are so as to menace his military and commercial shipping. It should be noted that the actual threat of such mines is frequently of equal importance with the actual sinking of ships, since the presence or threat of mines requires the necessary countermeasures to sweep or neutralize them. Consequently, this causes delays in shipping schedules which may require that ships use alternate routes and port areas.

As defensive weapons, mines may be planted in our own ports, harbors, channels, anchorages (perimeter defenses), bays, estuaries, or open waters to protect against enemy offensive seaborne attacks into these areas.

Classification Of Mines

When classified according to the position they **assume** in the water, mines fall into three categories: bottom mines, moored mines, and drifting mines. (Note: Drifting mines were limited by the Hague Convention of 1907 and are no longer represented in the US Navy's stockpile.)

Bottom Mines are most effective in comparatively shallow waters. A large negative **buoyancy** brings the bottom mine to rest on the ocean floor and keeps it there. In very deep waters, surface vessels

versatilities: variabilities, things that change easily

herein: in this document

estuaries: arms of the sea at the lower ends of rivers

capital ships: major fleet units, e.g. aircraft carriers, large amphibious ships, battleships

conversely: in a reversed or opposing manner

stowing: storing or securing for operations at sea.

assume: to take on or adopt a particular characteristic or quality

buoyancy: tendency to float

actuating: moving to action

suffering: undergoing or experiencing a (usually) difficult situation

housed: contained

configured: set up to operate in a particular way

replenishing: restocking

overwhelming: overpowering, enormously greater

constraints: limitations, restrictions

surreptitious: secret, clandestine

readily: easily

given: specific, predetermined

nose fairings: aerodynamic surface added to reduce drag

drag: gradual loss of motion due to a retardation device or aerodynamic friction

may pass over the mine without **actuating** its firing mechanisms or, in the event of actuation, without **suffering** much damage. Of course a bottom mine planted in deep water is still effective against submarines.

Moored mines are used for deep water plants and are effective against submarines and surface ships. The explosive charge and firing mechanism in a moored mine are **housed** in a positive-buoyancy case, i.e. one that tends to float. A cable, attached to an anchor on the bottom, holds the case at a predetermined depth below the surface.

Drifting mines float freely at or near the surface. They have no anchoring devices, and their buoyancy is approximately neutral. As already explained, the US Navy stockpile contains no drifting-type mines.

When classified according to the method by which they are delivered, mines again fall into three categories: aircraft-laid mines, submarine-laid mines, and surface-laid mines. It should be noted that by using appropriate modifications, aircraft-laid mines (less flight gear) and submarine-laid mines may be planted by surface craft.

Aircraft-laid mines are normally employed in offensive operations and are dropped from aircraft in the manner of bombs. These mines must be specially **configured** for air delivery. Aircraft provide the capability for **replenishing** minefields over an extended period of time without danger from previously laid mines. Aircraft are also capable of mining enemy-held inland waterways.

Submarine-laid mines, normally used in offensive operations, are specially configured mines that are launched from the torpedo tubes of submarines. Tactically, the limited number of mines that a submarine can carry may be considered a disadvantage, but the secrecy with which a submarine can deliver mines to an enemy port or operating area at great distances from friendly bases provides an **overwhelming** tactical advantage.

Surface-laid mines are no longer in the US stockpile of active weapons. However, almost all air- and submarine-laid mines can be adapted for surface laying if the need arises. Surface laying is the most economical method of delivery because of the greater number of mines that can be carried in the vehicle. But, there are unacceptable **constraints** which necessitate the utilization of other methods of delivery. For example: enemy control of the sea area, the requirement for **surreptitious** delivery, or the need to replenish an existing field.

Deployment And Operation

Aircraft-Laid Mines. It wasn't until World War II that mines were successfully planted by aircraft, and it was then that it became **readily** apparent that the advantages of air delivery are many. This was demonstrated by the number of notable mining campaigns of that war, the most notable of which was the strategy blockade of the harbors of Japan. In short, airplanes can lay mines suddenly and in great quantity. Moreover, airplanes are the only vehicle capable of replenishing a large mine field without danger from the field itself. Also, planes can lay mines in shallow bodies of water, including rivers and harbors which cannot be transited by submarines or surface minelayers.

Most air-laid mines use some sort of flight gear to decrease water-impact velocity. This usually consists of a parachute pack and release gear which function as follows: As the mine strikes the water, or submerges to a **given** depth, the release gear frees the mine case from the parachute, after which the parachute and mine then sink free from each other. Flight gear also includes tail fins which provide stability during flight and free fall; **nose fairings** may also be used to reduce **drag**. Almost any aircraft that carries bombs — Navy, Air Force, or otherwise — can also lay mines. Like bombs, air-laid mines are equipped with arming wires that maintain the mines in a safe condition until they are released from the aircraft. However, at the instant a mine is released from the aircraft's bomb rack, the arming wires are

withdrawn, leaving the mine with the **potential** to arm. On the other hand, should it become necessary to **jettison** the mine in a safe condition, the pilot actuates **solenoids** that allow the arming wires to fall intact with the mine.

Submarine-Laid Mines. When secrecy is **paramount**, the submarine is the preferred mine-laying vehicle. Although submarines can carry mines great distances from home ports, they are not **conducive** to carrying large payloads. Nonetheless, it is interesting to note that, although the torpedo was considered the primary weapon of the submarine during World War II, many missions by the Seventh Fleet submarines involved the laying of mines. Throughout the war, submarines had planted 576 mines, resulting in 27 ships sunk and 27 damaged, or one ship per 10 planted mines.

Surface-Laid Mines. During World War II, surface craft were used primarily for defensive mining operations, i.e. defending friendly harbors and waters from penetration by enemy vessels. Planting was usually done from specially designed minelayers or from certain other surface craft. Throughout the war, thousands of these mines were laid just outside Chesapeake Bay, around Cape Hatteras, and around Key West to protect our shipping against enemy submarines. Also, large fields were laid in the Atlantic off the coasts of Trinidad and North Africa and in the Mediterranean off the coast of Sicily. Although there is no record of any of the enemy ships being sunk or damaged in the Navy's defensive fields, neither is there any record of enemy ships passing through the fields. Perhaps the knowledge that the fields existed prevented any attempts being made, thus proving the **adage** that mines work well even when they don't work at all.

Source: http://peomiw.navsea.navy.mil/mines.htm 11/09/1999

Exercise 16

In your notebook, write the main idea of each paragraph in "Offensive Mining Capabilities."

SPEAKING SKILLS

Exercise 17

Presentation Checklist

Ask yourself these question to see if you are ready to present.

1. Have you double-checked your slides for spelling? Yes No
2. Have you practiced your presentation and timed it? Yes No
3. Have you checked the location of your presentation and tested the equipment there? Yes No

withdrawn: taken away; removed

potential: possibility

jettison: throw overboard in an emergency

solenoids: coils of wire acting like magnets to control a mechanical or electrical device

paramount: superior to all others, supreme

conducive: leading to

adage: saying, proverb

GLOSSARY

Objective Vocabulary

acoustic (a COUS tic) adj: operated by or utilizing sound waves

The sonar is an example of an acoustic search device.

avoid (a VOID) v: to keep away from; to shun

Fishermen avoid polluted waters.

collate (COL late) v: to arrange in a meaningful order

Mine location reports must be collated to determine the size of the mined area.

compile (com PILE) v: to gradually build up a collection or group of something

After many trips to the seashore, the child compiled quite a collection of seashells.

composition (com po SI tion) n: makeup or constitution

The composition of brass includes copper and zinc.

counter (COUN ter) v: to act in opposition to; to oppose; to offset; to nullify

To counter the increase in accidents, we need to train the sailors better.

detonate (DE ton ate) v: to explode

An EOD team will detonate a sea mine at a safe distance from the MCM vessel.

disable (di SA ble) v: to make inoperative or ineffective; to incapacitate

A ship is disabled without a functioning rudder.

induce (in DUCE) v: to bring about by influence or stimulation; to cause

The rocking motion of a ship at sea can induce seasickness.

inert (in ERT) adj: deficient in active qualities; unable to react; inactive

Weapons handling training is carried out only with inert weapons.

localize (LO cal ize) v: to keep within a definite locality, to isolate

An MCMV will try to localize a dangerous area by defining the limits of the mined area.

neutralize (NEU tra lize) v: to make ineffective; to destroy

The ROV carries an explosive charge to neutralize bottom mines.

optical (OP ti cal) adj: of, relating to, or utilizing light or vision

Binoculars are one kind of optical device which helps lookouts.

particularity (par ti cu LAR i ty) n: something that is unusual or distinctive in manner; singularity

The latest aircraft accident had several unexplained particularities.

precursor (pre CUR sor) n: a person or thing that precedes (and sometimes indicates the approach of) another; a forerunner

A precursor MCM operation is meant to be just the initial phase of an active MCM operation.

prominent (PRO mi nent) adj: standing out or projecting beyond a surface or line; easily noticeable

Mont Blanc is a prominent landmark in Europe.

render (REN der) v: to cause to be or become; to make

With a disabled firing mechanism, a mine is rendered harmless.

rupture (RUP ture) v: to part by violence; to break; to burst

The oil tanker's hull was ruptured in the accident.

scarce (SCARCE) adj: not plentiful or abundant

At the end of a long voyage, fresh fruit on board ship is scarce.

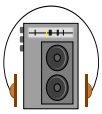
timely (TIME ly) adv: in time, or at the right time

An electrician's mate should respond timely to requests for repairs.

tow (TOW) v: to pull along behind; to haul

Since the soldier's car wouldn't start, it had to be towed to a garage.

Maritime Expressions



Exercise 18

There are many expressions used in maritime operations. A few are given here. Listen and repeat the expressions.

Afloat: being at sea

All of our exercise forces are afloat.

"A" school: an entry-level technical skill training school

The Mine Warfare Training Center at Ingleside, Texas, is an example of an A-school.

Bottom mine: an influence mine that rests on the sea bottom

Bottom mines are normally laid in water between 10 and 100 meters deep.

Contact mine: a type of sea mine which explodes when a vessel strikes it

Some contact mines have lead horns that detonate the mine when a ship strikes and breaks them.

Danbuoy: a temporary buoy laid to indicate limits of past, present or future MCM operations, also called a 'dan'

We laid quite a few dans in just a few hours.

Diving incident: a situation where a diver is sick or injured

Report a diving incident as soon as possible to the OTC.

Go/No-go: the decision point which indicates whether an operation, task, etc. can be carried out or must be aborted

Only the Commanding Officer can decide in a go/no-go situation.

Influence mine: a type of sea mine which detonates in response to underwater sounds, magnetic fields, or reduced water pressure generated by passing ships

Influence mines are more difficult to sweep than contact mines.

Mineman: a sailor rated to maintain, repair, and operate MCM equipment, afloat. Additionally, one who assembles, handles, issues and delivers mines to the planting agent and maintain mine-handling and minelaying equipment, ashore.

If you are a mineman, you have no room to make mistakes when working on mines.

Minesweeping: the neutralization of mines using mechanical or influence sweep equipment This may include wire, net, and trawl sweeps as well as magnetic devices and acoustic noise makers

Minesweeping is considered more dangerous than minehunting because you are operating in mined waters without knowing the actual location of the mines.

Minehunting: actively searching for mines using sonar and electro-optical systems. The process of detection, classification, identification, and neutralization of mines by the use of sensors, ROVs, and divers (EOD)

An MCMV minehunter steams forward much more slowly during minehunting operations than during minesweeping operations.

Mine neutralization: rendering a mine inert by rupturing the mine case, destroying the mine sensor, or causing sympathetic denotation of the mine

Mine neutralization makes an area safe for all ships.

Moored mine: a sea mine which is anchored in place by a cable, and floats near the surface of the water, where a ship might strike it

Mechanical cutters are sometimes used by minesweepers to cut the anchor cable of a moored mine.

0-dark-30: before sunrise

I had to get up at 0 dark 30 for 4 days in a row to participate in last week's MCM operation.

Oropesa: (also called 'O-gear')standard mechanical equipment used to sweep moored mines. Comes from the name of the WWI minesweeper, the HMS *Oropesa*. Also called 'O-gear'

A typical minesweeper can stream two sets of O-gear to create a double Oropesa sweep.

Strategic reconnaissance: keeping track of the location, movements and actions of hostile minelaying ships

Aircraft equipped with cameras are needed to conduct strategic reconnaissance.

Sympathetic detonation: the detonation of a mine in response to the nearby explosion of another mine

EOD divers must use extreme caution when planning and inducing sympathetic detonations, to avoid diving incidents.

Trawl: a large steel net dragged along the sea bottom to catch bottom mines

A trawl sweep can be efficiently executed by two MCMVs.

Maritime Acronyms

AMCM: Airborne Mine Countermeasures

CRN: Contact Reference Number

DTG: Date-Time-Group

EOD: Explosive Ordnance Disposal (Divers)

GPS: Global Positioning System

IRCS: International Radio Call Sign

LF/AF: Low Frequency/Acoustic Frequency

LRN: Lay Reference Number (used for minelaying)

MCCM: Mine Counter-Countermeasures

MCM: Mine Countermeasures

MCMV: Mine Countermeasures Vessel

MHC: Coastal Mine Hunter

MILCO: Minelike Contact

MILEC: Minelike Echo

MN: Mineman

MRN: Mine Reference Number

MW: Mine Warfare

NOMBO: Non-mine Bottom Object

OTC: Officer in Tactical Command

RATT, RTT: Radio Teletype

ROV: Remote Operated Vehicle

SMCM: Surface Mine Countermeasures

UMCM: Undersea Mine Countermeasures

Exercise 19

Copy the list of acronyms and meanings into your notebook. Study them. Then fill in each blank with an acronym or a meaning.

1. _____	DTG
2. _____	Mine Counter-Countermeasures
3. _____	MCMV
4. _____	RATT
5. _____	ROV
6. _____	Contact Reference Number
7. _____	Global Positioning System
8. _____	LF/AF

ENRICHMENT ACTIVITIES

Troublesome Grammar: More Two-Word Verbs

As we mentioned in Unit 7, two-word verbs are those verb-preposition combinations that have meanings different from that of the two words separately. And, usually the two-word verb may be replaced with a single verb that has the same meaning. Another feature of two-word verbs is that sometimes they are separated by another word (e.g. "**take down** the antenna" may also be expressed as "**take** it **down**").

We use **take** with a variety of prepositions. Here are some of the combinations using take.

He takes after his father in many ways. (to look or behave like another)

You cannot take back software to the store after it has been opened. (to return)

The sailors took down the antenna. (to remove from its place)

Take in the equipment to the maintenance shop. (to bring something to a repair shop for repair)

The United States took in many refugees last year. (to give shelter to)

He wants to take off tomorrow. (to not go to work or to depart)

His career took off after his headquarters assignment. (to become very successful)

The senior officers must take on more responsibilities. (to accept responsibility for something new)

He was required to take out his passport. (to remove from a pocket or purse)

She said, "Don't take it out on me." (to blame)

The new commander took over command. (to assume control of)

He's taken to his new job like a fish to water. (to quickly like something)

The teacher recommended taking up water polo. (to begin an activity or hobby)

I will take you up on that. (to accept an offer)

You should take it up with the captain. (to discuss something with someone)

Exercise 20

In your notebook, copy the sentences. Underline the two-word verbs and write the meaning of each "take" combination next to its sentence.

1. Don't take your troubles out on me.
2. You need to take those old boots in.
3. Take the ammunition back to the armory.
4. Take it up with the boss.
5. They really take to sea duty.
6. Take over the wheel.
7. He takes after his father.
8. Take down the scaffolding.
9. They offered to take in the passengers.
10. They took off yesterday.
11. Take out your ID.
12. He recently took up chess.
13. I must take him up on his offer.
14. We must take on the new duties.

Authentic Readings

NATO Allies Joined Mine Warfare Forces Exercises

Corpus Christi, TX (CNSLNS) - Military officials from nine NATO and "Partnership for Peace" (PfP) countries recently participated as US Navy Mine Countermeasures forces — based primarily in south Texas — trained in a pair of **simultaneous** exercises off the coast of Corpus Christi in September 1999.

The US-sponsored Gulf of Mexico Exercise (GOMEX) 99-2 and NATO-sponsored exercise Cooperative Telos '99 put to practice integrated mine countermeasures operations, using surface ships, helicopters and explosive ordnance disposal (EOD) detachments.

While the ships, aircraft and divers conducted their live exercise at sea, approximately 30 representatives from the NATO and PfP countries participated in a mine countermeasures seminar, a cultural program, and visits to exercise ships to **witness** US Mine Countermeasures forces in action.

Cooperative Telos is designed to **foster** mine countermeasures interoperability among participating nations. Rear Adm Jose Betancourt, commander of the US Navy's Mine Warfare Command, based in Corpus Christi, directed the exercise.

Countries participating included Bulgaria, Estonia, Latvia, Lithuania, Romania, Sweden, Canada, Denmark, and Poland.

"I find, in particular, that being able to work together in person, which this exercise allows us to do, is the best way to increase the level of knowledge of each of the participants," said Rear Adm. Betancourt. "Cooperative Telos also gives us the opportunity to form professional associations with the participating nations that will help strengthen our military-to-military relationships should we need to work together in the future."

GOMEX 99-2 is one of a series of regularly scheduled exercises aimed at putting to the test the mine countermeasures training and capability of participating forces. Capt Gary Belcher, Commander, Mine Countermeasures Squadron Three, based at Naval Station Ingleside, is the exercise's operational commander.

Source: Ens. Chuck Bell, COMINEWARCOM, Mine Warfare Command, Corpus Christi, Texas.

Printed with permission.

Exercise 21

Copy the comprehension questions in your notebook and answer them.

1. Who sponsored GOMEX '99? Cooperative Telos?
2. What was the objective of GOMEX '99? of Cooperative Telos ?
3. Why did Rear Adm. Jose Betancourt support Cooperative Telos?

Exercise 22

Pre-reading: Before reading the article "Master Mine," think about why a person would want to become a mineman. Are you interested in this occupation?

Master Mine

Is it the blue wire or the red one? It's a **burning question** that **tugs** on every nerve and **sinew** in her body. Salty beads of sweat **trickle** from every pore. In a second, the decision will be made and it will all be over, her life or her tension. Gently unscrewing the head, she pulls out the plastic and metal organs. She picks up the chosen wire and prepares to cut. A deep breath swallowed, a quick prayer **muttered** and ... she cuts. Snap! The air is still and

simultaneous: happening at the same time

witness: to watch

foster: to encourage

burning question: an extremely important question

tugs: pulls

sinew: tendon

trickle: to fall in drops

muttered: said softly

line of work: occupation, career field

Jack of all Trades: a person who can do many things

melting pot: a blending which often leads to invigoration or novelty

innate: natural, describing something (e.g. a talent) a person is born with

littered: marked with items scattered at random

cadavers: dead bodies

dissected: separated into pieces

abound: be present in large numbers

furiously: intensely, rapidly

silent. Back in the moment, she realizes it's OK to breathe again. She smiles.

As dramatic as that experience may seem, it's a real-life scenario that Mineman 1st Class Katherine Frunz, an instructor at the Mine Warfare Training Center, Ingleside, Texas, stresses firmly to all her students. In her **line of work**, there's simply no room for mistakes - it's do the job right the first time, or there won't be a next time. And she should know.

Frunz is good at what she does - real good. In fact, she's often referred to by students and instructors alike as the "**Jack of all Trades**" in this demanding field.

"There's so much to learn as a mineman and the vast areas that we have to work in make you extremely versatile and valuable," she said. Minemen have to be able to do it all. From boatswain's mate to radioman; damage controlman to sonar technician; engineman to deck hand. The mineman rating is somewhat of a **melting pot** for those rates and more. It could be why so many Sailors in those rates find their way through the halls of this training center. Even Frunz cross-rated - she was a storekeeper for four years before becoming a mineman.

"I had the opportunity to work in all the weapons supply departments at the Yorktown Weapons Station, Yorktown, Va. Because mine warfare was a more technical field as opposed to supply being an administrative field, it really grabbed my attention," said Frunz.

"I joined the Navy because I knew I would be near an ocean," said Frunz. "I wanted to travel, pursue an exciting career, get established and finish my college degree. The Navy gave me all that." Indeed, Frunz now holds a Master's Degree in International Affairs.

She is a Sailor with boundless energy and she appreciates what she has accomplished. Recently, Frunz was named Instructor of the Quarter and, when she's not teaching, she's taking classes to keep abreast of the newest developments in mine warfare. Frequently, she can also be seen escorting junior ROTC students around the training facility. "One of the things I point out to them is the position I'm in now, as a woman. If I were a civilian I don't believe I would have the chance to go near this equipment, let alone work on it," remarked Frunz.

The Mine Warfare Training Center was relocated from Charleston, S.C., to Ingleside, Texas, in 1993. The curriculum that instructors like Frunz teach here is demanding and requires from students an **innate** problem-solving ability and even more concentration. There is as much emphasis placed on practical application as there is on classroom study.

"The Training Center tests my skills," said MNSN Walter Webb, an "A" School student from Virginia Beach, Virginia. "It challenges my mind and body. It's an exciting whole new theory I'm working on. It's a lot to work through, but I'm doing it."

And the instructors are no less enthusiastic. Ask them how they feel about this duty, this school, and they'll tell you they never had it better. "It's great here, and the students really want to learn," said MNC Luis Bodeaux, an instructor from Fauxville, Indiana. He just got back from duty in Saudi Arabia and couldn't get over the positive environment and high morale he witnessed at Ingleside. It's all because of the students, he says, all because of their eagerness and willingness to learn.

Outside, the grounds are **littered** with mine models: MK-65 Quickstrikes, MK-60 Captors, MK-67 SLMMs and more. Like medical school **cadavers**, they're to be **dissected**–to be used as valuable learning tools. Today, a class of "A" School students is busy with their instructor carefully disassembling a MK-62.

But course work here is also very academic, and students spend a lot of time in the classroom. State-of-the-art computers and advanced teaching tools make it easier to learn, but the stress level here isn't any less. Students working complex problems on calculators **abound**, sitting almost statue-like as they tap **furiously** at the keys. They take the work very seriously,

for out in the fleet, one small mistake - one wrong calculation - and someone could get hurt. Someone could get killed.

"We need good people out there," said Frunz. "Unfortunately, we can't get them educated fast enough." In the past, the mineman Sailor was hardly seen. But walking down the halls of the training center, it's evident that that is changing. According to Frunz, the current "A" School class consists of more than 40 students. The last graduating class was only five.

With the highest across-the-board advancement levels, minemen are **reaping** the benefits of being one of the fastest growing enlisted career fields. They also **boast** one of the highest selective reenlistment bonuses (SRBs) in the Navy. The initial sign up **bonus** is already $2,000.

Is that enough? Can all those benefits replace the fear of working in dangerous and deadly mine fields? It can for some, but minemen like Frunz feel there's more to focus on. The rating's excitement, thrills and adventure are something she'd like to see advertised more by recruiters.

Most of Frunz's days are filled with dissecting, diffusing, disassembling and servicing dead mines. These mines can't hurt anyone, but there are still too many out there below the ocean's surface that can. Does the difference of working with dead mines instead of real ones hinder the mission? Not at all. Mentally, she imagines herself in real-life **predicaments** and forces herself to act accordingly.

"You have to keep focused on your job and your duty first, especially in a time of conflict," she said. Otherwise, she says, your worst fear just might come true. "I'm there to do a job and I'll do it until I absolutely can't do it anymore."

Now, Frunz is ready to put her skills to the test at sea. She is scheduled to be one of the first women minemen to be assigned to a coastal mine hunter (MHC). Approval for women to serve aboard the MHC class is expected later this year.

Source: PH3 Lena Gonzalez, "Master Mine" from *All Hands*, September 1999, pp.30-33. Reprinted by permission.

Exercise 23

Answer the following comprehension questions in your notebook.

1. Why does Mineman 1st Class Katherine Frunz describe minemen as "versatile and valuable?"
2. What kind of natural ability does the curriculum at the Mine Warfare Training Center require from students?

Exercise 24

Write a paragraph in your notebook in answer to each of the following opinion questions.

1. What do you think of women being allowed to work as minemen on mine hunters?

reaping: obtaining

boast: own with pride

bonus: money given in addition to an employee's salary

predicaments: difficult or perplexing situations

2. Why do you suppose that the career of mineman is one of the fastest growing enlisted fields in the US Navy? Do you think it's the extra money, personal factors, professional factors, or something else?

Exercise 25

Match the word with its definition. Write the letter in the blank.

1. ____estuary	a. superior to all others
2. ____tug	b. a limit
3. ____abound	c. secret, clandestine
4. ____rectify	d. difficult situation
5. ____constraint	e. arm of the sea at the lower end of a river
6. ____adage	f. correct
7. ____reap	g. to fall in drops
8. ____boast	h. to pull
9. ____trickle	i. to obtain
10.____predicament	j. natural, inborn
11.____innate	k. to own with pride
12.____paramount	l. to throw overboard
13.____surreptitious	m. to be present in large quantity
14.____jettison	n. a proverb

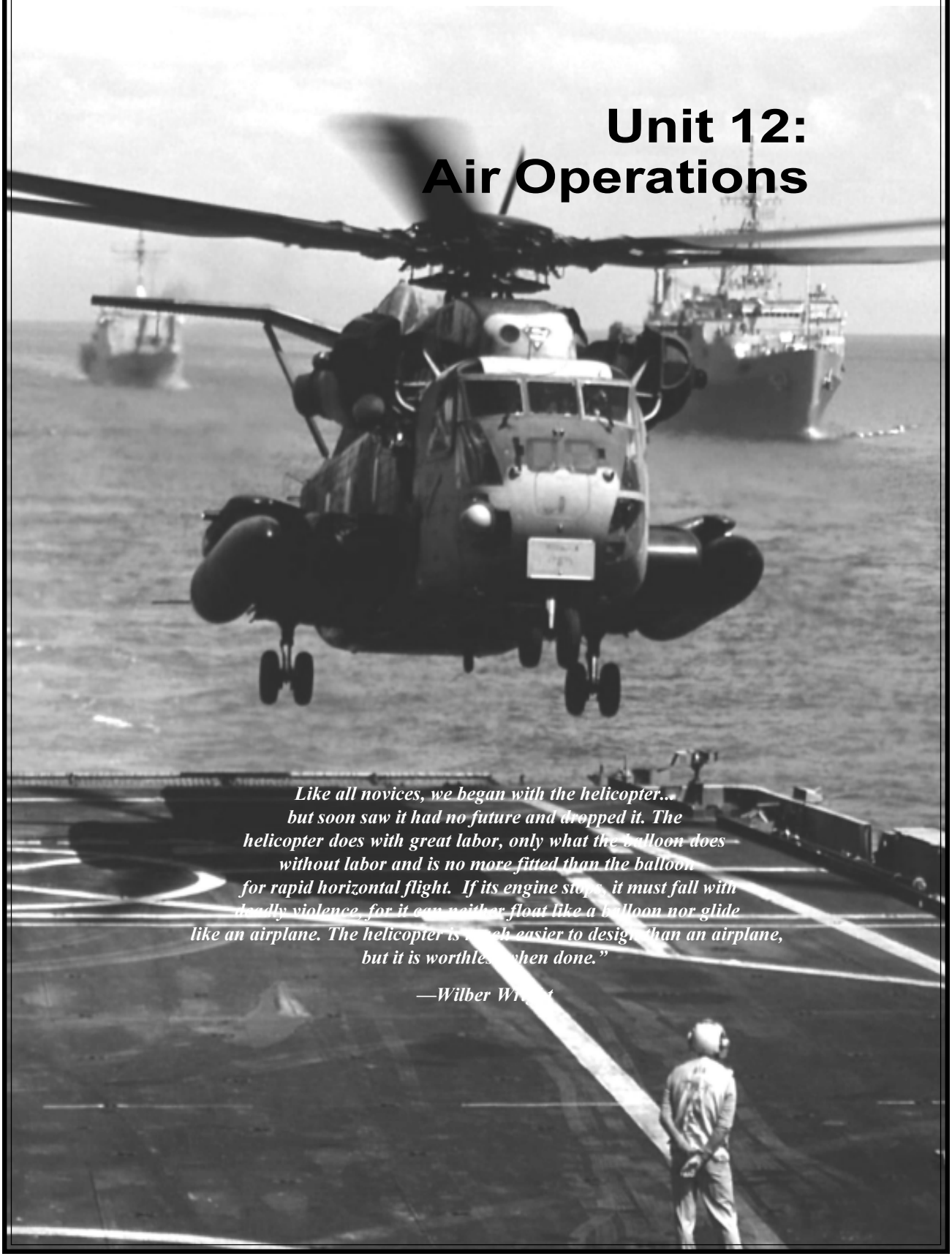
LEARNING STRATEGY

Keeping a Learning Log

Exercise 26

Follow the instructions for completing the Language Learning Log given in Unit 1.

Unit 12:
Air Operations



Like all novices, we began with the helicopter... but soon saw it had no future and dropped it. The helicopter does with great labor, only what the balloon does without labor and is no more fitted than the balloon for rapid horizontal flight. If its engine stops, it must fall with deadly violence, for it can neither float like a balloon nor glide like an airplane. The helicopter is much easier to design than an airplane, but it is worthless when done."

—Wilber Wright

Resources

You will need Unit 12 of this course, the Unit 12 recording, a blank tape, a tape/CD player, your notebook, pen or pencil, your copy of *Webster's New World Dictionary*, and a hard copy of *HOSTAC (EXTAC 1001)*.

Objectives

In this lesson you will

1. review the use of articles *a*/*an*/*the*.
2. review the phrasal verb combinations using get.
3. correctly pronounce and use objective vocabulary and maritime expressions in the glossary.
4. become familiar with *EXTAC 1001 Helicopter Operations from Ships Other Than Aircraft Carriers (HOSTAC Operations)* and its contents.
5. understand various HOSTAC operations and missions.
6. explain how environmental factors affect HOSTAC operations.
7. understand the authorities, responsibilities, and control issues in HOSTAC operations.
8. understand safety, firefighting, and emergency procedures during HOSTAC operations.
9. complete an outline based on a text.
10. complete a chart based on a text.
11. prepare and give a weather briefing according to a prepared outline.
12. listen to electronic communications; take notes or write summaries.
13. read models of technical/military material and answer comprehension questions.
14. read authentic military/NATO articles and answer comprehension questions.
15. practice a variety of language learning strategies.

Table of Contents

LEARNING STRATEGIES

In this course you have learned many learning strategies. Think about ways to apply these strategies to your future learning.

Planning

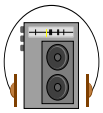
Exercise 1

This is the last unit for this seminar. Take a few minutes to reflect on the time that you have taken to complete your work. We hope this planning guide has helped you stick to your schedule. Now, complete the schedule for Unit 12 in the same manner as you did those of the other units.

Unit 12 Schedule

Day	Plan	Actual
Mon	_____	_____
Tue	_____	_____
Wed	_____	_____
Thurs	_____	_____
Fri	_____	_____
Sat	_____	_____
Sun	_____	_____

VOCABULARY



Listen to the reading titled "HOSTAC Overview" and follow along. The new vocabulary is in italics. As you listen to the reading, notice how the new vocabulary is used in each sentence. Circle any words you do not know.

HOSTAC Overview

For a ***wide range*** of reasons, it can become necessary for a shipborne helicopter of one nation to operate (or, to use the term employed in this text, to cross operate) with a ship of another nation. Guidelines for these operations are covered in *EXTAC 1001 Helicopter Operations from Ships Other Than Aircraft Carriers (HOSTAC Operations)*.

Routine day-to-day, short-term requirements frequently make helicopter cross operations necessary. The requirements are sometimes humanitarian, as in the transfer of a sick or injured person to more suitable facilities. Often, operational requirements arise, typically for purposes of refueling or emergency repair, for delivery of critically needed materials by Vertical Replenishment ***Procedures*** (VERTREP), or for landing to pick up transiting personnel. In short, wherever one finds it necessary or ***convenient*** to operate helicopters to and from the decks of one's own ships, similar situations may make it necessary at some time to operate to and from the decks of ships of other nations.

To cross operate safely and efficiently, standardization of as many procedures and as much ***hardware*** as possible is highly desirable. However, two other items are mandatory for any cross operation. First, detailed knowledge of the receiving ship's

Learning Strategy

Highlighting, circling, or underlining new words or concepts helps you remember them better or find the information faster when you need it.

gross weight: the total weight including the weight of the container

Learning Strategy

Understanding the exact meaning of words will allow you to communicate more accurately and effectively.

landing areas, support facilities, deck markings, location of ***obstructions***, and other physical details that affect the helicopter landing environment. Second, detailed knowledge of the helicopter that will be coming aboard, including rotor diameter, **gross weight**, fuselage length, landing gear specifications, and service requirements, where appropriate.

This information must be made available to all ***parties*** involved in a cross operation before the actual cross operation can take place. No operation can begin until the receiving ship is ***satisfied*** that the helicopter will indeed fit its landing facilities without striking an obstacle or that its helicopter deck can ***withstand*** the weight of the arriving helicopter. No helicopter pilot can be expected to attempt a landing or VERTREP until he is familiar with the deck markings of the host ship, its navigational aids, and the landing area and VERTREP operating area ***clearances*** he can expect to find.

The basic principle in HOSTAC operations is that the guest helicopter always uses the approach, landing, and deck handling procedures of the host ship. Thus, a successful cross operation requires the exchange of this information between the guest helicopter and the host ship. This information is in general national information and is not ship and aircraft ***specific***. A participating nation provides either all ***relevant*** information concerning its own unique operating procedures or a combination of references to agreed-upon operating procedures and its own unique operating procedures.

Standardized Vocabulary Usage

The words **WARNING**, **CAUTION**, and **NOTE** have the following meanings within this publication:

WARNING

An operating procedure, practice, or condition that may result in injury or death if not carefully observed or followed

CAUTION

An operating procedure, practice, or condition that may result in damage to equipment if not carefully observed or followed

NOTE

An operating procedure, practice, or condition that is essential to emphasize

Certain words are used in a specific context throughout this publication and have meanings that have been previously agreed upon. These words are listed below:

Shall is used only when application of a procedure is mandatory.

Should is used only when application of a procedure is recommended.

May is used only when application of a procedure is optional.

Will is used only to indicate the future tense in first, second, and third persons and does not indicate any degree of requirement for application of a procedure.

Source: EXTAC 1001 HOSTAC, January 1997.

The above usage is consistent with most Department of Defense publications. However, please do not confuse written, "official" usage with everyday American English usage. See the modal exercises in Unit 6 and Appendix E.

Exercise 2

Copy the following questions into your notebook and answer them.

1. Why do the authors specifically choose not to use the term "operate?"
2. When are HOSTAC operations used?
3. What must be considered before starting HOSTAC operations?
4. What is the basic operating principle of HOSTAC?

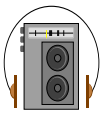
Exercise 3

Complete the following sentences using the words listed below. Write the sentences in your notebook.

wide range	convenient	parties
satisfied	withstand	specific

1. Both _____ in the conflict must honor the cease fire.
2. Although it is not _____ to pay a courtesy visit, it is the right thing to do.
3. Sailors must be able to _____ the North Atlantic winds.
4. The commander gave _____ guidance.
5. Although they were able to land, they were not _____ with their performance.
6. Successful staff officers must be able to complete a _____ of duties.

VOCABULARY

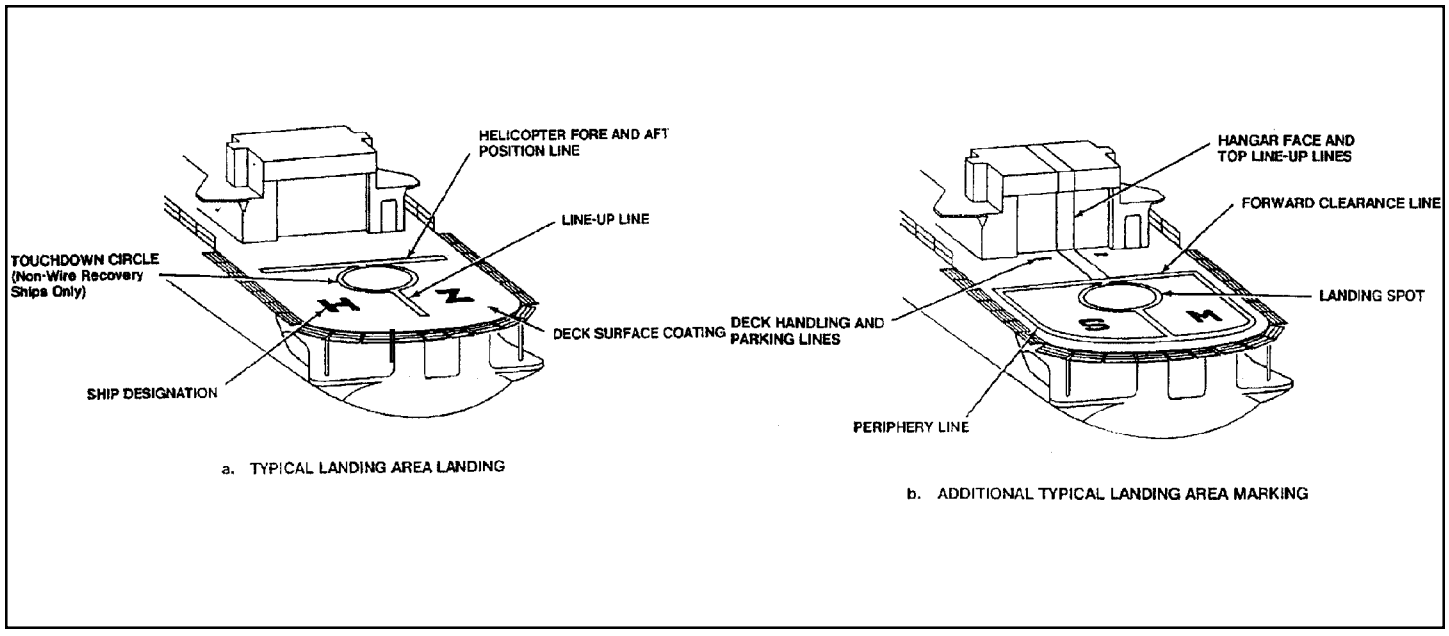


Listen to the reading titled "Standards for Ship/Aircraft Interoperability" and follow along. The italicized words are the new vocabulary. As you listen, circle the words you do not know.

Standards for Ship/Aircraft Interoperability

Many nations have identified a ship's basic aviation capability using the terms "level" and "class." The level of a helicopter facility identifies the environmental condition that prevails. The class of a helicopter facility identifies the authorized operation (e.g. landing, Vertical Replenishment Procedures (VERTREP), Helicopter In-Flight Refueling (HIFR) or hoist transfer), the types of services available

Figure 12-1. Standard Flight Deck Markings



(e.g. fuel, starting power), and the availability of maintenance facilities (e.g. routine inspection, minor repairs, and replacement of parts).

Deck Markings

non-skid: constructed so as to reduce slipping or skidding

Deck markings for the helicopter landing area are either white or yellow with a minimum width of 0.2 meters and have been ***adopted*** to ensure adequate physical clearance for those helicopters approved to land, VERTREP, HIFR, or perform hoist transfers with the host ship. Alphanumeric ship ***designators***, painted on the flight deck to identify the ship by hull number or other designation, provide the pilot with positive identification of the host ship. To prevent the aircraft and cargo from sliding in adverse weather or sea conditions, helicopter decks are coated with a **non-skid** surface having a minimum dry-deck coefficient of friction of 0.6. See Figure 12-1.

Learning Strategy

Outlines and checklists are great learning tools for lists of items.

Deck Lighting

Deck lighting ***accentuates*** deck marking figures to provide visual references for night helicopter operations. The ***intensity*** of all deck lighting is controllable at the request of the guest helicopter. Deck edge and lineup lights are ***inset*** into the deck on the markings and provide visual reference for night helicopter flights. Forward structure floodlights illuminate the face of the superstructure immediately forward of the helicopter deck hangar and provide the pilot with increased depth perception and a view of obstructions. At least two lights (either red, yellow, or white) are used. Overhead floodlights (either red, yellow, or white) are aimed to provide ***uniform*** illumination of the helicopter deck.

The nomenclature of helicopter glideslope indicators (GSIs) and certain other characteristics of the GSI used by the host ship have been standardized. However, because shipboard GSI systems vary, the guest helicopter's aircrew must familiarize themselves with the GSI characteristics of the host ship before making an approach.

Hangar-top floodlights (either red or white) illuminate the top of the hangar and provide the pilot with additional horizon cues when the pilot is over the flight deck. Deck surface floodlights (either red or white) are mounted on the deck edge to illuminate the deck surface. Maintenance floodlights (either red, yellow, or white) illuminate the helicopter for on-deck maintenance.

The landing area is equipped with deck status lights to provide a green (clear deck) or red (fouled deck) indication that is visible to approaching helicopters. A yellow (sometimes referred to as amber) intermediate status light may also be provided. Red wave-off lights may also be used in conjunction with the GSI.

Both horizon and pitch bars are a series of lights mounted athwartship on the superstructure forward of the helicopter deck. They may be either stabilized or unstabilized.

Flight Deck Clothing

Standard colors have been adopted for headgear and the jacket, surcoat (or outer coat), or pullover sweater worn by ship's personnel. These colors enable the guest helicopter's aircrew to identify host ship's personnel functions once the helicopter has landed. For ships other than aircraft carriers, only the following clothing identification color is mandatory YELLOW:

- Flight Deck Officer (FDO)
- Flight Deck Director (FDD)
- Landing Signal Enlistedman (LSE)

The following clothing identification colors are optional and may also be used by flight deck personnel on host ships:

- Aircraft handling crew and chockmen—BLUE
- Maintenance crew—GREEN
- Medical—WHITE

- Messengers and telephone talkers—WHITE headgear and BLUE jacket
- Ordnance—RED
- Photographers—GREEN
- Firefighting and crash crews—RED
- Aviation fuel crew—PURPLE

Source: EXTAC 1001 HOSTAC, January 1997.

Exercise 4

Answer the following questions about the reading. Write the questions and answers in your notebook.

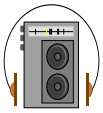
1. In the first paragraph, what do the terms "level" and "class" refer to?
2. Describe a typical deck marking.
3. What is the purpose of deck lighting?
4. What is the significance of the different flight deck clothing colors?

Exercise 5

Match the following terms with their appropriate colors.

1. ____ fuel crew	a. green
2. ____ deck markings	b. yellow
3. ____ hangar-top lights	c. red
4. ____ clear deck	d. purple
5. ____ fouled deck	e. red or white
6. ____ FDO	f. white or yellow

VOCABULARY



Listen to the reading titled "Sea State and Weather Conditions" and follow along. The italicized words are the new vocabulary. Please note that the maritime/weather expressions are located in the GLOSSARY of this unit. As you listen, circle any words you do not know.

Learning Strategy

Specialized vocabulary is just that. Learn these words in their specialized context.

Sea State and Weather Conditions

Where possible, check that the sea state and weather conditions are compatible with the host ship's ability to perform cross operations. Some nations provide the acceptable levels of deck pitch and roll for each ship.

Lift Factors

Lift capability is a limiting factor in any helicopter operation and is most ***critical*** when hovering. Determine the load factors to be encountered, particularly in a VERTREP or internal cargo transfer. Lift capability is influenced substantially by the following factors:

- *Ambient temperature:* Lift capability decreases as temperature increases.
- *Relative humidity:* Lift capability decreases as relative humidity increases.
- *Pressure altitude:* Lift capability decreases as pressure altitude increases.
- *Density altitude* (a combination of pressure altitude, ambient temperature, and relative humidity):

Lift capability decreases as density altitude increases.

- *Relative wind:*
  Lift capability decreases as relative wind decreases.
- *Ground effect:*
  Lift derived from ground effect is increased if the deck is stable. It is decreased as height above deck is increased. Lift from ground effect is lost when the helicopter passes over the deck edge.

Day/Night Considerations

Determine whether the expected time of arrival is day or night, ***inasmuch as*** all ships are not equally day/night capable.

stock: to maintain a quantity on hand

stores: supplies

adapters: devices used to connect dissimilar parts, such as fittings, couplers, or connectors

mate: join together

Maintenance Considerations

Although the host ship's capability to support the guest helicopter's maintenance requirements is given, the ship may not necessarily **stock** all expendable **stores** required for extended helicopter operations. A pack-up kit containing specialized O-rings, gaskets, and other items that are normally expended should be prepared and stowed aboard the helicopter.

HIFR Considerations

Because many ships do not carry the necessary **adapters** to **mate** the ship's fuel hose to the aircraft, ensure that these adapters are available if a HIFR operation is anticipated.

Briefing

Ensure that all passengers have read the helicopter passenger briefing checklist.

Weather Brief

An aerographer, experienced quartermaster, or other qualified member of the host ship's company shall prepare a weather brief to be relayed to the guest helicopter.

This brief shall include, at the least, the following information:

- Air and sea surface temperature
- Dew point
- Barometric pressure
- Density altitude
- Surface wind direction and speed
- Altimeter setting
- Ceiling and cloud cover
- Visibility
- If available, a forecast of weather *en route* and at the estimated time of arrival

Source: EXTAC 1001 HOSTAC, January 1997.

Exercise 6

Copy the following questions and answer them in your notebook.

1. Describe/define the following "maritime" terms so that a "landlubber" would understand them.
   a. sea state
   b. pitch
   c. roll
2. If you were a passenger, would you be satisfied receiving a "briefing checklist" or would you prefer an actual briefing on procedures? Explain why or why not.
3. What is an "aerographer" and how are his duties performed in your navy? Write a short paragraph describing them.

Exercise 7

Since you may be the best English speaker on board your ship, you may be called to assist, or to actually give the weather briefing. Obtain a copy of a weather briefing from your ship. Compare it with the requirements given in the reading. Now write a weather briefing for the situation of your choice. Include all of the elements given in the HOSTAC.

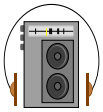
Exercise 8

Match the following terms with their definitions. Write the letter in the blank. You will not need all of the terms listed.

1. ____ the temperature at which water vapor begins to condense
2. ____ the temperature existing or being on all sides
3. ____ the ratio of the existing amount of water vapor in the air at a given temperature to the maximum amount that could exist at that temperature
4. ____ the altitude in the standard atmosphere at which the pressure is the same as the point in question. It's the uncorrected altitude indicated by an altimeter set at standard sea level pressure of 29.92 inches.
5. ____ the height above the ground of the layer of clouds that covers at least half of the sky
6. ____ the transparency and illumination of the atmosphere as affecting the distance at which objects can be seen

a. ambient temperature
b. humidity
c. relative humidity
d. pressure altitude
e. density altitude
f. visibility
g. ceiling
h. dew point

VOCABULARY



Listen to the reading titled "Radio Communications" and follow along. The italicized words are the new vocabulary. As you listen, circle any words you do not know.

Learning Strategy

Skimming not only saves time, but it also allows you to mentally organize what you are going to read.

Radio Communications

Except in an emergency or when under emission control (EMCON), radio contact should be established between the launching and receiving ships and the helicopter before beginning helicopter operations. While airborne, the helicopter should be kept informed of any ***deterioration*** of weather at the receiving ship.

The host ship should have a spare UHF radio available to assume communications if the primary radio fails. This is especially critical during periods of reduced visibility, night operations, or when positive radar control must be maintained. During the initial and final phases of departure and approach, and at other times when ***intense*** pilot ***concentration*** is required, two-way radio contact should be ***deferred***, except in an emergency, until the aircraft is on deck.

NOTE

It is mandatory that the host ship monitor the military air ***distress*** frequency (243.0 MHz) at all times that the helicopter is airborne. This is of particular importance when the helicopter is operating independently, as the pilot may attempt to communicate using his survival radio during a communication failure.

Air Traffic Control Procedures

Control Zone

The airspace that surrounds each air-capable ship equipped for approved approaches by fixed-wing aircraft under Instrument Flight Rules (IFR) is defined as a circle 5 nautical miles in radius, extending from the surface to 2,500 feet above mean sea level (MSL). The control zone for helicopters is a circle 2 nautical miles in radius, extending from the surface to 500 feet above MSL. During periods when ceiling and/or visibility is below IFR ***minima***, electronic air traffic control techniques shall be used to provide separation for maximum safety.

Operational Factors

During an extended flight, frequent radio checks shall be made. The ship must inform the pilot of any change in weather, loss of radar contact, or alteration of the ship's course and/or speed.

In addition to weather conditions at the host ship, other operational factors that bear on the degree of helicopter control required include:

- Mission, range, and emission policy
- Tactical considerations
- Mutual interference
- Capabilities of air control units and controllers
- Equipment status and condition of aircraft involved

Types Of Operational Control During Approach

The type of control to be employed during departure and recovery is determined by the senior naval aviator, unless otherwise specified by higher authority. Normally, the pilot is responsible for determining if weather conditions allow him to operate under visual meteorological conditions (VMC).

However, if the ship's commanding officer determines that the close control associated with flight under instrument meteorological conditions (IMC) is operationally preferable, then IMC shall ***prevail*** during the aircraft/ship operation.

During departure and recovery, the guest helicopter is always ***subject to*** some form of air control by the host ship. Pilots shall not ***shift*** frequencies unless they notify and/or obtain permission from the controlling agency.

Control Methods

The following level-of-control ***criteria*** are given as guidance. During approach, the guest helicopter may operate under

- Close control
- Loose control
- Broadcast control
- Positive control
- Advisory control

Under certain circumstances, the above terms may be employed individually. However, in most operations, they are combined as follows:

- Close positive control
- Close advisory control
- Loose positive control
- Loose advisory control
- Broadcast control

Definitions of Control Terms

In simplest terms, "close" and "loose" apply to control of aircraft, while "positive" and "advisory" apply to in-flight collision avoidance and safe separation.

Close Control

A form of aircraft mission control in which the aircraft is continuously controlled for altitude, speed, and heading to a position from which the mission can be accomplished.

Loose Control

A form of aircraft mission control in which the aircraft commander selects his own speed, altitude, heading, and appropriate tactics to accomplish the assigned task. The controlling unit (host ship) will advise the aircraft of the current tactical picture and will provide further advice when available.

Broadcast Control

In the absence of full capability or if the tactical situation ***precludes*** close or loose control, aircraft may be operated under broadcast control. Tactical or target information is passed to enable the aircraft to accomplish its task. The controlling unit, when possible, provides adequate warnings of hazards, but the aircraft commander is responsible for aircraft navigation and collision avoidance.

Positive Control

The controlling unit is responsible for taking actions for collision avoidance such as ordering necessary alterations to heading, speed, and altitude to maintain separation criteria. Positive control may be used under the following conditions:

- Less than 500-foot ceiling
- Forward visibility of less than 1 mile
- During operations at night, unless modified by the officer in tactical command (OTC)

Positive control is executed only after communication in plain language has been firmly established between pilots and controllers. Under these conditions, the host ship must maintain two-way radio communications and have radar contact with the helicopter. It is generally employed under conditions of poor visibility because of the benefit of a radar environment under centralized control. Under positive control, the ship (1) has radar and radio contact with the helicopter and published approach or departure procedures are complied with, or (2) specific assignments for heading and altitude are issued by the ship's air controller. Pilots shall not shift frequencies unless they notify and/or obtain permission from the controlling agency.

Advisory Control

The controlling unit will provide adequate warnings of hazards affecting aircraft safety. The pilot is responsible for the aircraft's navigation and collision avoidance. The ship monitors radar and radio channels in order to advise the pilot of the hazards of other aircraft traffic and ongoing operations. Advisory control shall be used whenever traffic density in any operational area requires use of a higher degree of control for flight safety reasons than that which is normally associated with VMC. Advisory control is normally limited to VMC operations and is recommended whenever positive control is not required.

Source: EXTAC 1001 HOSTAC, January 1997.

Learning Strategy

Reading technical material can be exhausting. Remember to interact with the text. Ask yourself questions and look for organizational patterns as you read.

Exercise 9

Answer the following questions without referring back to the text.

1. When should ship to helicopter communications be initiated?
2. What is the military air distress frequency?
3. What is the difference between fixed wing and rotary wing (helicopter) control zones?
4. What are some of the various control approach options?
5. Who determines the type of control? Is it clear from reading the text?

Exercise 10

Carefully review the definitions of the types of operational control. Define the following terms without using the word "control." Write your definitions in your notebook.

1. Close control
2. Loose control
3. Positive control
4. Advisory control

Learning Strategy

Strive for 100% accuracy in the grammar exercises.

Exercise 11

Review "IMC" and "VMC." Write a paragraph in your notebook comparing and contrasting the two conditions.

GRAMMAR

Using Articles

Identifying Noncount Nouns with 'the'

The previous unit explained how to use Ø with noncount nouns. We can also use ***the*** with noncount nouns.

Examine these two sentences to see how sometimes a noncount noun needs ***the*** (instead of Ø) to show us that the speaker is identifying a specific member of a class, instead of just classifying the noun:

a. Ø High morale contributes to Ø efficiency.

b. The morale of his crew was pretty low, so the efficiency suffered too.

Sentence 'a' refers to 'morale' and 'efficiency' as classes in general. Sentence 'b' identifies the specific morale and efficiency of a particular group of people.

Exercise 12

Examine the following sentences. All *italicized nouns* are noncount but some refer to a general class and some identify a specific example from a class. Fill in the blanks with Ø or *the*.

1. ____ *sea water* contains ____ *sodium*.
2. ____ *water* near ____ *eastern coast* is polluted.
3. ____ *good leadership* is crucial to ____ *success* of an operation.
4. ____ *leadership* of that commander is outstanding.

Identifying Count Nouns with 'the'

We use ***the*** with *count nouns* as well as noncount nouns when we want to *identify* a specific example of a count noun (or noncount, as previously discussed) from a class:

1. Often the noun is followed by some kind of description that identifies it as a specific member, or example, from a class.

   Examples:

   The chart we are using is outdated.

Our captain forbade us to mingle with the refugees we had picked up.

2. Sometimes the speaker uses ***the*** when he thinks the listener already knows about which specific thing he is referring to.

   Examples:

   Can you tell me where the base library is?

   The commissary is across from the BX.

   The commander wants you to report to him right away.

Exercise 13

Examine the following paragraph and determine when you need to write *a/an*, Ø or *the* in the blank for each noun. Use the flowchart to help you.

When ____ coins are put into ____ coin slot of ____ vending machine, they pass through ____ series of tests designed to measure ____ value of ____ coins. When ____ right number of coins pass all ____ tests, ____ vending machine will deliver your selection.

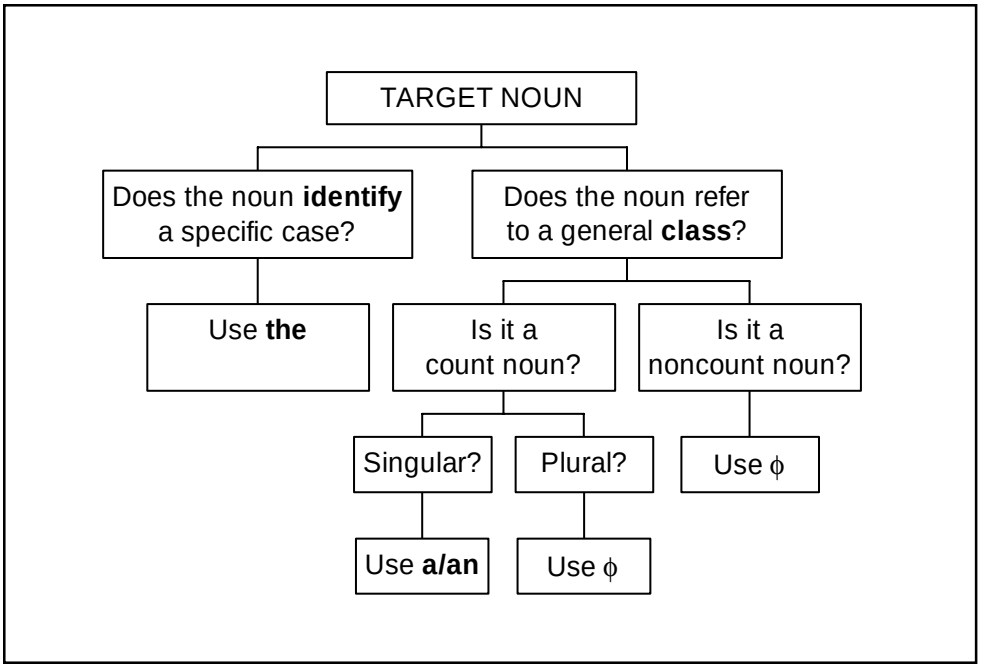


Figure 12-2. How to Choose the Article for a Noun.

READING/WRITING SKILLS

Read the following selection titled "Vertical Replenishment Procedures." Use the outline format to complete an outline of the reading in your notebook.

Vertical Replenishment Procedures

Vertical Replenishment Procedures (VERTREP) is the external transfer of cargo between a helicopter in flight and a ship. In a VERTREP operation, the pilot delivers cargo to the ship's VERTREP operating area (VOA) by means of a hook. The pickup and delivery zone is that general, unobstructed area within the VOA where loads are picked up and delivered.

Pilot's Responsibility

The pilot is responsible for the transfer and delivery of cargo to the host ship. He shall conduct the VERTREP operation in accordance with the national procedures of the host ship and the general procedures of *EXTAC 1003*. It is also his responsibility to determine the maximum capacity of the sling system and associated gear before commencing VERTREP operations.

attention to detail: paying particular attention to the details

turbulence: the state of being violently agitated

- *VERTREP Warnings and Safety Requirements*. Safe VERTREP operations require constant **attention to detail** and proper operating procedures.
- *VOA and Deck Markings*. VOA standards are provided in *EXTAC 1003*. Operational requirements are determined by the class of facility and the deck marking of the host ship's VOA.
- *Class of VERTREP Operating Area*:
  - Class 4. When hovering on a Class 4 facility, the pilot must hover 5 feet (1.52 meters) above the deck.
  - Class 5. When hovering on a Class 5 facility, the pilot must hover with his wheels or skids no less than 15 feet (4.57 meters) above the deck.

VERTREP Deck Markings

Within VERTREP Classes 4 and 5, there are four types of facilities:

- *Type 1*. To ensure adequate helicopter and load clearance when hovering over the ship, the helicopter must be centered over and parallel to the rotor-center limit line.
- *Type 2*. To ensure adequate helicopter and load clearance when hovering over the ship, the helicopter must be positioned with its main and tail rotor hubs on or aft (forward on bow VERTREP areas) of the Tee marking line. The legs of the Tees identify the side on which no danger exists.
- *Type 2A*. To ensure adequate helicopter and load clearance when hovering over the ship, the helicopter must be positioned with its main and tail rotor hubs on or aft (forward on bow VERTREP areas) of the Tee-Ball marking line. The legs of the Tees identify the side on which no danger exists.
- *Type 3*. To ensure adequate helicopter and load clearance when hovering over the ship, the helicopter must be positioned with its main and tail rotor hubs between the two Tee marking lines.

Advisory Environmental Factors

Experience in VERTREP has shown that the following factors bear strongly on successful operations:

- *Winds*. A relative wind of 15 to 30 knots is considered ideal for VERTREP operations. The helicopter should take off, make approaches, and hover into the relative wind. High winds usually cause excessive pitch and roll of the host ship. In these conditions, it is better if the ship steams down-sea to provide a steadier deck. Although the course will be downwind for the helicopter, the relative wind may still be sufficient for VERTREP. However, increased rotor downwash caused by the downwind hover will create additional hazards for both the helicopter and flight deck personnel. Before a downwind and down-sea VERTREP is considered, the helicopter pilot should be consulted. **Turbulence** adversely affects VERTREP and can be caused by hot stack gas over the VOA, either from the host ship or from another ship at close quarters. Another ship can also obstruct the relative wind in the pickup or drop zone of the VOA.
- *Relative Positions of Ships*. Generally, VERTREP is employed between two ships close aboard, with a separation of 300 to 1,000 yards for night operations and 300 to 500 yards for day

operations. Intership distances of more than 35 miles are not recommended and should be undertaken only for high-priority cargo where time is a critical factor.

- *Temperature and Atmosphere*. High ambient temperatures and low barometric pressures adversely affect the lifting capability of any helicopter. Thus, a cold, dry day with high barometric pressure is, all else being equal, optimum for good VERTREP operations.

Source: EXTAC 1001 HOSTAC, January 1997.

Exercise 14

Outlining is a powerful tool in learning step-by-step procedures. In your notebook, outline the above reading, paying particular attention to topics and categories.

VERTREP

I. Definition: _____
_____
_____

II. Responsibility: _____
_____
_____

III. Safety: _____
_____
_____

IV. VOA
A. _____
_____
B. _____
_____

V. Deck Markings
A. _____
_____
B. _____
_____
C. _____
_____
D. _____
_____

VI. Advisory Environmental Factors
A. _____
_____
1) _____
2) turbulence
B. _____
_____
C. _____
_____

Exercise 15

Answer the following questions about the reading. Write the questions and answers in your notebook.

1. What are some of the items that might be transferred in VERTREP operations?
2. What is the relationship between the pilot and the sling?
3. What three factors bear strongly in determining the success or failure of VERTREP operations?

Learning Strategy

Try to visualize what the author is writing about. Seeing it in your mind makes it easier to remember the details.

Exercise 16

Read the selection "Helicopter In-Flight Refueling Procedures." As you read, consider the difference(s) between VERTREP and HIFR. Then answer the questions that follow the reading.

Helicopter In-Flight Refueling Procedures

Helicopter In-Flight Refueling (HIFR) Hardware Compatibility

A ship's HIFR capability as shown in the Technical Supplement indicates only that the ship is capable of conducting HIFR operations. It does not necessarily mean

Learning Strategy

How do you remember numerous, seemingly unrelated details? Find similarities and combine them into categories.

that all helicopters can conduct HIFR with that ship. This is because many ships do not carry all adapters needed to mate the aircraft fueling system to the ship's HIFR equipment. Therefore, before beginning any operation requiring in-flight refueling, the aircraft commander must ensure that any required HIFR adapters can be made available.

Helicopter Procedures

Current standardization of HIFR procedures allows day or night in-flight refueling of helicopters. The following procedures apply to the helicopter during in-flight refueling.

Communications

Under normal circumstances, two-way radio contact between the supporting ship and the aircraft should be established. This contact is essential when it is likely that **concurrent** deck operations could take place. Hand signals shall be as specified in Chapter 5 of *EXTAC 1001*.

Pilot's Responsibility

The pilot is responsible for the safety of his aircraft during HIFR operations. He shall conduct HIFR operations in accordance with the national procedures of the host ship.

Fuel Sample

If the pilot wants to see a fuel sample, he should request it prior to HIFR hookup and shall furnish a bag for pickup.

Approach

The helicopter shall approach the ship's port quarter in accordance with the national procedures for the host ship, as described in Chapter 3 of *EXTAC 1001*. The ship's FDO will indicate the desired hover position.

Hose Pickup

1. The helicopter shall come to a hover over the HIFR spot "H" at a height over the deck of no lower than 15 feet (4.57 meters) and lower its rescue hoist cable. Before attaching it to the hoist cable, the ship will **depressurize** the hose. The ship's crewman shall electrically ground the hoist hook as soon as it is lowered to the flight deck and then attach the HIFR hose **rig**.
2. The helicopter shall move clear of the deck to port and descend slightly. The helicopter shall then move outboard to a maximum lateral distance from the port side of the ship of 60 feet (approximately 20 meters) and maintain a hover at 60 feet (20 meters) above the water. On signal from the helicopter crewman, the ship shall commence pumping fuel.

Emergency Breakaway

Emergency breakaway may be executed by the helicopter at any time. If the pilot wishes to initiate an emergency breakaway, he need not signal but **merely** pull away.

Fuel Flow Rates

Fuel is provided under positive pressure to the aircraft at a minimum flow rate of 114 liters, 25 Imperial gallons, or 30 U.S. gallons per minute. Fuel pressure is limited to a maximum of 3.44 BAR (50 psi) and a minimum of 1.38 BAR (20 psi) at the maximum distances stated in the appropriate HOSTAC annex.

Completion of Fuel Transfer

When fueling is completed, a helicopter crewman shall signal the ship to cease pumping fuel. The helicopter shall reverse the hose pickup procedures and shall move back over the deck to return the hose.

Departure

The helicopter shall request permission to depart the ship. Departure shall be as **concurred** with by the ship.

Source: EXTAC 1001 HOSTAC, January 1997.

concurrent: happening at the same time or simultaneously

depressurize: to release from pressure or continuous force

rig: special equipment or gear used for a particular purpose

merely: doing nothing more than stated

concur: to agree

Now copy these questions into your notebook and answer them.

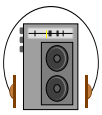
1. What is the one determining factor to successful HIFR operations?
2. Why would a pilot want a fuel sample?

Exercise 17

Another tool that is useful in mastering material is a chart. In a chart you can quickly compare and contrast various aspects of related items. In your notebook draw a simple chart (see model below) to compare and contrast aspects of VERTREP and HIFR operations

Type	Process	Use	Comms
VERTREP			
HIFR			

VOCABULARY



"Safety" is perhaps the most critical factor in all operations. Read this article about safety and be prepared to answer the questions at the end of the reading. New vocabulary is in italics. Circle the new words that you do not know.

Safety

Personnel on the flight deck during flight operations must wear goggles and ear protection. Without eye protection, personnel can be blinded by foreign object damage (FOD) generated by helicopter rotor wash, and without ear protection, they can suffer permanent hearing degradation. Flight deck crews shall also wear ***cranial*** protection.

Because of potentially ***lethal*** conditions during flight operations, passengers being transferred by helicopter are to be thoroughly briefed and provided with survival gear.

Passengers shall be provided with protective gear, including cranial protection, if hoist transfer is to be used. All passengers should be provided with required flight and survival gear and should be briefed thoroughly in accordance with the helicopter passenger briefing checklist. The briefing should take place in a relatively quiet area of the ship. Passengers shall be escorted to and from the helicopter by a member of the flight crew or by other designated personnel. No person shall approach or depart the helicopter until permission has been given by the LSO. If the transfer is to be by hoist, the briefing should be conducted by a crewman of the helicopter who will be lowered to the deck of the host ship. If this is not feasible, it is the responsibility of the ship to provide a brief on the hoist procedures. Once the passenger is hoisted and embarked, the aircrew shall brief the passenger on subsequent aircraft-related matters.

All passengers, regardless of rank, are subordinate to the helicopter aircraft commander (HAC) for the duration of the flight. They must only embark/ disembark when cleared to do so by the HAC. In addition to the passenger preflight briefing, nations have agreed to minimum operational standards for carrying passengers to and from the decks of air-capable ships.

Transfer of passengers at night is prohibited except in emergency situations. Night helicopter passenger flights to or from air-capable ships shall be limited to conditions of operational necessity to properly certified ships. This does not preclude troop movements in support of amphibious exercises. Any passenger baggage is to be handled by the load party and is to be hoisted separately from the passenger. Smoking is prohibited inside the aircraft.

Learning Strategy

When you have a general understanding of a topic, it is easier to learn the details.

The following articles are not to be carried by the passenger:

- Matches other than safety matches
- All types of liquid or gas-filled lighters (butane, petrol, etc.)
- Containers or refill capsules or cylinders for lighters
- Aerosol containers

Turning main rotor blades are inherently dangerous. Although blade flapping can occur at any time, it normally occurs when blades are rotating at low rpms or are stopped. When stopped, flight deck personnel shall ensure that the blades are properly secured during wind conditions that may cause damage as a result of blade flapping.

Downwash from main rotor blades can create significant wind velocities in the vicinity of the helicopter. Personnel shall take special care to avoid injuries or damage to equipment, particularly when operating in the vicinity of large helicopters that have a strong downwash.

WARNING

Rotor downwash created by the CH-53E Sea Stallion helicopter is stronger than that produced by any other helicopter. Downwash hazards can exist as far as 300 feet (91 meters) from the helicopter. Under zero-wind conditions, maximum average velocities occur at 49 feet (15 meters) from the rotor centers (1.25 times the rotor radius) and can vary from 50 to 95 knots, depending on the helicopter's gross weight. This is a hazardous amount of wind that can blow unsecured chains or towbars around the deck, causing injury or fatalities. The presence of high relative wind can increase turbulence even more. The need to secure all loose objects and to have personnel take appropriate action to ensure their safety is especially critical under these conditions.

Helicopters with a single main rotor use a vertical antitorque tail rotor. This rotor is very close to the flight deck.

Except in extreme emergencies, the host ship shall not change course while a helicopter is being launched or recovered, is engaging or disengaging rotors, or is being towed or pushed about the deck. Under these conditions, any unanticipated ship movement makes the helicopter particularly ***susceptible*** to overturning or sliding. Helicopters parked or operating in the vicinity of weapons are subject to damage by gunfire ***concussion*** and rocket blast and from FOD damage when weapons are fired. Except under combat conditions, normal flight deck operations should be suspended during weapons or gunnery training. If a helicopter must remain exposed during weapon firing, it should be positioned as far away aft of the firing units as possible with its doors and hatches open to minimize the possibility of concussion damage. High-performance aircraft should not be cleared for close-in supersonic passes over or near a ship when helicopters are embarked. Sonic boom concussion has the same damaging effects on structures and hatches as weapons fire.

Source: EXTAC 1001 HOSTAC, January 1997.

Exercise 18

Copy the following questions and answer them in your notebook.

1. Differentiate between survival gear and protective gear.
2. What is FOD? Why is it a problem?
3. What does "potentially lethal" mean?
4. What is an "extreme emergency" and how does it differ from a simple emergency?

Exercise 19

Match the following words with their definitions.

1. ____ an aircraft's wheels or landing supports
2. ____ the wind or gusts generated by a rotating horizontal air foil
3. ____ a metal wheel which meshes with another gear
4. ____ a downward current of air
5. ____ items of equipment which are used to possibly save one's life in an accident
6. ____ safety equipment such as helmets or gloves or ear protection

a. survival gear
b. protective gear
c. landing gear
d. sprocket gear
e. down wash
f. rotor wash

READING SKILLS

Read "Firefighting and Rescue" and be prepared to answer the questions that follow. Circle any words that you do not know.

Firefighting and Rescue

The following standards apply to the composition and training of the host ship's firefighting team and its firefighting equipment and systems.

Firefighting Team

The firefighting team must consist of the following:

- A leader
- Two rescue persons wearing protective clothing that is **flame-retardant** and **heat-reflective**
- The number of persons who are needed to operate the ship's firefighting systems

Personnel shall have the following material and equipment available to them:

- Fire axe
- Cable cutter
- Rescue knife
- Metal piercing and cutting tool

Firefighting Equipment and Systems

The host ship shall have the following firefighting equipment and systems:

- Salt-Water **Fireplugs**. Salt water in a straight stream or fog pattern is used to extinguish class A fires (burning wood, paper, cloth, **fibrous** materials,

flame-retardant: resistant to catching fire

heat-reflective: material that reflects and insulates against heat

fireplugs: a large pipe from which water can be obtained to fight fires; a fire hydrant

fibrous: containing fibers

Learning Strategy

Using the English expressions for words and situations you already know in your native language will help you remember the new vocabulary.

aqueous: containing or dissolved in water

motor: to move or run

prudent: exercising good judgment

chocks: blocks or wedges placed under wheels to prevent movement

tiedowns: heavy straps or cables used to secure an object from moving

reflash: to burst into flames again after apparently being extinguished

topple: to push over or overturn

Learning Strategy

Remembering past experiences as you learn new vocabulary gives you the opportunity to describe those experiences to others using the new vocabulary.

and paper products) and class D fires (combustible metals). Salt water in quantity as a high-velocity fog is the recommended agent for class D fires in the absence of special agents.

- **Aqueous** Film-Forming Foam (AFFF). AFFF or equivalent is used to combat class A fires and class B fires (POL and other volatile liquids). If an aircraft fire involves live ordnance, the firefighting team leader shall ensure that AFFF is continuously applied to all exposed ordnance. Water is not used to cool ordnance until after the fire is extinguished.
- Portable Fire Extinguishers. Two of each of the following types of fire extinguishers will be available at the helicopter areas:

  1) Smothering agent, for use against class B fires, and

  2) Carbon dioxide (CO_2), inert gas, or Halon, for use against class B fires and class C fires (electrical).

Helicopter Engine Fire on Deck

Internal Engine Fire

Given evidence of an internal engine fire, the LSO or firefighting crew shall notify the pilot by an appropriate hand signal. In the case of an internal fire, the pilot should, at his judgment, continue to **motor** the system or take action to extinguish the fire using onboard fire extinguishing systems as available. If unsuccessful, he shall attempt to secure the engine and shall exit the helicopter.

External Fire

If the fire is external and/or clearly beyond the capacity of onboard fire-extinguishing systems, the pilot shall attempt to secure the engine and exit the helicopter immediately. The LSO then directs the firefighting party to fight the fire using CO2. Dry chemicals or foam may be required for larger fires.

Jettison Procedures

Jettison of the helicopter over the side is **prudent** if the fire is so far advanced that it endangers the ship or if onboard ordnance creates an unacceptable hazard. To jettison a burning or damaged helicopter over the side, the following procedures are recommended insofar as safety and the hazards of the particular situation allow:

- Sound general alarm.
- Check for passengers or crew remaining in the helicopter and assist them as much as possible to abandon the helicopter.
- Clear all unnecessary personnel from the flight deck area.
- On orders from the LSO or other authority, all **chocks** and **tiedowns** shall be removed.
- If the ship is equipped with fin stabilizers, the stabilization system should be secured and the ship should attain maximum speed.
- The firefighting team should lay a blanket of foam across the jettison path to the edge of the deck before attempting to jettison the helicopter over the side. This foam blanket will minimize the possibility of **reflash** of the fire from hot debris or exposed oil, fuel, or other materials as the helicopter is dragged or moved across the deck.
- When the LSO reports the chocks and tiedowns clear, the ship should make a maximum-rate port or starboard turn to cause the ship to heel and the helicopter to **topple** over the side.
- If the procedure above is not feasible, as in a confined or restricted waterway, a 3/4-inch (19 mm) cable may be laid around three sides of the periphery of the flight deck with the bitter end secured to the deck and the other end

attached to a **capstan**. When **slack** is taken up by the capstan, the helicopter should become fouled in the cable and pushed to the side and overboard.

Source: EXTAC 1001 HOSTAC, January 1997.

Exercise 20

In your notebook, answer the following questions. Remember to answer in complete sentences.

1. What training have you received in fire fighting ? Emergency first aid?
2. On your ship or in previous assignments, how was the fire fighting team or crew organized?
3. What is "general alarm" and what were your most recent responsibilities during it?

Exercise 21

Copy the following sentences into your notebook and complete or answer them.

1. A fire fighting team consists of _____ _____.
2. What equipment should be available to the fire fighting team?
3. Describe the different types of fire extinguishing materials and the types of fires they are used on.
4. When will a helicopter be jettisoned?

READING SKILLS

Skim "Helicopter Landing Emergencies." Read the headings and subheadings to get a general idea of the types of helicopter landing emergencies. Then read the article and answer the comprehension questions at the end of the reading.

Helicopter Landing Emergencies

There are three classes of landing emergencies: those that require an immediate shipboard landing; those that require a **precautionary** shipboard landing; and those that cause a helicopter to ditch or crash. There are also **variations** and special problems **peculiar** to specific landing emergencies.

During any emergency in which recovery of the helicopter is attempted, the first **considerations** of the ship should be to (1) close the distance to the helicopter and (2) prepare for immediate recovery. If the emergency is caused by power loss, the ship shall attempt to get the most favorable relative wind across the deck. If flight control malfunction has caused the emergency, a condition that results in a stable deck is the most important.

Immediate Emergency Shipboard Landing

If the helicopter must get on the deck with no delay, the ship shall execute the following emergency landing procedures:

- Maintain radar contact.
- Close on the helicopter at best speed.
- Obtain as much clarifying information from the pilot as possible concerning the nature and extent of malfunction, his intentions, etc.
- Set emergency flight quarters over ship's general announcing system.

capstan: a vertical cylinder used as a pulley to hoist or move large objects

slack: a lack of tension

precautionary: something done to prevent something bad from happening

variations: changes or modifications

peculiar: distinct or exclusive to

considerations: careful deliberations

Emergency flight quarters requires increasing the alert condition and shall, at a minimum, direct all hands not engaged in recovery to stand clear of the landing area, to extinguish all open flames and secure dumping of trash and garbage, to station fire and crash teams, and to man the crash and rescue boat.

- Inform accompanying units and request assistance.
- Turn to base recovery course (BRC) and adjust speed to provide a compromise of best wind and steady deck 3 nautical miles prior to arrival at the helicopter intercept point (4 nautical miles at night or under IMC).
- Clear all unnecessary personnel from the flight deck and hangar area prior to declaring a green deck. Fire and rescue personnel should stand far back from the flight deck but be prepared to move in rapidly if needed.
- Once on deck, place chocks and tiedowns as in a normal recovery.

upgraded: raised to a higher grade or standard

precision: accuracy, exactness

firsthand: received from the original source

Precautionary Emergency Shipboard Landing

Landings of this type are declared as a result of minor malfunctions where the pilot, in the interest of safety, decides to terminate the flight. A precautionary landing is an emergency when declared although it does not have the urgency of an immediate emergency landing. Ship's personnel should be aware, however, that the precautionary landing could be **upgraded** in urgency at any time. The ship should execute the following procedures during any precautionary landing:

- Maintain radar contact if possible.
- Set normal flight quarters, including firefighting and rescue parties, as soon as possible without interfering with urgent ship evolutions.
- Turn to BRC and adjust speed to recover the helicopter as soon as possible.

Crashed or Ditched Aircraft

- Plot position of crashed or ditched aircraft.
- Close to this position as rapidly as possible.
- Call away rescue boat or rescue helicopter as appropriate.
- Station and brief lookouts.
- Notify and request assistance from accompanying units.
- Recover personnel and then recover aircraft or debris.

Single-Engine Landings

Because a twin-engine helicopter's ability to hover on a single engine is possible only under very limited conditions, a single-engine landing should be classified as an immediate emergency. **Precision** in all phases of the landing is necessary because a wave-off is generally not possible. In the event of a single-engine landing emergency, the ship should execute the following procedures:

- Take a course that will provide the best wind across the deck.
- When possible, provide the maximum amount of deck space for a no-hover, run-on landing.
- Take all action to land the helicopter with no delay.
- Once the helicopter is inbound, the LSE/LSO should make timely advisory correction signals to facilitate a safe approach and landing.

Recovering Helicopter with Damaged or Malfunctioning Landing Gear

When possible, it is desirable for the helicopter to establish a low hover so that deck personnel can observe the helicopter **firsthand** and inspect the damage. Ideally, personnel who are familiar with the guest

helicopter should be on site at the flight deck to communicate details of the damage or malfunction directly to the pilot. If the malfunction cannot be cleared, padded pallets or mattresses may be used to support the aircraft on touchdown. Personnel should stand well clear during the actual touchdown.

Hung Droop Stops

As rotor speed decreases during disengagement, a mechanical stop in the rotor head prevents the blades from drooping downward to the deck. If a droop stop fails, one or more blades may strike the deck or portions of the helicopter. This will result in damage to the helicopter and possible injury to personnel close at hand. Should a droop stop fail on shutdown, the following procedures should be executed:

- The LSO shall immediately give the signal to re-engage as shown in Chapter 5 of the HOSTAC .
- The pilot shall attempt another shutdown.
- If the second shutdown is unsuccessful, the ship should change course and speed for minimum wind and turbulence over the deck.
- The LSE/LSO shall clear all personnel from the flight deck, including himself, and the pilot shall proceed with the shutdown.

Source: EXTAC 1001 HOSTAC, January 1997.

Exercise 22

Copy the following questions in your notebook and answer them.

1. What are the three classes of landing emergencies?
2. What is "emergency flight quarters?"
3. What is a "green deck?"
4. What is a "run-on landing?"
5. What may be used to support a helicopter on touchdown with a damaged landing gear?
6. What is a "droop stop?"
7. What is a single engine landing considered?
8. What might be considered a "minor" malfunction?

hung: suspended in mid-air or stuck

Exercise 23

Answer the following questions using *EXTAC 1002,* Super Puma, Paragraph 0102. Copy the questions into your notebook and answer them.

1. What helicopter is represented?
2. How many different models are listed?
3. Which model apparently has medevac capability?
4. Which model has HIFR capability?
5. How many passengers can a Finnish model carry?
6. Which model does not have a rescue hoist?
7. Which model has an external fuel tank option?
8. What is the total length of a Super Puma? Which information source did you use, the chart or the diagram?
9. What is the main rotor diameter? Which source will you use, the chart or the diagram?
10. On what page will you find the "danger areas?"
11. Which models have GPS capability?
12. How many fire extinguishers are on board?

Learning Strategy

Familiarizing yourself with new material before you begin an exercise makes understanding it much easier.

13. What type of de-icing capability does the Super Puma have?
14. Could a Super Puma land on your ship? Why or why not?
15. How does the Super Puma compare with helicopters from your nation? How will you answer this: in a Paragraph? Chart? Table?

READING SKILL

Exercise 24

Study *EXTAC 1001,* Annex 3 NL, "Netherlands: Ships' Aviation Facilities and Operating Procedures." Then answer the following questions. Copy and answer them in your notebook.

1. What types of helicopters do Netherlands ships accommodate?
2. Which ship has two different colors of markings?
3. Where will one find the ship's identification marking?
4. Can lights be dimmed?
5. Under SCA, where is the gate?
6. What happens if there is a missed approach?
7. How does the helicopter depart?
8. How is the landing cycle defined?
9. In emergency conditions, is a crash on deck permissible?
10. When can VERTREP operations occur?
11. During HIFR, how is the hose attended?

SPEAKING/WRITING SKILLS

Finalize Your Presentation

Exercise 25

Finalize your oral presentation using techniques in oral and written communication learned throughout the course.

GLOSSARY

Objective Vocabulary

accentuate (ac CEN tu ate) v: to stress or emphasize

The briefers were reminded to accentuate safety.

adopt (a DOPT) v: to take or follow a course of action

The captain chose to adopt evasive actions.

clearance (CLEAR ance) n: distance or space allowing movement or free play

Make sure there is at least one meter of clearance around the antenna.

concentration (con cen TRA tion) n: close or undivided attention

His concentration was broken after hearing the explosion.

concussion (con CUSS ion) n: a violent jarring or shock

The concussion from the 8-inch shells shattered his ear drums.

convenient (con VEN i ent) adj: easy to use or get to

The alternate airfield was not convenient, but the pilot had no choice.

cranial (CRA ni al) adj: pertaining to the skull

The sailor received a near fatal, cranial injury.

criterion (cri TER i on) n: (singular form) a standard or rule

The criteria for a below-the-zone promotion are quite stringent.

critical (CRIT i cal) adj: crucial

Crew rest is critical for optimum pilot performance.

defer (de FER) v: to postpone or to comply with

The admiral decided to defer his decision until he saw the satellite photos.

designator (DES ig na tor) n: a pointer or indicator

The designator for the FDO is a yellow jacket.

deterioration (de te ri o RA tion) n: lowered in quality or degraded

The wing strut deterioration was caused by poor corrosion control.

distress (dis TRESS) n: needing immediate help or attention

Distress signals must be answered.

hardware (HARD ware) n: equipment needed to perform a function or operation

The reserve ship's hardware was in poor repair.

inasmuch as (in as MUCH as) conj: because of the fact that, or since

Inasmuch as he was not present for general quarters, he is AWOL.

inset (IN set or in SET) v: to place something inside of another thing

The map legend was inset in the lower right hand corner of the map.

intense (in TENSE) adj: extreme in degree or strength

The intense fire caused the paint 30 meters away to peel.

intensity (in TEN si ty) n: great concentration, power or force, level of brightness

Learning Strategy

Using new vocabulary words in conversation and in writing helps you remember them.

The intensity of the firefight surprised even the veteran sailors.

lethal (LE thal) adj: pertaining to or causing death

Although he received a lethal dose of the nerve agent, he lived.

minima (MIN i ma) n: (plural form) the least possible quantity

One-mile visability and a 1000-foot ceiling are the flight minima for helicopter operations.

obstruction (ob STRUC tion) n: something blocking or hindering something else

The pilot did not see the obstruction until it was too late.

party (PAR ty) n: a participant

The Lieutenant said that he was not party to the Junior Officer's practical joke.

preclude (pre CLUDE) v: to prevent something from happening

The bombing precluded any negotiations.

prevail (pre VAIL) v: to predominate

The aerographer said that IMC would prevail.

procedure (pro CE dure) n: established method of doing something

As soon as the CPO heard the crash, he followed fire containment procedures.

relevant (REL e vant) adj: related to the matter at hand

The captain told the investigating officer to gather all the relevant materials.

satisfy (SAT is fy) v: to meet the demands or requirements of something

His deployment to Kuwait satisfied his need for an overseas tour.

shift (SHIFT) v: to change or move

He tried to shift blame from himself.

specific (spe CIF ic) adj: exactly set forth or precise, particular

The ambassador gave specific guidance.

subject to (SUB ject to) adj: subordinate to

We are subject to NATO regulations.

susceptible (sus CEP ti ble) adj: easily affected by

During heavy seas, the life rafts are susceptible to overturning.

uniform (U ni form) adj: consistent throughout

Joint training requires uniform procedures.

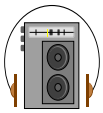
wide range (WIDE range) n: broad selection or broad scope

The new captains all had a wide range of assignments.

withstand (with STAND) v: to resist or endure successfully

The deck was designed to withstand a helicopter crash.

Maritime Expressions



Exercise 26

There are many expressions used in maritime operations. A few are given here. Listen and repeat the expressions.

Alert condition: level of combat readiness

Although the names are often different, the procedures are quite similar for alert conditions.

Athwartship: at right angles to the keel

The helicopter approached athwartship.

Bitter end: the end of a rope or cable attached to the bitt (a vertical pole) on deck

Make sure the bitter end is secure.

Blade flapping: the tendency of helicopter rotor blades to bounce up and down

Proper use of tiedowns prevents most blade flapping.

Class: according to HOSTAC usage, class refers to the type of operations authorized, services available, or maintenance facilities aboard

Ships are designated by class and facility.

Cross operate: used in the HOSTAC to indicate helicopter operations between non-NATO ships

The purpose of the HOSTAC is to facilitate cross operations between the different navies.

Ditch: to bring an aircraft down on water

It was the third helicopter ditched this week.

Downwind: leeward or in the direction the wind blows

Certain operations require the ship moving downwind.

Down sea: facing the waves

VERTREP operations often require the ship to move down sea.

Droop stop: a device which prevents the helicopter rotors from sagging or drooping

The crew chief re-inspected the droop stops.

Emergency flight quarters: duty locations and assignments used during flight emergencies

During emergency flight quarters, he manned the large fire extinguisher.

Evolutions: gradual changes in situations

On this deployment, the task force has undergone several evolutions of its mission.

Extreme emergency: an emergency situation requiring immediate response

Loss of power in a helicopter constitutes an extreme emergency.

Fouled deck: a deck that is obstucted and cannot be landed upon

A fouled deck cannot be allowed to interrupt operations.

Green deck: a clear deck

The pilot was given the go ahead to land on the green deck.

Heel: to cause a ship to list or tilt to one side

The mine damage caused the ship to heel.

Hoist transfer: the movement of personnel between two ships where a helicopter uses a hook attached to a harness to transport the individual

Hoist transfers are usually not recommended for flag officers.

Hot stack gas: the exhaust gasses emitted from the ship's funnel(s)

Hot stack gasses will most likely cause severe turbulence for small aircraft.

Level: according to HOSTAC usage, the environmental condition that prevails (e.g. VMC or IMC)

That class of ships has revised operating levels.

Pack up kit: equipment that is often needed on deployments and is usually taken along

Helicopter crews learn very quickly what to bring in pack up kits.

Pitch: the vertical motion of a ship's bow or stern about the athwartship's axis

Due to excessive pitch, the helicopter could not land.

POL: acronym for petroleum, oil and lubricants

Safe POL storage is always an issue.

Protective gear: individual equipment designed to protect the wearer (e.g. ear plugs, safety shoes, helmets, etc.)

The chief reminded maintenance personnel to be sure to bring their protective gear.

Roll: side to side motion of a ship along its longitudinal axis

The soldiers could not stand on the ship because they were not used to the roll.

Rotor wash: the air current caused by a helicopter rotor

The rotor wash should never be ignored.

Superstructure: the part of the ship above the main deck

The superstructure formed a beautiful silhouette against the full moon.

Tee: something in the shape of the letter "T"

The Tee could not be seen from the leeward side unless the helicopter hovered directly over the deck.

Visual reference: easily identifiable objects or markings used to assist in navigation

The air traffic controller gave several visual references to help the pilot locate the proper landing deck.

Wave off: signal from the LSO to pull up and attempt to land again

After the third wave off, the senior pilot took control of the aircraft.

Maritime/Weather Expressions

Aerographer: a warrant officer advanced from an aerographer's mate whose duties include weather forecasting

Ambient temperature: the outside or surrounding temperature

Ceiling: the height above the ground of the layer of clouds, or overcast, that covers half the sky

Density altitude: altitude in the standard atmosphere where the air has the same density as the air at the point in question, or altitude corrected for temperature deviations from the standard atmosphere

Dew point: the temperature at which water vapor begins to condense

Down wash: an airstream (a current of air) directed downward

Ground effect: the elimination of downwash on the rotorhead due to the ground blocking the wingtip vortices within one rotor diameter of the ground) The overall effect is a decrease of power needed to fly.

Pressure altitude: the altitude in the standard atmosphere at which the pressure is the same as at the point in question. It's the uncorrected altitude indicated by an altimeter set at standard sea level pressure of 29.92 inches or 1013 millibars.

Relative humidity: the ratio of the existing amount of water vapor in the air at a given temperature to the maximum amount that could exist at that temperature, usually expressed in percent

Sea state: the condition of the sea. Usually expressed numerically (i.e. 1 is calm, 5 is extreme conditions)

Visibility: the transparency and illumination of the atmosphere as affecting the distance at which objects can be seen; the greatest distance toward the horizon which large objects like buildings can be identified with the naked eye

ENRICHMENT ACTIVITIES

Troublesome Grammar: More Two-Word Verbs

As you might have discovered, there are hundreds of two-word verb combinations and even more meanings. (See Units 7 and 11.) In this lesson we will introduce those based on **get**.

Get may be the most frequently combined phrasal (in two and three-word combinations) verb. Here are some of the many examples using **get**.

Examples:

Naval officers are known for their desire to get ahead. (to succeed)

We plan to get around the obstacles by taking another route. (to avoid)

We hope to get around to your proposal tomorrow. (to do something that has been delayed)

The sailors must get away quickly. (to depart)

The thief will not get away with it on this ship. (to escape detection or punishment)

The best way for a losing team to get back at their opponents is to win. (to take revenge)

After the weekend pass it was difficult to get back to work. (to return to doing something)

Don't get behind on/in your assignments. (to be late with)

The captain said that they had enough rations to get by. (to be able to manage, survive)

All sailors love to get in on the latest scuttlebutt. (to find out about)

They couldn't get into the dance in uniform. (to gain entrance to)

Despite the accident they had to get on with the exercise. (to continue with)

They will get out of class at 1800 hours. (to leave)

The thirty sailors finally got over food poisoning. (to recover from)

"We're going to have to do it anyway, so, let's get it over with." (to finish)

Every sailor was able to get through survival school. (to finish an unpleasant task)

The rescuers were unable to get through to the crash victims. (to reach)

The commanders were able to get together yesterday. (to meet)

The ensign had to get up at 0200 hours for watch. (to wake up and rise from bed)

LPD: Amphibious Transport Dock

workups: preparations for flight operations

Exercise 27

Copy the following sentences in your notebook and annotate the meaning of the "get" combination.

1. After the celebration, nobody wanted to get up.
2. The ship wasn't able to get into port in time for the fiesta.
3. Taking this seminar will help us get ahead.
4. All the officers were able to get through the advanced tactics course.
5. The chief hopes to get out at daybreak.
6. The captain will get around to your case tomorrow.
7. The veterans were getting together to celebrate.
8. Ships must get around the mines.
9. The vandals will not get away with this.
10. Get away from that exhaust duct.
11. It is sometimes difficult to get back to work after a large lunch.
12. The sailors had enough money to get by.
13. The rescue team was able to get through to the flood victims.
14. Let's get it over with so we can get on with our plans.
15. It usually takes a few days to get over the flu.
16. While you're deployed, don't get behind on your bills.
17. They all wanted to get in on the joke.
18. He vowed to get back at the chief.

Authentic Readings

Exercise 28

Answer the following prereading questions. Then read the article "Relax, the Duke's Got It."

1. Often the first paragraph of a reading sets the tone for the entire article. In this article, the author sets forth a warning based upon what a person says. What warning do you think the author is addressing in the first paragraph of this article? Write your prediction in your notebook.
2. Now, based upon your prediction, skim the article. Were you correct? Explain in your notebook.

3. Carefully read the last paragraph of this article. Does the last paragraph match the first? Why or why not? Again, explain in your notebook.

"Relax, the Duke's Got It."

As the old joke goes, there are three things you never want to hear: an ensign saying, "Well, in all my years…"; a lieutenant commander saying, "Well, I think…"; and a lieutenant saying, "Watch this…"

Early one morning, I found myself sitting on the deck of an **LPD** during **workups**, waiting for the day's **vertrep** to start. It was, for all practical purposes, my first day of operations in the fleet. Until then, my vast experience aboard ship included the helo landing trainer, IX-514, in Pensacola,

and those initial qualifications you do in the **FRS** with the ship making all of about 2 knots, with a sea state of 0, and winds straight up the bow at 5 knots. In my favor, I had logged quite a few hours at home guard.

It was a nice, **VMC** day, and we were working a stable deck the size of a football field. The crew was comfortable. Just as I was starting to feel safe and secure, the **HAC**, citing my lack of experience said, "You have your little bit of FRS experience, but that really isn't how we do it in the fleet. Watch this. I'll show you how to do vertrep."

Now, if I'd known any better, I would have tightened my shoulder harness, double-checked my **HEEDS** bottle, and opened my pocket checklist to the emergency procedures section. In all seriousness, I should have at least questioned the HAC on what was about to happen, but I didn't. The aircraft commander is the aircraft commander. Why would he ever do anything to **jeopardize** our safety?

A two-plane vertrep was scheduled, which means you don't want to be shown up by the other guy, in this case, the crew of the other aircraft. Thus, our mission was "to beat the other aircraft into submission and show them up as much as possible." Although I am now a fleet-seasoned **H-46** pilot, that morning I was being looked at as a liability. Making matters worse for our crew was the fact that it would be the first time in the "hell hole" for our second crewman, and he would be making all the **ICS** calls to maneuver us around. The hell hole is the hatch in the cabin deck through which the crewman guides the helicopter over the load and makes the hookup.

Without much more than "I've got the controls" from the HAC, we lifted and immediately started racing around the pattern for the first pickup. Looking back, it was something right out of those **ACT** films, which contain notable quotes like, "Just shut up and **clear me left**, **rookie**," or "Relax, the Duke's **got it wired**." Then, there's the famous, "See, I told you so," seconds before the airliner crashes. But at the time, I assumed we were off to a winning start because the other aircraft had not even lifted into a hover.

We were on short final and entering our **side-flare** approach to the load. Doing so put the 20-knot winds off our port quarter and directly outside the **envelope** of our latest H-46 wind restriction. If that wasn't bad enough, we now had a tail wind on a June day off **MCAS** Cherry Point, a full bag of gas, and a 3,700-pound load of ammo underneath us. The load was on the deck edge of the aft starboard elevator, and the HAC was flying from the left seat. That meant that the cockpit was hanging out off the deck edge, and neither one of us had much **reference** to the deck.

vertrep: vertical replenishment

FRS: Fleet Replacement Squadron (training in fleet aircraft)

VMC: Visual Meteorological Conditions

HAC: Helicopter Aircraft Commander

HEEDS: Helicopter Emergency Egress Device (mini scuba tank)

jeopardize: to risk losing or destroying something

H-46: (UH-46) Sea Knight Helicopter

ICS: Inter Communication System (intercomm)

ACT: Aircrew Coordination Training

clear me left: let me enter from the left

rookie: (slang) new person, inexperienced person

got it wired: (slang) has everything under control

side flare: to swing outward while descending

envelope: performance limit

MCAS: Marine Corps Air Station

reference: (point of reference), perspective

minimizing risks: limiting danger

LSE: Landing Signals Enlistedman

behind the power curve: (slang) deficient, unable to catch up

PAC: pilot at the controls

recage: (slang) regroup, to reorganize for another try

helo bubbas: (slang) helicopter pilots

advisory: not mandatory

stub wing: short wing (to the rear on an H-46)

salty: witty, coarse

punctured: pierced

bladder: fuel tank

expletive: a profane remark

spars: principal structural members in a wing

mainmount: undercarriage

consequence: result

cosmetic: surface, appearance

duct tape: wide silvery cloth adhesive tape

det: detachment

OinC: officer in charge

a few pounds chewed off his backside: (slang) a severe reprimand, a strong chewing out

During vertreps, this is sometimes the price of doing business when there is no other option. However, on this deck, we had plenty of room. During the pickup, we would have to rely on the rookie crewman to keep us clear and call us over the load. Talk about **minimizing risks**.

As we were struggling to get a hookup, it seemed as though we kept settling lower and lower over the load. The little that I could see of the flight deck revealed nine people scrambling out of the way and the **LSE** waving us up quite vigorously. It was obvious at this point that we should have waved off. Our rookie crewman was **behind the power curve**, and the **PAC** was not off to a good start either.

Sometimes waving it off and making a quick trip around the pattern helps everyone to **recage** after a lousy approach for a pick or drop. The crew chief suggested that idea, and I meekly backed him up, but the HAC wanted the pick, so we continued. You could tell the crew chief was getting anxious because he was now joining in on the calls and making it harder to understand anything.

After the third time, both crewmen called, "Up, up, up," because we were too low. The LSE waved us off. As all **helo bubbas** know, you mostly consider the LSE signals **advisory** and listen to your crewman all the time, except when you hear one of two mandatory calls. "Up, up!" was one of them. Despite my waveoff call over the ICS and the simultaneous waveoff call from the Air Boss over tower frequency, the HAC was convinced we almost had a hookup, and made one last attempt to come down to the load. That's when the crew chief exclaimed, "We just hit with the **stub wing**!" You could feel the hit throughout the aircraft and could see people on the flight deck sprinting away from us. We waved it off.

The HAC wanted to know how hard we hit this solid wooden crate of ammunition and asked, "Was it a solid hit or just a tap?"

The **salty** crew chief replied, "Sir, we just tapped it, but it was an eighteen thousand-pound tap."

Instead of coming back around and landing to inspect any damage to the aircraft, we came back around and made the pick. As we were transiting with the load (now it was my turn to fly), we discussed the possibility of a **punctured** fuel **bladder**. We made the drop off at the next ship and landed. The crew chief jumped out and quickly shouted an **expletive** or two, telling us we had a hole approximately 8-by-10 inches through the stub wing. Amazingly, it was between **spars**, narrowly missing the fuel bladder.

We still had a functional **mainmount**, and the load of ammo we hit was not damaged. We were fortunate we did not injure anyone on the flight deck. The only **consequence** this time was some **cosmetic** damage, which was temporarily repaired with **duct tape**. Later, the actual repair took approximately eight hours.

Regardless, the **det OinC** and the Air Boss (he told the LSE to wave us off) were not exactly pleased. The HAC had a **few pounds chewed off his backside**, and I, in my innocence, learned a valuable lesson: even the most experienced people can kill you.

Source: Lt. Jonathan Lewis, "Relax, the Duke's Got It," *Approach*, August 1999, pp.12-14. Reprinted by permission.

Exercise 29

In your notebook, write answers to these comprehension questions.

1. In paragraph five, what does "Our mission was to beat the other aircraft into submission and show them up as much as possible" mean? Are all pilots this competitive? Is this good or bad? Explain.
2. Who was at fault, the "duke" or the rookie crewman? Why?

The next reading is not as action packed as the previous one, but the different perspectives of the involved parties are very interesting. As you read the article, try to "imagine" the situation from different points of view (e.g. flight deck personnel, flight crew, or pilot).

Walking Like A Duck Is A Good Thing

The sea state was 2, the moon was full, and we were eight experienced **LAMPS** pilots regaining our RLQs (**Rast** Landing Qualifications) on board an Aegis-class cruiser. Sure, a majority were **0-4**s, but what would you expect on a full-moon night? We had six fleet guys and a pair of **category 2** FRS students, meaning everyone knew what they had to do. There was also a lieutenant who had eagerly volunteered to go with us and do nothing but be the **LSO** for six hours.

The RLQ period developed as they always do: the ship wasn't at the rendezvous point. To establish **comms** with **mother**, we had to fly by the bridge and wave at the **OOD**. And to add insult to injury, **homeplate** reminded our **intrepid** group that the field closed at 2300, regardless of our whereabouts.

Like any salty aviators, we pressed on in our three helos, got to the ship, and started the RLQs. I had won the draw at the brief and got the chance to fly out to the boat, thereby becoming the first to complete the **quals**. Having spent most of my underway time in **FFG**s, I spent the next 25 minutes strolling around the deck of the Aegis acting like I knew how to get to the LSO shack.

I finally reached **datum**, grabbed the other headset, and sat back as the lieutenant skillfully **conned** helo after helo into the **trap**. I noticed several things during this period. First, the old guys were doing pretty well. The moon was so bright that we discussed using our dark visors, but we finally decided against it. Why ruin a good thing?

Second, the experienced **0-3** was moving quickly through the conning procedures. Third, the two hookup men on this ship were both at least 6 feet, 6 inches tall.

As the next SH-60B came across the deck, I reflected on my past tour and thought this was sure more fun than being in Washington. The pilot positioned his Seahawk perfectly over the left portion of the flight deck and lowered the messenger cable. This cable is attached to the haul-down cable and is then retrieved back into the helicopter for securing the helo to the rapid-securing device (RSD) on deck.

As the cable touched the deck, the big twins scurried out. While they were trying to attach the two cables, the PAC noticed his hover was slightly higher than the horizontal attitude reference system (HARS), and he started lowering his aircraft into a better position.

Sensing the aircraft's downward movement, the LSO called, "No lower, no lower." But the helo kept going down. Raising his voice, the LSO shouted, "No lower!" At about this time, the lead hookup man connected the cable, and the safety man started backing him out.

As the hookup men backed out from under the aircraft, the safety observer caught the LSO's eye. Standing off to one side, I could see the startled expression on the

LAMPS: Light Air Multipurpose System

Rast: Recovery Assistance, Securing and Traversing System

O-4: Lieutenant Commander

category 2: pilots with at least one previous fleet assignment

LSO: Landing Safety Officer

comms: communications

mother: (slang) destination ship

OOD: Officer of the Deck

homeplate: (slang) originating base to which they will return

intrepid: fearless

quals: qualifications

FFG: Guided Missile Frigate

datum: the most probable location of a fixed point

conned: guided a ship into position

trap: wire-assisted landing on the deck

O-3: lieutenant

young Sailor's face. I just assumed this was one of his first ever RLQs and that he was just getting accustomed to being near aircraft. So what was the point?

winding up: finishing up

As the RLQ began **winding up**, I headed back to the hangar in a much more **expeditious** manner. Back in the hangar, I overheard two members of the fire party arguing about helicopters and heads. I offered my years of expertise on the subject of **rotorheads**, but I was surprised when the Sailors told me they had absolutely no interest in rotorheads, but rather in the combination of one helicopter and someone's head.

expeditious: quickest

rotorhead: the point where the rotors are connected to the shaft

stunned: very surprised

nonstandard: not following regulations or set procedures

mark-on-top: flying directly over (very low)

duck walking: walking nearly squatting

A chief once taught me a valuable lesson: "Sometimes it is better to just listen to the troops instead of throwing a thousand questions at them."

It turned out that the hookup man had looked confused because the bottom of the SH-60B had hit his head while his partner tried to connect the cables. Granted, these two Sailors should be on the all-Navy basketball team, but the catastrophes that might have occurred are not pleasant to contemplate.

I still had some doubt, so I waited for the hookup men to return to the hangar and confronted them. Their story made me a believer. We all remanned our respective helos for the flight home. We returned at 2310 and begged for the field to stay open. Base ops was on our side, and we landed safe and sound.

I told my RLQ buddies about the ship's hookup men, and they were **stunned**, wondering how something like that could have happened. As we discussed the events of the evening, we solved the mystery. When the LSO called, "No lower," the helicopter aircrew thought he was saying, "Go lower." They recognized his command as **nonstandard** and ended their descent just as the first-ever SH-60B and Sailor's head **mark-on-top** was completed.

Bad things could have happened that night. Always use voice calls – such as "Easy up," or "Steady" – over the deck. If something is non-standard, hold your position and get clarification. Anyone who has cruised with a RAST-capable ship has a story about our inability to evacuate or communicate with the hookup men once they are under the aircraft. Let's face it. They are the bravest members of any flight deck crew. When was the last time you went out and stood under a hovering helicopter?

Beginning with the first week of workups, stress the importance of the safety man in the hookup team, and how he must constantly scan the LSO and hookup partner. Exercise waving the team off the flight deck, and ensure they understand how much cable they should see on the deck and what hover altitude should look like during the hookup phase.

As for those two big guys, they are still out there, hooking up aircraft, but the last time I went on board, I saw them **duck-walking** out to do the job.

Source: LCdr. D.H. Fillion, "Walking Like A Duck Is A Good Thing" *Approach,* January 1998, pp.18-20. Reprinted by permission.

Exercise 30

In your notebook, answer the following comprehension questions about the reading.

1. In paragraph six, the author states, "I reflected on my past tour and thought this was more fun than being in Washington." What do you think the pilot meant? Do you agree? (Hint: the Pentagon is in Washington.)
2. In paragraph fourteen, the problem was a misunderstanding of the two phrases: "no lower" and "go lower." Has this situation ever happened to you when speaking with native English speakers? Explain. How do you avoid/ solve the problem?

Exercise 31

Before you read the article titled "Phrog on the Pond," skim the article and answer the following questions.

1. Based upon the title, what do you think happens to the helicopter? (Hint: phrog is pronounced frog.) Write your prediction in your notebook.
2. Have you ever flown on a helicopter? What was your "scariest" experience? Does it compare with this story?

Phrog on the Pond

I woke up at 0235 for a 0315 brief on board USS Seattle (**AOE** 3). The hangar was hot and humid, and my flight suit was drenched as I climbed down from **preflighting** the rotorheads. After the brief, the copilot and I manned up Bayraider 52 while still in the hangar.

My copilot had been in the squadron about two weeks, and this was his second real vertrep. As soon as the other aircraft took off and reported **ops** normal, the maintenance team pushed our aircraft onto the spot. We were resupplying USS *George Washington* (CVN 73) with bombs and ammunition that day, normally a fun and rewarding mission that we all looked forward to, even if it did mean waking up very early.

Everything was fine until we started the engines and No. 2 engine peaked below 500 degrees. While there was nothing wrong with this reading, we had usually been seeing peaks near 700 degrees since we had been in the Puerto Rico area – more than a week at this point. We decided to engage the rotor system and **keep a close eye on** that engine.

As I expected, once the rotors were engaged, the No. 2 engine **hung up** at about 82 percent **Ng** – very likely a **P3** signal loss to the fuel control. The crew chief opened that engine bay door and confirmed our suspicion: the P3 line wasn't tight. With the rotors still engaged, we shut down the engine, and he **torqued** down the fitting. Before I asked, he also checked the No. 1 engine and reported the line was tight.

As the crew chief finished closing the engine bay doors, my copilot and I completed our takeoff checks, and three minutes later, we were airborne on what would become one of the scariest flights any of us would ever experience.

We took off at 0500, 45 minutes before sunrise. As we climbed away from the ship, I checked the engine instruments and the circuit breakers. Our **SAR** crewman looked for possible leaks and any other indications in the back that something might be wrong with the aircraft. A moment later, we reported all was normal, and I called the tower, "Ops norm, four **souls**, one hour and forty-five minutes of fuel."

The tower from each ship replied they were ready to start the vertrep. The aircraft carrier was approximately 200 yards to port of *Seattle.* Our sister aircraft, Bayraider 53, called inbound for the first pick, and we turned in toward *Seattle*'s flight deck to follow them.

Bayraider 53 set down the first load on the ***GW***'s **fantail**, and I could see that our aircraft was still nearly a mile astern. I called Bayraider 53 and told them to make another pick, after which we'd follow them. The crewmen rigged the "hell hole" – a cargo hatch in the belly of the aircraft where we hook up the external loads – and I took the controls to slide over the deck with the nose to port.

The first crewman was in the hole and reported, "Load hooked up, hookup man clear."

Before I began to pull power to lift the load, my copilot reported 90 percent **Nr** (normal rotor speed is 100 percent). I called to release the load while I tried to read the gauges. I hadn't heard any power reduction or even rotor speed decay. It seemed the No. 1 engine indications were lower than No. 2, but not greatly.

Phrog: nickname for Sea Knight helicopter

AOE: Fast Combat Support Ship

preflighting: performing a pre-flight inspection

ops: operations

keep a close eye on: watch carefully

hung up: was stuck at

Ng: speed of the gas turbine

P3: a fuel line

torqued: tightened (usually with a wrench)

SAR: search and rescue

souls: (slang) persons

GW: abbreviation: George Washington

fantail: the rearmost portion of the deck

Nr: normal rotor speed

fouled: blocked

ramp: aircraft carrier overhang

APU: auxiliary power units

drop off line: to become inoperable, to stop working

lip lights: the very small lights on a mouth microphone

compromise: to cause the impairment of, to break or harm

integrity: soundness of a structure or system

collective: collective pitch control

trim: adjustment control of the aircraft to obtain balanced flight

glare shield: windshield

locking prawls: hatch locks

"Load's away, hook's clear," the crewman called.

An immediate landing was not an option because *Seattle*'s flight deck was **fouled** with cargo. All I could do was to get single-engine airspeed before things got worse. As I steered the aircraft away from the stern of the carrier, I heard the first crewman urgently say, "Close up the hell hole."

As we passed below the **ramp** of the carrier, I was distantly aware of at least two "Power!" calls over the radio. I could hear rotor speed winding down rapidly, and I knew we hadn't reached single-engine airspeed. The copilot had already armed emergency throttle, and he continued calling out the Nr as it decreased through 80 percent. I told him to start the **APU** for electrical power in case the generators **dropped off line**.

I was trying to attain between 70 and 75 knots, at which speed the aircraft requires minimum power to remain airborne. The APU started to wind up, but after several seconds it quit, and at nearly the same time, the rotor speed decayed below 68 percent, causing the generators to drop off line.

I thought the battery must be off, but I obviously couldn't let go of the controls to move the switch. Without a battery we had no ICS, so I couldn't tell my crew what was wrong. The cockpit was completely dark except for our **lip lights**. The automatic flight-control system (AFCS) had been lost with the generators. I realized Nr was now around 65 percent and we were too close to the water to chance continuing to forward flight. If we struck the water at this speed, we might be killed, and the crash would certainly **compromise** the aircraft's watertight **integrity**.

I flared, allowing the helicopter to settle into the water. I eased the nose forward to keep water from washing over the ramp. We were now between one-quarter and one-half mile off the carrier's port quarter. As I tried to reduce the **collective** to increase rotor speed, I became aware that the collective **trim** had frozen because of the loss of electrical power, and the collective was set near maximum. I pushed the collective toward the floor and Nr immediately came back up to over 100 percent.

A wave that seemed as high as the **glare shield** rolled toward the nose, and I could feel salt spray coming through my window as I brought the collective up. The helicopter rose out of the water and again the rotor speed began to decay. While I worked to bring the helicopter into the wind, the copilot again tried to start the APU in hopes of restoring electrical power. When we hit the water, the rescue hatch, which covers the hell hole in the belly of the aircraft, blew open and the aircraft began taking on water.

If the rescue hatch remained open, we would have no chance of saving the aircraft, so with no thought for his own safety, the first crewman raced aft to close the hatch. As electrical equipment immersed in about 3 feet of water sparked all about them, both crewmen charged into the onrushing water and pulled the hatch closed.

With the second crewman standing on the door, the first crewman closed the **locking prawls**. Once again, I increased collective and began to gain forward momentum. After another brief moment in the air, for the third and final time, I allowed the helicopter to set back into the water to regain rotor speed. When we were in the water, the first crewman came forward to help the copilot start the APU. I lifted the aircraft from the water and at the same time increased our forward speed. I could now hear the copilot reporting Nr and airspeed, and we had some of the instrument lights. We continued to climb and accelerate.

"Seventy-five percent Nr, thirty knots," my copilot called. "Seventy percent Nr…"

I lowered collective for an instant and the rotor speed increased.

"Seventy-five percent Nr, forty knots…"

I could now see the carrier to the left and I gently turned toward it. Each time my copilot reported Nr at 70 percent, I momentarily lowered collective, allowing

the Nr to increase. We could now see the carrier's flight deck, and as if on cue, the air boss came over the radio, "The fantail is open if you need it."

After a few more seconds, we came into a high hover over the center of the fantail and the second crewman called me down. Once again, the rotor speed began to decay, but several seconds later we landed safely aboard the carrier. As I reduced collective for the last time that day, Nr increased over 100 percent, and I looked at our gauges. All the copilot's instrument lights were out and several of my own were dark. It was only 0515. While the flight-deck handlers put on our chocks and chains, we tried to push in several of the circuit breakers.

I noticed the No. 1 engine's Ng in the low 80s and asked the crew chief to check the P3 line on the No. 1 engine again. A moment later, he reported the line was still snug. After another moment of checking the engine, however, he suggested we shut it down for a potential crack in the power-turbine exhaust casing. We shut down the engine and waited for an **amber deck** from tower to disengage the rotors.

Source: Lt. W.D. Hoyt, "Phrog on the Pond" *Approach,* January 1998, pp.12-14. Reprinted by permission.

Exercise 32

In your notebook, write the answers to the following comprehension questions.

1. In this article there is an interesting mix of aeronautical, maintenance, and maritime terms. Does 100% understanding of these technical terms really help your understanding of the article? How much of the text could you eliminate and still retain the gist of the story? (Hint: One way of simplifying a reading is to eliminate all the extraneous words. This can be done by highlighting or crossing out unnecessary words.)
2. Do you get the joke about the phrog? Explain it.

amber deck: intermediate status

LEARNING STRATEGY

Keeping a Learning Log

Exercise 33

Follow the instructions for completing the Language Learning Log that were given in Unit 1.

Appendix A Principal Parts of Certain Irregular Verbs

Present	Past	Past Participle
arise	arose	arisen
awake	awoke	awakened
be	was	been
bear	bore	borne
beat	beat	beaten
become	became	become
begin	began	begun
bend	bent	bent
bet	bet	bet
bid	bid	bid
bind	bound	bound
bite	bit	bitten
bleed	bled	bled
blow	blew	blown
break	broke	broken
bring	brought	brought
build	built	built
burst	burst	burst
buy	bought	bought
cast	cast	cast
catch	caught	caught
choose	chose	chosen
come	came	come
cost	cost	cost
creep	crept	crept
cut	cut	cut
deal	dealt	dealt
dig	dug	dug
do	did	done
draw	drew	drawn
drink	drank	drunk
drive	drove	driven
eat	ate	eaten
fall	fell	fallen
feed	fed	fed
feel	felt	felt
fight	fought	fought
find	found	found
flee	fled	fled
fly	flew	flown
forget	forgot	forgotten
forgive	forgave	forgiven
freeze	froze	frozen
get	got	gotten (got)
give	gave	given
grind	ground	ground
grow	grew	grown
hang	hung	hung
have	had	had
hear	heard	heard
hide	hid	hidden
hit	hit	hit
hold	held	held
hurt	hurt	hurt
keep	kept	kept
know	knew	known
lay	laid	laid
lead	led	led
leave	left	left
lend	lent	lent
let	let	let
lie	lay	lain
light	lit	lit (lighted)
lose	lost	lost
make	made	made
mean	meant	meant
meet	met	met
pay	paid	paid
put	put	put
quit	quit	quit
read	read	read
ride	rode	ridden
ring	rang	rung
rise	rose	risen
run	ran	run

Present	Past	Participle
say	said	said
see	saw	seen
seek	sought	sought
shake	shook	shaken
sell	sold	sold
send	sent	sent
set	set	set
shed	shed	shed
shine	shone	shone
shoot	shot	shot
show	showed	shown
shrink	shrank	shrunk
shut	shut	shut
sing	sang	sung
sink	sank	sunk
sit	sat	sat
sleep	slept	slept
slide	slid	slid
speak	spoke	spoken
spend	spent	spent
spin	spun	spun
split	split	split
spread	spread	spread
spring	sprang	sprung
stand	stood	stood
steal	stole	stolen
stick	stuck	stuck
sting	stung	stung
strike	struck	struck
string	strung	strung
swear	swore	sworn
sweep	swept	swept
swim	swam	swum
swing	swung	swung
take	took	taken
teach	taught	taught
tear	tore	torn
tell	told	told
think	thought	thought
throw	threw	thrown
understand	understood	understood
wake	woke (waked)	woke (waked)
wear	wore	worn
weave	wove	woven
weep	wept	wept
wet	wet	wet
win	won	won
wind	wound	wound
wring	wrung	wrung
write	wrote	written

Some Differences in Verb Forms

The following are some differences in verb forms between American English and British English:

American	British
bet-bet-bet	*bet-bet-bet* or *bet-betted-betted*
get-got-gotten	*get-got-got*
quit-quit-quit	*quit-quitted-quitted*

American: *burn, dream, kneel, lean, leap, learn, smell, spell, spill, spoil,* are usually regular*: burned, dreamed, kneeled, leaned, leaped, etc.*

British: simple past and past participle forms of these verbs can be regular but more commonly end with *-t: burnt, dreamt, knelt, leant, leapt, learnt, smelt, spelt, spilt, spoilt.*

Appendix B Punctuation, Capitalization, Numbers

PUNCTUATION[1]

A. Period (.)

1. Use a period at the end of a statement or command.

The pen and paper are on the table.
Go to the chalkboard and write your name.

2. Use a period after an abbreviation or an initial.
Abbreviated military ranks do not require a period.

Dr. Smith (Doctor Smith)	Mr. Brown
J. Jones (John Jones)	Ms. Little
Feb. (February)	a.m.
Mrs. White	p.m.

B. Question Mark (?)

Use a question mark after a question. Sometimes the question may be written like a statement.

How many children are in your family?
He's here today?

C. Exlamation Mark (!)

Use an exclamation mark after words, sentences, or expressions that show excitement, surprise, or emotion. Any exclamation, even if not a sentence, will end with an exclamation mark.

What a game!	Do it!
Look out!	Oh!
Wow!	

D. Quotation Marks (" ")

1. Use quotation marks to show the words of a speaker. They're always placed above the line and are used in pairs.

John said, "The commissary closes at 2100 hours today."
"Where are the children?" she asked

2. If the words of the speaker are divided into two parts, use quotation marks around both parts.

"Do you," she asked, "go to the library after class?"

3. Use quotation marks around the titles of chapters, articles, parts of books and magazines, short poems, short stories, and songs.

Then I read the article "Learning English" in the newspaper.

E. Apostrophe (')

1. Use an apostrophe in contractions.

I'm	she's	they're
isn't	aren't	can't
what's	where's	Bob's
o'clock (of the clock)		

2. Use an apostrophe to indicate possession.

a. If the noun is singular, add 's.

Bill's book the girl's coat

b. When the noun is plural, add 's if the plural does not end in s.

the children's clothes the men's shirts

c. If the plural noun ends in s, add only an apostrophe.

the boys' shoes
the libraries' books

F. Comma (,)

1. Use commas to separate items in a series.

   We ate sandwiches, potato chips, and fruit for lunch. She looked behind the chairs, under the bed, and in the kitchen for her notebook.

2. Use a comma before the conjunctions and, but, or, nor, for, yet when they join independent clauses.

   We lived in Venezuela for three years, and then we returned to the United States.

   Frank can speak Chinese well, but he can't read it.

3. Use a comma after an introductory clause or phrase to separate it from the rest of the sentence.

   After we study this book, we want to take a break.

   Because John was sick, he didn't take the test.

   Looking up at the sky, the small boy suddenly ran home.

4. Use a comma after words such as yes, no, well when they begin a sentence.

   Do you want to go to the library?
   Yes, I do.

   I didn't pass the test.
   Well, study more.

5. Use commas to separate the words of a speaker from the rest of the sentence.

   "Listen to me," she said.
   Jack asked, "Where's my lunch?"
   "I don't know," said John, "the answer to the question."

6. Use a comma in dates and addresses.

   June 9, 1970
   143 Main Street, Los Angeles, California

7. Use a comma in figures to separate thousands.

   5,000 (or 5000)
   10,000
   6,550,000

CAPITALIZATION

1. Capitalize the first word of a sentence.

   The boy stood up and walked outside.
   Your book is behind the chair.

2. Capitalize the names of people, cities, states, countries, and languages.

Mark	Bill
Mary	Linda
San Antonio	Chicago
Houston	London
Texas	California
Florida	New York
Spain	United States
Canada	Venezuela
Arabic	Chinese
Russian	English

3. Capitalize the names of schools, streets, buildings, bridges, companies, and organizations.

   Defense Language Institute
   University of Chicago
   Main Street
   Empire State Building
   Golden Gate Bridge
   Ford Motor Company
   General Motors
   Clark Avenue
   National Football League

4. Capitalize the days of the week, months of the year, and holidays.

Sunday	Monday	Tuesday
June	July	August
Easter	Thanksgiving	Christmas

5. Capitalize titles and military ranks before names.

Gen Roberts	Capt Smith
Sgt Jones	Professor Land
President Lincoln	

6. Capitalize the pronoun "I."

   I can't go with you.
   I'm happy to see you again.

7. Capitalize the first word of every direct quotation.

   She asked, "Can I sit here?"
   "We saw her," said John, "at the University."

NUMBERS[2]

When To Write Numbers As Numerals

1. Write units of time, money, and measurement as figures as indicated the following examples:

   a. Time

   Examples:
   0800; 4:30 p.m.; 6 hours; 8 minutes; 20 seconds

   b. Age

   Examples:
   18 years old; 52 years; 10 months; 6 days

   c. Dates

   Examples:
   4 June 1987
   July, August, and September 1983
   4 April to 11 June 1995 (not 4 April 1995 to 11 June 1995)
   4 October 1993 to 11 August 1994

   d. Money

   Examples:
   $37.50; $0.75; $3 per 200 pounds; 75 cents a piece

   e. Measurements

   Examples:
   110 meters; 2 feet by 1 foot; 8 inches; 300 horsepower; 20/20 vision; 5,280; 5 ½ pounds

   f. Unit Modifiers

   Examples:
   5-day week; 10 foot pole; 8-year-old automobile

2. Military unit designations are written as follows:

   a. Air Force unit names.
   In the Air Force, numerically designated units up to and including an air division are designated with Arabic numerals.

   Examples:
   31st combat Support Group
   834th Air Division
   22d Tactical Fighter wing

   b. Army unit names.
   In the army, units up to and including the division are designated with Arabic numbers. The corps name is written with a Roman numeral. The army group is designated by an Arabic number.

   Examples:
   III Corps
   2d Army Group
   82d Infantry Regiment
   7th AAA Brigade
   2d Infantry Division

   c. Navy unit names.
   In the Navy, the number of the task force is written in Arabic numbers. The fleet number is spelled out.

   Examples:
   Task Force 58
   Fifth Fleet

   d. Marine Corps designations follow the same plan as those of the Army.

Appendix C Transitional Expressions

Purpose	Expressions
to add	additionally, again, also, and, and then, another, another point, as well as, besides, beyond that, equally important, first (second, last, etc.), for one thing, further, furthermore, in addition (to), moreover, next, what's more, too
to emphasize	above all, as a matter of fact, especially, in fact, in particular, indeed, most important, surely
to give a restatement	in other words, in simpler terms, that is, to put it differently
to place	above, adjacent to, along the edge, around, at the left/right/top/ bottom/front/rear, behind, below, beside, beneath, beyond, facing, here, in front/back of, in the center/distance, in the foreground, inside, nearby, next to, on the (far) side, on top, opposite, out of sight, outside, over, straight ahead, surrounding, to the north/ south/east/west, under, within sight, before me, to my right/left
to qualify	perhaps
to show an alternative	or, nor, if not, otherwise
to show a substitution	instead, in lieu of
to summarize or conclude	all in all, finally, in all, in brief, in other words, in conclusion, in short, in summary, lastly, on the whole, overall, to conclude, to put it briefly, to sum up, to summarize
to show purpose	in order to, so that, that
to indicate order of climax or importance	the best/worst part, the most important, the least significant, the easiest/greatest/most difficult,/most serious/most interesting, etc.
to express a condition	if, if only, even if, in case that, in the event that, or (else), other-wise, provided that, providing that, unless, whether or not

to express manner	as if, as though
to define	can be considered, can be defined as, is also known as, is the same as, is/are, means
to classify	can be categorized/classified/divided, the first category/kind/type, there are two /three/four groups/classes/orders/levels/species, etc.
to illustrate	another instance/example/illustration of, as a case in point, as an illustration, for example, for instance, here are a few examples/ instances/illustrations, in particular, one such, specifically, to illustrate, yet another, according to statistics, as follows, as proof, let me illustrate, let me cite as proof
to give a reason (cause)	as, because (of), for, since, inasmuch as, as long as, in view of the fact that, on account of, on the grounds that, owing to the fact that
to show a result (effect)	accordingly, and so, as a consequence, as a result (of), because of this, consequently, for this reason, hence, so, therefore, thus
to place in time/sequence	after (this/that), after a while, afterward(s), at first/last/present, at the same time, at the start, before (this/that), at the end, in the end, during, earlier, eventually, finally, first (second, third, etc.), first of all, following this, for a minute/hour/day, etc., formerly, in the beginning, in the future, in the meantime, initially, last, last of all, lastly, later, meanwhile, next, now, soon, simultaneously, subsequently, then, to begin with, to start with, until, while, when, as soon as, by the time, since then, as long as, at the moment that
to compare	also, and, as well (as), both, each of, in the same way/manner, just as, like, likewise, neither, similar(ly), the same, too, alike, equally
to contrast	all the same, although, be that as it may, but, but anyway, but still, despite, despite what, despite the fact that, even if, even so, even though, however, in contrast (to), in spite of, nevertheless, no matter what, nonetheless, not only, notwithstanding, on the contrary, on the other hand, regardless (of), still, though, yet, whereas, while,
to concede a point	after all, although, though, even though, this may be true, certainly, granted that, it is true, of course, naturally, no doubt, to be sure, truly

Appendix D Modal Chart

Modal	Function	Present / FutureContexts	Past / Perfect Contexts
can	express ability (physical or intellectual) in the present	The Special Forces trainee can march 25 miles.	
	describe feasibility or give an option in the present	The Marine contingent can cross the river by the bridge or by boat.	
	with not, express inability (physical or intellectual) in the present	The soldiers can't penetrate the enemy's defenses.	
	with not, express impossibility (inferential) in the present	The office can't be closed; it's too early.	
	ask for or give permission (informal) in the present	The major can use the staff car whenever he likes.	
	make a polite request (informal) in the present	Can you [please] help me move this heavy oil drum?	
could	express ability in the past		The sergeant could run 25 miles when he was a private.
	make a suggestion or show an option in the present time or in a past context	Lieutenant, I'm having a problem with this project. You could ask Sgt Rudolfo to give you a hand.	I told the new sergeant that he could ask Sgt Rudolfo to give him a hand.
	describe a past unfulfilled opportunity		I really had a problem with that project. You could have asked Sgt Rudolfo to help you.
	make a polite request (informal) in the present	Could you [please] stop at the checkpoint? I want to ask Major Clive a question.	
	politely ask permission (informal) in the present	Could I [please] use your copy machine?	
	describe possibility in the present or past	Where is Lieutenant Effraim? He could be in Captain Leonard's office.	Where is Lieutenant Effraim? He wasn't feeling well; he could have gone home.
	with not, describe impossibility (inferential) in the past		They couldn't have closed the billeting office; it's too early.
must	express necessity or strong obligation in the present	The captain must leave early today.	[For past, use had to.]
	express prohibition in the present	The E-1s from Bravo Company must not be late for formation.	
	express inference based on high probability / logical assumption in the present or the past	Lieutenant Drake doesn't answer his page. His pager must be out of range.	Lieutenant Drake didn't answer his page. His pager must have been out of range.

Modal	Function	Present / FutureContexts	Past / Perfect Contexts
had better	express strong advisability with threat of a disagreeable consequence	The trainee had better be on time for formation, or she will have to do 50 push-ups.	
should	express obligation	Enlisted personnel should wear their dog tags during the FTXs.	
	express obligation not fulfilled		The private should have worn his dog tags, but he forgot them.
	express advisability	Lt Kellerman should try to improve his writing skills.	
	express advisability after the fact		Lt Kellerman should have proofed his report before turning it in.
	express expectation (future probability)	The convoy should arrive at noon today.	
	express expectation probably fulfilled		It's 1400. The convoy should have arrived in the nearest town at noon.
	express expectation not fulfilled		The convoy should have arrived here at noon, but there's no sign of it.
ought to	express obligation	You ought to follow the chain of command at all times.	
	express obligation not carried out		He ought to have followed orders; there's no doubt he'll get in trouble.
	express advisability	The major ought to work on his speech for tomorrow.	
	express advisability after the fact		That speech was so boring. The major really ought to have prepared it more carefully.
	express expectation (future probability)	Major Franklin ought to hear from his wife today. She calls him every Friday.	
	express expectation probably fulfilled		The major ought to have heard from his wife by now. She usually calls him early on Friday.
	express expectation not fulfilled		The major ought to have heard from home by now, but there have been no calls. He's worried.
may	make a polite request (formal)	Sir, may I [please] use the phone?	
	ask for or give (formal) permission	You may grant the men liberty this weekend.	
	express possibility	The general may attend the graduation ceremonies at the Academy. I'm not sure yet.	The general may have left the ceremony already.

Modal	Function	Present / FutureContexts	Past / Perfect Contexts
have to	express necessity or strong obligation	We have to stay on base because of THREATCON-DELTA.	We had to stay on base yesterday because of THREATCON-DELTA.
	express lack of necessity or strong obligation	I don't have to go to rifle practice today.	I didn't have to go to rifle practice yesterday, but I do have to go today.
might	express possibility	Lt Walker might still be at sick call.	Lt Walker might have been at sick call when you called.
	[rare] make a polite request (formal)	Might I [please] use your phone?	
shall	make a polite suggestion or offer	Shall I close the window, sir?	
	agree with "I" or "we" pronoun subjects of verbs expressing future time	We, the commander and I, shall participate in the parade.	The commander and I shall have participated in the parade for the third time during the last two years.
will	indicate future time	The C-5 will leave at 0500 tomorrow.	The C-5 will have left before the general arrives.
	make a polite request	Will you [please] help me lift these boxes?	
	express willingness	I will be delighted to accompany you to the reception for Admiral Sansone.	
would	indicate future time in a past context		The lieutenant told me he would leave tomorrow at 0800.
	indicate repeated past action or habit		When Commander Daniels was a lieutenant, he would go sailing with his friends nearly every weekend.
	express unfulfilled intentions		He would have studied, but he got sick.
	express willingness	I would be happy to assist you.	
	make a polite request	Would the senior officers [please] remain seated?	

Appendix E Conditional Sentences

There are three basic types of conditional sentences discussed in this appendix. Each type has two parts: the ***if-clause*** and the ***main clause***.

Real Present/Future Condition

This type of conditional sentence is used to show what **may**/**will happen** in the present/future if a certain condition happens. When the ***if-clause*** has the present tense, the ***main clause*** uses the present or future tense. Note that the ***if-clause*** may come before or after the main clause. When the if-clause comes after the main clause, there is no comma between the clauses.

If Clause	Main Clause
If the weather is good,	the amphibious ship deploys at 0600.
If the weather is good,	the amphibious ship will deploy at 0600.

Main Clause	If Clause
The rescue operation will take place The rescue operation takes place	if the helicopter spots the drifting fishing vessel.
The Maritime Interdiction Force will identify the suspect vessel	if the CO orders the drug interception.

Unreal Present Condition

If-clauses that refer to an unreal, or hypothetical, situation—sometimes called contrary-to-fact condition—in the present use verbs in the subjunctive mood. Their forms are the same as those of the past tense, except for the verb **be**. **Were,** not **was**, is used with singular nouns and **I**, **he**, **she**, and **it**.

If Clause	Main Clause
If I were LT Medina,	I would prepare computer-enhanced graphics for the briefing.
If he exercised regularly,	he would score higher on the PT test.

Main Clause	If Clause
Seaman Rivera wouldn't get so confused	if he followed the instructions.
I'd comply with the Commander's recommendation	if I were you.

Past Unreal Condition

Another type of conditional sentence is used to show a past unreal condition or situation. It tells what **could**, **would**, or **might have happened** in the past if a certain condition or situation had been true. The ***if-clause*** has the past perfect tense, and the ***main clause*** uses **could have/might have/would have + a past participle.**

If Clause	Main Clause
If PO1 Sorrensen had studied harder,	he would have passed the test for chief.
If the seaman had reported the signal correctly,	the accident could have been avoided.

If Clause	Main Clause
If PO1 Sorrensen had studied harder,	he would have passed the test for chief.
If the seaman had reported the signal correctly,	the accident could have been avoided.

Appendix F Participating in Group Discussions

What Is Expected of All Participants

The success of a group depends on the cooperation and participation of all the members. In order to achieve successful group discussion, every member must be aware of the following expectations:

1. A group member should have a liking for people and confidence in the group as a whole.

2. A member should be able to express ideas clearly. Members and leaders should help make sure each member understands the others and should remember that the purpose of each member's participation is to communicate with others, not to **impress** them.

3. **Flexibility** is important to both members and leaders. Each must be willing to change his/her plans and options. Unyielding leaders may overcontrol the group; inflexible members may work toward their own ends, not toward the goals of the group.

4. Each person must **restrain** his/her **tendency** to dominate the discussion. Leaders must not lecture to the group.

5. Each person should recognize that a sense of humor is important to anyone who works with people—which means just about everyone. We do not have to be comedians, but we must be capable of recognizing and appreciating the humor in life.

6. Each person has the right to expect all members and the leader to have a high degree of personal **integrity**. A discussion leader cannot be successful unless he/she can inspire trust. If members believe the leader is using or **manipulating** them, they will not cooperate fully.

7. Everyone in the group must be a good listener. Members cannot contribute fully unless they are listening to everything said during the discussion. They must take in not only other speakers' words but also the tone of voice, gestures, and facial expressions.

8. Everyone in the group must strive for objectivity. Formation of cliques within the larger group hampers focused discussion. If the leader shows a preference for certain individuals or if some members show a preference for each other, the other members become defensive and either withdraw from or oppose whatever is proposed. If a member is not objective and does not carefully consider all views, he/she will not increase his/her scope of knowledge during the course of the discussion.

9. **Conscientious** preparation is a must for everyone. Each person must do all the necessary reading and must consider the authors' points of view as well as his/her own reactions to the material.

The Seminar Leader

The seminar leader is not a leader in the **ordinary** sense. He/She is not a commander, a lecturer, or a teacher. He/She serves as a guide or as a temporary director of the group. It is the leader's responsibility to help the group move forward in discussion so as to solve a problem or arrive at a group conclusion.

Listed here are a few guidelines about conducting a seminar that a seminar leader would do well to keep in mind.

1. Be completely objective about the facts. Impartiality helps win the **confidence** of the group.

impress: elicit approval; arouse admiration

flexibility: willingness to adjust or change

restrain: hold back from action; check

tendency: inclination to act in a particular way

integrity: honesty; sincerity

manipulating: managing shrewdly, often in an unfair way

conscientious: showing seriousness of purpose

ordinary: customary; usual

confidence: trust; reliance

2. Discourage members from basing conclusions on **insufficient** evidence. Insist that members get all the available facts before making an evaluation.

3. Do not permit a few members to **dominate** the discussion. Encourage everyone to listen and to speak. Do not confuse talk with participation.

4. Insist that each member state his/her ideas on the subject. Occasionally direct a question to a person who has been silent too long.

5. Do not let the discussion become one-sided. Invite opposing arguments by asking questions.

6. Guide the discussion to avoid **sidetracking**. If a member speaks in generalities, ask for specifics, e.g., "Can you give an example to show what you mean?"

7. Plan the discussion so the objectives are met. Exercise control; do not let the discussion wander **aimlessly**. Get the discussion back on track as smoothly as possible.

8. If necessary, briefly explore a side issue of concern to the group. If you do **digress**, however, limit the digression time.

9. Do not permit side or private discussions. Such discussions detract from group unity. Break in and merge them into one discussion.

10. Do not try to prolong a discussion that is slowing down. Begin your summary rather than continue the discussion.

11. Remember that a meeting is not a discussion if the group members are forced to accept the decisions of a minority. Check acceptance on every point throughout the discussion.

insufficient: inadequate for some need, purpose, or use

dominate: have control; hold sway over

sidetracking: deviating from the main issue or subject

aimlessly: without clear purpose or direction

digress: turn aside from the main subject, in talking or writing

examine: look at critically

relevant: relating to the matter under consideration

circumstances: conditions affecting something

assumes: takes on the role/appearance of

The Seminar Participant

In order to facilitate the group learning process, the seminar participant must develop the following six skills:

1. The participant must be sensitive to the values and beliefs on which underlie others' views.

2. Each participant must **examine** the evidence on which an authority outside of, or within, the seminar bases his/her propositions, arguments, and conclusions.

3. The participant must identify and build on the clearest and soundest thinking in the seminar.

4. The participant should exchange with the other participants constructive ideas and information **relevant** to the subject or problem under discussion.

5 . Each participant must analyze the fundamental conditions which should exist for a course of action or policy to be successful.

6. The seminar member must view the same set of facts and **circumstances** from different perspectives.

Roles of the Participants

In a film or on stage, an actor plays a particular role. We can also use the word *role* to describe the part each discussion group member **assumes** within the group. Each member should have an understanding of the various roles he/she and other members may play. An understanding of these roles will contribute to the effectiveness and success of the group.

Each participant may or may not play a role like those of other participants. Each person's role may change with time. Some members contribute to building relationships and **cohesiveness** in the group. Others assist by helping the group perform its task. Still others make no contribution at all; they merely satisfy personal needs.

We refer to those roles which facilitate and coordinate group problem-solving

activities as group task roles. Those roles which make no contribution to group needs are termed individual or nonfunctional roles.

A variety of terms can describe the different roles members assume. The ones we list here are some of the most common terms and are fairly self-explanatory. As you read each list, ask yourself which roles you have played.

The roles in this first list are generally desirable; that is, they facilitate discussion and move it forward.

arbitrator	unifier
encourager	summarizer
coordinator	clarifier
organizer	listener
reviewer	stimulator
initiator	supporter
morale-builder	information-giver
	information-seeker

The roles in this second list are generally undesirable; they may be assumed by self-centered members whose primary interest is more likely to be themselves than the group.

frustrator	monopolizer
aggressor	dominator
isolator	recognition-seeker

Not all of these roles may be observed in any one group or in any one meeting, and roles other than these may be **evident**. Members should try to identify their own roles in the group and to evaluate their roles as facilitative or obstructive.

Groups require members to assume different roles at different stages. An experienced group which has arrived at a group decision has a greater need for a coordinator than does a group that is attempting to address a problem and to analyze the course of action.

The nonfunctional roles, such as the dominator, the aggressor, or the isolator (who withdraws from the group) may irritate some members and create a feeling of hostility. Members observing these obstructive roles should realize that these roles are often symptoms of deeply rooted causes and cannot be quickly **remedied**. As a group progresses, members can develop the ability to deal with these roles constructively.

All members should work toward developing insight in **diagnosing** role requirements and toward maintaining flexibility in executing roles. Each member should be aware of the roles others are playing, but he/she should concentrate primarily upon his/her own contributions.

cohesiveness: quality of being in accord and united in action

arbitrator: a person selected to judge a dispute

evident: obvious; plain; apparent

remedied: set right; corrected

diagnosing: carefully examining and analyzing so as to explain

Appendix G Listening/Viewing Form

News Broadcast Listening/Viewing Form

Listen to or view a news broadcast concening one of the categories listed. Decide what category the news item belongs to, and circle it. As you listen, answer the information questions (Who?, What?, Where?, Why?, When?, and How?) that you learned in Unit 1, and take notes which answer those questions. You may want to tape the broadcast so that you can listen to /view to it more than one time. Be prepared to discuss the news and offer your opinion during the two-week seminar.

Categories	**Broadcast Notes**
NATO/PfP	Who?
Defense/Military	
Government/Political	What?
Disaster/Accident	
Education	Where?
Science	
Environment	When?
Ecology	Why?
Health/Medicine	
International News	How?
Comments:	

Appendix H NATO/US Equivalent Military Ranks and Rates

NATO Equivalent	US NAVY AND COAST GUARD OFFICERS		
OF-10	O-11	Fleet Admiral	ADM
OF-9	O-10	Admiral	ADM
OF-8	O-9	Vice Admiral	VADM
OF-7	O-8	Rear Admiral (Upper Half)	RADM
OF-6	O-7	Rear Admiral (Lower Half)	RADM
OF-5	O-6	Captain	CAPT
OF-4	O-5	Commander	CDR
OF-3	O-4	Lieutenant Commander	LCDR
OF-2	O-3	Lieutenant	LT
OF-1	O-2	Lieutenant Junior Grade	LTJG
OF-1	O-1	Ensign	ENS
	W-5	Chief Warrant Officer	CWO5
	W-4	Chief Warrant Officer	CWO4
	W-3	Chief Warrant Officer	CWO3
	W-2	Chief Warrant Officer	CWO2
	W-1	Warrant Officer	WO

NATO Equivalent	US MARINE CORPS, AIR FORCE, AND ARMY OFFICERS				
			Marines	**Air Force**	**Army**
OF-9	O-10	General	Gen	Gen	GEN
OF-8	O-9	Lieutenant General	LtGen	Lt Gen	LTG
OF-7	O-8	Major General	MajGen	Maj Gen	MG
OF-6	O-7	Brigadier General	BGen	Brig Gen	BG
OF-5	O-6	Colonel	Col	Col	COL
OF-4	O-5	Lieutenant Colonel	LtCol	Lt Col	LTC
OF-3	O-4	Major	Maj	Maj	MAJ
OF-2	O-3	Captain	Capt	Capt	CPT
OF-1	O-2	First Lieutenant	1stLt	1st Lt	1LT
OF-1	O-1	Second Lieutenant	2ndLt	2d Lt	2LT
	W-5	Chief Warrant Officer	CWO5		CW5
	W-4	Chief Warrant Officer	CWO4		CW4
	W-3	Chief Warrant Officer	CWO3		CW3
	W-2	Chief Warrant Officer	CWO2		CW2
	W-1	Warrant Officer	WO		WO1

NATO Equivanent	US NAVY AND COAST GUARD ENLISTED		
OR-9	E-9	Master Chief Petty Officer of the Navy	MCPON
OR-9	E-9	Master Chief Petty Officer of the Coast Guard	MCPO-CG
OR-9	E-9	Master Chief Petty Officer	MCPO
OR-8	E-8	Senior Chief Petty Officer	SCPO
OR-7	E-7	Chief Petty Officer	CPO
OR-6	E-6	Petty Officer First Class	PO1
OR-5	E-5	Petty Officer Second Class	PO2
OR-4	E-4	Petty Officer Third Class	PO3
OR-3	E-3	Seaman	SN
OR-2	E-2	Seaman Apprentice	SA
OR-1	E-1	Seaman Recruit	SR

NATO Equivalent	US MARINE CORPS ENLISTED		
OR-9	E-9	Sergeant Major of the Marine Corps	SgtMaj
OR-9	E-9	Sergeant Major	SgtMaj
OR-9	E-9	Master Gunnery Sergeant	MGySgt
OR-8	E-8	First Sergeant	1stSgt
OR-8	E-8	Master Sergeant	MSgt
OR-7	E-7	Gunnery Sergeant	GySgt
OR-6	E-6	Staff Sergeant	SSgt
OR-5	E-5	Sergeant	Sgt
OR-4	E-4	Corporal	Cpl
OR-3	E-3	Lance Corporal	LCpl
OR-2	E-2	Private First Class	PFC
OR-1	E-1	Private	Pvt

NATO Equivalent	US ARMY ENLISTED		
OR-9	E-9	Sergeant Major of the Army	SMA
OR-9	E-9	Command Sergeant Major	CSM
OR-9	E-9	Sergeant Major	SGM
OR-8	E-8	First Sergeant	1SG
OR-8	E-8	Master Sergeant	MSG
OR-7	E-7	Sergeant First Class	SFC
OR-6	E-6	Staff Sergeant	SSG
OR-5	E-5	Sergeant	SGT
OR-4	E-4	Corporal	CPL
OR-3	E-3	E-3 Private First Class	PFC
OR-1, OR-2	E1, E2	Private	PVT

NATO Equivalent	AIR FORCE ENLISTED		
OR-9	E-9	Chief Master Sergeant of the Air Force	CMSAF
OR-9	E-9	Chief Master Sergeant	CMSgt
OR-8	E-8	Senior Master Sergeant	SMSgt
OR-7	E-7	Master Sergeant	MSgt
OR-6	E-6	Technical Sergeant	TSgt
OR-5	E-5	Staff Sergeant	SSgt
OR-4	E-4	Sergeant	Sgt
OR-3	E-3	Airman First Class	A1C
OR-2	E-2	Airman	Amn
OR-1	E-1	Airman Basic	AB

Answer Pages

Unit 6

Exercise 2

1. The subgroups are: task units and task elements.
2. It stands for Operational Command and Control.
3. TACOM assigns ships to specific tasks.
4. CHOP is the acronym used for shifting control from one task organization to another.

Exercise 3

1. Voice Radio Communication is the primary method of maritime communication during many international exercises.
2. The five components are: addressee, this is, originator, text, and over and out.
3. Execute to follow
4. The final transmission word is "over."
5. The final transmission word is "out."

Exercise 4

1. vested
2. voice callsign
3. addressee
4. execution
5. dispersed
6. restore
7. components
8. allied
9. promulgated
10. surface

Exercise 5

2. expectation referring to the past
3. negative obligation
4. past ability
5. past habit
6. expectation
7. past possibility

Exercise 6

1. couldn't reach
2. would read
3. didn't have to
4. shall have marched

Exercise 7

1. had to remain
2. couldn't overcome
3. could have asked
4. ought to have asked
5. might have gone
6. should have worn

Exercise 8

1. would have planned
2. had to work
3. could deny
4. must have exploded
5. have to be concluded
6. may … have mislaid

7. must have finished

8. had to have

Exercise 9

1. I
   We should have gone to the galley before it closed.

2. C

3. I
   Petty Officer Rodriguez wasn't at formation; he must have gotten sick.

4. I
   The dispute over funding of the operation might have developed into a crisis if not for the influence of the Secretary-General.

5. I
   I don't have to practice that drill; the Chief said I could already perform it well.

6. I
   The instructor you are looking for might have gone to the Technical Library.

7. C

Exercise 10

1. had better not miss	present (alluding to future event)	advisability with threat of disagreeable consequence
2. might have	present	possibility
3. would clean	past	repeated past action / habit discontinued
4. may ... comment	present	formal request / permission
5. ought to have arrived [or should have arrived]	perfect	expectation not fulfilled
6. must have damaged	perfect	logical assumption
7. shouldn't have answered [or ought not to have answered]	perfect	strong obligation
8. would attend	future reported in past context	future action
9. couldn't have seen	perfect	impossibility
10. could ... get	present	informal request
11. must ... disgrace	present - generalization	prohibition
12. had to follow	past	necessity
13. couldn't have marched	perfect	impossibility
14. may delegate, may	present	possibility

Exercise 11

1. originator call sign

   FLASH

   either environment or identity

   position

   course/direction

   ending sign

2. Flash reports

   initial reports

   amplifying reports

   miscellaneous reports

3. originator's call sign

   environment or identity

   track number

   position

   amplifying data as available

   code word/identity

   track number

   ending sign

4. The CTG decides which track number is to be retained on a merged report.

5. They are usually reported in clockwise sequence.

6. track identity

   track number and position

   other amplifying information

Exercise 12

1. Callsigns are a means of identification.

2. Helicopter side numbers may be the most suitable helicopter call signs.

3. International ship call signs have four characters.

4. Collective callsigns are designated to Task Groups or Task Units.

5. There are usually two letters in an abbreviated call sign.

Exercise 13

1. The TG communication nets are used for the exchange of radar, and plot information on surface, subsurface, and air contacts.

2. Surface report

   Surface SITREP

   Subsurface report

   Subsurface SITREP

   Tactical and other information

3. SITREPs are surface situation reports and should last no more than 30 seconds.

4. A ship should initiate a FLASH report if a condition of threat or danger is present.

Exercise 19

1. b
2. b
3. c
4. a
5. b

Exercise 21

1. b
2. a
3. b
4. b
5. b
6. c
7. c

8. a
9. b
10. b
11. c
12. b
13. b

Exercise 22

1. CTG
2. TE (Task Element)
3. TU (Task Unit)
4. TACOM
5. TACON
6. TG (Task Group)
7. CHOP
8. EXTAC
9. Chain of Command
10. SITREP
11. TACOM
12. STBD

Exercise 23

1. pending
2. friend
3. unknown
4. playmate
5. hostile
6. faker
7. neutral
8. joker
9. suspect

Exercise 24

1. e
2. g
3. a
4. j
5. f
6. l
7. b
8. i
9. k
10. d
11. h
12. c

Exercise 25

Across

4. okay
5. sweep
7. brother
10. steer
12. gertrude
16. pronto
18. ball
19. dip
20. strength
22. cap
24. high
25. drone
26. bogey
27. medium

Down

1. sour
2. fast
3. bent
6. merged
8. hot
9. range
10. sweet
11. deep
12. goblin
13. report
14. riser
15. estimate
17. orbiting
21. gadget
23. cold

Exercise 26

1. quite a few
2. a great deal of
3. quite a few
4. a great deal of
5. a great deal of
6. quite a few

Exercise 27

1. High Data Rate (HDR)
2. It will consist of a non-penetrating mast/ antenna group and receiver capable of operating in both the super high frequency (SHF) and EHF spectra.
3. It will be able to attain data rates up to 1.544 megabites per second.
4. It would allow for installation of much wider apertures that also would expand the submarine's payload and give greater flexibility for the size and types of weapons carried.
5. It will include remote control of communication equipment and an automated antenna distribution system.

Exercise 28

1. Going out and getting fresh air, taking a shower when one feels like it, smoking, mentioning the word "horse," or bringing a backpack aboard.
2. The ship is younger than the commanding officer.
3. The "Svenner" had to dock because the communication system broke down.
4. It's a yellow flag.
5. They play different card games.

Exercise 29

1. It is the most extensive multinational communications event ever conducted.
2. Twenty-nine NATO and Partnership for Peace nations are participating.
3. In 1995 only ten nations participated.
4. Switchboard, rado relay, LAN/WAN, and high-frequency systems will be tested during this exercise.
5. Benefits of this exercise are "the fostering of human interoperability," by participation in a wide range of sporting events, which builds espirit de corps and camarderie and enhances cultural understanding.

Unit 7

Exercise 2

1. It provides a way to send operational instructions and information using standardized messages.
2. The OPGEN, OPTASK and OPSTAT are used in the MTMS.
3. Messages are structured so that the contents of their component sections appear in free text, or in established sequences.
4. Each section of a message is started on a new line.
5. Two ways to amplify an entire sequence are: to insert text at end, separated by a slant; to add next paragraph number and put text.
6. 021200Z5 represents the effective DTG of change.
7. The replacement is to be promulgated on 10 DEC at 2200.

Exercise 3

1. amendments
2. a self-explanatory
3. slants
4. comprise
5. supersedes

Exercise 4

1. T
2. F
3. T
4. F

Exercise 5

1. comprehensive
2. established
3. exempted
4. conform
5. compliance
6. predecessor
7. appropriate
8. scale
9. perishable
10. elements

Exercise 6

1. b
2. d
3. b
4. d
5. a

Exercise 7

1. d
2. a
3. b

Exercise 8

1. b
2. c
3. b

Exercise 9

1. c
2. b

Exercise 10

1. would call
2. had passed
3. get
4. had not arrived
5. were
6. have finished

Exercise 11

We want everyone to become familiar with EXTAC 1006 because you will be using it a lot during exercises at sea. EXTAC 1006 covers the structured messages that you will need to know. This EXTAC will serve as a reference that provides information and instructions needed to understand and write OPGENs, OPTASKs, and OPSTATs. I'd like to talk about what you'll find in EXTAC 1006.

The first chapter of EXTAC 1006 gives background on the Maritime Tactical Message System and introduces conventions used in drafting structured messages.

The subject of Chapter 2 is the OPGEN, which is an abbreviation of Operational General Matters. In this chapter you'll learn about the purpose, content and structure of the OPGEN.

Chapters 3 and 4 present the purpose, content and structure of two other important message types: the OPTASK (or operational tasking) and the OPSTAT (or operational status) messages. As you look through Chapters 3 and 4, you'll find that there are different OPTASK and OPSTAT messages designed to meet a variety of needs.

In order to effectively read and write messages you will have to know alphanumeric identifiers and abbreviations used for section titles, identifying numbers for duties, and designators for all kinds of ships. Chapter 5 provides supplementary tables that contain all of this information.

I've briefly discussed EXTAC 1006 and its contents. If you are required to use the standardized messages presented there, I strongly suggest that you study each chapter.

Exercise 12

1. masthead
2. IFF
3. nomenclature
4. limitations
5. multiplex
6. A unit originates an OPSTAT Unit on joining a force, when ordered by the OTC or as required.
7. Information should be listed sequentially for each unit.
8. Estimates of fuel consumption in CUM per day for 15 kts and for 25kts should be included.
9. No. The correct order: ELF, VLF, IF, MF, HF, VHF, UHF, SHF, EHF
10. The time of repair is unknown.

Exercise 13

1. f
2. h
3. j
4. g
5. i
6. c
7. d
8. a
9. b
10. e

Exercise 15

Sample paragraph:

The OSE, OTC, OCE, OCS, and SUBOPAUTH are officers with specific command responsibilities during an exercise. An exercise begins with the OSE. This officer orders it to take place and issues basic instructions. The OTC has tactical command of an exercise. He makes sure all communications preparations are made and that all required briefings are given before the exercise is conducted. The OCE is in charge of the conduct of the exercise and provides units with supplementary instructions, as needed. The OCS has tactical control over forces for a specific exercise serial. The SUBOPAUTH has operational control of submarines.

Exercise 17

1. If CDR Lee hadn't joined the Navy, what would he probably be?
2. Do you think CDR Lee would be happy if he took part in a another multinational exercise?
3. What would have happened if one of the units had not been ready for the exercise?
4. If his unit hadn't done its job well, would CDR Lee's rank be lower today?
5. What would Jeff like to be if he were in the Navy?

Exercise 18

1. If CDR Lee hadn't joined the Navy, he would probably be an artist.
2. Yes. CDR Lee would be happy if he took part in another multinational exercise.
3. If one of the units had not been ready, the exercise would have been jeopardized.
4. Yes. If his unit hadn't done its job well,CDR Lee's rank would be lower today.
5. If Jeff were in the Navy, he would like to be a member of CDR Lee's team.

Exercise 22

1. MHZ
2. Officer in Tactical Command
3. MWOPS
4. SUBOPAUTH
5. Officer Scheduling the Exercise
6. Maritime Tactical Message System
7. ASW
8. Anti-Aircraft
9. Officer Conducting the Exercise
10. ASUW
11. Knots
12. Message Identifier
13. UFN
14. OCS
15. Date-Time-Group

Exercise 23

1. criticize
2. return to its original place
3. don
4. delayed
5. extinguish
6. explain

Exercise 24

1. RADM Copeland said there was a remarkable increase in communication and language skills between the various fleet units, as compared to previous years.

Unit 8

Exercise 2

1. addresses
2. render
3. The Navy's role in SAR is to provide units in non-Navy distress situations on a not-to interfere basis and to take care of its own in Navy related distress situations.

Exercise 3

1. c
2. e
3. f
4. g
5. d
6. a
7. b

Exercise 4

1. moved, have been
2. had, has moved
3. have. . .met, was
4. b: have seen, saw

Exercise 5

1. jumped, exploded
2. has visited
3. rang, answered
4. finished

Exercise 6

1. bought, has used, since
2. met, for, has been, since
3. have been, for
4. a: have. . .been

   b: haven't been. . .since
5. a: has. . .been

   b: has been

Exercise 8

1. It detects emergency signals on distress frequencies.
2. more than 15 persons
3. 1,000 NM or more
4. merchant vessels
5. Answers will vary. One possibility is given.

   a. seaworthiness b. speed c. radius of action d. electronic capabilities

Exercise 9

1. initial action stage
2. severity
3. incapacitated
4. hypothermia, exposed

Exercise 10

1. resolution, attainable
2. periodically
3. proposed, square off
4. overlap
5. displaced

Exercise 11

1. d
2. c
3. a

4. b

Exercise 15

1. F
2. T
3. F
4. F
5. T

Exercise 16

Answers will vary. One possibility follows.

The USS *Grapple* and members of diving and salvage units are going to help in the search and recovery of victims and wreckage of Swissair Flight 111. The ship, whose homeport is in Virginia, was in Philadelphia on September 7th when it was given the order to go help. The 32 divers onboard the ship will use the most current technology on the mission. LCDR Davis said that this equipment as well as the experienced personnel would help in the success of the mission and would finally give the relatives of the victims the relief they need. The *Grapple* has the capability of lifting 300 tons and its equipment can enable divers to complete operations 180 feet below the water. The ship should arrive in Peggy's Cove, Nova Scotia, on September 9th, 1998.

Exercise 20

1. SC, RSC, RCC
2. OSC, SMC
3. SRU
4. F/V; NMs
5. S

Exercise 21

1. already
2. yet
3. yet
4. already
5. already

Exercise 22

1. It was powerless and taking on water.
2. 20
3. The passengers were dehydrated.

Exercise 23

1. Twenty-five miles north of Bermuda
2. The sloop capsized and the winds shifted and pushed them away from the island.
3. A RHIB was deployed and the USS *Thomas Gates* had to position herself upwind from the boats to block the wind so the passengers could board the ship.

Exercise 26

1. T
2. 3

Exercise 28

1. To help recreational boaters in distress
2. The direction of the wind changed, pushing hot air and smoke into the aircraft which affected the operation of the engine.
3. The CO decided to launch a second aircraft.

Unit 9

Exercise 2

1. subsequent
2. itinerary
3. contraband, seized

Exercise 3

1. force, prohibited items, geographic limitations and disposition
2. Primary - Determine if a merchant ship is in compliance with or in violation of the stated reason for the interdiction.

   Secondary - Gather intelligence about the merchant ship's itinerary, its future intentions, and military and merchant activity in and around an embargoed nation's ports.
3. Enforcement of U.N. sanctions against Iraq in support of operations during, and prior to, the Persian Gulf War

   Enforcement of U.N. sanctions against the former Republics of Yugoslavia
4. Multinational forces or forces of single nations may be used.
   Naval forces may be used alone in unilateral operations or in joint operations involving one or all of the armed forces.
5. MIF CDR: serves as officer in tactical command (OTC) of all forces.
   MIF COORD: provides command and control when geography prohibits operations in a single geographic area.
   OSC: has tactical control at the scene of forces assigned to conduct or support the boarding.
   AFC: has control of the HAF that conducts the take down of a COI.

Exercise 4

1. compile, collate, disseminate
2. detecting all surface tracks in an area of interest
3. embargo, drug interdiction, locate suspected vessels, coast guard/ environmental patrol, fishery patrol
4. Lloyd's Register of Shipping, Jane's Merchant Shipping, imaging radar

Exercise 5

1. b
2. f
3. a
4. g
5. c
6. d
7. e

Exercise 6

Any of the adjectives on the list can be used to complete the individual sentences. Each adjective, however, provides a different "shade of meaning."

Exercise 7

1. Q: Is it required that everyone attend the briefing?

   A: Yes. It is required that everyone attend the briefing.
2. Q: Is it compulsory that a search be conducted?

   A: Yes. It is compulsory that a search be conducted.
3. Q: Is it necessary that the sailor see a dentist before he goes on the deployment?

   A: Yes. It is necessary that the sailor see a dentist before he goes on the deployment.

Exercise 8

1. The doctor recommends that the critically ill patients be MEDEVACed immediately.
2. The Activities Officer suggests that the cook prepare a formal dinner for the foreign dignitaries.
3. The Search Coordinator insisted that the search pattern be changed right away.
4. The Shore Patrol Officer ordered that the man not move.
5. The Captain ordered that the sailors check the lifeboats again.
6. The Judge Advocate has recommended that the Marine be court-martialed.

Exercise 9

The sentences below are illustrative only. Your sentences will probably vary from these.

1. The Admiral commanded that forces be allocated to deal with the crisis.
2. The evacuee asked that she leave last.
3. The security officer urged that personnel increase their vigilance.
4. The medical officer advised that all hands improve their knowledge of first-aid procedures.

Exercise 10

1. mature judgement and caution
2. firm, cordial, and nonconfrontational
3. total number of people on board and preferred location of pilot's ladder
4. He should have the crew muster in open view and clearly state who is not present.
5. The sun should be kept behind the boarding ship.
6. another port, the previous port, or an inspection port or anchorage
7. warnings by different types of communications; aggressive maneuvering; turning and aiming of fire-control radar and/or gun mounds
8 non disabling fire, disabling fire, self defense, and full force

Exercise 11

1. j
2. h
3. f
4. a
5. b
6. c
7. i
8. k
9. e
10. g
11. d

Exercise 12

1. It's important that they be conducted in a non-threatening and non-confrontational manner.
2. boarding officer, assistant boarding officer, security team leader, security team, and sweep team
3. intelligence brief on COI, including vessel characteristics, last port of call, and home port
4. cargo manifest
5. Answers will vary.
6. The sweep is conducted to determine whether there are any unaccounted for weapons or personnel and to look for safety hazards.

7. A sweep team conducts the actual search of a COI.
8. A team member should be put in a position above all crew and passengers.
9. He should call for assistance.

Exercise 13

1. b
2. c
3. a
4. b
5. a
6. c
7. a
8. b
9. c
10. a
11. b
12. c
13. b
14. c
15. a

Exercise 14

1. Detection and Surveillance - Track and identify contacts within an area.
2. Interrogation, Approach, and Stopping - Gather intelligence and position the boarding ship
3. Boarding and Searching - Embark to the COI and conduct an inspection.

The Boarding and Search phase of MIF operations is most important (See first paragraph after subtitle "Boarding and Searching"). It fulfills the primary and secondary objectives of a maritime interdiction.

Exercise 15

Watch Your Back

PO Hardy: What should I keep in mind if I'm sweeping a vessel by myself during a boarding operation?

LT Page: Let's consider what to do if you approach a compartment with a door that swings inward. In this case, I suggest that you approach the side of the door opposite the hinges.

PO Hardy: What do I do when I reach the door?

LT Page: You might forcefully open the door; then, try to look through the crack between the door and the bulkhead to see if anyone is behind the door.

PO Hardy: Okay. If I can't see anyone behind the door, then what?

LT Page: How about extending your head rapidly in and out of the compartment just far enough to see inside? That's called a "quick peek."

PO Hardy: Do you have any other tips?

LT Page: Yes. Instead of standing normally, why not stoop down or stand on your tiptoes during a "quick peek?" This will make your height higher or lower than expected.

Exercise 17

3 a. Why don't you do a "quick peek?"

2 b. Perhaps you could kick it open.

1 c. What about moving close to the side opposite the hinges?

4 d. Let's move fast.

Exercise 18

Answers will vary.

Exercise 19

1. life vest, body armor, and uniform
2. service pistol and holster, handcuffs and case, baton and holder (if trained), flashlight and holder, magazine and pouches, and canteen and pouch
3. shotguns for a minimum of four security team members

Exercise 20

1. unencumbered observation, clear line of fire, and triangulation - overlapping fields of view
2. Secure weapons in the boarding bag.
   Post a guard by the weapons.
   Lock the weapons in a safe place.
   Separate weapons and ammunition and secure them on the body.
3. Adjust the security responses as necessary.
   Keep the COI's crew together.
   Observe the COI's crew for signs of anger or resistance.

Exercise 21

1. A tactical sweep should be conducted at the onset of every boarding.
2. to locate and neutralize all weapons; to search for unaccounted personnel; to detect all obvious safety hazards
3. never feel completely safe; keep in mind that no tactical concept is perfect; be flexible; do not try to search a vessel alone
4. pieces of cord, a tactical mirror, extra cuffs, an ear mike, a pen light, a small roll of masking tape, a small notebook

Exercise 22

1. the "Fatal Funnel", the "Crisscross", the "S.A.S.", and the "Israeli"
2. Make sure only one man moves at a time.
   Look before leaping.
   Take full advantage of shadows and dark area.
3. You should whisper.

Exercise 23

Tactical movement strategies were covered in the following order:

1. Clearing the Room
2. The Most Immediate Threat
3. Stationary/Moving Man
4. Weapon Preparation
5. Adversary's Field of View
6. Positioning
7. Bunching Effect
8. Triangulation

Exercise 24

Stay low with back to the wall	2
Take positions around threat	8
Check out threat locations	1
Don't cluster together	7
Remove risk of cross fire	6
Meet force with force	4
Think of what can be seen by another	5
Only one moves at a time	3

Exercise 27

1. Maritime Interdiction Force
2. AFC
3. Recognized Surface Picture

4. IR
5. Contact of Interest
6. BO
7. Dead Weight Tonnage
8. RSP
9. International Maritime Organization
10. LTJG

Exercise 28

1. advice, except
2. besides, breathe
3. affect, effect
4. all ready, already
5. altogether, advise
6. accept, breath
7. all together, beside

Exercise 31

Crossword Puzzle #1

Across

4 escalate
5 acute
6 clear
9 contain
11 charter
12 database
13 liaison
16 lax
17 consignee

Down

1 deterrence
2 accommodate
3 interpretation
4 embark
7 contraband
8 forge
10 abaft
12 dispatch
13 lash
14 assess
15 fate

Crossword Puzzle #2

Across

1 merchant
3 mature
5 net
9 planted
10 protrude
14 vapor
16 noxious
18 vast
19 tone
20 nonorganic

Down

2 ram
4 rudder
6 topside
7 spot
8 tempt
10 prosecution
11 organic
12 ricochet
13 pinpoint

15 ploy

17 range

Crossword Puzzle #3

Across

2 hail

4 foul

5 wake

7 goggles

8 hull

9 baton

11 armor

13 lee

14 combatant

18 gig

19 sniper

20 egress

21 sensor

Down

1 bulge

3 interdiction

6 anchorage

9 barricade

10 inert

12 beam

15 bridge

16 ambush

17 muster

Unit 10

Exercise 3

1. NEO forces evacuate personnel from locations in a foreign (host country).
2. They help save lives and relieve human suffering.
3. They have the ability to place personnel, equipment, etc. early in a crisis; they can operate in international waters: and, they can maintain their position for a long time.

Exercise 5

1. The decision is a political one not a military one.
2. Diplomatic views
3. Give maximum leeway to NEO forces.

Exercise 6

1. triage
2. screened
3. ad hoc
4. chaired
5. apprised
6. granted
7. indigenous
8. barred
9. monetary
10. prophylaxis
11. vectors

Exercise 7

1. c
2. c
3. b
4. b
5. c
6. a
7. a
8. c
9. a
10. b
11. b
12. a
13. b
14. a
15. c
16. a
17. c
18. a
19. a
20. b

Exercise 9

1. F
2. F
3. T

Exercise 10

1. d
2. f
3. e
4. g
5. a
6. c
7. b

Exercise 11

1. Locations of Evacuations
   a. capitals
   b. large cities
   c. military sites
   d. industrial facilities
   e. other
2. Selection of Transportation
   a. available landing craft and helicopters
   b. geography
   c. political situation
3. Surface / Amphibious NEO
   a. excessive risk to helicopter operations
   b. large number of passengers to be moved
   c. ability of passengers to assemble
   d. around-the-clock operations
   e. unavailability of landing
   f. adverse weather
   g. availability of landing craft
4. Air / Helicopter NEO
   a. acceptable risk
   b. flexible flow schedule
   c. maintain accurate running status boards
   d. design and control helicopter flow
   e. landing zones
   f. suitable weather
   g. evacuation distance
   h. availability of appropriate helicopters
5. Combination
   a. flexibility and speed
   b. suitable transport
6. Move initial pick up point
   a. employment of assault vehicles and other vehicles
   b. may complicate security efforts

Exercise 12

1. a
2. a
3. a
4. a
5. b
6. a

Exercise 13

1. b
2. d
3. a
4. e
5. c

Exercise 15

Answers will vary.

1. Disarm evacuees prior to evacuation processing. Search baggage for firearms.
2. Get a translator from the translator pool or get an interpreter from the control site.
3. Use military personnel when available or get help from security station.
4. Get berthing supervisor to help him. Use sketch of the ship. Call the berthing guide.
5. Reassign so that there are only 2 families to each six man room.
6. Families are kept together. Activate triage. Send to sick bay.
7. Screen evacuees; isolate if necessary; notify doctors.
8. Consider the needs of the elderly. The infirm go to the head of the mess line.
9. Pass information to the passenger committee. Print all news in the newsletter.
10. No information shall be released to the media about evacuees seeking asylum without proper authorization.

11. Report this to the senior command. Until given other instructions, safeguard that individual.

12. Everybody must follow the procedures for debarkation. Unaccompanied women with infants will go first.

Exercise 18

1. Prisoners of War
2. Closed Circuit Television
3. Defense Attaché Officer
4. Noncombatant Evacuation Operations
5. Evacuation Control Center

Exercise 19

1. raised, lay
2. rises
3. lay; raise
4. laid
5. lain

Exercise 20

1. It was adopted on December 10, 1948.
2. It was proclaimed as a common standard of achievement for all peoples of all nations.
3. He / She has the right to be presumed innocent until proven guilty according to law.
4. The basis of authority shall be the will of the people.
5. Everyone has the right to work.
6. Everyone has the right to an education. Elementary and fundamental stages shall be free.
7. Answers will vary.

Exercise 22

Answers will vary. One opinion that can be selected is the following: Every police officer has the opportunity to facilitate or impede democracy.

Unit 11

Exercise 2

1. Passive MCM means adopting methods of avoidance and self-protection. Active MCM means going out and looking for, removing, disabling and destroying mines.

2. Minehunting involves actually looking for mines and marking or neutralizing them. Minesweeping involves only neutralizing mines.

Exercise 3

1. b
2. a
3. c
4. b
5. a
6. c
7. c
8. a
9. a
10. a
11. b

Exercise 4

1. The presence of bottom clutter makes minehunting more difficult and time consuming. The minehunter must examine each object it detects to determine if it is mine-like or non-mine-like. All mine-like objects must be further examined by either divers or an ROV. More clutter means more time expended hunting non-mine bottom objects (NOMBOs).

2. Cold water temperature and deep water depth will greatly limit the time a diver can spend searching for mines.

3. Bottom obstacles are dangerous for minesweeping equipment. Wrecks, pinnacles, and coral heads can damage minesweeping gear. Additionally, minefield "obstructors" may be placed by the enemy to slow or counter the MCM effort.

4. The decision to hunt or sweep is based on several factors. First, how much time is available for MCM operations? Minehunting is generally more time consuming that minesweeping. Second, what is the condition of the environment. Do water conditions support the use of minehunting sonar? Is the ocean bottom too rough or too cluttered to successfully hunt for mines? Third, what type of equipment or systems are available? Are divers available and trained for MCM? If an ROV is available, is it capable of operating at the required depth?

Exercise 5

1. The operations area extends from 20 to 60 meters deep.

2. Part of the area is firm, sandy bottom. The other part is soft and muddy.

3. The officer expects the sonar to perform at or above the design average because the sonar conditions are good.

4. The water temperature will be 10°C. This cold temperature will limit the diver's time in the water due to hypothermia.

5. The minehunters will operate in the water from 20 to 40 meters, where the sandy bottom is located.

6. The minesweepers will operate in the deeper water, from 40 to 60 meters, where the bottom is soft and muddy.

7. The staff officer will draft the MCM OPDIR.

Exercise 6

1. d
2. b
3. f
4. c
5. a
6. e

Exercise 7

C *C* *I*
A diver found a moored mine. The mine looked as if it had been there since
I *I*
WWI. The diver thought the mine could
still be dangerous. He placed
C *I*
an explosive device on the mine and
C
moved to safety. Then he detonated
I *I*
the device, rendering the mine harmless.

Exercise 8

1. Ø Coffee is a source of caffeine.
2. A cup of coffee contains about 8 ounces of liquid.
3. An officer must have a college degree.
4. Ø Hurricanes can cause Ø damage.
5. A nautical mile is about 6,076 feet.

Exercise 9

1. timely
2. particularities

Exercise 10

I. Two ways to order an MCM Operation

A. MCM Operation Order (OPORD)
   1. Manuscript
   2. Provides basic information to all participants
   3. Basis for all subordinate command levels

B. Messages/Signals
   1. MCM Operations Direction (MCMOPDIR)
      a. Used by a commander to order in general execution of MCM operations by subordinate commanders
      b. Identified by a 3-digit number
   2 MCM Task Order
   Provides specific instructions to a unit about his task given by his tasking authority

II. Two types of reports support MCM Operations

A. MW Signals
   1. Applied within MCM task groups and by clearance divers
   2. Primarily made for voice trans mission
   3. Only relevant letters have to be transmitted
   4. Omit describing text

B. Structured Messages

1. To be transmitted by other means than voice (e.g. radio teletype)
2. Advantages:
   a. Format allows free text to be inserted into the formatted paragraphs
   b. This offers more freedom to provide information to different levels of command

Exercise 11

1. a
2. a
3. b
4. b

Exercise 12

CTU callsign M03, in position 41°31´N—071°18´W, reports a defective main engine. Repair can be effected by the ship's crew. Estimated repair time is 1800Z. Maximum speed possible is only 5 knots.

Exercise 13

TO: CTG
FROM: CTU
MW 128
1. B
2. 070800Z
4. 412500N2 – 07122W2
8. L

Exercise 15

1. The article mentions six ways to classify mines: Three ways according to the position they assume in the water, and three different ways according to how they are delivered.
2. No.

Exercise 19

1. Date-Time-Group
2. MCCM
3. Mine Countermeasures Vessel
4. Radio Teletype
5. Remote Operated Vehicle
6. CRN
7. GPS
8. Low Frequency/ Acoustic Frequency

Exercise 20

1. Don't take your troubles out on me. (blame)
2. You need to take those old boots in. (bring to a repair shop)
3. Take the ammunition back to the armory. (return)
4. Take it up with the boss. (discuss)
5. They really take to sea duty. (like quickly)
6. Take over the wheel. (assume control of)
7. He takes after his father. (looks or behaves like)
8. Take down the scaffolding. (remove from its place)
9. They offered to take in the passengers. (give shelter to)
10. They took off yesterday. (didn't go to work; departed)
11. Take out your ID. (remove from pocket or purse)
12. He recently took up chess. (began an activity or hobby)
13. I must take him up on his offer. (accept an offer)

14. We must take on the new duties. (accept responsibility for something new)

Exercise 21

1. The U.S. sponsored GOMEX '99. NATO sponsored Cooperative Telos.
2. The objective of GOMEX '99 was to test the mine countermeasures training and capability of participating forces. The objective of Cooperative Telos was to foster MCM interoperability among participating nations.
3. Rear Adm. Jose Betancourt supported Cooperative Telos because he found that being able to work together in person, which those exercises allowed them to do, was the best way to increase the level of knowledge of each of the participants. He also said that Cooperative Telos gave them the opportunity to form professional associations with the participating nations that would help strengthen their military-to-military relationships should they need to work together in the future."

Exercise 23

1. She says that minemen are "versatile and valuable" because they must know parts of many different fields. The article explains: "Minemen have to be able to do it all. From boatswain's mate to radioman; damage controlman to sonar technician; engineman to deck hand. A mineman rating is somewhat of a melting pot for those rates."
2. The Mine Warfare Training Center requires an innate problem-solving ability and concentration.

Exercise 25

1. e
2. h
3. m
4. f
5. b
6. n
7. i
8. k
9. g
10. d
11. j
12. a
13. c
14. l

Unit 12

Exercise 2

1. The authors prefer the term "cross operate," which is more specific and appropriate for this text. It also differentiates this specific meaning from the many meanings "operations" might have.
2. HOSTAC operations are used when routine, short term requirements come up, such as humanitarian requirements (e.g. to transfer a sick or injured person, etc.) and operational requirements (e.g. refueling, emergency repair, etc.).
3. Before commencing HOSTAC operations, standardization of as many procedures and hardware as possible should be considered, as well as detailed knowledge of the host ship's landing areas, deck markings, etc., and the visiting helicopter's size, weight, etc.
4. The basic operating principle of HOSTAC operations is that the guest helicopter always uses the approach, landing, and deck handling procedures of the host ship.

Exercise 3

1. parties
2. convenient
3. withstand
4. specific
5. satisfied
6. wide range

Exercise 4

1. They identify a ship's basic aviation capability. The "level" of a helicopter facility identifies the environmental condition that prevails. The "class" of a helicopter facility identifies the authorized operation (e.g. landing, VERTREP, etc.).
2. A typical deck marking is either white or yellow with a minimum width of 0.2 meters.
3. The purpose of deck lighting is to accentuate deck marking figures to provide visual references for night helicopter operations.
4. The clothing colors indicate the function of the flight deck personnel.

Exercise 5

1. d. purple
2. f. white or yellow
3. e. red or white
4. a. green
5. c. red
6. b. yellow

Exercise 6

1. Answers will vary but they should generally match the following:
   a. a description of the surface of the water
   b. pitch is the up and down movement of a ship from front to back
   c. roll describes the movement of a ship from side to side
2. Answers will vary.
3. Answers will very but should describe the duties of an aerographer or meterologist.

Exercise 8

1. h. dew point
2. a. ambient temperature
3. c. relative humidity
4. d. pressure altitude
5. g. ceiling
6. f. visibility

Exercise 9

1. Before beginning helicopter operations.
2. 243.0 MHz
3. The fixed wing control zone is a circle 5 nautical miles in diameter, and extends from MSL up to 2,500 feet. The rotary wing control zone is a circle 2 nautical miles in diameter, and extends from MSL up to 500 feet.
4. Close positive control, close advisory control, loose positive control, etc.
5. Sometimes the senior naval aviator, sometimes the host ship. It's not clear from reading the text.

Exercise 10

Answers will vary. Words that have similar meanings to control include: direct, monitor, conduct, handle, manage, supervise, and regulate.

Exercise 11

Answers will vary.

Exercise 12

1. Ø Sea water contains Ø sodium.
2. The water near the eastern coast is polluted.
3. Ø Good leadership is crucial to the success of an operation.
4. The leadership of that commander is outstanding.

Exercise 13

When Ø coins are put into the coin slot of a vending machine, they pass through a series of tests designed to measure the value of the coins. When the right number of coins passes all the tests, the vending machine will deliver your selection.

Exercise 14

Outline of reading.

I. Definition: VERTREP is the external transfer of cargo between a helicopter and a ship.

II. Responsibility: The pilot is responsible.

III. Safety requires constant attention to detail and proper operating procedures.

IV. VOA is determined by class and deck markings

- A. Class 4 - 5 feet above the deck
- B. Class 5 - 15 feet above the deck

V. Deck Markings

- A. Type 1—centered over and parallel to the rotor-cenlimit line
- B. Type 2—on Tee marking line
- C. Type 2A—on Tee Ball marking line
- D. Type 3—between Tee marking lines

VI. Advisory Environmental Factors

- A. Winds
  - 1) 15 to 30 knots are ideal
  - 2) turbulance should be avoided
- B. Relative positions of ships (300-500 yards)
- C. Temperature and atmosphere (generally a cold, dry day with high barometric pressure is optimum)

Exercise 15

1. Fuel, personnel, supplies, etc.
2. The pilot is responsible for the sling and determining its maximum capacity.
3. Winds, relative position of ships, and the ambient temperature and atmospheric pressure.

Exercise 17

Type	Process	Use	Comms
VERTREP	Pick & Go	Any Ship	Hand
HIFR	Hover	Limited	Radio

Exercise 18

1. Survival gear is that equipment which is used to "save your life" (e.g. life vests, survival food, and water). Protective gear includes helmets, ear plugs, goggles, and gloves.
2. FOD is Foreign Object Damage. It refers to injury to a person from flying objects stirred up by helicopter rotor wash.
3. It may be deadly.
4. An extreme emergency is one that requires instant action.

Exercise 19

1. c. landing gear
2. f. rotor wash
3. d. sprocket gear
4. e. down wash
5. a. survival gear
6. b. protective gear

Exercise 20

1. Answers will vary.
2. Answers will vary.
3. "General alarm" is the call for taking battle stations.

Exercise 21

1. A fire fighting team consists of a leader, two rescue men and enough personnel to operate the required firefighting equipment.
2. The team should have fire axes, cable cutters, rescue knives, metal piercing and cutting tools, as well as salt-water fireplugs, aqueous film-forming foam (AFFF), and portable fire extinguishers.
3. Salt-water fireplugs are used on Class A and Class D fires. AFFF is used on Class A and B fires. The fire extinguishers are for Class B and C fires.
4. A helicopter will be jettisoned when it's on fire and the fire is so advanced it puts the ship in danger. Also, when ordnance threatens to explode.

Exercise 22

1. Immediate emergency shipboard landing, precautionary emergency shipboard landing, and crashed or ditched aircraft.
2. Emergency flight quarters is the call for all hands not engaged in recovery to stand clear of landing area, to extinguish all open flame and secure dumping of trash and garbage, to station fire and crash teams, and to man crash and rescue boats.
3. A green deck is a clear deck, ready for landing.
4. A run-on landing is one in which the helicopter "slides" in like an airplane.
5. Padded pallets or mattresses.

6. A droop stop is a mechanical stop in the rotor head which prevents the blades from drooping downward to the deck.

7. A single engine landing is considered an immediate emergency shipboard landing.

8. An example of a "minor" malfunction is when a primary radio goes out, but there is a back up.

Exercise 23

1. The Super Puma

2. 7 (p.1)

3. The HCP 10 has room for 8 litters. (p.1)

4. Only the UH-14 (Brazil) has HIFR capability. (p.7)

5. The AS 332 L1 (Finland) has room for 18 passengers. (p.1)

6. The AS 332 (France) has no rescue hoist. (p.1)

7. The AS 332 has the external fuel tank option. (p.2)

8. Total length is 61'44" (18.7 m). Chart (p.5)

9. Main rotor diameter is 52'2" (15.6 m). Chart (p.5)

10. Danger Areas are listed on page 1002-1-Super Puma-4. (p.4)

11. The AS 332 L1 and the HCP 10 have GPS capability. (p.1)

12. One. (p.4)

13. The Super Puma has electric de-icing capability. (last page)

14. Answer depends on student.

15. Answer depends on student.

Exercise 24

1. The Lynx, the Sea King and smaller helicopters. (p.01)

2. "Amsterdam" has yellow as well as white markings. (p.01)

3. On AO and frigate class ships, the ID marking will be on the flight deck at the stern edge. (p.01)

4. Yes. (p.01)

5. Under SCA, the gate is 2 nautical miles from the ship at relative bearing of 165 degrees to port. (p.04)

6. Do "as ordered by the HCO." (p.05)

7. The instructions for departure are: "Start into the relative wind. After a climb to safe height and speed, turn to the desired departure heading." (p.08)

8. The landing cycle is defined as "moving over, descending to, and landing on the deck." (p.07)

9. Yes. (p.09)

10. VERTREP operations can only occur by day under IMC. (p.10)

11. The hose is attended.

Exercise 27

1. wake up and rise from bed

2. gain entrance to

3. succeed

4. finish an unpleasant task

5. leave

6. do something that has been delayed

7. meeting

8. avoid

9. escape detection or punishment

10. depart

11. return to doing something

12. survive

13. reach

14. finish, continue

15. recover from

16. be late with

17. learn about

18. take revenge

Exercise 28

1. These expressions often precede a situation that may (or probably will) go bad.

2. Answers will vary.

3. Yes, the pilot got into a lot of trouble (as predicted).

Exercise 29

1. "Our mission was to beat the other aircraft into submission…" means several things, all of them having to do with being first and best. Answers will vary according to one's perspective on pilots being competitive.

2. The HAC is responsible, and in this case also at fault.

Exercise 30

1. "…this is more fun than being in Washington" probably means that flying is much more rewarding than sitting at a desk. The other answers will depend upon your attitude to headquarters assignments.

2. This is one of the hardest problems of learning another language. Answers will no doubt vary, but your insights will greatly help others learn English.

Exercise 31

1. Answers will vary but they probably should cover water and helicopters.

2. Answers will vary.

Exercise 32

1. Answers will vary.

2. Frogs hop. Helicopters should fly, not hop.

Unit 6
Evaluation Exercises

Match each item in Column 1 with a definition in Column 2.

1._____ interval	a. intended to function or be carried on land or sea, rather than in the air or under water
2._____ disperse	b. the time that a thing continues or lasts
3._____ allied	c. a period of time between two points of time, events, etc.
4._____ precedence	d. a specified radio frequency used for the sending and receiving of data
5._____surface	e. fully and conditionally guaranteed as a legal right or privilege
6._____ bearing	f. to spread about, distribute widely
7._____vested	g. an apparatus used to find submarines, depth, etc., that transmits sound waves through water and registers the vibrations reflected from an object
8._____ restore	h. not in agreement or harmony; incompatible
9._____ environment	i. serving asone of the parts of a whole
10._____ execution	j. united by kinship treaty, agreement, etc.
11._____ circuit	k. a carrying out, doing, performing
12._____ inconsistent	l. to bring back to a former or normal condition, as by repairing, rebuilding, altering, etc.
13._____promulgate	m. the act, right, or fact of preceding in time, order, rank, priority of messages (routine, immediate, flash)
14._____ component	n. a true or relative line extending from an object and expressed in degrees
15._____ duration	o. the arena in which a unit operates such as air, surface, subsurface, or land
16._____sonar	p. to make known officially, to make widespread

Circle the correct answer to the question.

17. FLASH Reports only report only the following:
    a. contacts which are new
    b. contacts which represent an immedate threat
    c. contacts which have been previously reported

18. The following is true for Initial Reports:
    a. They inform about an immediate threat.
    b. They give a report on the current situation.
    c. They inform about contacts which do not represent an immediate threat.

19. An I MAKE report is one of the following reports:
    a. Amplifying report
    b. Miscellaneous report
    c. Initial report

20. When figures are used in voice reports, they are spoken:
    a. the whole number at one time
    b. two digits at one time
    c. digit by digit

21. The duration of a SITREP generally lasts:
    a. 90 seconds
    b. 10 seconds
    c. 30 seconds

22. A BOGEY is a(n):
    a. airborne early warning aircraft
    b. an air contact detected by radar
    c. friendly remote controlled air vehicle

23. DEMONS are
    a. submarine depth in tens of feet
    b. height of a friendly aircraft in thousands of feet
    c. depth in meters

24. CHICKS are:
    a. friendly fighter aircraft
    b. attacking ships of surface ASW unit
    c. Submarine or surface ship designated for SAR operations

25. MIX UP means:
    a. Tracks have come together.
    b. I have been unsuccessful or I have no information.
    c. It's a mixture of friendly and hostile aircraft.

26. ANYFACE means:
    a. friendly fighter aircraft
    b. ASW helicopter transducer
    c. airborne early warning aircraft

27. A HOMEPLATE is:
    a. home airfield or home carrier
    b. an order not to open fire
    c. a signal detecting device on an aircraftcarrier

28. A SKUNK is:
    a. a radar contact that later disappeared
    b. equipment indicated is not operating efficiently
    c. a surface contact detected by radar

29. ZZ means the following:
    a. control ship
    b. operation time
    c. command controlled

30. TE means the following:
    a. task element
    b. try to elevate
    c. top executive

Circle the correct answer for each statement.

31. I think the captain (might have go/might have gone/might have going) to the weather deck.

32. The fishing vessel (should had sent/should have/should have sent) the distress call earlier.

33. I (could have finished/could having finished/ could have finish) the reported earlier, but I didn't have the right information.

Unit 7
Evaluation Exercises

Use a word from the list to replace the underlined word(s) in each sentence.

1. ___ The new orders take the place of the previous ones. — a. incipient
2. ___ The command authorizing the message wants us to acknowledge. — b. compliance
3. ___ The arrangement of the ships indicates an attack will come soon. — c. disposition
4. ___ Personnel losses are to be avoided by all means. — d. supersede
5. ___ Nonagreement will require corrective action. — e. clearance
6. ___ The conflict is at the initial stage at this time. — f. comprised
7. ___ A battle group is made up of a battleship, cruisers, destroyers, etc. — g. format
8. ___ To arrange a message properly, first put a header at the top. — h. casualties
9. ___ It's impossible to discover the extent of the damage at this time. — i. ascertain
10. ___ You need a permit to enter that room. — j. originator

Choose the correct response to each sentence .

11. The hatch is not secured.
    a. If someone had told John, he secures the hatch.
    b. John would secure the hatch if someone told him to.
    c. If someone would tell him to, John secured the hatch.

12. There are no more spare parts.
    a. If the supply officer could have ordered more parts, we can have them.
    b. The supply officer would order more parts if he knew we needed them.
    c. If he knows we need spare parts, the supply officer will have ordered them.

13. Our forces didn't control the airspace.
    a. If the navy had supported air operations, our side would have dominated in the air.
    b. Our side can dominate in the air if the navy has supported air operations.
    c. If the navy supports air operations, our side will have dominated in the air.

14. The fleet wasn't ready when the attack came.
    a. If its condition of readiness been higher, the fleet would have been prepared.
    b. The fleet would have been prepared if its condition of readiness had been higher.
    c. If its condition of readiness is higher, the fleet would be prepared.

15. Electronic signals are easy for an enemy to detect.
    a. If security was a factor, the captain orders the use of visual signals.
    b. The captain could ordered the use of visual signals if security were a factor.
    c. If security were a factor, the captain would order the use of visual signals.

Match each condition or action in Part A with a hypothesis in Part B.

Part A

___16. The threat of the enemy force is unacceptably high.

___17. A sentry fell asleep while on duty last night.

___18. The missile failed to hit the target during the test.

___19. It's difficult to keep the ship on an even keel in weather like this.

___20. The fire support capability ofthe ship has been reduced with the loss of one gun.

Part B

a. If he had slept earlier, it wouldn't have happened.

b. It would stop listing if the wind weren't so strong.

c. It would be lower if mines had been planted.

d. If the weapon had been maintained, it would still be operational.

e. If it had had a better guidance system, it would have passed.

After reading the selection, read each statement that follows it. Circle T for true statements and F for false statements.

COM-9RADIOTELEGRAPHPROCEDURE

Purpose

To provide training in all forms of radiotelegraph procedure for communication personnel. The use of authentication and operating signals may be included.

Provisions

Transmitters and receivers of all ships should be set on specified frequency at least 15 minutes before exercise begins.

Participating ships may set up as many operators as desired. If more than one operator on same station is being set up, every operator is given a number (starting with ONE). The station call sign is extended by a slant and the operator's number.

Ships taking part answer in alphabetical/ numerical sequence. If a station fails to reply continue. Failing stations reply at the end of sequence.

21. Authentication and operating signals should not be used during training in radiotelegraph procedure.

T F

22. Transmitters and receivers are set on the specified frequency fifteen minutes or less before an exercise.

T F

23. A call sign can be extended by a slant and the number of an operator at a station.

T F

24. Ships participate in an exercise in alphabetical/ numerical sequence.

T F

25. Stations that don't reply in time can reply after all others have done so.

T F

Write the meaning of each abbreviation or acronym in the space that follows it.

26.OSE _____

27.OTC _____

28.OCE _____

29.OCS _____

30.SUBOPAUTH _____

Unit 8
Evaluation Exercises

Match the word in Column 1 with a synonym or definition from Column 2.

1. _____ endurance	a.subnormal body temperature
2. _____designate	b. a connecting element
3. _____overlap	c. controlling
4. _____hypothermia	d. ability to tolerate
5. _____dominant	e. to specify
6. _____link	f. to cover something partly

Choose the word or phrase that best completes the sentence.

7. The SAR manual _____ different search plans.
   a. copes
   b. addresses
   c. swells

8. After six months at sea, PO3 Holtz _____ his daily schedule for life on solid ground again.
   a. oriented
   b. overlapped
   c. overlooked

9. No hope was felt for the victim to survive due to the _____ of his injuries.
   a. security
   b. severity
   c. situation

10. The SRU gave the OSC all the _____ information.
    a. partial
    b. personal
    c. pertinent

11. The most important _____ within a SAR system is communication.
    a. link
    b. interval
    c. stage

12. The admiral's decision not to retire was strictly _____.
    a. proposed
    b. subjective
    c. incapacitated

Circle the verb in the tense that is appropriate for the sentence.

13. Last month the captain **gave**/ **has given** twenty briefings.

14. VADM Williams said that so far in his career **he saw** / **has seen** 120 rescues.

15. Although my brother, a retired commander, **never traveled** / **has never traveled** in Egypt, he **bought** / **has bought** many Egyptian artifacts during his naval career.

16. SRUs **used** / **have used** the Creeping Line search pattern many times with great success.

Circle the letter of the special expression that best completes the sentence.

17. I can't wait for you to tell me the whole story. Just tell me _____.
    a. melt away
    b. under tow
    c. in a nutshell

18. The anxiety _____ when the crew saw all the passengers of the distressed craft were alive.
    a. took on water
    b. melted away
    c. took care of its own

19. The SC was sure the SAR mission would be successful because the Navy _____.
    a. under tow
    b. melt away
    c. takes care of its own

Rewrite the following sentences. Change the acronyms to the word or words they represent.

---

20. The CSP is located ½ track spacing inside the corner of the A.

21. On scene weather may help the SMC determine the incident location.

22. An OSC is not required for all missions, although one is usually assigned if two or more SRUs are on scene.

23. The distressed vessel was found 12 NMs from the coast.

24. The IC should use statistical data, subjective and deductive reasoning, and group consensus to determine areas of high probability.

Answer the following question.

---

25. What are the five stages of SAR?

Answers will vary for number 26.

---

26. List four responsibilities of an SRU.

_____

_____

_____

_____

Unit 9
Evaluation Exercises

1. When entering an empty room during a boarding operation, don't _____ in the doorway.
   a. dash
   b. dally
   c. dart

2. There is a _____ between his statement and yours.
   a. discrepancy
   b. deterrence
   c. dispatch

3. The ship's _____ showed that they were carrying agricultural products.
   a. manual
   b. mantle
   c. manifest

4. During a boarding operation safety is _____ and will not be sacrificed.
   a. partial
   b. paramount
   c. peripheral

5. The inside of a vessel can be a _____ to anyone not familiar with it.
   a. margin
   b. marker
   c. maze

6. His senses were so _____ he could smell the man's fear.
   a. abstract
   b. acute
   c. anxious

7. Normal underway watch stations should be _____ to provide extra bridge-to-bridge radio log keepers and increased surveillance capability.
   a. anchored
   b. annexed
   c. augmented

8. A feeling of _____ can be dangerous under the wrong circumstances.
   a. colloquialism
   b. charter
   c. complacency

7. Normal underway watch stations should be _____ to provide extra bridge-to-bridge radio log keepers and increased surveillance capability.
   a. anchored
   b. annexed
   c. augmented

8. A feeling of _____ can be dangerous under the wrong circumstances.
   a. colloquialism
   b. charter
   c. complacency

9. He acted as a _____ between the two countries.
   a. lawyer
   b. lessee
   c. liaison

10. When was this vessel _____?
    a. dispatched
    b. distributed
    c. dispersed

11. He did not know the _____ of the problem.
    a. magnitude
    b. multitude
    c. gratitude

12. Larger boat fenders are _____ together to prevent damage to boats during boarding operations.
    a. lapped
    b. lagged
    c. lashed

13. The sailor _____ on the heel of his shoe.
    a. pivoted
    b. pitted
    c. plagiarized

14. If the COI does not comply with the boarding request, the actions to encourage it will _____.
    a. escalate
    b. evacuate
    c. indicate

15. Look for possible "_____" military or intelligence personnel among the crew/ passengers.
    a. poisoned
    b. planted
    c. preceded

Choose the correct word from the list to write on the blank line.

---

bounds	prudent
augments	ploy
prosecution	substantiate
protruding	correlate
threshold	noxious
ricocheting	peripheral
subsequent	deterrence
itinerary	

16. The _____ vapors in the air made him sick.

17. He _____ his income by working another job.

18. Move by short _____ from one covered or concealed location to another. Keep low and don't hesitate to creep or crawl.

19. Computers can _____ data.

20. I received my flight _____ yesterday.

21. What _____ do countries use to keep just anyone from entering?

22. Identify those crimes that can be given to the District Attorney for _____.

23. Team members rely on their _____ vision while searching vessels.

24. His usual _____ is to act like he is feeling very sick, so he can go home and relax.

25. Here is the paperwork to _____ my claim.

26. The wooden poles were _____ from the back of the truck.

27. He is a _____ person and carefully contemplates everything he does first.

28. There is great danger of getting hit by _____ bullets.

29. He consulted an attorney _____ to the incident that occurred last week.

30. John has a very low _____ for pain. If it gets too bad, he loses consciousness.

Unit 10
Evaluation Exercises

Choose the best definition for each vocabulary word that is given below.

1. chair
   a. look at
   b. preside over
   c. go over
2. screen
   a. filter
   b. guess
   c. interpret
3. triage
   a. attack plan
   b. medical system
   c. study program
4. bar
   a. attempt
   b. exempt
   c. examine
5. vector
   a. high tide area
   b. disease carrying insect
   c. evacuated area
6. monetary
   a. money related
   b. military related
   c. family related
7. grant
   a. to question
   b. to permit
   c. to admire
8. prophylaxis
   a. dental treatment
   b. mathematical device
   c. examination
9. ad hoc
   a. for a specific purpose
   b. for a general purpose
   c. for multipurpose
10. indigenous
    a. not known in that area
    b. native to that area
    c. a large area
11. apprise
    a. unaware
    b. unknown
    c. make aware

Listen again to the selection titled "Political Aspects." Then do number 12.

12. Briefly describe the duties of each embassy representative.

Select the correct word from the list to complete the sentence.

sympathizer(s)	discreet	envision
prudent	premium	upheaval

13. Be _____ with your money if you want to retire in 20 years.
14. When do you _____ the peace agreement being signed?
15. The _____ that started during the night was quieted by morning.
16. Human Rights _____ were successful in helping to pass many new laws in their country.
17. As ambassador a person must be very _____ when interacting with other politicians.
18. A soldier's life is a high _____ to pay for freedom.

Match the words in column A to the synonym in column B.

19.___ diffuse	a. assemble
20.___ sporadic	b. shelter
21.___ scenario	c. worsen
22.___ deteriorate	d. spread out
23.___ haven	e. irregular
24.___ congregate	f. master plan

Circle *T* if the sentence is true. Circle *F* if the sentence is false.

25. Psychiatric problems deal mostly with how a person handles money.

T F

26. Augmentation is enlarging something's or somebody's capabilities.

T F

27. A slow person is expeditious.

T F

28. The desire for survival is inherent in human beings.

T F

29. The word "collocate" refers to the action of taking things apart.

T F

Circle the letter of the expression that best completes the sentence.

30. Any military personnel that break the law must face a _____.
    a. mess hall
    b. court martial
    c. sick bay

31. The sailor was told that if he didn't feel well he should go to _____.
    a. sick bay
    b. weather deck
    c. court martial

32. The distressed craft could be seen from the _____.
    a. abandon ship
    b. weather deck
    c. sick bay

33. The ship was taking on water so the captain ordered everyone to _____.
    a. sick bay
    b. court martial
    c. abandon ship

Rewrite the following sentences. Change the acronyms to the word or words they represent.

34. The CPO (_____) guided the people to the berthing areas.

35. His first duty was to establish an ECC (_____).

36. The military commander designated five LZs (_____) in that area.

Unit 11
Evaluation Exercises

Unscramble the following words by working back and forth between the definitions and the letters. Write each unscrambled word in the blank next to its definition.

taiccous	cudine	mortipnen
dreern	selbaid	cersac

1._____ Easily noticeable

2._____ Operated by, or utilizing sound waves

3._____ Not abundant

4._____ To cause to happen by influence or stimulation

5._____ To cause to become; to make

6._____ To make inoperative or ineffective; to incapacitate

Classify the nouns by completing the sentences with a/an, or Ø.

7. ____ lookout saw ____ mine right in our path.

8. ____ lookouts need to wear ____ special red goggles for 30 minutes before going on night lookout duty.

9. When ____ underwater object is detected, it must be determined to be either ____ mine or ____ harmless NOMBO.

10. ____ ropes are manufactured from ____ wire, ____ fiber, or ____ combination of the two.

Select the word from the list below that best completes each sentence. There are more words in the list than you will need. You may need to modify some of the words to make them suitable for their functions in the sentences.

collate	localize	precursor
timely	rupture	inert
particularity		detonate

11. Even seemingly small workplace injuries require _____ treatment.

12. A(n) _____ chemical does not react to other chemicals or agents.

13. _____ the threat from mines by placing navigational warnings is part of passive MCM operations.

14. Authorities at the OPCON level are responsible for _____, analyzing, and disseminating intelligence information.

15. When the case of a sea mine is _____ by neutralization charges, the mine no longer poses a threat.

16. Influence mines can be detected by helicopters _____ a combination sweep.

Circle the correct answer to complete the sentence.

17. MRN stands for ____.
    a. Mine Report Number
    b. Maritime Report Number
    c. Mine Reference Number

18. The 'A' in AMCM stands for ____.
    a. Airborne
    b. Aircraft
    c. Anti

19. MCM ships or helicopters can tow acoustic and/or magnetic devices to _____ sea mines.
    a. render
    b. counter
    c. compile

20. Minemen are responsible for ____ MCM equipment.
    a. laying
    b. detonating
    c. maintaining

21. A(n) ____ is used to report a Diving Incident
    a. ROV
    b. EOD
    c. MW Signal

22. _____ mines are normally laid in water 10 to 100 meters deep.
    a. Bottom
    b. NOMBO
    c. IRCS

23. Which active MCM operation comes first?
    a. inert
    b. precursor
    c. prominent

24. Which action implies rendering a mine harmless?
    a. localizing
    b. neutralizing
    c. avoiding

25. Which of the following is a stable environmental factor affecting minehunting operations?
    a. bottom composition
    b. MILCO
    c. an optical device

Unit 12
Evaluation Exercises

Circle *T* if the sentence is true. Circle *F* if the sentence is false.

1. Routine, day-to-day operations seldom make cross operations necessary.

   T F

2. A ship's basic aviation capability is described in terms of "bevel" and "glass."

   T F

3. A sea state of "2" describes a fairly calm sea.

   T F

4. The terms "close" and "lose" describe the control of ships.

   T F

5. High performance aircraft should not be cleared for close in supersonic passes near helicopters.

   T F

Match the following words with their definitions. There are more words than definitions.

6. ___ the level of brightness
7. ___ to predominate
8. ___ needing immediate attention
9. ___ to postpone
10. ___ to prevent from happening
11. ___ an operation, procedure, practice,or condition that may result in damage to equipment if not carefully observed or followed
12. ___ to take or follow a course of action
13. ___ a violent jarring or shock
14. ___ an operation, procedure, practice or condition that may result in injury or death if not carefully observed or followed
15. ___ lowered in quality

a. warning
b. adopt
c. deteriorate
d. caution
e. distress
f. defer
g. prevail
h. intensity
i. preclude
j. adopter
k. concussion
l. intense

Select the *best* answer(s) to the following questions and incomplete statements. There may be more than one correct answer.

16. Which of the following might be transported during HOSTAC operations?
    a. ammunition
    b. fuel
    c. medical supplies
    d. personnel
    e. all the above
17. The _____ of a helicopter facility identifies the environmental condition that prevails.
    a. sea state
    b. pitch
    c. class
    d. level
    e. bevel

18. Some factors which might influence the degree of control required of helicopters during HOSTAC operations are
    a. weather conditions
    b. mutual indifference
    c. equipment status
    d. capabilities of air control units
    e. all of the above

19. During departure and recovery, the guest helicopter is always _____ _____ some form of air control by the host ship.
    a. subject to
    b. due to
    c. subject verb
    d. exempt from
    e. away from

20. To whom are the passengers subordinate to for the duration of the flight?
    a. HAC
    b. LSO
    c. FOD
    d. PAC
    e. PUK

Examine the following paragraph and determine when you need to write *a/an*, Ø or *the* in the blank for each noun.

---

(21)_____ basic principle in (22)_____ HOSTAC operations is that (23)_____ guest helicopter always uses (24)_____ approach, (25)_____ landing, and (26)_____ deck handling procedures of (27)_____ host ship.

Complete the following paragraph using the words listed below. You will not use all the words.

---

aerographer	down wash
ambient temperature	ground effect
ceiling	relative humidity
dew point	sea state

Helicopter pilots are more concerned with (28)_____ _____, where as flight deck crew members are more concerned with (29)_____ _____. The (30)_____, who was 6'4", reported the (31)_____ _____ as 17° C and the (32)_____ _____ as 31 %.

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Maritime Operational Language Seminar
Feedback Questionnaire for Students

Thank you in advance for taking the time to complete this questionnaire. Our goal is to make our language training materials more effective, flexible, and user-friendly; for this reason, we seek feedback from our customers.

When completing this questionnaire, please be frank and constructive with your input. Feedback is gathered from a variety of sources; changes are made based on trends.

I. INFORMATION ABOUT PARTICIPANT

Name:			Country:		
Gender (M or F):		Age:		Number of Yrs. of Education:	
Proficiency rating: low, medium, high		Number of Yrs. in Military:		Military Branch	

II. MATERIALS EVALUATION

A. Motivation. Circle Yes or No.

1. Do the materials have an attractive appearance?	Yes	No
2. Do the materials encourage personal involvement of the learner in the learning process?	Yes	No
3. Is the content of the material of genuine interest to the learners?	Yes	No

B. Support. Circle Yes or No.

1. Is the material self-sufficient?	Yes	No
2. Does the material require a high degree of teacher input? (if applicable)	Yes	No

C. Presentation and practice of new items. Using the scale on the left side of the page, rate the degree of meaningfulness, relevancy, and appropriateness to the context for each item. One is "Low" and Five is "High."

1. Presentation of vocabulary items	1	2	3	4	5
2. Practice of vocabulary items	1	2	3	4	5
3. Presentation of grammar structures	1	2	3	4	5
4. Practice of grammar structures	1	2	3	4	5
5. Presentation and practice of language functions	1	2	3	4	5
6. Presentation and practice of pronunciation	1	2	3	4	5

D. Development of language skills. Using the scale on the left side of the page, rate the degree of meaningfulness, relevancy, and appropriateness to the context for each item. One is "Low" and Five is "High."

1. Reading selections and accompanying exercises	1	2	3	4	5
2. Listening materials and accompanying exercises	1	2	3	4	5
3. Writing exercises	1	2	3	4	5
4. Oral presentations and discussion/syndicate participation	1	2	3	4	5

E. Support materials. Evaluate degree of usefulness. One is "Low" and Five is "High."

1. Audiotapes	1	2	3	4	5
2. Appendices	1	2	3	4	5

F. Conclusion and overall evaluation. Answer the questions. Use additional paper if necessary.

1. Did you understand the objectives?

2. To what extent were the materials successful in achieving these objectives?

3. What are some of the strengths of the materials?

4. What are some of the weaknesses of the materials?

5. What would you add to the materials?

6. In what type of learning situations would the material be most and least useful?

7. Were the materials received in a timely manner?

G. Add any general comments and conclusions you wish to make. (Use the back of these pages or add additional pieces of paper).