

UNCLASSIFIED

EXTAC 1000

**EXTAC 1000**  
**MARITIME MANEUVERING**  
**AND TACTICAL**  
**PROCEDURES**

**MULTI-NATIONAL MARITIME MANUAL**

**ORIGINATOR: NAVY WARFARE DEVELOPMENT COMMAND**

**AUGUST 1996**

*1000-1 (Reverse Blank)*  
**UNCLASSIFIED**

**ORIGINAL**



August 1996

PUBLICATION NOTICE

ROUTING

1. EXTAC 1000, Maritime Maneuvering and Tactical Procedures, is available in the Naval Warfare Publication Library. It is effective upon receipt.
2. EXTAC 1000 is designed for use by NATO nations when conducting exercises or operations with non-NATO navies. It provides naval maneuvering concepts and signaling instructions for units of different navies that have not historically operated together and do not have agreed-on procedures. EXTAC 1000 only supports basic tactical exercises and operations. It is not intended to support sophisticated or warfare-specific coordinated operations.
3. EXTAC 1000 is UNCLASSIFIED and does not require security protection. It may be released to non-NATO nations independently by member nations and NATO commands and agencies as required.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

---

Naval Warfare Publications Custodian

Naval warfare publications must be made readily available to all users and other interested personnel within the U.S. Navy.

*Note to Naval Warfare Publications Custodian*

This notice will assist you in providing information to cognizant personnel. It is not accountable.





DEPARTMENT OF THE NAVY  
NAVAL DOCTRINE COMMAND  
1540 GILBERT STREET  
NORFOLK, VA23511-2785

August 1996

LETTER OF PROMULGATION

1. EXTAC 1000, Maritime Maneuvering and Tactical Procedures, is one of a series of publications designed for use in operations between NATO and non-NATO navies. It is a stand-alone document and shall be maintained separately from AXP-5.
2. EXTAC 1000 is effective upon receipt and supersedes EXTAC 768.
- 3.. EXTAC 1000 is UNCLASSIFIED and requires no security protection. It may be released to non-NATO nations independently by member nations and NATO commands and agencies as required.

A handwritten signature in black ink, appearing to read "M. L. Bowman".

M. L. BOWMAN  
Rear Admiral, U.S. Navy  
Commander, Naval Doctrine Command









# Maritime Maneuvering and Tactical Procedures

## CONTENTS

*Page  
No.*

### *PART I — TACTICAL MANEUVERING*

#### **CHAPTER 1 — TASK ORGANIZATION AND COMMAND AND CONTROL**

0101	Task Organization . . . . .	1-1
0102	Command and Control . . . . .	1-1
0103	Tasking and Reporting . . . . .	1-2
0104	Readiness . . . . .	1-2
0105	Position, Movement, and Maneuvering. . . . .	1-3
0106	Disposition of Forces . . . . .	1-3
0107	Communications . . . . .	1-3
0108	Tasking Message . . . . .	1-3
0109	Glossary of Terms, Acronyms, and Abbreviations . . . . .	1-3

#### **CHAPTER 2 — POSITION, MOVEMENT, AND MANEUVERING**

0201	Position Reference Systems . . . . .	2-1
0202	Position Reporting . . . . .	2-1
0203	Standard Maneuvering Concepts . . . . .	2-1
0204	Arrival and Departure. . . . .	2-3
0205	Joining and Detaching . . . . .	2-3
0206	Special Maneuvering Rules. . . . .	2-4

#### **CHAPTER 3 — DISPOSITION OF FORCES**

0301	Basic Formations . . . . .	3-1
0302	Altering Formation Course . . . . .	3-8
0303	Changing Formation. . . . .	3-10

	<i>Page No.</i>
0304	Automatic Guide Changes . . . . . 3-10
0305	Individual Ship Maneuvers . . . . . 3-14
0306	Formation Recovery Procedures . . . . . 3-14
0307	Summary. . . . . 3-14

#### **CHAPTER 4 — COMMUNICATIONS**

0401	Visual Communications . . . . . 4-1
0402	Radioteletype Communications. . . . . 4-1
0403	Voice Radio Communications . . . . . 4-1

#### **CHAPTER 5 to 10 — Reserved**

### *PART II — TACTICAL SIGNALS*

#### **CHAPTER 11 — FORM (Formation) SIGNALS**

1101	Formation Signals . . . . . 11-1
1102	Miscellaneous Signals . . . . . 11-3
1103	Information Signals . . . . . 11-3

#### **CHAPTER 12 — STATION SIGNALS**

1201	Instructions . . . . . 12-1
1202	Action Signals . . . . . 12-1
1203	Information Signals . . . . . 12-3

#### **CHAPTER 13 — TURN SIGNALS**

1301	Turn of Specified Amount. . . . . 13-1
1302	Stopping an Ordered Turn. . . . . 13-1
1303	Turn of Unspecified Amount . . . . . 13-1
1304	Information Signals . . . . . 13-1

**CHAPTER 14 — CORPEN (Course) SIGNALS**

1401	Ordering Corpen . . . . .	14-1
1402	Action Signals . . . . .	14-1
1403	Information Signals . . . . .	14-2

**CHAPTER 15 — SPEED SIGNALS**

1501	Action Signals . . . . .	15-1
1502	Information Signals . . . . .	15-2

**CHAPTER 15A — SCREEN SIGNALS . . . . . 15A-1**

**CHAPTER 16 — SPECIAL TACTICAL SIGNALS**

1601	Bearing and Distance . . . . .	16-1
1602	Special Information Signals . . . . .	16-1
1603	Light Signals. . . . .	16-2
1604	Miscellaneous Signals . . . . .	16-2
1605	Movement Signals. . . . .	16-3
1606	Operations and Intentions Signals. . . . .	16-5
1607	Identification Signals . . . . .	16-6
1608	Weather Signals . . . . .	16-6

**CHAPTER 17 — TWO-LETTER MODIFIERS . . . . . 17-1**

**CHAPTER 18 — EMERGENCY SIGNALS**

1801	Instructions for use of EMERG . . . . .	18-1
1802	Emergency Alarm Signals. . . . .	18-1
1803	Emergency Action Signals . . . . .	18-3

**CHAPTER 19 — ANTI-AIR WARFARE SIGNALS . . . . . 19-1**

	<i>Page No.</i>
CHAPTER 20 — ANTI-AIR WARFARE ACTION TABLE . . . . .	20-1
CHAPTER 21 — ADMINISTRATION SIGNALS . . . . .	21-1
CHAPTER 22 — ANTISUBMARINE WARFARE SIGNALS . . . . .	22-1
CHAPTER 23 — ANTISUBMARINE WARFARE ACTION TABLE . . . . .	23-1
CHAPTER 24 — AIRCRAFT SIGNALS . . . . .	24-1
CHAPTER 25 — COMMUNICATION SIGNALS . . . . .	25-1
CHAPTER 26 — COMMAND SIGNALS . . . . .	26-1
CHAPTER 27 — ENTRY AND DEPARTURE . . . . .	27-1
CHAPTER 28 — EXERCISE SIGNALS . . . . .	28-1
CHAPTER 29 — GUNNERY AND MISSILES . . . . .	29-1
CHAPTER 30 — INTERDICTION AND EMBARGO OPERATIONS . . . . .	30-1
CHAPTER 31 — METEOROLOGY SIGNALS . . . . .	31-1
CHAPTER 32 — NAVIGATION SIGNALS . . . . .	32-1
CHAPTER 33 — RADAR SIGNALS . . . . .	33-1
CHAPTER 34 — READINESS SIGNALS . . . . .	34-1
CHAPTER 35 — REPLENISHMENT SIGNALS . . . . .	35-1
CHAPTER 36 — ANTISURFACE WARFARE SIGNALS . . . . .	36-1
CHAPTER 37 — TORPEDO ACTION TABLE . . . . .	37-1
CHAPTER 38 — SURFACE ACTION TABLE — GENERAL . . . . .	38-1

Page  
No.

CHAPTER 39 — SURFACE ACTION TABLE — OVER-THE-HORIZON  
ENGAGEMENT . . . . . 39-1

CHAPTER 40 — SURFACE ACTION TABLE — TO-THE-HORIZON RANGE  
ENGAGEMENT . . . . . 40-1

CHAPTER 41 — TOWING SIGNAL TABLE . . . . . 41-1

CHAPTER 42 — SIGNAL INDEX . . . . . 42-1

CHAPTER 43 to 44 — Reserved

*PART III — REPORTS AND MESSAGES*

**CHAPTER 45 — TASKING MESSAGE**

4501 Introduction . . . . . 45-1  
4502 Tasking Message Format . . . . . 45-1  
4503 Sample Tasking Message . . . . . 45-1

**ANNEX A — GLOSSARY OF TERMS, ACRONYMS, AND ABBREVIATIONS**

0A01 Introduction . . . . . A-1  
0A02 Glossary of Terms . . . . . A-1  
0A03 List of Acronyms and Abbreviations. . . . . A-2

**INDEX.** . . . . . Index-1

# LIST OF ILLUSTRATIONS

	<i>Page No.</i>
<b>CHAPTER 1 — TASK ORGANIZATION AND COMMAND AND CONTROL</b>	
Figure 1-1. Sample Task Organization . . . . .	1-2
Figure 1-2. Sample Tasking Message Task Organization Designation . . . . .	1-3
<b>CHAPTER 2 — POSITION, MOVEMENT, AND MANEUVERING</b>	
Figure 2-1. Sample Positions Reported Using Bearing and Distance. . . . .	2-2
Figure 2-2. Sample Stationary Stations . . . . .	2-3
Figure 2-3. Sample Moving Stations . . . . .	2-4
Figure 2-4. Distance and Interval Concept . . . . .	2-6
<b>CHAPTER 3 — DISPOSITION OF FORCES</b>	
Figure 3-1. Column Formation . . . . .	3-1
Figure 3-2. Line Abreast Formations . . . . .	3-2
Figure 3-3. Line of Bearing Formations. . . . .	3-2
Figure 3-4. Column Open Order Formation. . . . .	3-3
Figure 3-5. Diamond Formation. . . . .	3-3
Figure 3-6. Multiple Line Formation . . . . .	3-4
Figure 3-7. Sample Circular Formation Stations . . . . .	3-5
Figure 3-8. Sample Tasking Message Designated Circular Formations . . . . .	3-6
Figure 3-9. Sample Designated Circular Formations . . . . .	3-6
Figure 3-10. Turn . . . . .	3-8
Figure 3-11. Corpen. . . . .	3-9
Figure 3-12. Formation Change . . . . .	3-10
Figure 3-13. Automatic Guide Change (Column Formation) . . . . .	3-11
Figure 3-14. Automatic Guide Change (Multiple Column Formation) . . . . .	3-12
Figure 3-15. Automatic Guide Change (Line Abreast) . . . . .	3-13

**CHAPTER 4 — COMMUNICATIONS**

Figure 4-1. Sample Tasking Message Assignment of a Radioteletype  
Communication Circuit . . . . . 4-2

Figure 4-2. Sample Tasking Message Assignment of Voice Radio Circuits. . . . . 4-2

Figure 4-3. Sample Tasking Message Assignment of Voice Call Signs . . . . . 4-3

Figure 4-4. Sample Tactical Voice Radio Sequence . . . . . 4-3

Figure 4-5. Letters, Numbers, and Special Prowords and Pronunciations . . . . . 4-4

**CHAPTER 45 — TASKING MESSAGE**

Figure 45-1. Sample Tasking Message . . . . . 45-2

**LIST OF TABLES**

**CHAPTER 2 — POSITION, MOVEMENT, AND MANEUVERING**

Table 2-1. Standard Positions . . . . . 2-5

Table 2-2. Speed Flags . . . . . 2-5

**CHAPTER 3 — DISPOSITION OF FORCES**

Table 3-1. Summary. . . . . 3-15

**CHAPTER 4 — COMMUNICATIONS**

Table 4-1. Standard Time Zones . . . . . 4-6

Table 4-2. Single Alphabetical Flag Table . . . . . 4-8

Table 4-3. Single Numerical Flag Table . . . . . 4-13

Table 4-4. Single Special Flag/Pennant Table . . . . . 4-14





## FOREWORD

1. EXTAC 1000, Maritime Maneuvering and Tactical Procedures, provides naval maneuvering concepts and signaling instructions for units of different navies that have not historically operated together and do not have any other agreed-on procedures. This EXTAC only supports basic tactical exercises and operations. It is not intended to support sophisticated or warfare-specific coordinated operations.
2. This document is unclassified and does not require security protection. It may be released to non-NATO nations independently by member nations and NATO commands and agencies as required.
3. Comments and recommended changes to this document should be sent directly to the address listed below:

COMMANDER  
NAVY WARFARE DEVELOPMENT COMMAND  
686 CUSHING ROAD  
NEWPORT RI 02841-1207 USA

4. References:
  - a. EXTAC 1001, International HOSTAC.
  - b. EXTAC 1002, International HOSTAC — Technical Supplement.
  - c. MTP 2, Replenishment at Sea.
  - d. EXTAC 1004, Voice Procedures and Brevity Codewords.
  - e. EXTAC 1005, Exercise Manual.
  - f. EXTAC 1006, Structured Messages.
  - g. EXTAC 1007, Mine Countermeasures.
  - h. EXTAC 1009, Diving Safety.
  - i. EXTAC 1010, Noncombatant Evacuation Operations.
  - j. EXTAC 1011, Naval Humanitarian Assistance Missions.
  - k. EXTAC 1013, Regional Naval Control of Shipping.
  - l. EXTAC 1014, Meteorological Support.



# PART I — TACTICAL MANEUVERING



## CHAPTER 1

# Task Organization and Command and Control

## 0101 Task Organization

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 (e.g., communication exercises, search and rescue, etc.). Figure 1-1 shows a sample task organization containing the TG, TU, and TE levels. Figure 1-2 shows how the task organization in Figure 1-1 would be promulgated in a tasking message (see Chapter 45).

**a. 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 number to the TG (e.g., TG 12.1) and a TG commander (CTG).

**b. Task Unit (TU).** Each TG may include two or more smaller, subordinate TUs. The tasking message establishing the exercise or operation will assign units to TUs, TU numbers (e.g., TG 12.1.1), and TU commanders (CTUs).

**c. Task Element (TE).** Each TG with TUs may also contain smaller, subordinate TEs. The tasking message establishing the exercise or operation will assign units to TEs, TE numbers (e.g., TE 12.1.1.1), and TE commanders (CTEs).

**d. 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 1-1, all

participants are subordinate to the CTG. TU and TE ships are subordinate to their respective CTU and CTE.

## 0102 Command and Control

**1. Command.** 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, this is normally only done in large or widely dispersed task organizations.

**a. Direction.** The process of planning, establishing priorities, formulating policies, and imposing decisions.

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

**c. Control.** 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.

**2. 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.

**a. Operational Command and Control (OPCON).** OPCON is the authority to assign ships as participants in an exercise or operation, to deploy ships to meet exercise or operation commitments, and to authorize ships to detach from an exercise or operation. OPCON is always retained by national authority.

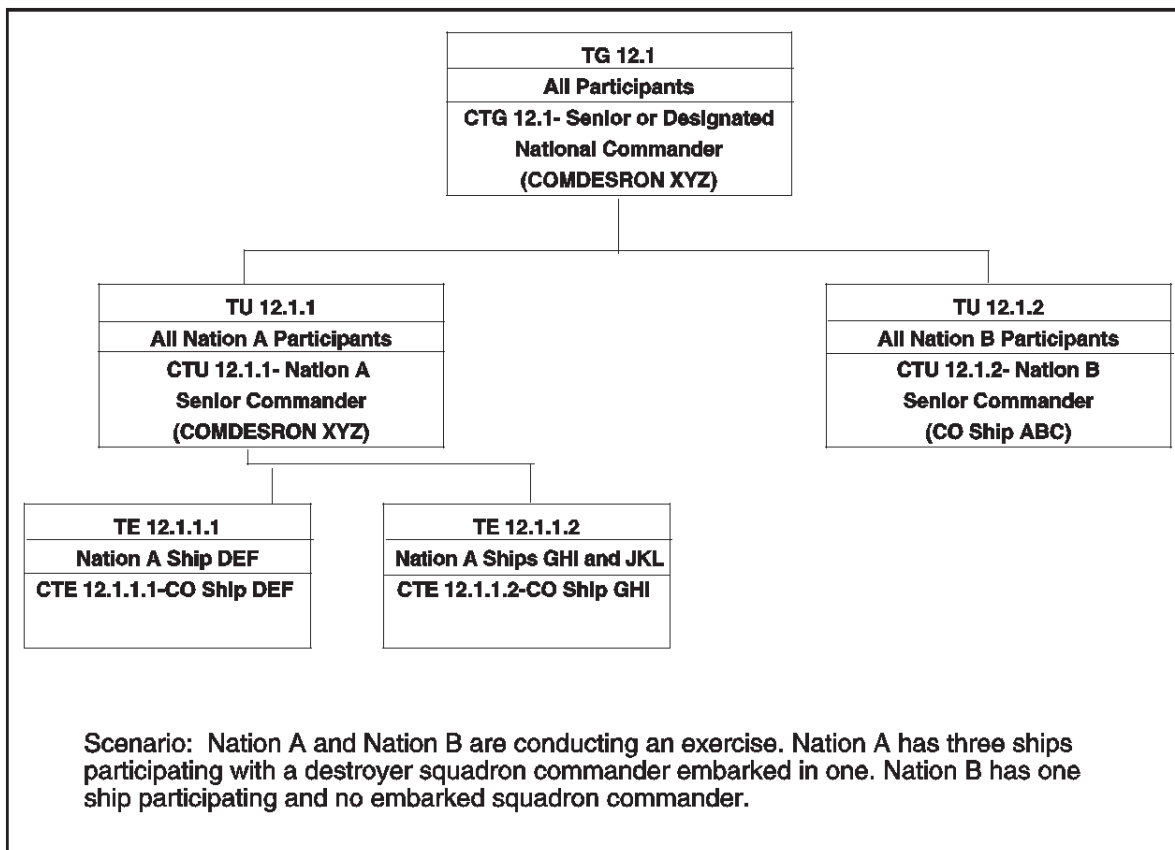


Figure 1-1. Sample Task Organization

**b. 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. TACOM is assigned to the CTG of a specific exercise or operation.

**c. 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.

**3. Change of Operational Control (CHOP).** CHOP occurs when responsibility for TACOM and/or TACON shifts from one task

organization commander to another or between national and task organization authority. Scheduled CHOPs, including time of CHOP, should be established in the tasking message that establishes the exercise or operation.

**0103 Tasking and Reporting**

Tasking to subordinates and reports to seniors in the task organization will be by message, such as the tasking message described in Chapter 45, or by signal using the standard signals contained in Part 2. Frequencies for radio communications will be assigned in the tasking message.

**0104 Readiness**

Upon commencement of operations, the CTG will assume all participants are ready to carry out the assigned exercise or operation. Any participant less than fully ready (e.g., reduced speed, maneuverability, or communication capability) should advise senior commanders of their limitations and the time a return to full readiness

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: TU 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 1-2. Sample Tasking Message Task Organization Designation

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.

### 0105 Position, Movement, and Maneuvering

Chapter 2 describes position reference systems, standard positions within a formation, and procedures for reporting and exchanging position

information. It also provides standard maneuvering concepts and rules.

### 0106 Disposition of Forces

Chapter 3 discusses standard formations and formation maneuvers.

### 0107 Communications

Chapter 4 provides standard procedures for visual, radioteletype, and voice radio communications. Part 2 contains a series of tactical signals for use during exercises and operations covered by this manual. These signals supplement the International Code of Signals adopted by the Fourth Assembly of the Inter-Government Maritime Consultative Organization. Part 2 also provides an index of signals that can be used to encode signals.

### 0108 Tasking Message

Chapter 45 describes the tasking message that will be promulgated for each exercise or operation conducted in accordance with this manual. The tasking message will be developed by the command or country hosting the exercise or operation, or by the commander designated as the CTG. The tasking message will be distributed to all participants sufficiently in advance of the exercise or operation to ensure all have time to incorporate the message's contents into their planning and preparation.

### 0109 Glossary of Terms, Acronyms, and Abbreviations

Annex A provides a glossary of terms and a list of acronyms and abbreviations used in this manual.





## CHAPTER 2

## Position, Movement, and Maneuvering

### 0201 Position Reference Systems

**1. Latitude and Longitude.** Position may be expressed in degrees of latitude and longitude. When expressing position by latitude and longitude, latitude will be stated first and will include an N for North or an S for South. Longitude will follow latitude and will include an E for East or a W for West.

**2. Bearing and Distance.** Position may be expressed as a bearing and distance (sometimes referred to as range) from a reference position (RP), whose location is known to all participants. This RP may be a fixed geographic location, a specific TG ship (such as the Guide), or any other point promulgated to or known by all TG ships. The order of reporting position by bearing and distance will be: bearing in degrees true ( $^{\circ}$  T) from the RP, identification of the RP, and distance from the RP in nautical miles (nm) or yards (yd). Example: 073 Cape May Light 25 nm. The nautical mile is 2,000 yards. Figure 2-1 shows some sample positions reported using bearing and distance.

**3. Designated Stations.** Position may be expressed by reference to a designated station. A designated station is an area or point that has been established either in the tasking message or by communication during the exercise or operation. A designated station will normally be defined by either latitude and longitude or bearing and distance from an RP, and may be either stationary or moving. Figure 2-2 provides examples of stationary designated stations. Figure 2-3 provides examples of moving designated stations.

**4. Standard Positions.** Table 2-1 defines standard positions that may be used during exercises or operations. Other positions may be established in the tasking message.

### 0202 Position Reporting

**1. Navigational Dangers.** Ships are to report immediately if the formation may be approaching a navigational danger or if the location of a danger differs materially from previous information.

**2. Own-Ship Position.** All ships shall report own-ship position in accordance with the tasking message. The method by which the position was determined should be indicated in the report. All own-ship position reports will be in latitude and longitude. If unable to determine own-ship position or if uncertain of position, ships should advise the CTG.

**3. Contact Positions.** All ships shall report contact positions in accordance with the tasking message. Contacts should normally be reported as a bearing and distance from an RP.

### 0203 Standard Maneuvering Concepts

**1. Course and Speed.** Ship movements will be ordered using a signaled course and speed. Signaled course is steered by using the ship's gyro compass heading adjusted for any gyro error. Signaled speed is maintained by using the appropriate number of propeller revolutions. Signaled speed should always allow ships sufficient reserve speed to enable station keeping and timely change of station. When maintaining station, ships shall make minor adjustments in the course steered and speed maintained to remain on station relative to the Guide.

**a. Course Changes.** When changing course, a standard rudder angle of  $15^{\circ}$  shall be used by the Guide. For precision in maneuvers, the amount of rudder used by other ships must be adjusted so they turn as nearly as possible with the Guide.

**b. Speed Changes.** Ships operating together should employ uniform acceleration and deceleration rates. This is necessary for smoothness of maneuvers and to facilitate station keeping. The CTG may provide standard acceleration and deceleration rates in the tasking message. If no standard acceleration and deceleration rates are promulgated, ships should increase and decrease speed consistent with the Guide.

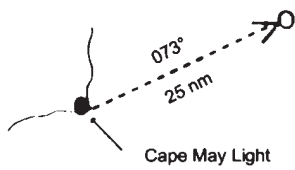
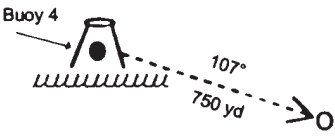
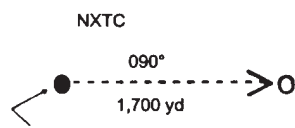
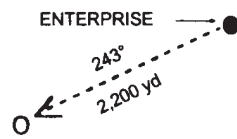
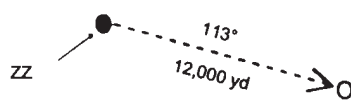
From a Fixed Geographic Location	073° Cape May Light 25 nm	
	107° Buoy Four 750 yd	
From a TG Unit	090° NXTC 1,700 yd (where NXTC is ship's international call sign)	
	243° ENTERPRISE 2,200 yd (where ENTERPRISE is ship's name)	
From a Known Point	113° ZZ 12,000 yd (where ZZ is formation center)	
Key: ● RP ○ Indicated Position		

Figure 2-1. Sample Positions Reported Using Bearing and Distance

**c. Speed Flags.** The speed at which a ship is proceeding may be indicated by numeral flags displayed from the navigation bridge or at the dip from an outboard signal halyard. It should be understood, however, that speed flags provide information only and are not to be used for ordering changes in speed. See Table 2-2.

**2. Position and Intended Movement (PIM).** A PIM defines the general track along which the TG will proceed. At any time the center of the TG should be within 10 nm of its promulgated PIM. The CTG should promulgate a PIM to assist the return of aircraft, to aid outlying surface ships in maintaining station, to keep adjacent commands informed of TG intentions, and to facilitate other units joining the TG. The CTG shall signal PIM as

follows: position, time of position, course, speed, and time in hours (if required) for which course and speed are in force. The CTG should issue a new PIM when the position of the center of the TG varies by more than 10 nm from the promulgated PIM.

**3. Distance and Interval.** Distance denotes the distance between ships in a line. Distance is measured in nautical miles (nm) or yards (1 nm = 2,000 yd). The distance between ships is measured between foremasts or between navigation bridges of ships without foremasts. The tasking message will define the standard distance (D) to be used in each exercise or operation. The term interval is used to denote the distance between lines of ships in multiple line formations. Standard interval (I) will be defined in the tasking message. Figure 2-4 depicts the distance and interval concept.

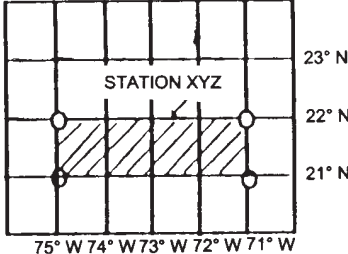
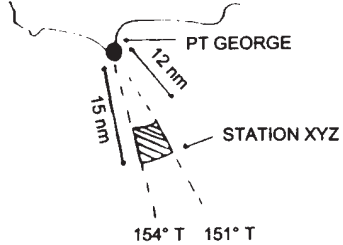

Type of Station	Sample		
STATIONARY	Designation	Description	Illustration
	Station XYZ	21° N, 75° W to 21° N, 71° W to 22° N, 71° W to 22° N, 75° W to 21° N, 75° W	
	Station XYZ	151° to 154° Pt. George Light 12 nm to 15 nm	
<p>Key: ● RP ○</p> <p> Indicated Station</p>			

Figure 2-2. Sample Stationary Stations

**4. Station.** To station a unit is to order it to proceed to a position within the formation defined by one of the position reference systems outlined in paragraph 0201, designated in the tasking message, or defined by the type of formation (see Chapter 3).

**5. Guide.** The ship on which other ships take station is the Guide. The ship in which the CTG is embarked is normally the Guide unless another ship is specifically designated the Guide, or unless the Guide is automatically shifted as a result of a formation maneuver (see Chapter 3). The Guide is to hoist the Guide (Golf) flag and keep it flying until the Guide is changed.

**6. Sequence Numbers.** The tasking message will assign each ship in the TG a number to facilitate close maneuvering and stationing. This number is known as a sequence number. When

ordering a formation, ships may be assigned stations in accordance with their sequence numbers.

**0204 Arrival and Departure**

When a port visit is scheduled during or immediately before or after an exercise or operation, ships will request berths and proceed to and from port under national guidelines. The tasking message should establish the location and time ships revert to national control prior to entering port and/or the time ships join the TG upon departing port.

**0205 Joining and Detaching**

**1. Scheduled Detachments.** Ships detaching the TG in accordance with an approved schedule should advise the CTG they are proceeding as previously directed (see Chapter 4).

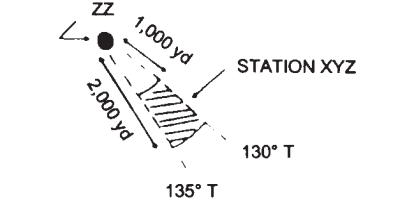
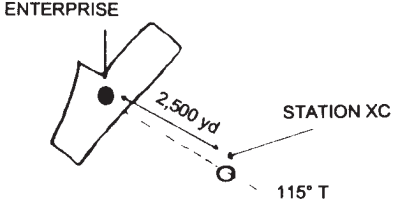

Type of Station	Sample		
MOVING	Designation	Description	Illustration
	Station XYZ	130° to 135° ZZ 1,000 to 2,000 yd	
	Station XC	115° ENTERPRISE 2,500 yd	
<p>Key: ● RP ○</p> <p> Indicated Station</p>			

Figure 2-3. Sample Moving Stations

**2. Unscheduled Detachments.** Unscheduled detachments should be approved by the senior national commander participating in the exercise or operation and he shall inform the CTG of the action being taken.

**3. Scheduled Joinings.** Ships scheduled to join the TG should signal the CTG when within 15 nm. The signal should provide the joining ship's present location and the fact that it is reporting for duty (see Chapter 4). Upon receipt of the signal the CTG should provide the joining ship pertinent TG information (PIM, formation, Guide, etc.) and assign a station to the joining ship.

**4. Unscheduled Joinings.** Unscheduled joinings should not normally occur.

**NOTE**

Ships joining or detaching shall maneuver to avoid and not embarrass or hamper other TG ships.

**0206 Special Maneuvering Rules**

**1. Avoiding Danger.** Ships in formation are authorized to leave station as necessary to avoid dangers such as collision or navigational hazards. When such action is necessary, the ship should advise all TG units of the action being taken and the reason it is being taken. Once clear of danger, ships should return to station as quickly as possible.

**2. Rules of the Road.** International Regulations for Preventing Collisions at Sea shall be observed by TG ships. However, in cases where one ship is directed to avoid another, the ship required to keep clear of the other is to leave no doubt whatsoever as to its intentions. The ship should also indicate its intentions by signal. If any doubt exists, the International Regulations for Preventing Collisions at Sea are to apply.

**3. Man Overboard.** Whenever a man is discovered missing and assumed overboard, the

Table 2-1. Standard Positions

Standard Position	Definition
QQ	The center of the front of a formation that is not circular
TT	Originator's present position
XX	The position upon which a search, etc., is based
YY	Addressee's present position
ZZ	Formation center

ship shall immediately inform the CTG. The CTG shall detach the ship reporting the lost man and offer the assistance of remaining TG ships as needed. The commanding officer of the ship losing the man shall determine the search procedures and shall inform appropriate national authorities. The ship from which a man falls overboard shall:

- a. Maneuver as appropriate to avoid the man.

- b. Drop a lifebuoy and a day or night pyrotechnic marker as appropriate.
- c. Plot the location.
- d. Sound at least six short blasts on the whistle.
- e. Secure active sonar.
- f. Inform the TG:
  - (1) By day, hoist the man overboard (Oscar) flag where it can best be seen.
  - (2) By night, display two pulsating red lights arranged vertically or fire one white rocket or Very light.
- g. Use searchlights as necessary.
- h. Use national procedures to recover the man. If in formation follow the procedures outlined in Chapter 3.

**4. Breakdown.** Should a breakdown occur, such as loss of steering control or failure of main engines, the first requirement is to avoid endangering other ships. Other ships should maneuver as necessary to remain clear of the disabled ship. If no danger exists ships should remain on station; if maneuvers are necessary to avoid the disabled ship, other ships should resume station as soon as possible. The following steps must be taken by a disabled ship as rapidly as possible.

Table 2-2. Speed Flags

Flag	Indication	Normally Displayed	Meaning
0			Ship is stopped.
01, 02, etc., thru 09	SHIP SPEED IN KNOTS	AT DIP, on signal halyard	Ship is proceeding at 1, 2, etc., to 9 knots as indicated.
10, 11, etc.			Ship is proceeding at 10, 11, etc., knots as indicated.

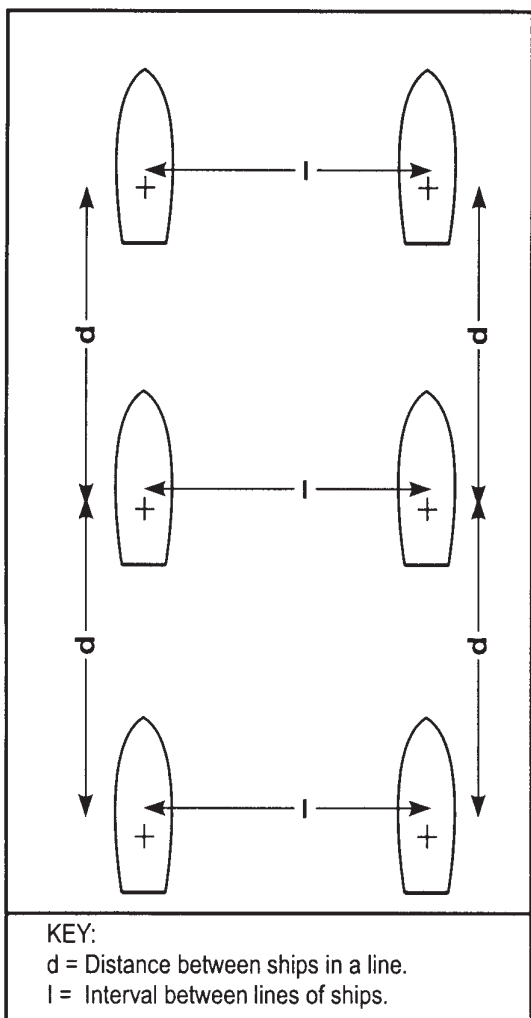


Figure 2-4. Distance and Interval Concept

a. Sound at least six short blasts on the whistle.

b. By day, hoist two black balls; by night, show two red lights in accordance with Rule 27 of the International Regulations for Preventing Collisions at Sea.

c. If turning, indicate the direction of turn by sounding one short blast if the turn is to starboard and two if the turn is to port.

d. Inform the CTG of the nature of the breakdown, giving estimated times of repair and return to station.

**5. Fog and Restricted Visibility.** Fog signals by ships in formation are to be sounded in the manner ordered by the CTG, who will take into consideration the confusion that may be caused if all ships in the TG sound fog signals. However, the following signals from the International Regulations for Preventing Collision at Sea shall be used by all ships when changing stations or joining or departing the TG in fog or restricted visibility:

a. One short blast — I am altering my course to starboard.

b. Two short blasts — I am altering my course to port.

c. Three short blasts — My engines are going astern.

d. Five or more blasts — To be used in accordance with International Regulations.

## CHAPTER 3

## Disposition of Forces

## 0301 Basic Formations

1. **Line Formations.** There are several basic line formations:

**a. Column.** In a column formation ships are formed in a line, bow-to-stern, with station 1 the lead ship in the line. Subsequent stations in the line are directly astern station 1 and are numbered sequentially (stations 2, 3, 4, etc.). The bearing between stations in the line is the same as the course of the column formation. The distance ( $d$ ) between stations is the standard distance ( $D$ ) promulgated in the tasking message and described in Chapter 1 unless specified otherwise. The Guide can be assigned to any station. Figure 3-1 shows a typical column formation.

**b. Line Abreast.** In a line abreast formation ships are formed in a line, beam to beam, with station 1 at one end of the line. If subsequent stations (stations 2, 3, 4, etc.,) are to starboard of station 1 the formation is a line abreast to starboard. If subsequent stations are to port of station 1 the formation is a line abreast to port. The bearing between stations in the line is perpendicular to the course of the line abreast formation. The distance ( $d$ ) between stations is the standard distance ( $D$ ) unless specified otherwise. The Guide can be assigned to any station. Figure 3-2 shows the two possible line abreast formations: line abreast to starboard and line abreast to port.

**c. Line of Bearing.** In a line of bearing formation ships are formed in a line with station 1 at one end of the line. Subsequent stations (stations 2, 3, 4, etc.) are aligned along the designated line of bearing. The bearing is designated either as the

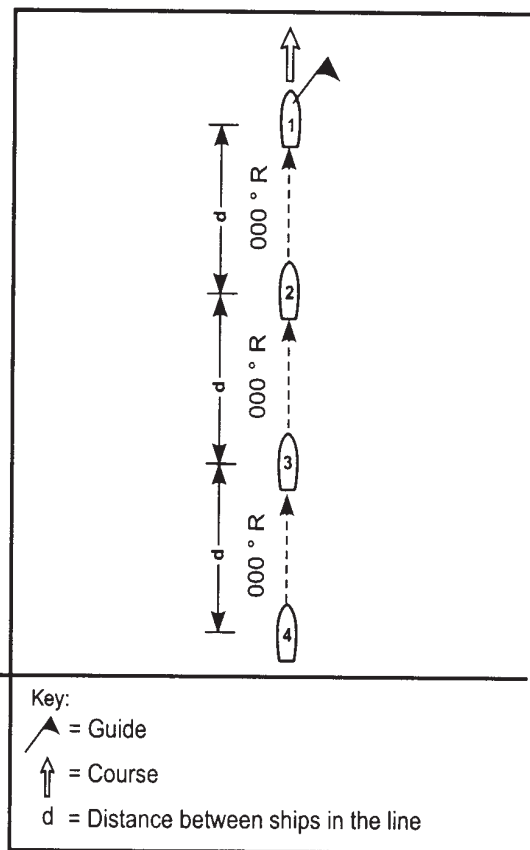


Figure 3-1. Column Formation

true bearing from station 1 using the signal FORM (see Chapter 11) and the true bearing (e.g., FORM 120, FORM 235) or as the relative bearing between the course of the formation and the desired line of bearing using the signal FORM followed by PORT or STARBOARD and a number of tens of degrees (e.g., FORM PORT 15, FORM STARBOARD 13.5). The distance ( $d$ ) between stations is the standard distance ( $D$ ) unless specified otherwise. The Guide can be assigned to any station. Figure 3-3 shows sample line of bearing formations.

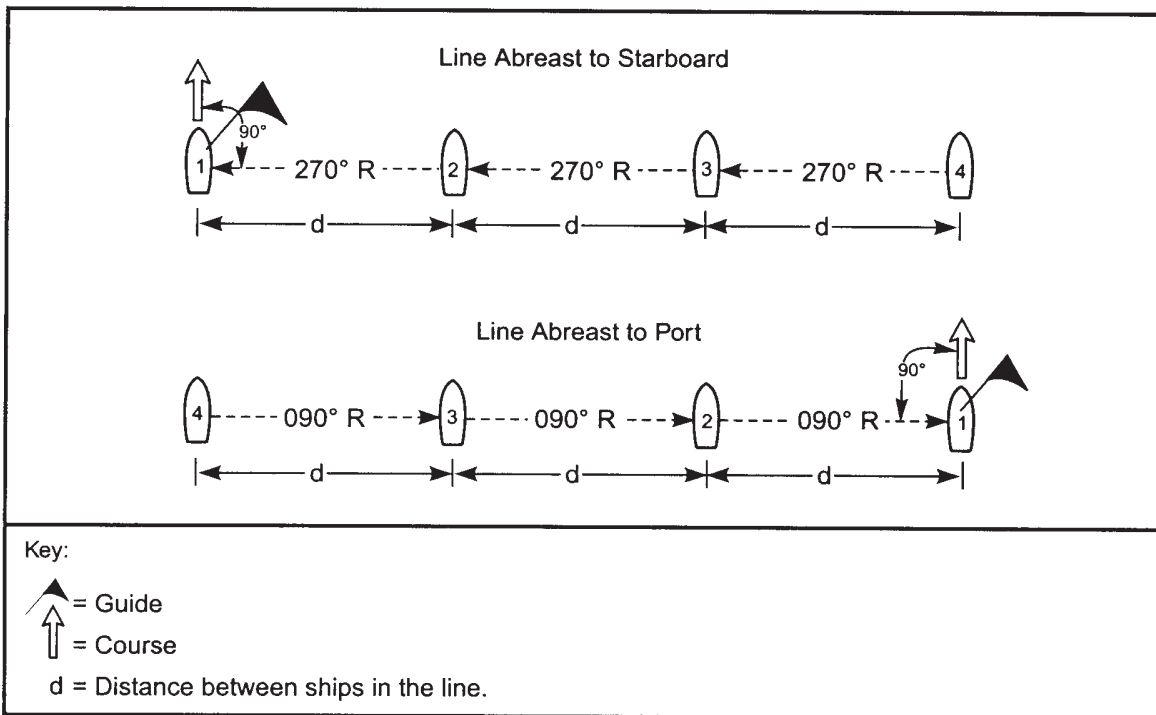


Figure 3-2. Line Abreast Formations

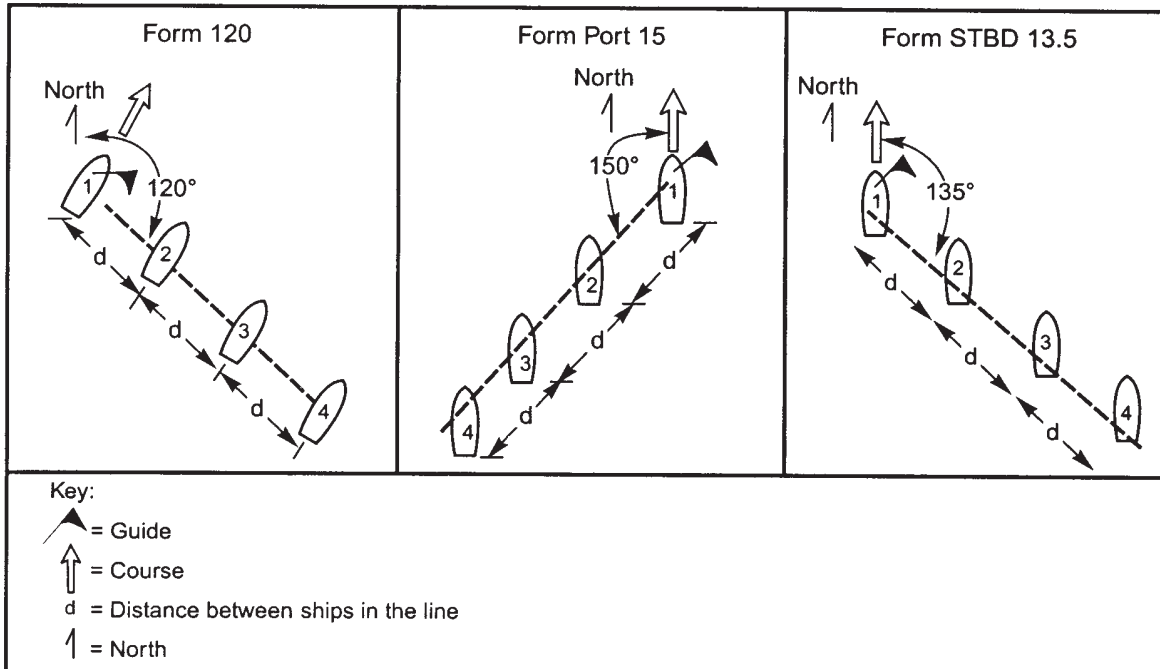


Figure 3-3. Line of Bearing Formations



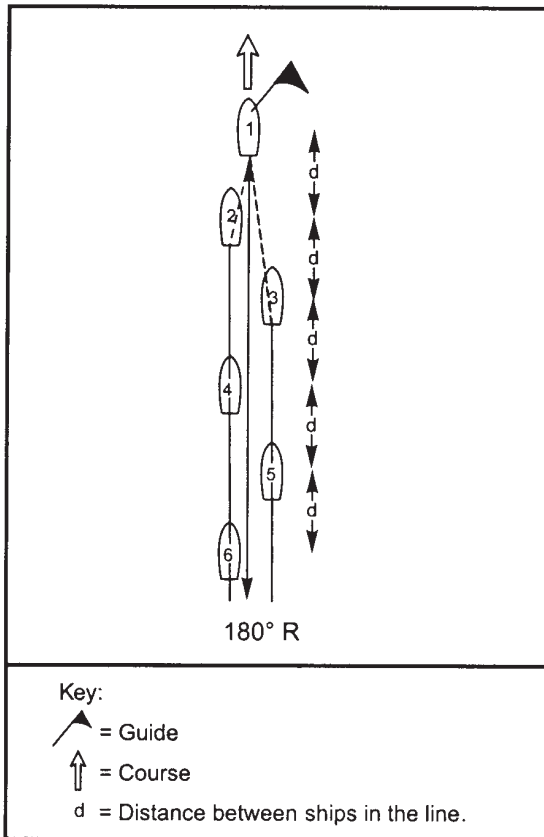


Figure 3-4. Column Open Order Formation

**d. Column Open Order.** A column open order formation is a column formation modified as shown in Figure 3-4. In a column open order formation the Guide is always in station 1. Subsequent stations (stations 2, 3, 4, 5, 6, etc.) are displaced on each side of the stern of the Guide, even numbered stations to port of the Guide, odd numbered stations to starboard of the Guide. The ship in station 2 forms 4 on the port quarter of the Guide. The ship in station 3 forms 2 on the starboard quarter of the Guide. Remaining ships form astern of station 2 or 3 as appropriate. The distance (d) between stations is the standard distance (D) unless specified otherwise.

**e. Diamond.** A diamond formation can only be formed when ships are in a column. When the diamond formation is ordered, the ship in station 1 of the column automatically becomes the Guide in station 1 of the diamond formation. The ship in station 2 of the column takes station broad on the port quarter (225°R) of the Guide at twice

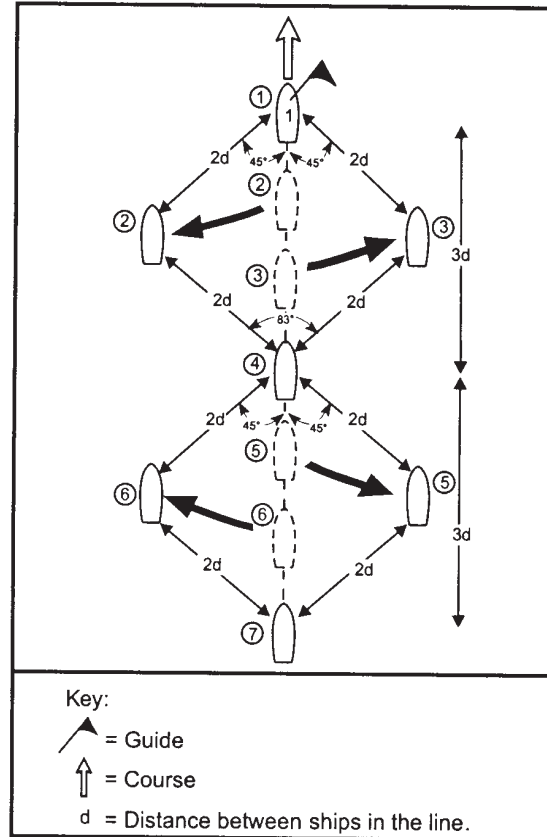


Figure 3-5. Diamond Formation

the distance (2d) of the column formation. The ship in station 3 of the column takes station broad on the starboard quarter (135°R) of the Guide at a distance of 2d. The fourth ship in the column remains directly astern the Guide at a distance of 3d. If there are more than four ships, additional ships form a second diamond on the fourth ship, station 5 forming to starboard and station 6 to port. Figure 3-5 shows a sample diamond formation formed from a column formation.

**f. Multiple Line Formations.** Multiple line formations can be ordered that consist of multiple columns, lines abreast, or lines of bearing. In a multiple line formation, the formation Guide is also the guide of its line. Ships in other lines occupying the station corresponding to the formation Guide become line guides. Line guides maintain station on the formation Guide. All other ships maintain station on the guide of their line. Figure 3-6 illustrates this principle.

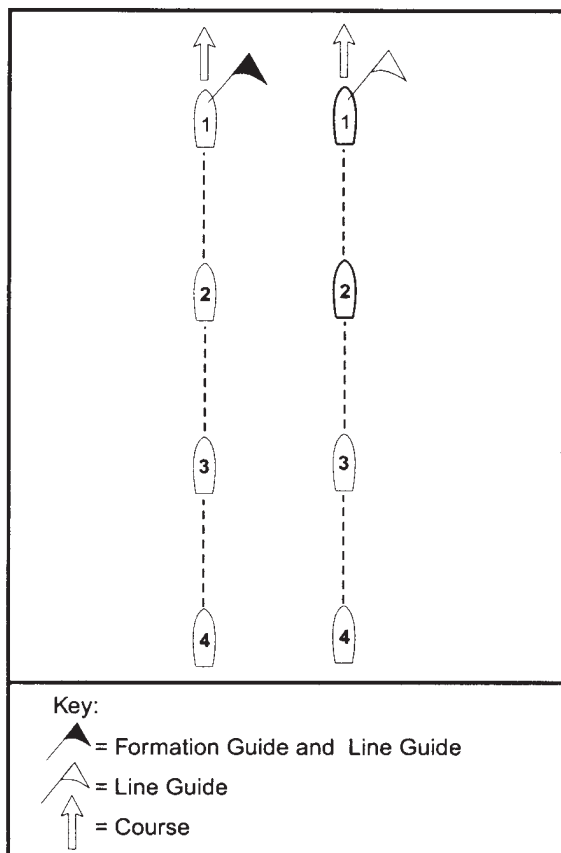


Figure 3-6. Multiple Line Formation

**2. Circular Formations.** In a circular formation, ships are assigned stations around the center of the formation (ZZ). Stations are designated as a specified bearing or range of bearings in degrees true ( $^{\circ}$  T) from ZZ and a specified distance or range of distances from ZZ. Figure 3-7 shows some sample circular formation stations. The tasking message may be used to establish one or

more standard circular formations for the exercise or operation. The establishment of standard circular formations reduces the need for lengthy signals during conduct of the exercise or operation. Figure 3-8 provides a sample tasking message designating two standard circular formations. Figure 3-9 depicts the circular formations described in Figure 3-8.

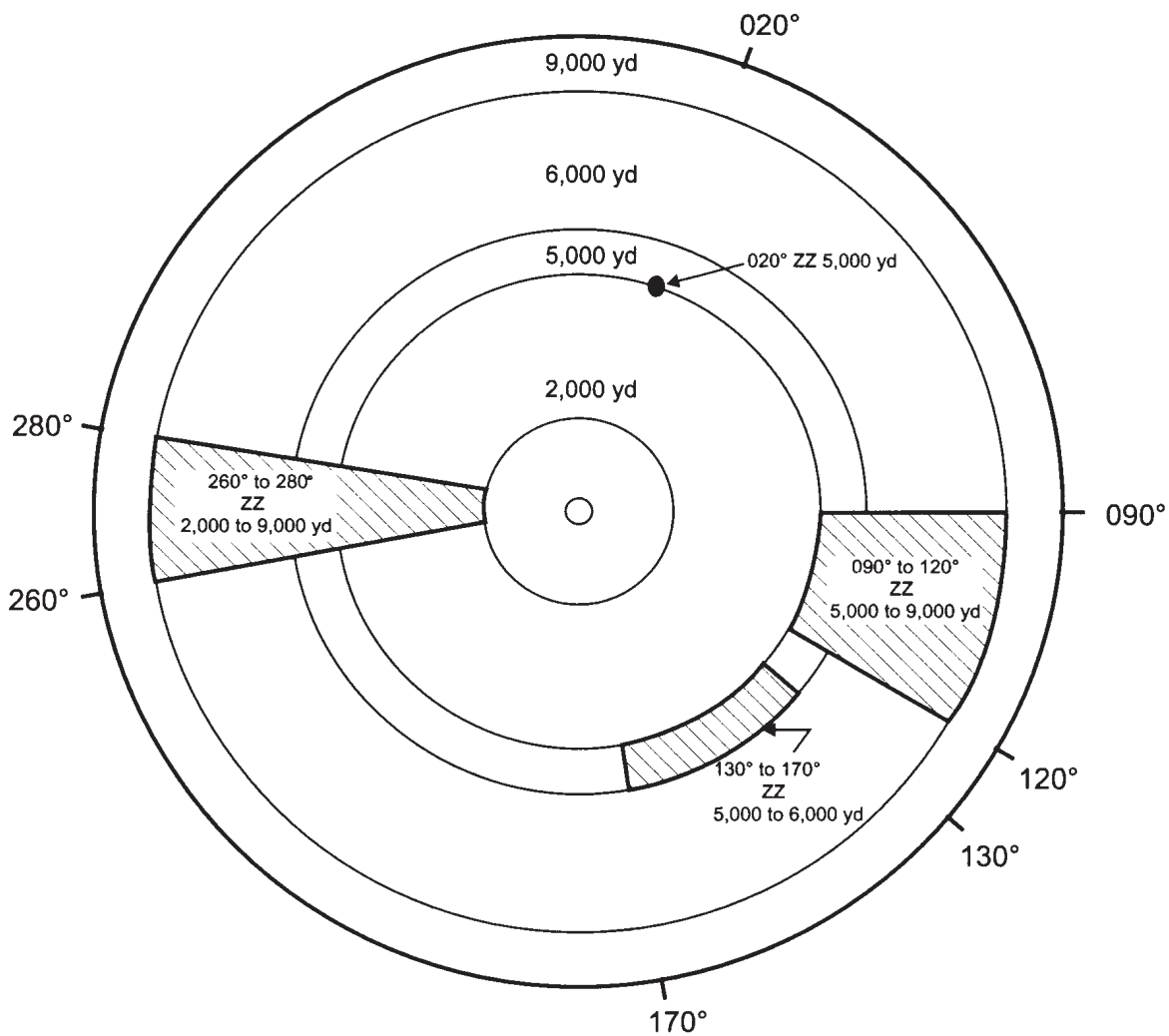


Figure 3-7. Sample Circular Formation Stations

• Standard Circular Formations

— FORM 15	Station 1	ZZ
	Station 2	020° to 030° ZZ 1,000 to 1,500 yd
	Station 3	080° to 090° ZZ 1,500 to 2,000 yd
	Station 4	175° to 185° ZZ 1,500 to 2,000 yd
	Station 5	250° to 290° ZZ 1,000 to 1,500 yd
— FORM 16	Station 1	ZZ
	Station 2	025° ZZ 1,000 yd
	Station 3	155° ZZ 1,000 yd
	Station 4	205° ZZ 1,000 yd
	Station 5	335° ZZ 1,000 yd

Figure 3-8. Sample Tasking Message Designated Circular Formations

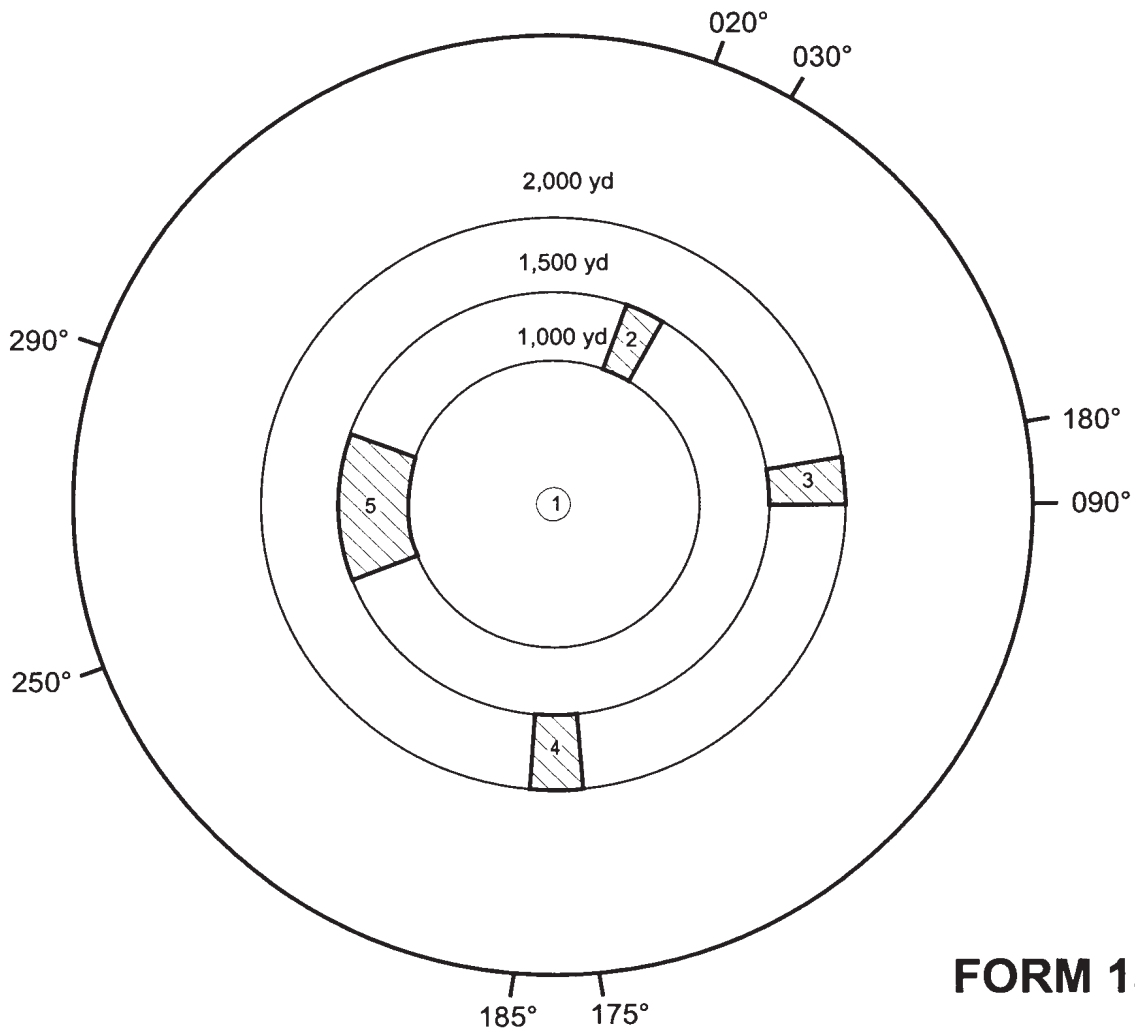
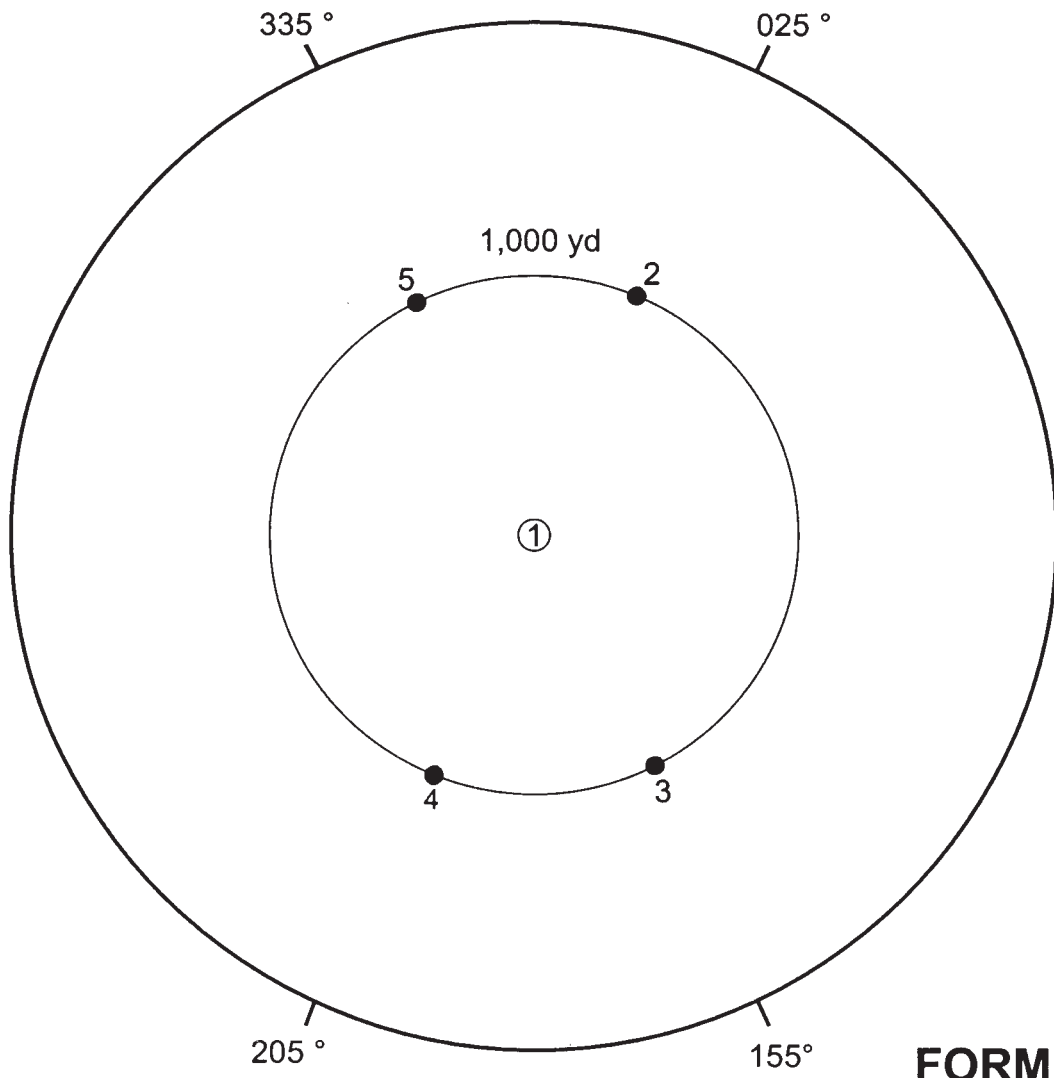


Figure 3-9. Sample Designated Circular Formations (Sheet 1 of 2)



**FORM 16**

Figure 3-9. Sample Designated Circular Formations (Sheet 2 of 2)

### 0302 Altering Formation Course

**1. Turn.** A turn is a maneuver used by line and circular formations in which all ships alter course simultaneously and maintain true bearing to the Guide.

a. Figure 3-10 shows a two-ship column formation initially on course 000° T. Prior to a signaled turn to course 090° T, the Guide (station 1) bears 000° T and 2,000 yards from the ship in station 2. Upon completion of the turn the Guide still bears 000° T and 2,000 yards from the ship in station 2. Upon completion of the turn in this example the column formation has become a line abreast to starboard formation.

b. At night or in low visibility, formation turns in excess of 90° should be ordered in two or more increments, each of 90° or less. The second increment should not be ordered until all ships in the formation are steady on the course ordered by the first increment. It is also advisable to execute turns of greater than 90° in increments when the formation consists of ships of different sizes and/or turning diameters.

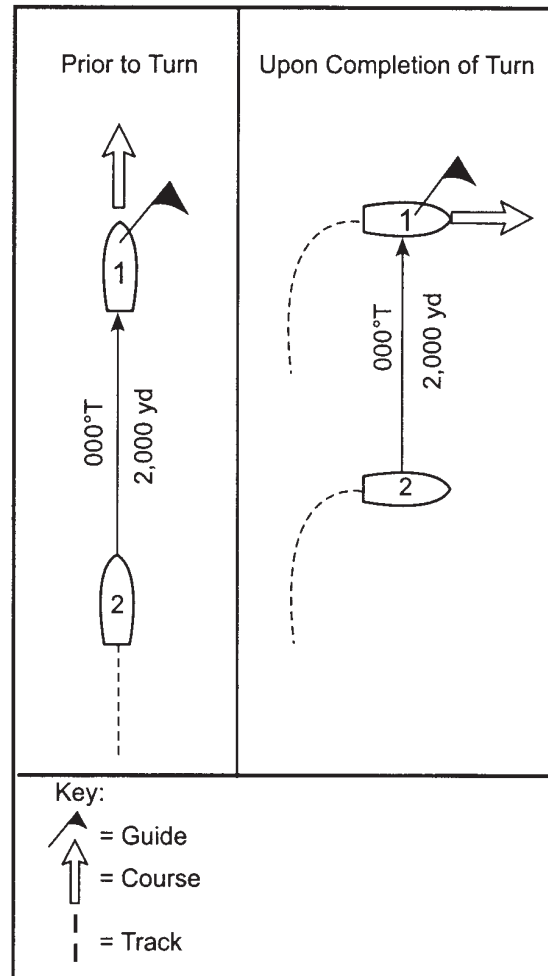


Figure 3-10. Turn

**2. Corpen.** A corpen is a line formation maneuver in which ships alter course so that the relative bearing to the Guide is the same at the completion of the maneuver as it was at the start of the maneuver.

a. Circular formations do not alter course by corpen maneuvers.

b. Upon execution of a corpen maneuver, ships in a column open order are to form a column, follow in the wake of the Guide, and reform in a column open order when all ships in the formation have completed the corpen maneuver.

c. Figure 3-11 shows a two-ship column formation initially on course 000° T. Prior to a signaled corpen to course 090° T, the Guide (station 1) bears 000° R (000° T) and 2,000 yards from the ship in station 2. Upon completion of the corpen maneuver, the Guide bears 000° R (090° T) and 2,000 yards from the ship in station 2. Upon completion of the corpen maneuver in this example the ships remain in a column formation.

d. The amount of course change that should be executed by a single corpen maneuver varies with the type of formation. Recommended maximum corpen maneuvers for the various types of formation are:

- (1) Column — 180°.
- (2) Line abreast — 90°.
- (3) Line of Bearing — Corpen not used.
- (4) Column Open Order — 180°.
- (5) Diamond — 30°.
- (6) Circular — Corpen not used.

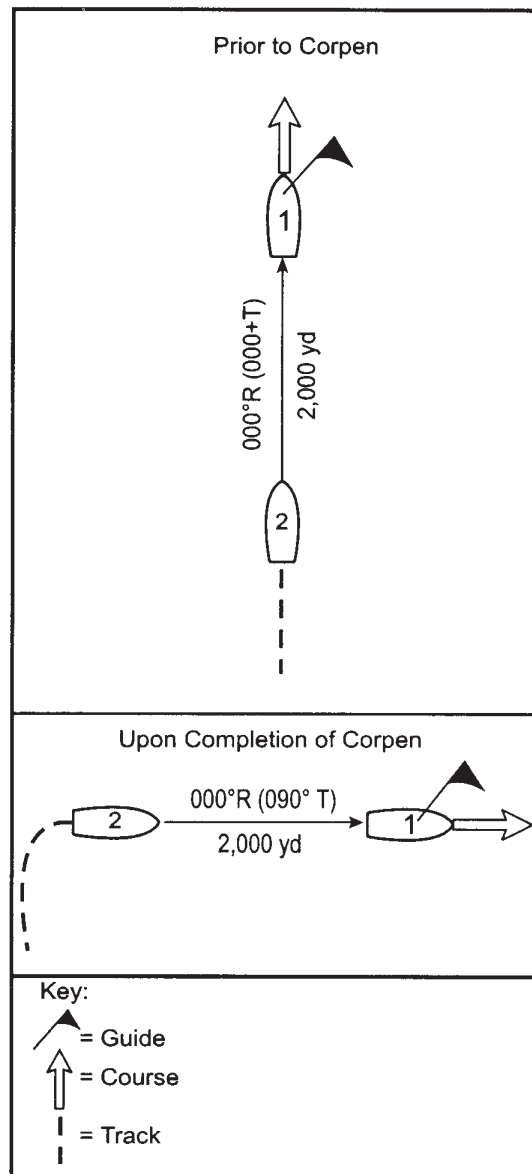


Figure 3-11. Corpen

### 0303 Changing Formation

When ships in formation are ordered to a new formation, each ship will assume the same station number in the new formation as it held in the original formation unless directed otherwise. Similarly, the Guide ship and the distance (d) between ships will remain the same unless directed otherwise. Figure 3-12 shows how ships in a column formation with the Guide in station 2 would maneuver to a line abreast to starboard formation unless directed otherwise.

### 0304 Automatic Guide Changes

**1. Column Formation.** When altering course by a corpen maneuver in a column formation, the lead ship in the column automatically becomes the Guide. Remaining ships follow in the wake of the lead ship (see Figure 3-13). In a multiple column formation, the lead ship of the column on the side toward which the formation is altering course becomes the formation Guide and line guide of its column. Leading ships of the remaining columns become line guides and alter course and speed as necessary to resume their relative bearing and distance to the formation Guide. Remaining ships in each column follow the movements of their line guide (see Figure 3-14).

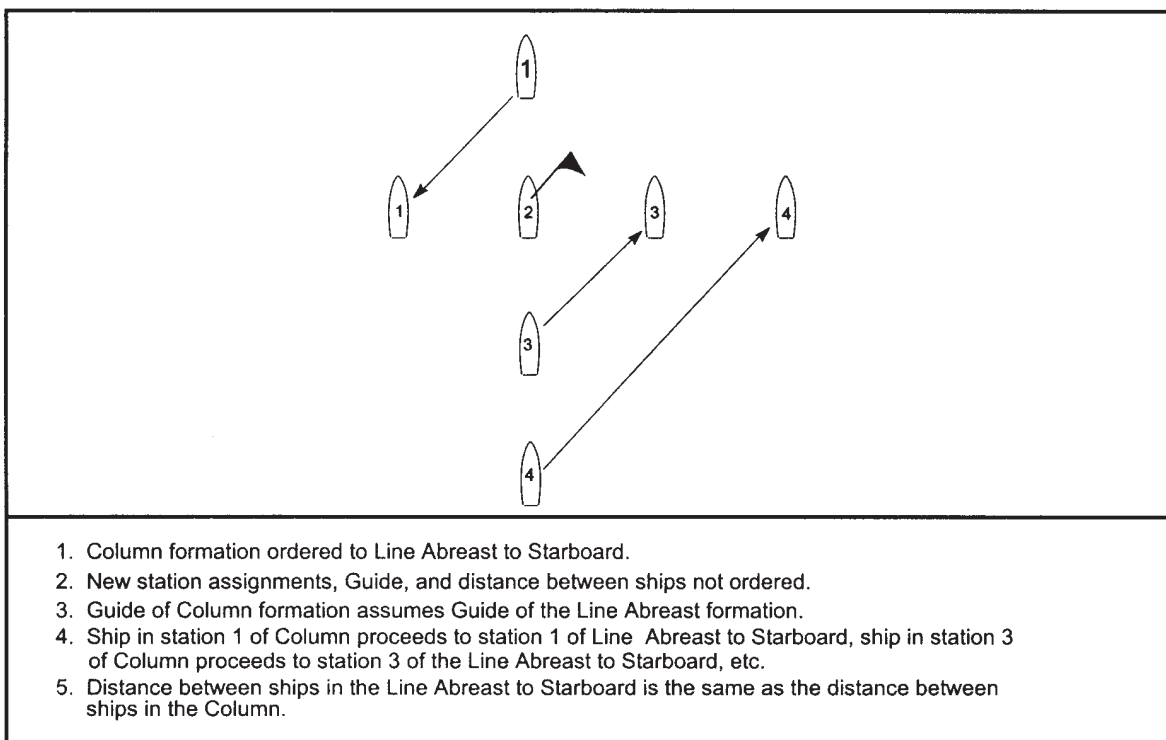


Figure 3-12. Formation Change



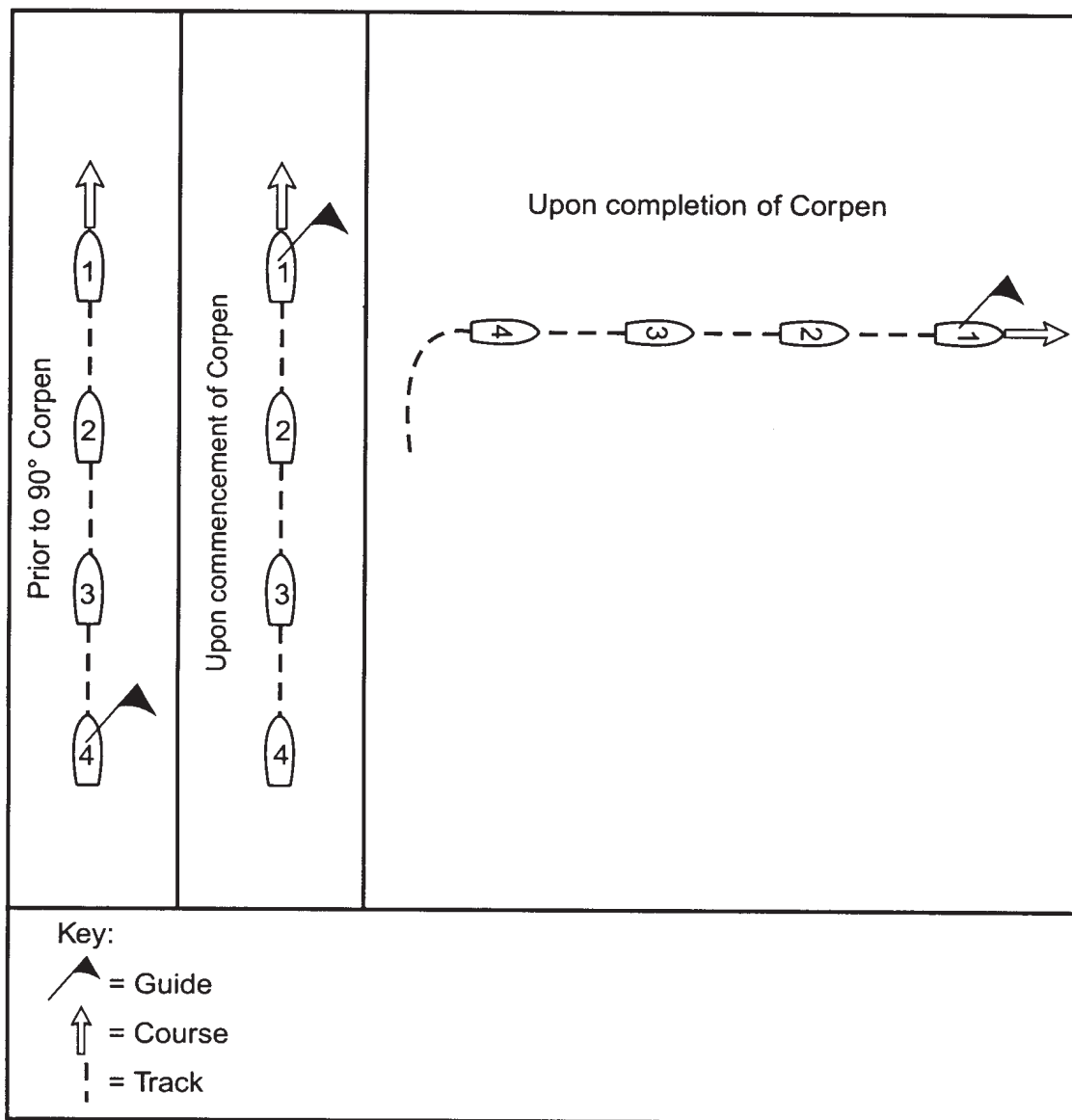


Figure 3-13. Automatic Guide Change (Column Formation)

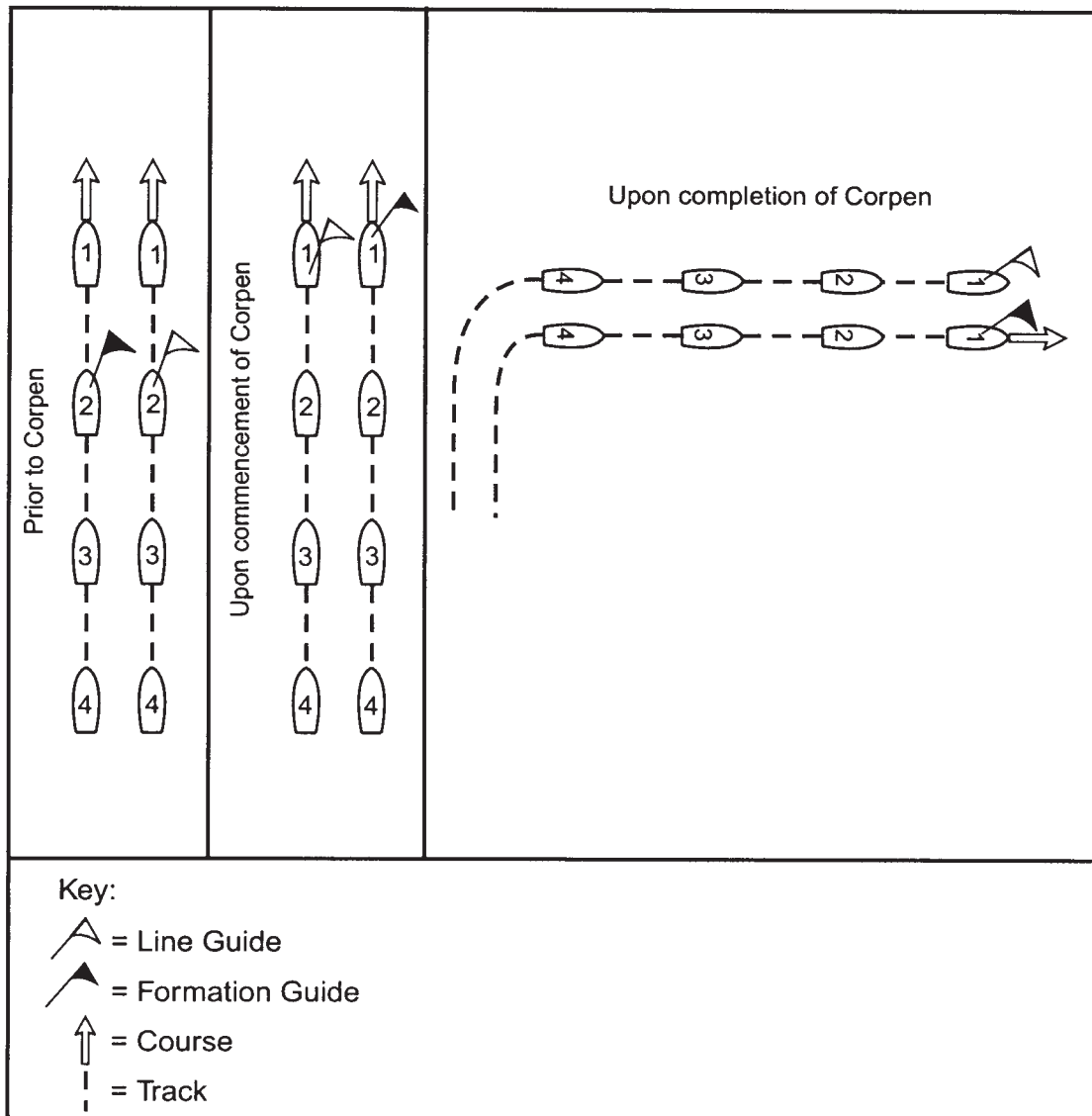


Figure 3-14. Automatic Guide Change (Multiple Column Formation)

**2. Line Abreast Formation.** When altering course by a corpen maneuver in a line abreast formation, the ship on the end of the line toward which the formation is altering course automatically becomes the Guide (see Figure 3-15). In a multiple line abreast formation, the new guide in the lead line becomes the formation Guide. The end ship in remaining lines become line guides and adjust course and speed as needed to resume relative bearing and distance to the Guide. Remaining ships maneuver to maintain relative bearing and distance to their line guide.

**3. Line of Bearing Formation.** Automatic Guide changes do not occur in a line of bearing formation because a corpen maneuver should not be executed by ships in a line of bearing.

**4. Column Open Order Formation.** When altering course by a corpen maneuver, ships in a column open order formation first form a column on the lead ship as Guide and follow the procedures for a column formation. Upon completion of the maneuver by all ships, ships reform in a column open order.

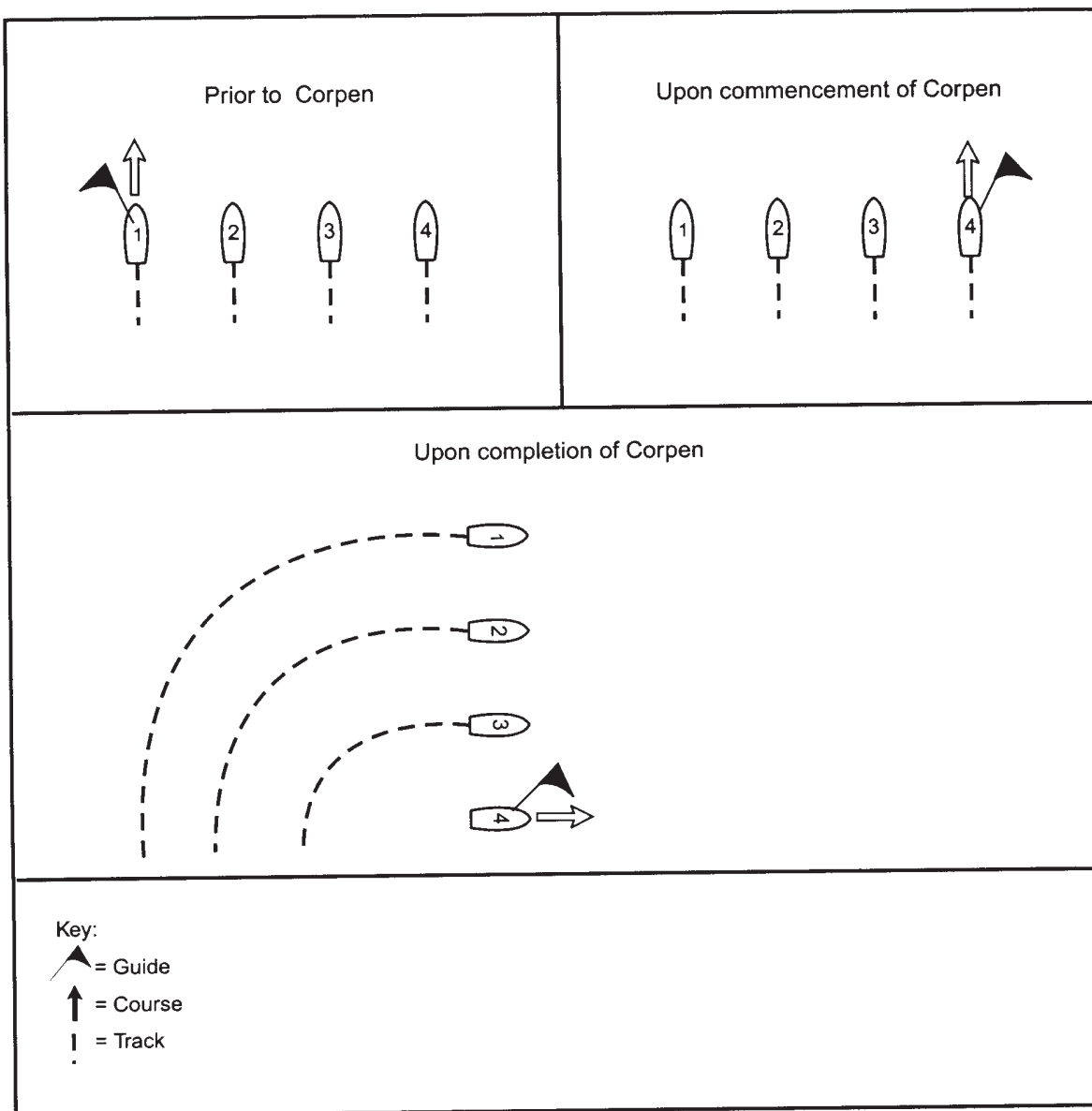


Figure 3-15. Automatic Guide Change (Line Abreast)

**5. Diamond Formation.** When altering course by a corpen maneuver, the lead ship in the Diamond becomes the Guide and alters its heading to the new course. Remaining ships maneuver to maintain relative bearing and distance to the Guide.

**6. Circular Formation.** Automatic Guide changes do not occur in a circular formation because a corpen maneuver should not be executed by ships in a circular formation.

#### NOTE

If a breakdown, man overboard, or any other emergency prevents the Guide of any formation from maintaining ordered course and speed, the ship in the next higher numbered station shall become Guide until a new Guide is ordered.

### 0305 Individual Ship Maneuvers

Ships joining the formation, proceeding to station, changing station, or departing the formation shall maneuver to avoid and not embarrass other ships. When two or more ships are proceeding to or changing station, ships en route to higher numbered stations shall maneuver to avoid and not embarrass ships proceeding to lower numbered stations. When two or more ships are departing the formation, ships departing from higher numbered stations shall maneuver to avoid and not embarrass ships departing from lower numbered stations.

### 0306 Formation Recovery Procedures

When in formation and a man falls overboard, the following procedures should be followed. These procedures supplement and amplify the basic procedures contained in Chapter 2.

#### a. Column.

(1) Ships ahead of the one losing the man, continue at the prescribed speed and hold course.

(2) Ships astern of the one losing the man, maneuver as necessary to keep clear by hauling out of line — odd-numbered ships, counting from the leading ship of the column, turning to starboard and even-numbered ships turning to port.

(3) The rear ship should always prepare to recover the man overboard; however, any ship in position to safely recover the man should do so as soon as possible, informing other ships of her intentions.

#### b. Line Abreast or Line of Bearing.

(1) The ship from which the man falls overboard is to maneuver as required to recover the man, avoiding a turn toward other ships unless they can safely be cleared.

(2) Other ships are to maintain course and speed.

#### NOTE

In other formations the ship losing the man should maneuver to recover the man, taking care not to risk a collision with another ship in the formation.

### 0307 Summary

Table 3-1 summarizes information presented in this chapter.

Table 3-1. Summary

Alter Course Method	Formation	Rules	Course Change Limits
Turn	All	All ships alter course together and maintain true bearing and distance to Guide.	None
Corpen	Single Column	<ol style="list-style-type: none"> <li>1. Lead ship automatically becomes Guide.</li> <li>2. Guide alters heading to new course.</li> <li>3. Remaining ships follow in the wake of the Guide.</li> </ol>	180°
	Multiple Column	<ol style="list-style-type: none"> <li>1. Lead ship in column toward new course becomes formation Guide and line guide.</li> <li>2. Lead ship in other columns become line guides.</li> <li>3. Formation Guide alters heading to new course.</li> <li>4. Line guides maneuver to maintain relative bearing to formation Guide.</li> <li>5. Remaining ships follow in the wake of their line guides.</li> </ol>	180°
	Single Line Abreast	<ol style="list-style-type: none"> <li>1. Ship on end toward new course becomes Guide.</li> <li>2. Guide alters heading to new course.</li> <li>3. Remaining ships maneuver to maintain relative bearing to Guide.</li> </ol>	90°
	Multiple Line Abreast	<ol style="list-style-type: none"> <li>1. Ship on end of lead line toward new course becomes formation Guide and line guide.</li> <li>2. End ship in other lines becomes line guides.</li> <li>3. Formation Guide alters heading to new course.</li> <li>4. Line guides follow in the wake of the formation Guide.</li> <li>5. Remaining ships maneuver to maintain relative bearing to line guides.</li> </ol>	90°
	Column Open Order	<ol style="list-style-type: none"> <li>1. Lead ship automatically becomes Guide.</li> <li>2. Remaining ships form column astern the Guide.</li> <li>3. Follow rules for column formations.</li> </ol>	180°



## CHAPTER 4

## Communications

**0401 Visual Communications**

Although voice radio is the preferred method of communication, visual communications may be used on occasion. Visual communication 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 be used for tactical maneuvering.

**0402 Radioteletype Communications**

One or more radioteletype circuits will be assigned for each exercise or operation. Radioteletype will be used for planning and coordinating exercise or operation matters. Unless otherwise agreed, English will be used in all radioteletype communications. The exercise or operation tasking message will specify each radioteletype circuit's name, radio frequency, backup (secondary) frequency, intended use, the command assigned control of the circuit, and participants on the circuit. Figure 4-1 is an example of the radioteletype circuit assignment section of a tasking message.

**0403 Voice Radio Communications**

1. Voice radio will be the primary method of communication during exercises and operations covered by this manual. Circuits and call signs for voice radio communications will be promulgated in the tasking message. Each circuit assigned will specify the circuit's name, radio frequency, intended use, the command assigned control of the circuit, and participants on the circuit. Backup, or secondary, frequencies will be assigned when feasible. Part 2 contains a list of signals to be used during exercises or operations covered by this manual and an index to encode signals. Figure 4-2 is an example of the voice radio circuit assignment section of a tasking message.

2. **Voice Call Signs.** Voice call signs promulgated in the tasking message will be used for all voice radio communications. Individual ship call signs will normally be either the ship's name, four-letter international radio call sign, or a code name

assigned for the exercise or operation. Task organization commanders will normally be assigned a code name. Figure 4-3 is an example of the voice call sign assignment section of a tasking message.

3. **Voice Procedures.** All voice messages will be in English unless otherwise agreed on and will include:

a. **Addressee.** The command or commands for whom the message is intended.

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

c. **Originator.** Command sending the message.

d. **Text.** The actual message being sent (signals from Part 2 will be used when feasible).

e. **Over or Out.** Indicates the end of the message.

(1) "Over" means all addressees should acknowledge receipt of the message. When acknowledging, commands should respond in order of station assignment; i.e., station 1 ship acknowledges first, station 2 ship acknowledges next, etc. If a ship does not acknowledge within a reasonable amount of time (about 5 seconds), the next scheduled ship should acknowledge without waiting any longer.

(a) 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, "Alfa Bravo Charlie, over." This indicates only ship ABC should acknowledge. It does not mean the

- Radio Teletype Circuits
  - Circuit Name: RATT 1
    - Radio Frequency: 527 KHz
    - Back-up Frequency: 617 KHz
    - Intended Use: All radioteletype traffic
    - Control: COMDESRON XYZ
    - Participants: All TG 12.1

Figure 4-1. Sample Tasking Message Assignment of a Radioteletype Communication Circuit

- Voice Radio Circuits
  - Circuit Name: Tactical Circuit
    - Radio Frequency: 273.7 MHz
    - Back-up Frequency: 412.0 MHz
    - Intended Use: All tactical signals
    - Control: COMDESRON XYZ
    - Participants: All TG 12.1
  - Circuit Name: Admin Circuit
    - Radio Frequency: 313.7 MHz
    - Back-up Frequency: None
    - Intended Use: Nontactical information exchange
    - Control: COMDESRON XYZ
    - Participants: All TG 12.1

Figure 4-2. Sample Tasking Message Assignment of Voice Radio Circuits

signal is not intended for others. It only means the others are not required to respond.

(b) The proper response by an addressee is “This is (call sign). Roger out.” This means, “I have received your message.” If the message was not clearly received by an addressee, the proper response is “This is (call sign). Please repeat, out.”

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

(2) “Out” indicates addressees are not required to acknowledge.

**4. Tactical Signals.** If the text being sent is a tactical maneuvering signal (Part 2) 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 4-4 provides a sample tactical signal voice radio sequence. Figure 4-5 provides the approved prowords and pronunciation for letters and numbers used in voice radio communications.



• Voice Call Signs		
<u>Command</u>	<u>Name</u>	<u>Call Signs</u>
CTG 12.1	COMDESRON XYZ	Universe
TG 12.1	Collective	Earth
CTU 12.1.1	COMDESRON XYZ	Blizzard
TU 12.1.1	Collective	Snow
CTU 12.1.2	CO Ship ABC	Hurricane
TU 12.1.2	Collective	Wind
Ships	Ship ABC	Alfa Brava Charlie
	Ship DEF	Delta Echo Foxtrot
	Ship GHI	Golf Hotel India
	Ship JKL	Juliett Kilo Lima

Figure 4-3. Sample Tasking Message Assignment of Voice Call Signs

Earth, this is Universe. 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.  
 Earth, this is Universe. TURN PORT 030. Standby, execute. Alfa Bravo Charlie, over.  
 This is Alfa Bravo Charlie. Roger, out.

Figure 4-4. Sample Tactical Voice Radio Sequence

**NOTE**

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

**5. Action Signals.** A signal from this manual 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.

**-Example-**

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

AV16 . . . Request permission to carry out flight operations (when from a subordinate to a senior).

**6. Signal Modifiers.** The following words are used to modify signals in this manual. The words modify all signals that follow.

- a. PREP . . . Prepare to \_\_\_\_.
- b. INTERROGATIVE (INT) . . . Questions the signal.
- c. NEGAT . . . Cease, or do not \_\_\_\_.

**-Example-**

AV16 . . . Carry out flight operations.

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

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

NEGAT AV16 . . . Cease (or do not) carry out flight operations.

	<i>Code Word</i>	<i>Pronunciation</i>
<b>A</b>	Alfa	<b>AL FAH</b>
<b>B</b>	Bravo	<b>BRAH VOH</b>
<b>C</b>	Charlie	<b>CHAR LEE</b> (or <b>SHAR LEE</b> )
<b>D</b>	Delta	<b>DELL TAH</b>
<b>E</b>	Echo	<b>ECK OH</b>
<b>F</b>	Foxtrot	<b>FOKS TROT</b>
<b>G</b>	Golf	GOLF
<b>H</b>	Hotel	HOH <b>TELL</b>
<b>I</b>	India	<b>IN DEE AH</b>
<b>J</b>	Juliett	<b>JEW LEE ETT</b>
<b>K</b>	Kilo	<b>KEY LOH</b>
<b>L</b>	Lima	<b>LEE MAH</b>
<b>M</b>	Mike	MIKE
<b>N</b>	November	NO <b>VEM BER</b>
<b>O</b>	Oscar	<b>OSS CAH</b>
<b>P</b>	Papa	PAH <b>PAH</b>
<b>Q</b>	Quebec	KEH <b>BECK</b>
<b>R</b>	Romeo	<b>ROW ME OH</b>
<b>S</b>	Sierra	SEE <b>AIR RAH</b>
<b>T</b>	Tango	<b>TANG GO</b>
<b>U</b>	Uniform	<b>YOU NEE FORM</b> (or <b>OO NEE FORM</b> )
<b>V</b>	Victor	<b>VIK TAH</b>
<b>W</b>	Whiskey	<b>WISS KEY</b>
<b>X</b>	X-ray	<b>ECKS RAY</b>
<b>Y</b>	Yankee	<b>YANG KEY</b>
<b>Z</b>	Zulu	<b>ZOO LOO</b>
<i>Note: The <b>Boldfaced</b> syllables are emphasized.</i>		
<b>0</b>	ZERO	ZAY ROH
<b>1</b>	ONE	WUN
<b>2</b>	TWO	TOO
<b>3</b>	THREE	TREE
<b>4</b>	FOUR	FOH WER
<b>5</b>	FIVE	FIVE
<b>6</b>	SIX	SIX
<b>7</b>	SEVEN	SAY VEN
<b>8</b>	EIGHT	ATE
<b>9</b>	NINE	NI NER
<b>DECIMAL POINT</b>	DECIMAL	DAY SEE MAL
<b>INT</b>	INTEROGATIVE	INT AIR OG AH TEEV
<i>Note: Each syllable should be equally emphasized.</i>		

Figure 4-5. Letters, Numbers, and Special Prowords and Pronunciations

**7. Two-Letter Modifiers.** A series of two-letter groups are used to modify signals in this manual. A two-letter modifier is followed by a tackline (see paragraph 4.9) and modifies only the signal that immediately follows. The two-letter modifiers are contained in Chapter 13.

**8. Completing a Signal.** Where a “\_\_\_\_\_” or “as indicated” appears in the meaning of a signal, it is always to be completed with a suffix or 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.

**-Example-**

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?

**9. Tackline.** The tackline is transmitted and spoken TACK and written as a dash (—). It is used:

- a. To avoid ambiguity, by separating signals or groups of numbers which, if not separated, could convey a meaning different from that intended.
- b. 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).

**10. Suffixes.** Many signals in Part 2 contain a list of number and/or letter suffixes in the meaning of the signal. These lists are provided so the basic meaning can be varied by the use of appropriate suffix(es). When a suffix is used, it must follow the last figure of the signal and be separated from the signal by a TACK. The TACK may be omitted if omission will not cause ambiguity.

**-Example-**

H SPEED . . . My engines are turning (List A) at (List B).

H SPEED—1—A . . . My engines are turning ahead at full power.

**11. Designation (DESIG) Signal.** The DESIG signal is used to describe own or other forces or to indicate that the information that follows is not a signal but is to be interpreted as spoken.

**-Example-**

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.

**12. 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:

- a. T preceding numbers signifies that action is to (or will) commence at that time.
- b. T following numbers signifies that action is to (or will) be completed by that time.
- c. Number groups preceding and following T indicate time by which action is to be completed and time at which action is to commence, respectively.
- d. If the signal consists only of T plus two or four numbers, it signifies a time check.

Table 4-1. Standard Time Zones

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	+2	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	121.5 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			

e. When time is referred to in the meaning of a signal, T may be omitted if the omission cannot cause any ambiguity.

f. T applies only to the signal immediately preceding it. When it is required to apply to two or more signals preceding it, "BT" (see Chapter 13) 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) (Z), unless otherwise indicated; suffixes, therefore, are not required except to indicate the exception. Table 4-1 shows standard time zones.

**-Example-**

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

AV16—19T . . . Carry out flight operations. Complete operations by 1900Z.

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

**13. International Signals.** Signals from the International Code of Signals may be used alone or in conjunction with signals from this manual. 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 this manual 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.

**14. Signals With No Meaning.** The CTG may assign meanings for signals which presently have no meaning listed in this manual. Meanings for such signals will be promulgated in the tasking message.

**15. Execution of Non-Executive Method Messages.** Tactical messages that do not employ the Delayed Executive Method should have a time group included in the message ending. The use of a time group on a tactical message ordering action indicates that action is to be taken on receipt unless otherwise indicated in the text of the message.

**a. Action to be Taken on Receipt.**

(1) Z34D transmits:

Seven Eight—THIS IS—Four Delta—Station Bravo Three—TIME One Six Four Two Zulu—OVER.

(2) F178 transmits:

(THIS IS) Seven Eight—(ROGER)—OUT.

**b. Action to be Taken At Time Indicated.**

(1) Z34D transmits:

Six Nine—THIS IS Four Delta—Yankee Mike Four—TACK—Tango One Eight Answer—BREAK—TIME One Seven One Four Zulu—OVER.

(2) E969 transmits:

(THIS IS) Six Nine—(ROGER)—OUT.

**16. Single Alphabetical Flags, Single Numerical Flags, and Special Flags and Pennants.** Single flag and pennant signals may be flown for information. They have the meanings defined in Tables 4-2, 4-3, and 4-4.

Table 4-2. Single Alphabetical Flag Table (Sheet 1 of 5)

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<b>A</b>	DIVERS OR FRIENDLY EXPLOSIVE ORDNANCE DISPOSAL PERSONNEL DOWN	Where best seen.	WHILE FLYING: Divers or friendly explosive ordnance disposal personnel down. A numeral group following will indicate the radius in hundreds of yards inside which personnel are operating. No other MCM operations are to take place within this area and all other vessels are to remain clear.
<b>B</b>	WEAPON PRACTICES (Use largest available flag)	BY FIRING SHIP: Where best seen or on appropriate side.	AT DIP: On the range or between phases. CLOSE UP: Firing has commenced. HAULED DOWN: Firing is completed.
		BY TARGET SHIP: Where best seen.	CLOSE UP: Target ready: range is clear. HAULED DOWN: Firing is completed or range is foul.
	FUELING OR TRANSFERRING EXPLOSIVES OR INFLAMMABLE MATERIALS	BY DELIVERING SHIP: Where best seen.	AT DIP: Have temporarily stopped supplying. CLOSE UP: Fuel, explosives, or inflammable materials are being transferred. HAULED DOWN: Delivery is completed.
		BY RECEIVING SHIP: Where best seen.	AT DIP: Have temporarily stopped receiving. CLOSE UP: Fuel, explosives, or inflammable materials are being transferred. HAULED DOWN: Delivery is completed.
	TRANSPORTING EXPLOSIVES, FUEL, OR INFLAMMABLE MATERIALS	BY BOATS: In bow or where best seen.	WHILE FLYING: I am transporting explosives, fuel, or inflammable materials.

Table 4-2. Single Alphabetical Flag Table (Sheet 2 of 5)

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<b>C</b>	AFFIRMATIVE	Where best seen.	In reply to a signal: YES or PERMISSION GRANTED.
<b>D</b>	RESERVED		
<b>E</b>	RESERVED		
<b>F</b>	FLIGHT OPERATIONS	Where best seen.	<p>AT DIP: I am ready to operate fixed-wing aircraft when wind conditions are suitable.</p> <p>DIPPED after being close up: My flight operations have been delayed temporarily (about 10 minutes).</p> <p>CLOSE UP: I am operating fixed-wing aircraft.</p> <p>HAULED DOWN: I have completed operating fixed-wing aircraft.</p> <p><i>NOTE: When operating both fixed-wing aircraft and helicopters concurrently, Flag H need not be used.</i></p>
<b>G</b>	GUIDE FLAG	Where best seen.	<p>WHILE FLYING: This ship is GUIDE.</p> <p>G TACK Call Sign: Ship indicated is to be GUIDE (repeated by addressees).</p>
<b>H</b>	HELICOPTER OPERATIONS	Where best seen.	<p>AT DIP: I am ready to operate helicopters when wind conditions are suitable.</p> <p>DIPPED after being close up: My helicopter operations have been delayed temporarily (about 10 minutes).</p> <p>CLOSE UP: I am operating helicopters.</p> <p>HAULED DOWN: I have completed operating helicopters.</p>

Table 4-2. Single Alphabetical Flag Table (Sheet 3 of 5)

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<b>I</b>	GOING ALONG-SIDE (in port or at anchor)	BY RECEIVING SHIP: At yardarm on side rigged.	AT DIP: I am preparing to receive you alongside. CLOSE UP: I am ready to receive you alongside. HAULED DOWN: First line is secured.
		BY SHIP GOING ALONGSIDE: At yardarm on side rigged.	AT DIP: I am preparing to come alongside you. CLOSE UP: I am ready to come alongside you. HAULED DOWN: First line is secured.
<b>J</b>	RESERVED		
<b>K</b>	PERSONNEL WORKING ALOFT AND/OR OVER SIDE	Where best seen.	WHILE FLYING: Personnel are working aloft and/or over the side.
<b>L</b>	RADHAZ/HERO WARNING	Where best seen.	WHILE FLYING: Do not approach within ____ yards of this unit or unit indicated without obtaining positive clearance to do so. 1. 200 2. 500 3. 3,000
<b>M</b>	MEDICAL DUTY SHIP	Where best seen (not underway).	WHILE FLYING: I have medical and dental guard duty. M1 . . . I have medical guard duty. M2 . . . I have dental guard duty.
	MOVEMENTS	Where best seen (underway).	WHILE FLYING: Disregard my movements.
<b>N</b>	YOUR MOVEMENTS NOT UNDERSTOOD	Where best seen. Repeated by addressees.	Your movements are not understood.
	VISUAL WATCH	Where best seen (not underway).	Ship not keeping visual watch.



Table 4-2. Single Alphabetical Flag Table (Sheet 4 of 5)

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<b>O</b>	MAN OVER-BOARD	Where best seen.	WHILE FLYING: Man overboard.
<b>P</b>	RESERVED		
<b>Q</b>	BOAT RECALL	Where best seen.	WHILE FLYING: All boats belonging to this ship or boat(s) addressed return to this ship immediately.
<b>R</b>	REPLENISHING OR TRANSFERRING BY ABEAM METHOD	BY DELIVERING SHIP: On side rigged.	AT DIP: I am steady on course and speed and am preparing to receive you on side on which this flag is hoisted. CLOSE UP: I am ready for your approach. HAULED DOWN: When messenger is in hand.
		BY RECEIVING SHIP: On side rigged.	AT DIP: I am ready to come alongside. CLOSE UP: I am commencing approach. HAULED DOWN: When messenger is in hand.
	FUELING BY ASTERN METHOD	BY DELIVERING SHIP: On side hose is being streamed.	AT DIP: I am steady on course and speed and am preparing to stream hose on this quarter. CLOSE UP: I am ready for your approach. HAULED DOWN: Hose is on deck of receiving ship.
		BY RECEIVING SHIP: On side hose is being received.	AT DIP: I am ready to close and take hose. CLOSE UP: I am commencing approach. HAULED DOWN: Hose grappled and in hand on deck.
<b>S</b>	DRILL SIGNAL	Where best seen.	WHILE FLYING: Signal flying is for flaghoist drill only.

Table 4-2. Single Alphabetical Flag Table (Sheet 5 of 5)

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<b>T</b>	RESERVED		
<b>U</b>	ANCHORING	On appropriate side or where best seen.	AT DIP: Anchor let go. PORT or STBD may be used to indicate anchor. CLOSE UP: Chain cable veered to required length. HAULED DOWN: Chain cable secured.
	MOORING		AT DIP: Anchor let go. PORT or STBD may be used to indicate side. CLOSE UP: Chain cable modified. HAULED DOWN: Chain cable secured.
	WEIGHING		AT DIP: I am heaving in. When un-mooring. PORT or STBD may be used to indicate side. CLOSE UP: Anchor aweigh. HAULED DOWN: I am ready to proceed.
<b>V</b>	STREAMING/ RECOVERING TOWED ACOUSTIC DEVICES NOT INCLUDING MINESWEEPING EQUIPMENT	Where best seen.	CLOSE UP: Streaming/recovering.  HAULED DOWN: Streamed/recovered.
<b>W</b>	RESERVED		
<b>X</b>	RESERVED		
<b>Y</b>	RESERVED		
<b>Z</b>	RESERVED		

Table 4-3. Single Numerical Flag Table

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<b>1</b>	RESERVED		
<b>2</b>	RESERVED		
<b>3</b>	RESERVED		
<b>4</b>	RESERVED		
<b>5</b>	BREAKDOWN	Where best seen.	WHILE FLYING: I have a breakdown or I am not under control.
<b>6</b>	TOWING OPERATIONS	Where best seen.	Identifying flag for towing operations. See Chapter 41.
<b>7</b>	RESERVED		
<b>8</b>	BOAT SIGNAL	Where best seen.	WHILE FLYING: Steer straight away from ship.  8 PORT: Steer left (or to PORT). When hauled down, cease turn and steady on present course.  8 STBD: Steer right (or to STBD). When hauled down, cease turn and steady on present course.  8 SCREEN: Steer straight toward ship.
<b>9</b>	RESERVED		
<b>0</b>	GUARD MAIL	BY BOATS: In bow.	WHILE FLYING: I am guard mail duty boat.
	MILITARY GUARD	Where best seen (not underway).	WHILE FLYING: I have military guard duty.

Table 4-4. Single Special Flag/Pennant Table (Sheet 1 of 3)

FLAG OR PENNANT	INDICATION	NORMALLY DISPLAYED	MEANING
<b>ANS</b>	ACKNOWLEDGMENT	At yardarm. By OTC or small ship.	AT DIP: Answers signal. CLOSE UP: Acknowledges signal.
		At yardarm. By OTC.	AT DIP: All ships make appropriate routine reports. CLOSE UP: Receipt for a routine report. HAULED DOWN: All routine reports have been received.  <i>NOTE: DIV ANS, SQUAD ANS, etc., may be used by the appropriate commanders to obtain routine reports.</i>
	FRACTIONS		In text of signals. Decimal point or one-half.
<b>CODE</b>	USE INTERNATIONAL CODE OF SIGNALS	At yardarm. Repeated by addressees.	Signal group following is taken from International Code of Signals.
<b>CORPEN</b>	STOP THE TURN	Where best seen.	Ships are to steady on a course 20° beyond the direction the ship is heading at the moment the signal is understood.
<b>DESIG</b>	PLAIN TEXT		For use, see paragraph 0403.11.
<b>EMERG</b>	SIGNAL(S) FLYING ARE TO BE OBEYED AS SOON AS UNDERSTOOD		See Chapter 18.
<b>FORM</b>	REFUSE BOAT IS REQUIRED	At yardarm or where best understood (not underway).	WHILE FLYING: Refuse boat is required.

Table 4-4. Single Special Flag/Pennant Table (Sheet 2 of 3)

FLAG OR PENNANT	INDICATION	NORMALLY DISPLAYED	MEANING
<b>INT</b>	SIGNAL NOT UNDERSTOOD	Where best seen. Repeated by addressees.	Signal now flying is not understood. INT preceding a signal, see paragraph 0403.6.
<b>NEGAT</b>	NEGATIVE	Where best seen. Repeated by addressees.	All signals flying without a call are canceled. a. _____ call NEGAT: All signals under this call are canceled. b. In reply to a signal: NO or PERMISSION NOT GRANTED. c. NEGAT preceding a signal, see paragraph 0403.6.
<b>PREP</b>	REPLENISHING (Receiving ship only)	At outboard yardarm or where best seen.	AT DIP: I expect to disengage in 15 minutes. CLOSE UP: Replenishing completed; I am disengaging at final station. HAULED DOWN: All lines are clear.
	MORNING AND EVENING CEREMONIES/ COLORS (AS APPROPRIATE)	At yardarm (not underway). Repeated by addressees.	CLOSE UP: Five minutes until ceremony/colors. AT DIP: Commence ceremony/ colors. HAULED DOWN: Ceremony/colors completed.
	PREPARTIVE	At yardarm.	PREP preceding a signal, see paragraph 0403.6.
<b>PORT</b>	INDEFINITE TURN TO PORT	At yardarm (underway). Repeated by addressees.	Turn of unspecified amount. See paragraph 1303.
	OUT OF ROUTINE	At yardarm (not underway).	Ship out of routine. No honors should be expected.
<b>SCREEN</b>	RESERVED		

Table 4-4. Single Special Flag/Pennant Table (Sheet 3 of 3)

FLAG OR PENNANT	INDICATION	NORMALLY DISPLAYED	MEANING
<b>SPEED</b>	RESERVED		
<b>STBD</b>	INDEFINITE TURN TO STARBOARD	At yardarm (underway). Repeated by addressees.	Turn of unspecified amount. See paragraph 1303.
	NATIONAL SOPA	Where best seen (not underway).	Senior officer present afloat.
<b>STATION</b>	TAKE PROPER OR ASSIGNED STATION	At yardarm. Repeated by addressees.	Take proper or assigned station.
<b>TURN</b>	RESERVED		
<b>1st</b>	ABSENCE OF OFFICIAL from this ship for a period of 72 hours or less. Use in port only.	Starboard main yardarm outboard.	Absence of flag officer or unit commander whose personal flag or command pennant is flying on this ship.
<b>2nd</b>	Same as 1st substitute	Port main yardarm inboard.	Absence of chief of staff.
<b>3rd</b>	Same as 1st substitute	Port main yardarm outboard.	Absence of captain.
<b>4th</b>	Same as 1st substitute	Starboard main yardarm inboard.	Absence of civil or military official whose flag is flying on this ship.

## PART II — TACTICAL SIGNALS





## CHAPTER 11

## FORM (Formation) Signals

## 1101 Formation Signals

*Note: All formation signals contain the term FORM within the signal.*

**1. Column and Line Abreast.** When forming a column or a line abreast, ships take station in the order of sequence numbers or as directed by the signal. The distance between ships is the standard distance (D) or the distance indicated by the signal. The Guide is designated in the signal. If the Guide is not designated, the Guide is the ship that was the Guide of the previous formation or the CTG if no previous formation existed.

FORM 1 . . . . Form a column.

FORM 2 . . . . Form a column in reverse order of sequence numbers.

FORM 3 . . . . Form a line abreast to starboard.

FORM 4 . . . . Form a line abreast to port.

FORM 5 . . . . Form a second column to starboard of the first, line guides bearing abeam.

FORM 6 . . . . Form a second column to port of the first, line guides bearing abeam.

FORM 9 . . . . Form a second line abreast to starboard, line guides bearing astern.

FORM 10. . . . Form a second line abreast to port, line guides bearing astern.

*Examples: FORM 1 . . . Form a column in order of sequence numbers.*

*FORM 1—STATION 1 DESIG ABC—STATION 2 DESIG DEF—G FORM DESIG ABC . . . Form a column. Ship ABC in station 1, ship DEF in station 2. Formation Guide is ship ABC.*

**2. Circular Formation.** When forming a circular formation, ships take station in the order of sequence numbers or as indicated in the tasking message or signal.

FORM 14. . . . Form a circular formation with stations as indicated.

FORM (15 to 19) . . . . . Form circular formation designated in the tasking message.

*Examples: FORM 14—STATION 1 DESIG ZZ—STATION 2 DESIG 030—050 ZZ 1 ANS 5—2. . . Form circular formation with station 1 at ZZ and station 2 bearing 30° to 50° from ZZ at a distance of 1.5 to 2 nm. Ships take station in order of sequence numbers.*

*FORM 15—STATION 1 DESIG ABC—STATION 2 DESIG DEF . . . Form circular formation 15 designated in the tasking message. Ship ABC is assigned station 1 and ship DEF is assigned station 2.*

**3. Line of Bearing.** Ships form on the Guide on the bearing signaled or its reciprocal. Ships form in the quickest sequence, in the order of sequence numbers, or as indicated.

FORM (PORT or STBD) (0 to 18) . . . Form a line of bearing formation on a **relative** bearing in tens of degrees (0 to 18) from the Guide or ship indicated on the present course or course indicated.

FORM (000 to 359). . . . Form a line of bearing formation on a **true** bearing from the Guide or ship indicated on the present course or course indicated.

*Examples: FORM 120 . . . Form a line of bearing on a bearing of 120° T from the Guide on the present course.*

*FORM PORT 15—STATION 1 DESIG ABC—STATION 2 DESIG DEF—G FORM DESIG ABC—B CORPEN 000 . . . Form a line of bearing formation on a relative bearing of 210° R from ship ABC, which is assigned station 1; ship DEF is assigned station 2. Formation Guide is ship ABC. Base course is 000° T.*

**4. Forming in the Quickest Sequence.** The quickest sequence is based on each ship's position relative to the Guide or ship indicated at the time the signal is executed. It does not mean to form in order of sequence numbers.

FORM A . . . . Form a column formation in the quickest sequence on the most advanced ship or ship indicated, at present distance if already formed, or at standard distance or distance indicated.

*Unless a particular ship has been indicated, the ship to be formed on is the most advanced ship on the present course. Remaining ships are to form astern of that ship in the quickest sequence, according to their positions relative to that ship. If the ship to be formed on is indicated, ships are to form ahead or astern in the quickest sequence.*

*Example: FORM A . . . Form a column formation in the quickest sequence on the most advanced ship at the present distance.*

FORM B . . . . Form a line abreast formation in the quickest sequence on the Guide or ship indicated, on the present course or course indicated, at present distance if already formed, or at standard distance or distance indicated.

*Ships are to form on the nearest beam of the Guide or ship indicated, relative to that ship's course or the course indicated, in the quickest sequence according to their positions relative to the Guide.*

*Example: FORM B—G FORM DESIG ABC—B CORPEN 000—TA12—3 . . . Form a line abreast formation in the quickest sequence on ship ABC as formation Guide. Base course is 000° T. Take double standard distance (2D).*

FORM D . . . . Form a diamond formation.

*A diamond formation can only be formed when ships are in a column formation. The leading ship automatically becomes the Guide. The second ship in the column is to form on the port quarter of the Guide, the third ship on the starboard quarter of the Guide, and the fourth ship in the wake of the Guide. If there are more than four ships, additional ships are to form a second diamond on the fourth ship, odd numbers (counting from the leading ship) forming to starboard, even numbers forming to port. Unless otherwise ordered ships are to use their present ordered distance (d). See paragraph 0304 for Guide changes.*

FORM E . . . . Form a column open order formation.

*In forming a column open order formation, ships are displaced on both sides of the course, even numbered ships (counting from the leading ship) forming to port and odd-numbered ships to starboard. The leading ship automatically becomes the Guide. The second ship forms 4° on the port quarter of the Guide and the third ship 2° on the starboard quarter of the Guide; remaining ships form alternately astern of the second or third ship on the appropriate side. Ships are to form at the same distance from the Guide as if they were in column. If the column is already formed, ships are to remain at their present ordered distance unless otherwise directed.*

FORM F PORT or STBD . . . . . Reverse the order of ships in column in succession from the rear. Ships are to sheer out on the side indicated. One or two numerals may be added to indicate speed of all ships except the rear ship.

*The rear ship automatically becomes the Guide and increases speed to one knot less than stationing speed, passing the ships ahead of her on the side indicated. Other ships reduce speed to 7 knots or as indicated. At the appropriate time, each ship in succession from the rear is to increase speed and take station in the wake of the ship that was previously next astern to her. All ships will maintain speed after taking station in the new column until the CTG reduces speed by a speed signal. If the maneuver is ordered when ships have no way on, the new Guide's speed will be signaled; each ship will subsequently get underway in succession from the rear in time to complete the maneuver.*

## 1102 Miscellaneous Signals

FORM U . . . . Ships resume previous relative bearings and distances from their line guides. Ships move independently.

FORM V . . . . Line guides resume previous relative bearings and distances from the Guide. Line commanders move their lines by signal to take up new stations.

FORM W . . . . Resume previous formation. Line guides resume previous relative bearings and distances from the Guide. Ships in line resume previous bearings and distances from their line guides. Line commanders direct movements.

FORM Z . . . . Remain in present formation (until \_\_\_\_).

*Example: FORM Z—19T . . . Remain in present formation until 1900Z.*

## 1103 Information Signals

B FORM . . . . Force is in formation number \_\_\_\_ (this unit or unit(s) indicated are in station(s) indicated).

G FORM . . . . Formation Guide is \_\_\_\_ (in station \_\_\_\_ or bearing \_\_\_\_° T from this unit or unit indicated at a distance of \_\_\_\_ hundred yards).

*Example: GFORMDESIG ABC—STATION 1 . . . Formation Guide is ship ABC in station 1.*

K FORM . . . . Formation center bears \_\_\_\_\_° T from the Guide or ship indicated at a distance of \_\_\_\_\_ hundred yards.

*Example: K FORM 000 DESIG ABC 25 . . . Formation center bears 000° T, distance 2,500 yards from ship ABC.*

S FORM . . . . Sequence numbers are in order of call signs following.

## CHAPTER 12

# Station Signals

### 1201 Instructions

1. **Requirements.** To station a unit is to order it to proceed to a position with reference to the Guide, a geographic position, or an indicated unit. When ordered, a ship hoists DESIG followed by her station letter(s) and/or numeral(s) by day to confirm to the CTG that she has correctly interpreted his stationing instructions and to indicate to adjacent ships the position to which she is proceeding. By hauling down, she indicates that she is in station.
2. **Maintaining True Bearing.**
  - a. On arrival in station, a unit is to maintain the true bearing from its guide or indicated unit, even though its station may have been ordered by means of a relative bearing or area.
  - b. When main body alters course without signal to all ships present, stationed units are to maintain true bearings and distances from the units on which stationed.
  - c. Unit stationed by bearing from a unit of a circular formation, rather than by the circular method, is to maintain true bearing from the unit on which stationed when the formation axis is rotated, unless otherwise ordered.
3. **Maneuvering Requirements.**
  - a. When the Guide alters course, the alter course signal addressed to all ships present will instruct stationed units whether they are to maintain true bearings or regain relative bearings.
  - b. Units automatically form part of unit on which stationed, for maneuvering purposes, when stationed on the unit at or inside the maneuvering interval or within one nm of a single ship unit.

### 1202 Action Signals

STATION. . . . Take assigned station.

INT STATION . . . . . What is your station (or that of \_\_\_\_ )?

STATION (PORT or STBD) (0 to 18) . . Take station on **relative** bearing indicated in tens of degrees (0 to 18) from the Guide or unit indicated at standard distance (or at a distance of \_\_\_\_ nm).

STATION (000 to 359) . . . . Take station on **true** bearing indicated from the Guide or unit indicated at standard distance (or at a distance of \_\_\_\_ nm).

*Example: STATION 020 DESIG ABC 1 DECIMAL 2 . . . Take station on a true bearing of 20° from ship ABC at a distance of 1.2 nm.*

STATION 1, 2, 3, etc. . . . Take station indicated.

STATION A . . . Take station ahead of the Guide or unit indicated at standard distance (or at a distance of \_\_\_\_ nm).

STATION B . . . Take station astern of the Guide or unit indicated at standard distance (or at a distance of \_\_\_\_ nm).

STATION E . . . Resume station.

STATION F . . . Assume sequence number \_\_\_\_ .

*Example: STATION F 3 . . . Addressee is to assume sequence number 3.*

STATION G . . . Ship indicated is to take station \_\_\_\_ and when in station is to become Guide.

STATION J . . . Ships indicated exchange stations.

**Rules for Exchanging Station**

**1. Both Ships in Same Column Formation.** The advanced ship is to haul out to port, the ship in the rear to starboard. Both ships are then to proceed to their new stations.

**2. Both Ships in Same Line Abreast or Line of Bearing Formation.** When in line abreast formation, the ship to port, or when in line of bearing formation, the after of the two ships, is to move over to a position astern of the other ship. Both ships are then to proceed to their new stations.

**3. Each Ship in Different Line.** If the lines are formed with line guides bearing abeam, the ship in the port line is to pass astern of the ship in the starboard line; if line guides are bearing astern or are in a line of bearing formation, the ship in the rear line is to leave the other on the port hand. If the ship in the rear line is to port of the ship with which she is exchanging stations, she is to pass astern of the ship in the leading line.

**4. Ships Not in a Line.** With respect to each other, both ships are to act in accordance with the International Regulations for Preventing Collisions at Sea.

**5. Ships in Diamond Formation.** Ships exchanging stations use rule for both ships in same column, line abreast or line of bearing, whichever is applicable.

STATION L . . . Take \_\_\_\_ station on ship assigned or indicated for replenishment or transfer. PORT or STBD may follow.

- |  |                                      |
|--|--------------------------------------|
| 1. Abeam   | 5. Quarter                           |
| 2. Alongside   | 6. Standby (300 to 500 yards astern) |
| 3. Astern  | 7. Standby (400 yards abeam)         |
| 4. Lifeguard (1,000 yards astern unless otherwise indicated) | 8. VERTREP                           |

STATION P . . . Ships maintain station within \_\_\_\_ tens of degrees of ordered bearing and within \_\_\_\_ hundred yards of ordered distance from the Guide.

*Example: STATION P 1—5 . . . Ships maintain station within 10° of ordered bearing and within 500 yards of ordered distance from the Guide.*

STATION R . . . Report when you (or \_\_\_\_ ) are in station.

STATION S . . In formation number \_\_\_\_\_, station(s) \_\_\_\_\_ is (are) to be taken by unit(s) indicated. Each station number is immediately followed by the call sign of the ship to which it is assigned. When lettered stations are being assigned, TACK must follow the station letter.

*Example: STATIONS 40—S1—c/s 4AH—A—c/s 2PT—B—c/s 3ZH . . . Information number 40, station S1 is to be taken by ship whose call sign is 4AH, station A by 2PT, and station B by 3ZH.*

STATION U . . Remain in your present station.

STATION V . . Hoist your sequence number (or \_\_\_\_\_ ).  
1. Hoist your station number

### 1203 Information Signals

A STATION . . This unit or unit indicated is in station.

B STATION . . This unit or unit indicated is unable to keep station or carry out movements directed (due to \_\_\_\_\_ ).  
1. Breakdown  
2. Engineering restrictions  
3. Weather  
4. Other following DESIG

*Example: B STATION 3 . . . This unit is unable to keep station due to weather.*

M STATION . . My station or station of unit indicated is \_\_\_\_\_ .





## CHAPTER 13

## Turn Signals

**1301 Turn of a Specified Amount**

1. The direction of the turn must always be indicated. The side to which the turn is to be made is indicated by using PORT or STBD immediately after TURN. The amount of the turn is indicated in one of two ways:

- a. By three numbers, giving the *true* course to which the ships are to turn.
- b. By one or two numbers, giving in tens of degrees the turn amount *relative* to the present course.

2. Consecutive turns by the second method should not be made; after one such turn the next turn should be ordered for a specified direction, using three numbers. DECIMAL may be used to indicate a turn to within 5°.

TURN (PORT or STBD) [(1 to 36) or (000 to 359)]. . . . Turn together in the direction indicated, the number of tens of degrees indicated, or to the course indicated.

*Examples: TURN STBD 120 . . . Ships are to turn together to starboard to new course 120° T.*

*TURN PORT 10 DECIMAL 5 . . . Ships are to turn together to port to a new course 105° from the present course.*

**1302 Stopping an Ordered Turn**

CORPEN C . . . Stop the turn. Steady on course \_\_\_\_ .

*Example: CORPEN C 100 . . . Stop the turn. Steady on course 100° T.*

**1303 Turn of Unspecified Amount**

TURN STBD . . . . . Turn together to starboard.

TURN PORT . . . . . Turn together to port.

*NOTE: A turn of an unspecified amount must be followed by a CORPEN C signal to stop the turn and signal the course to be steered.*

**1304 Information Signals**

J TURN. . . . . Formation course and speed for joining is as indicated.

- (a) Base course
- (b) Speed
- (c) Zigzag plan in force
- (d) Zero time of zigzag
- (e) Next alteration of base course is likely to be to \_\_\_\_ at \_\_\_\_ .

*Example: JTURN 000—10 . . . Formation course and speed for joining is 000° T and 10 knots.*

X TURN (PORT or STBD) . . . . . My rudder is right or left as indicated.



## CHAPTER 14

## CORPEN (Course) Signals

## 1401 Ordering Corpen

1. The direction of the Corpen must always be indicated. The direction toward which the Corpen is to be made is indicated with the use of PORT or STBD immediately after CORPEN. The amount of the Corpen is indicated in one of two ways:

- a. By three numbers, giving the *true* course to which the Corpen is to be made.
- b. By one or two numbers, giving the number of tens of degrees ships are to Corpen *relative* to the present course.

2. DECIMAL may be used to indicate a Corpen within 5°.

CORPEN (PORT or STBD) [(1 to 18) or (000 to 359)] . . . Alter course by Corpen in the direction indicated, the number of tens of degrees (1 to 18) indicated, or to the course (000 to 359) indicated.

*Examples: CORPEN PORT 9 . . . Ships alter course by Corpen 90° to port.*

*CORPEN STBD 130 . . . Ships alter course by Corpen to starboard to course 130°.*

## 1402 Action Signals

INT CORPEN. . . . . What is your course (and speed)?

CORPEN A. . . Steer course \_\_\_\_ .

CORPEN B. . . Adjust base course to \_\_\_\_ .

*Do not use this signal for an adjustment over 10°.*

*Example: CORPEN B 345 . . . Adjust base course to 345° T.*

CORPEN C . . . Stop the turn. Steady on course \_\_\_\_ .

CORPEN E. . . Steer safety course ( \_\_\_\_ ).

CORPEN N . . . Replenishment units alter course when ordered by the OTC or control ship(s) to \_\_\_\_ degrees PORT/STBD as indicated in \_\_\_\_ steps. Use ANSWER for 5° steps and ONE for 10° steps.

*Ships not in replenishment units are to alter course similarly, preserving true bearings and distances from the formation Guide. Ships in replenishment units alter course as directed by their control ships so as to preserve relative bearings and distances from unit guides. Replenishment units will effect course alterations so as to maintain true bearings and distances from the formation Guide.*

#### Procedure

1. On receipt of CORPEN N from the CTG (see Note), ships replenishing report BF to the control ship of their unit when ready to commence the alteration.
2. Control ships report BF to the CTG when their units are ready for the alteration.
3. On receipt of the executive signal from the CTG, follow procedures for Method A, B, or C as ordered. (See signal RS9.)
4. On reaching the new course, control ships report BB to the CTG.

#### NOTE

CORPEN N is normally to be made with “Execute to follow ... .”

*Example: CORPEN N 230 PORT ANSWER . . . Alter course to PORT to a course of 230° T in 5° steps.*

CORPEN P . . . Guide steer course \_\_\_\_ .

CORPEN S . . . Search turn — Alter the direction of the search to course \_\_\_\_ (at \_\_\_\_ ).

*The wing ship on the side away from the direction of the new course is to turn to the course indicated and become the Guide. The remaining ships are to continue their course, each one turning in sequence, so that on completion of her turn she will be on the beam of the Guide on the new course. For large alterations when in loose line abreast, the CTG should consider ordering ships to reform in line abreast before executing the search turn. Ships in line abreast must be at least 1,000 yards apart; those in loose line abreast must be at least 1,500 yards apart. Ships of ocean minesweeper size and smaller may conduct search turns when the distance between ships is 500 yards. The alteration must be not less than 45° nor more than 135°.*

CORPEN U . . . Maintain present course (or course \_\_\_\_ ) (until \_\_\_\_ ).

*CORPEN U 225—20T . . . Maintain course 225° T until 2000Z.*

### 1403 Information Signals

B CORPEN. . . Base course is \_\_\_\_ .

E CORPEN. . . Safety course is \_\_\_\_ .

G CORPEN . . . Guide's course is \_\_\_\_ (or is altering to \_\_\_\_ ), (Guide's speed is \_\_\_\_ ).

H CORPEN . . . Intend altering course to \_\_\_\_ (at \_\_\_\_ ).

J CORPEN . . . Base course will be \_\_\_\_ (when the Guide passes the point indicated).

K CORPEN. . . Course is \_\_\_\_ .

L CORPEN. . . Contact's course is \_\_\_\_ .

M CORPEN . . . My (or unit indicated) course is \_\_\_\_ (my speed is \_\_\_\_ ).

P CORPEN. . . I am adjusting my course to \_\_\_\_ (speed to \_\_\_\_ ).

R CORPEN . . . Replenishment course is \_\_\_\_ (speed is \_\_\_\_ ).

X CORPEN (PORT or STBD) . . . . . I am about to alter course to port or starboard as indicated ( \_\_\_\_ tens of degrees) (or to course \_\_\_\_ ).

*Examples: X CORPEN PORT 15 . . . I am about to alter course 150° to port.*

*X CORPEN STBD 060 . . . I am about to alter course to starboard to course 060°.*



## CHAPTER 15

# Speed Signals

### 1501 Action Signals

INT SPEED . . . What is your speed?

SPEED 0. . . . Guide is to stop engines; other ships proceed as necessary to maintain station.

SPEED 1, 2, 3, etc.. . . . Guide proceed at speed \_\_\_\_; other ships proceed as necessary to maintain station.

SPEED A. . . . Stop ship by reversing engines.

SPEED B. . . . Proceed at best speed for current circumstances or conditions.  
*Speed is at the discretion of the commanding officer of addressed unit.*

SPEED C. . . . Proceed at (or \_\_\_\_ ) cavitation speed.  
1. Above  
2. Below

SPEED D. . . . Decrease speed by \_\_\_\_ knots.  
*Example: SPEED D 4 . . . Decrease speed by 4 knots.*

SPEED G . . . Guide proceed at speed \_\_\_\_ upon passing point indicated.

SPEED H. . . . Proceed at speed \_\_\_\_ .

SPEED I . . . . Increase speed by \_\_\_\_ knots.

SPEED K. . . . Show speed flags.

SPEED L . . . Replenishment units alter speed when ordered by control ships to \_\_\_\_ knots.  
*Ships not in replenishment units are to alter speed similarly, preserving true bearings and distances from the formation Guide. Ships in replenishment units preserve relative bearings and distances from unit guides.*

#### Procedure

1. SPEED L should be made using the delayed executive method, and will not normally be executed by the CTG until control ships have reported that their units are ready to commence the alteration. The executive signal, "SPEED L," is not the executive signal for ships to change their revolutions.
2. On receipt of SPEED L from the CTG, ships replenishing report BF to the control ship of their unit when ready to commence the alteration.
3. Control ships report BF to the CTG when their units are ready for the alteration.
4. On receipt of the executive signal from the CTG, control ships alter the speed of their units in 1/2 or 1 knot steps as required, using METHOD A, B, or C as ordered. (See signal RS9.)
5. When proceeding at the new formation speed, the formation guide reports to the CTG (M SPEED).
6. When proceeding at the new formation speed, control ships report BB to the CTG.

SPEED M . . . Proceed at maximum speed with present engineering configuration.

SPEED O . . . Proceed at economical speed for your unit.

SPEED P . . . Proceed at \_\_\_\_ sonar speed.  
 1. Maximum  
 2. Optimum

SPEED R . . . Reduce speed to \_\_\_\_ knots.  
*Example: SPEED R 4 . . . Reduce speed to 4 knots.*

SPEED S . . . Stop engines.

SPEED U . . . Follow at safe speed.

SPEED V . . . Proceed at steerageway speed.

#### 1502 Information Signals

B SPEED. . . . Base speed is \_\_\_\_ .

C SPEED. . . . Maximum speed that can be maintained by this unit or unit indicated is \_\_\_\_ .

D SPEED. . . . I am \_\_\_\_ speed (to \_\_\_\_ knots).  
 1. Decreasing  
 2. Increasing

*Example: D SPEED 2—15 . . . I am increasing speed to 15 knots.*



F SPEED. . . . Speed for impending launching or recovery of aircraft is \_\_\_\_ .

G SPEED . . . . Guide's speed is \_\_\_\_ .

H SPEED. . . . My engines are turning \_\_\_\_ (*List A*) at ( \_\_\_\_ (*List B*)).

- List A*
1. Ahead
  2. Astern

- List B*
- A. Full power
  - B. Half power
  - C. Quarter power

*Example: H SPEED 1A . . . My engines are turning ahead at full power.*

M SPEED . . . . My (or unit indicated) speed is \_\_\_\_ .

P SPEED. . . . My \_\_\_\_ (*List A*) ( \_\_\_\_ (*List B*)) sonar speed is \_\_\_\_ .

- List A*
1. Maximum
  2. Optimum

- List B*
- A. Active (hull-mounted)
  - B. Active (towed)
  - C. Passive (hull-mounted)
  - D. Passive (towed)

R SPEED. . . . Replenishment speed is \_\_\_\_ .

S SPEED. . . . Stationing speed is \_\_\_\_ .

U SPEED. . . . Speed in excess of \_\_\_\_ will not be required during the night (or until time indicated).

V SPEED. . . . Maximum speed of this or indicated ship is \_\_\_\_ .

W SPEED . . . . Maximum speed that can be maintained with present engineering configuration is \_\_\_\_ .



## CHAPTER 15A

## Screen Signals

SCREEN K. . . Form sector screen — Screen center is \_\_\_\_ . Ship or helicopter indicated take sector indicated.

*BOUNDARIES* — Sector boundaries are ordered by a group of four numerals. First two numerals indicate true bearing of left and second two numerals indicate true bearing of right boundary of the sector in tens of degrees. ANSWER may be used to indicate an increment of 5°.

*DEPTH* — Sector depth is ordered by a group of four numerals. First two numerals indicate the inner and the second two numerals indicate the outer limits of the sector in thousands of yards from screen center. ANSWER may be used to indicate increments of 500 yards.

*Example: SCREEN K—QQ—20 ANS 33 ANS—02 ANS 07 DESIGN . . . Form sector screen — Screen center is the center of the front of the main body. Helicopter take sector between 205° and 335° true and between 2,500 and 7,000 yards from screen center.*



## CHAPTER 16

## Special Tactical Signals

## 1601 Bearing and Distance

- TA11 . . . . Bearings and distances. \_\_\_\_\_ .
1. Relative bearings and distances are to be preserved
  2. Relative bearings and distances are to be resumed
  3. True bearings and distances are to be preserved
  4. True bearings and distance are to be resumed

- TA12 . . . . Maintain present distance (or take \_\_\_\_\_).
1. Distance of \_\_\_\_\_ hundred yards
  2. Distance of \_\_\_\_\_ nm
  3. Double standard distance
  4. Standard distance
  5. Proper distance
  6. One-half standard distance

- TA14 . . . . Distance (or \_\_\_\_\_) is \_\_\_\_\_ hundred yards.
1. Reserved
  2. Distance between guides of units
  3. Distance between units
  4. Reserved
  5. Reserved
  6. Reserved
  7. Reserved
  8. Standard distance

*Example: TA14—8—20 . . . Standard distance is 2,000 yards.*

- TA15 . . . . Take \_\_\_\_\_ .
1. Reserved
  2. Interval of \_\_\_\_\_ hundred yards
  3. Reserved
  4. Interval of \_\_\_\_\_ hundred yards between lines
  5. Interval of \_\_\_\_\_ thousand yards
  6. Reserved
  7. Proper interval

TA16 . . . . Reserved.

- TA17 . . . . You bear \_\_\_\_\_° T from this unit or unit indicated or position indicated ( \_\_\_\_\_ nm).
- Example: TA17—140—DESIG ABC—10 . . . You bear 140° T, distance 10 nm from ship ABC.*

TA18 . . . . Your distance (or that of unit indicated) is \_\_\_\_\_ hundred yards from this or unit indicated.

## 1602 Special Information Signals

- TA26 . . . . Friendly force or unit indicated is \_\_\_\_\_ .
1. Joining up (from direction indicated) (at time \_\_\_\_\_)
  2. May be encountered (at about \_\_\_\_\_) (in position \_\_\_\_\_)
  3. Operating in vicinity (or position \_\_\_\_\_)
  4. Sighted
  5. Temporarily detached

TA28 . . . . Objective's last known position (or point of origin of search) is \_\_\_\_\_° T (at \_\_\_\_\_).

TA29 . . . . Ships in company are \_\_\_\_\_ .

TA30 . . . . Sighted object indicated following DESIG.

*Example: TA30 DESIG ICEBERG . . . Sighted iceberg.*

TA32 . . . . Unit indicated bears \_\_\_\_° T from this or unit indicated (distance \_\_\_\_ nm).

*Example: TA32 DESIG CONTACT 200—8 . . . Contact bears 200° T, 8 nm from this unit.*

### 1603 Light Signals

TA36 . . . . Show no light (or only lights indicated following DESIG).

TA37 . . . . You or unit indicated have a light showing \_\_\_\_ (PORT or STBD to indicate side).

1. Aft
2. Aloft
3. Amidships
4. Forward
5. Superstructure

TA38 . . . . Turn on \_\_\_\_ lights.

1. In-contact flasher
2. Navigation
3. Search
4. Submarine identification
5. Task

### 1604 Miscellaneous Signals

TA42 . . . . Attention is called to bearing \_\_\_\_° T .

TA43 . . . . Blow tubes ( \_\_\_\_ ).

1. Maneuver as necessary to blow tubes

TA44 . . . . Expedite ( \_\_\_\_ ).

1. Action
2. Answer to signal
3. Maneuver
4. Operation

TA46 . . . . Man overboard has been \_\_\_\_ .

1. Given up for lost
2. Picked up
3. Sighted bearing \_\_\_\_° T (range \_\_\_\_ )

*Example: TA46—3—000—50 . . . Man overboard has been sighted bearing 000° T, range 50 yards.*

TA47 . . . . Object of search is as indicated following DESIG. \_\_\_\_.

- |                    |              |
|--------------------|--------------|
| 1. Disabled ship   | 6. Submarine |
| 2. Downed aircraft | 7. Survivors |
| 3. Man overboard   | 8. Raft      |
| 4. Raft            | 9. Wreckage  |
| 5. Small boat      |              |

TA52 . . . . Assist this unit or unit indicated.

TA53 . . . . Assist damaged ship or ship(s) indicated.

TA54 . . . . Assume duty indicated following DESIG.

TA60 . . . . Duty completed.

TA62 . . . . Investigate object indicated following DESIG.

TA63 . . . . Rescue crew of ship or aircraft indicated, which has sunk (or is sinking).

### 1605 Movement Signals

TA68 . . . . Be in position (or position \_\_\_\_\_) at \_\_\_\_\_. NEGAT following means, "Unable to arrive in position (or position \_\_\_\_\_) at prescribed time. Can arrive at \_\_\_\_\_."

TA70 . . . . Conform to general movements of this unit or unit indicated.

TA72 . . . . Keep \_\_\_\_\_ on to sea.

1. Beam
2. Head
3. Port bow
4. Starboard bow
5. Stern

TA73 . . . . Keep within \_\_\_\_\_ range of this unit or unit indicated.

- |                         |                     |
|-------------------------|---------------------|
| 1. Radar                | 4. VHF radio        |
| 2. UHF radio            | 5. Visual signaling |
| 3. Underwater telephone | 6. _____ nm         |

TA75 . . . . I will be near your position at \_\_\_\_\_.

TA76 . . . . Purpose or reason for present movement of this unit or unit indicated (or movement previously reported) is \_\_\_\_\_.

1. To join formation
2. To be in formation when orders have been carried out

TA77 . . . . Regain position ( \_\_\_\_\_ ).

1. In formation
2. In formation when orders have been carried out

TA78 . . . . Remain in your present position or station (or \_\_\_\_\_).

1. With this unit or unit indicated
2. Wait for further orders

TA79 . . . . Rendezvous (in position \_\_\_\_\_) (at \_\_\_\_\_) (with \_\_\_\_\_).

TA85 . . . . Clear the formation or unit indicated (on course \_\_\_\_\_° T or in general direction \_\_\_\_\_).

TA86 . . . . Join or rejoin ( \_\_\_\_\_ ).

1. This unit or unit indicated (station may be indicated)
2. As leading ship of this unit or unit indicated and conform to movements of this unit
3. As rear ship of this unit or unit indicated and conform to movements of this unit
4. Formation or formation indicated when practicable, falling in astern or taking any station open
5. When conditions exist as indicated
6. When present orders have been carried out
7. Your own senior officer

TA87 . . . . Leave formation.

TA88 . . . . Proceed ( \_\_\_\_ ).

- |   |                                       |
|---|---------------------------------------|
| 1. And report for duty to (designated commander)                                    | 11. To ____                           |
| 2. As necessary to pass through formation or to reach position indicated (at ____ ) | 12. To anchorage                      |
| 3. As previously directed   | 13. Reserved                          |
| 4. In accordance with operation order or serial number indicated                    | 14. Reserved                          |
| 5. In company (with ____ )  | 15. Reserved                          |
| 6. Independently  | 16. Reserved                          |
| 7. Independently into port and take berth assigned                                  | 17. To foul-weather anchorage         |
| 8. Independently to assigned station  | 18. To port                           |
| 9. On duty assigned   | 19. To position ____                  |
| 10. Out of port   | 20. Reserved                          |
|   | 21. Reserved                          |
|   | 22. Reserved                          |
|   | 23. Reserved                          |
|   | 24. Reserved                          |
|   | 25. Reserved                          |
|   | 26. As directed by national authority |

TA89 . . . . You are detached.

TA92 . . . . Act independently ( \_\_\_\_ ).

1. For meteorological tasks
2. To conduct helicopter operations
3. To launch/recover variable depth sonar/towed array
4. To pass clear of ship(ing)(s) or unit indicated and resume station when clear
5. To proceed through IMCO separation zone in accordance with regulations
6. To repair damage or defects
7. To take bathythermograph readings

*Example: TA92—4 . . . Act independently to pass clear of shipping and resume station when clear.*

TA93 . . . . Maneuver independently to avoid attack.

TA94 . . . . Close me or unit indicated (to \_\_\_\_ hundred yards).

TA95 . . . . Close up ( \_\_\_\_ ).

1. Leaving places vacant for ships temporarily out of formation
2. Without regard for ships out of formation

TA97 . . . . Disengage ( \_\_\_\_ ) (on course \_\_\_\_ ).

1. Ahead
2. Astern
3. To port
4. To starboard

TA98 . . . . Follow this or unit indicated (or \_\_\_\_ ).

TA99 . . . . Form part of this unit or unit indicated for maneuvering purposes.



TA100 . . . . Keep \_\_\_\_\_ .

1. Ahead
2. Astern
3. Between this unit or unit indicated and contact indicated
4. Clear during maneuvers
5. In wake of this unit or unit indicated
6. Just clear of the wake of next ahead
7. Out of the way
8. To port of this unit or unit indicated
9. To starboard of this unit or unit indicated

TA101 . . . . Maneuver to avoid shipping.

TA102 . . . . Circumstances connected with the maneuver just carried out are to be noted with a view to subsequent discussion.

TA103 . . . . Pass \_\_\_\_\_ .

1. Ahead of this unit or unit indicated
2. Astern of this unit or unit indicated
3. Between lines
4. Ships unable to keep station
5. Through formation
6. Through lines
7. To port of this unit or unit indicated
8. To starboard of this unit or unit indicated

TA104 . . . . Use \_\_\_\_\_ rudder.

1. Degrees indicated for standard tactical rudder until further orders
2. Emergency
3. Full (5° less than maximum)
4. Less
5. Maximum (hard rudder or hard over)
6. More
7. Proper
8. Rudder as necessary to give a tactical diameter of \_\_\_\_\_ hundred yards

TA105 . . . . Sheer out ( \_\_\_\_\_ ).

1. Odd-numbered ships to starboard, even-numbered ships to port
2. Odd-numbered ships to port, even-numbered ships to starboard
3. To starboard
4. To port

## 1606 Operations and Intentions Signals

TA109 . . . . Intentions are to remain \_\_\_\_\_ during the night (or until \_\_\_\_\_ ).

1. At present speed
2. In assigned area or area indicated
3. In present formation
4. In present formation, on present course, and at present speed
5. Reserved
6. On present base course

*Example: TA—109—4 . . . Intend to remain in present formation, on present course, and at present speed during the night.*

TA110. . . . Commence operations (or \_\_\_\_ ).

1. Cease operations
2. Delay operations until further orders (or until \_\_\_\_ ).
3. Expedite operations
4. Operations completed

TA111. . . . Unable to carry out operations or operation indicated due to \_\_\_\_ .

1. Damage
3. Lack of services
4. Prior commitments
5. Weather

### 1607 Identification Signals

TA115. . . . Identify unit (bearing \_\_\_\_ ° T). Level of identification may be indicated following DESIG.

TA116. . . . Character of contact reported by radar is \_\_\_\_\_. Raid designation may be added.

1. Believed enemy	5. Lost
2. False	6. Unimportant objects (rain squall, birds, etc.)
3. Friendly	7. Without confirmation
4. Land	

TA117. . . . Identity of unit is as indicated following DESIG.

*Example: TA117 DESIG ABC . . . Identity of unit is ship ABC.*

TA118. . . . Use \_\_\_\_ means of recognition.

1. ESM	4. Radar
2. IFF	5. Sonar
3. Reserved	6. Visual

### 1608 Weather Signals

TA153. . . . Wait for visibility conditions to improve.

TA154. . . . Weather is suitable for \_\_\_\_ as indicated following DESIG.

*Example: TA154 DESIG SWIMMING . . . Weather is suitable for swimming.*

## CHAPTER 17

**Two-Letter Modifiers**

- BA . . . . Action is being carried out (or I am).
- BB . . . . Action completed (or I have).
- BC . . . . I recommend.
- BD . . . . Report time you will be ready (to \_\_\_\_ ).
- BE . . . . Report when ready (to \_\_\_\_ ).
- BF . . . . Ready (to \_\_\_\_ ) (at \_\_\_\_ ).
- BG . . . . My present intention is to \_\_\_\_.
- BH . . . . Request permission to \_\_\_\_.
- BI . . . . Action is not being carried out (or I am not).
- BJ. . . . If you desire.
- BK . . . . When you desire.
- BL. . . . When ready.
- BT . . . . (See paragraph 0403.12 for use.)
- BU . . . . Unable to \_\_\_\_.
- BX . . . . Indicates end of series of signal groups modified by a two-letter modifier.\*
- BZ . . . . Well done.

*\* When the two-letter modifier applies to two or more signals following it, BX is inserted after the last of the signals to which the two-letter modifier applies.*



## CHAPTER 18

## Emergency Signals

**1801 Instructions for Use of EMERG**

1. Any signal preceded by EMERG (emergency) is to be acted upon as soon as understood. If the emergency poses an immediate threat requiring visual or aural attention, the originator is to make six short blasts on the whistle.

2. When EMERG is used with several groups, it governs all groups when separated from the groups by TACK. If EMERG governs only one of the several groups, it must immediately precede the group to be governed and not be separated from it by a TACK.

**1802 Emergency Alarm Signals**

EMERG (000 to 359) . . . Attention is called to danger or emergency on **true** bearing indicated from this ship or ship indicated.

EMERG (PORT or STBD) (0 to 18) . . . Attention is called to danger or emergency on **relative** bearing indicated in tens of degrees (0 to 18) from this ship or ship indicated.

EMERG A . . . Aircraft to be presumed enemy sighted or detected bearing \_\_\_\_ °T (distance \_\_\_\_ nm).

EMERG B . . . Unidentified aircraft detected or sighted bearing \_\_\_\_ °T (distance \_\_\_\_ nm).

EMERG C . . . You are on collision course with me. Keep clear.

EMERG D . . . This ship or ship indicated has been in a collision.

EMERG E . . . Enemy (or \_\_\_\_ ) surface craft sighted bearing \_\_\_\_ °T from this ship (or unit or position indicated) (distance \_\_\_\_ nm).  
1. Unidentified

EMERG F . . . I have aircraft landing in an emergency,

EMERG G . . . Enemy missile detected or sighted bearing \_\_\_\_ °T (distance \_\_\_\_ nm).

*Example: EMERG G 020—20 . . . Enemy missile detected bearing 020 T°, distance 20 nm.*

EMERG H . . . I have a helicopter landing in an emergency.

EMERG I . . . Reserved.

EMERG J . . . Surface craft detected bearing \_\_\_\_ °T (distance \_\_\_\_ nm).

EMERG K . . . Reserved.

EMERG L . . . Reserved.

EMERG M . . . Mine sighted or detected ahead (or bearing \_\_\_\_ °T from this ship or unit indicated) (distance \_\_\_\_ hundred yards) (or in position indicated).

EMERG N . . . Reserved.

EMERG O . . . Reserved.

EMERG P . . . This ship or ship indicated has a fire on board (of type \_\_\_\_ ).  
1. Ordinary combustible materials  
2. Oil substance  
3. Electrical  
4. Hazardous materials (e.g., magnesium, flares)

EMERG Q . . . I am investigating an unknown contact bearing \_\_\_\_ ° T (distance \_\_\_\_ hundred yards).

EMERG R . . . I have submarine contact bearing \_\_\_\_ ° T (distance \_\_\_\_ hundred yards.)  
1. Reserved  
2. Reserved  
3. Reserved

EMERG S . . . Submarine (or periscope) sighted bearing \_\_\_\_ ° T (distance \_\_\_\_ hundred yards).

EMERG T . . . Torpedo detected or sighted bearing \_\_\_\_ ° T (distance \_\_\_\_ hundred yards).

EMERG U . . . You are standing into danger.

EMERG V (PORT or STBD) . . . . . Friendly aircraft crashed (close aboard to port or starboard as indicated) (or bearing \_\_\_\_ ° T (distance \_\_\_\_ nm)).

*Example: EMERG V PORT . . . Friendly aircraft crashed close aboard my port side.*

EMERG W . . . Disappearing radar contact detected bearing \_\_\_\_ ° T (distance \_\_\_\_ nm ).

EMERG X . . . Reserved.

EMERG Y . . . Reserved.

EMERG Z . . . Friendly submarine bearing \_\_\_\_ ° T (distance \_\_\_\_ nm).

**1803 Emergency Action Signals**

EMERG 0 . . . All ships scatter and move out at maximum speed on their present bearings from the Guide to a distance approximately 6,000 yards from the nearest ship.

EMERG 1 . . . Take individual avoiding action.

EMERG 2 . . . Cease all acoustic emissions.

EMERG 3 . . . Cease all electromagnetic emissions.

EMERG 4 . . . Cease fire. Do not fire.

EMERG 5 . . . Reserved.

EMERG 6 . . . Clear all sides using emergency breakaway procedure. (For use in an emergency during replenishment or other abeam operations.)





## CHAPTER 19

## Antiair Warfare Signals

AA1 . . . . . I am engaging (with \_\_\_\_ ) (track identity following DESIG).  
 1. Fighter-launched weapons  
 2. Long-range SAMs  
 3. Medium-range SAMs  
 4. Short-range SAMs  
 5. Guns

AA2 . . . . . Friendly aircraft detected bearing \_\_\_\_ ° T (distance \_\_\_\_ nm).

AA3 . . . . . Identification safety range (ISR) is standard (or \_\_\_\_ nm).

AA4 . . . . . Safety sector(s) for friendly aircraft is (are) as indicated:  
 (a) Number designator  
 (b) Origin  
 (c) Limiting range in nm  
 (d) Center bearing  
 (e) Width of sector in nm (2 digits) or degrees (3 digits)  
 (f) Limiting altitude  
 (g) Time

*Example: AA4—1 DESIG ZZ—60—120—020—50—20T08 . . . . . Safety sector for friendly aircraft is number 1, origin in the center of the force, limiting range 60 nm, center bearing 120° T, width 20°, limiting altitude 5,000 feet, and is activated from 0800 to 2000.*

AA5 . . . . . The threat assessed is \_\_\_\_ .

AA6 . . . . . Threat is ( \_\_\_\_ ) from sector \_\_\_\_ .  
 1. High  
 2. Medium  
 3. Low  
 4. Very low

*Example: AA6—1—2529 . . . . . Threat is high from sector between 260° and 290° true.*

AA7 . . . . . Weapon coordination method in force is \_\_\_\_ coordination.  
 1. Area  
 2. Zone

AA8 . . . . . Reserved.

AA9 . . . . . Reserved.

AA10 . . . . . Reserved.



## CHAPTER 20

## Anti-air Warfare Action Table

7A . . . . . Reserved.

7B . . . . . Reserved.

7C . . . . . Cease fire.

7D . . . . . Reserved.

7E . . . . . Engage ( \_\_\_\_ *List A*) (with \_\_\_\_ *List B*).

- | <i>List A</i>                    | <i>List B</i>               |
|----------------------------------|-----------------------------|
| 1. Center missile/aircraft       | A. Fighter-launched weapons |
| 2. Left-hand missile/aircraft    | B. Long-range SAMs          |
| 3. Missile/aircraft bearing ____ | C. Medium-range SAMs        |
| 4. Right-hand missile/aircraft   | D. Short-range SAMs         |
| 5. Track number following DESIG  | E. Guns                     |

7F . . . . . Weapons may open fire on any target not identified as friend (on/in \_\_\_\_).

1. Bearing \_\_\_\_ ° T
2. Sector \_\_\_\_
3. Track number or position \_\_\_\_
4. Until time \_\_\_\_

7G . . . . . Reserved.

7H . . . . . Hold fire (on/in \_\_\_\_).

1. Bearing \_\_\_\_ ° T
2. Sector \_\_\_\_
3. Track number or position \_\_\_\_
4. Until time \_\_\_\_

7I . . . . . Reserved.

7J . . . . . Reserved.

7K . . . . . Reserved.

7L . . . . . Reserved.

7M . . . . . Reserved.

7N . . . . . Reserved.

7O . . . . . Open fire (on bearing \_\_\_\_ ° T or in sector \_\_\_\_).

7P . . . . . Reserved.

7Q . . . . . Reserved.

7R . . . . . Reserved.

7S . . . . . Missile/aircraft splashed (shot down).

7T . . . . . Weapons are not to open fire unless target is identified as enemy (on/in \_\_\_\_ ).

1. Bearing \_\_\_\_ ° T
2. Sector \_\_\_\_
3. Track number or position \_\_\_\_
4. Until time \_\_\_\_

7U . . . . . Reserved.

7V . . . . . Reserved.

7W . . . . . Reserved.

7X . . . . . Reserved.

7Y . . . . . Reserved.

7Z . . . . . Reserved.

## CHAPTER 21

## Administration Signals

AD1 . . . . . Assist boat apparently in trouble on bearing \_\_\_\_° T from this ship, or unit or reference point indicated (range \_\_\_\_ hundred yards).

AD2 . . . . . Boat capsized or in danger bearing \_\_\_\_ from this ship, or unit or reference point indicated (range \_\_\_\_ hundred yards).

AD3 . . . . . Reserved.

AD4 . . . . . \_\_\_\_ (*List A*) is (are) to be \_\_\_\_ (*List B*).

- | <i>List A</i>  | <i>List B</i>               |
|--|-----------------------------|
| 1. All boats   | A. Turned out               |
| 2. All power boats                                     | B. Lowered to the waterline |
| 3. All pulling boats                                   | C. Slipped                  |
| 4. All sailing boats                                   |                             |
| 5. ____ boat(s) indicated by<br>DESIG following signal |                             |

AD5 . . . . . Send \_\_\_\_ (*List A*) (for \_\_\_\_ (*List B*)) to this unit or unit(s) indicated (sequence in order of call signs).

- | <i>List A</i>       | <i>List B</i>               |
|---------------------|-----------------------------|
| 1. Admin boat       | A. Admiral                  |
| 2. Admiral's barge  | B. Commanding officer       |
| 3. Armed boat       | C. Commodore/senior officer |
| 4. Captain's boat   | D. Liberty party            |
| 5. Commodore's boat | E. Mail                     |
| 6. Diving boat      | F. Mail (Classified)        |
| 7. Guard boat       | G. Mail (Officer Courier)   |
| 8. Helicopter       | H. Mail (Registered)        |
| 9. Hospital boat    | I. Material requested       |
| 10. Liberty launch  | J. Men                      |
| 11. Motor boat      | K. Movies                   |
| 12. Vehicle         | L. Officers                 |
|                     | M. Shore patrol             |
|                     | N. Stores                   |

AD6 . . . . . Suspend all boating (or hoist all \_\_\_\_).

1. Boats
2. Boats hoisted by cranes or booms
3. Power boats
4. Pulling boats
5. Small boats

AD7 . . . . . Reserved.

AD8 . . . . . Reserved.

AD9 . . . . . Routine (or \_\_\_\_ ) calls of flag and commanding officers may be dispensed with (considered paid and returned).

1. Official

- AD10 . . . . \_\_\_\_ ceremonially.
1. Anchor
  2. Cheer ship
  3. Fire a salute (number of guns following DESIG)
  4. Illuminate ship
  5. Man ship
  6. Parade band
  7. Parade band for entering (leaving) harbor
  8. Parade guard
  9. Parade guard and band
  10. Parade guard and band for entering (leaving) harbor
  11. Parade guard for entering (leaving) harbor

- AD11 . . . . \_\_\_\_ colors (at \_\_\_\_).
1. Clear
  2. Dip
  3. Half mast
  4. Haul down
  5. Haul down Jack (or do not hoist)
  6. Hoist
  7. Hoist Jack
  8. Rehoist
  9. Shift ensign to harbor position
  10. Shift ensign to sea position

- AD12 . . . . Size of colours (or \_\_\_\_ (*List A*)) is to be \_\_\_\_ (*List B*).
- |                     |                       |
|---------------------|-----------------------|
| <i>List A</i>       | <i>List B</i>         |
| 1. Admiral's flags  | A. Daily              |
| 2. Ensign           | B. Sunday/holiday     |
| 3. Jack             | C. Dress ship         |
| 4. Masthead flags   | D. Steaming           |
| 5. Masthead pennant | E. Storm              |
|                     | F. Size ____ (number) |

- AD13 . . . . Full dress ship (or \_\_\_\_).
1. Dress ships with ensigns at the masthead.
  2. Haul taut dressing lines.

AD14 . . . . Reserved.

AD15 . . . . Reserved.

AD16 . . . . Reserved.

- AD17 . . . . Dispatching casualty to you (type of injury \_\_\_\_ (*List A*)) (degree of injury \_\_\_\_ (*List B*)).

- |                                    |                     |
|------------------------------------|---------------------|
| <i>List A</i>                      | <i>List B</i>       |
| 1. No injury                       | A. Critical         |
| 2. Cranial/neck                    | B. Serious          |
| 3. Thoracic nonpenetrating         | C. Stretcher        |
| 4. Thoracic penetrating            | D. Ambulatory       |
| 5. Abdominal                       | E. Neuropsychiatric |
| 6. Pelvic                          |                     |
| 7. Soft tissue wounds              |                     |
| 8. Fracture, simple (closed)       |                     |
| 9. Fracture, compound (open)       |                     |
| 10. Electrical shock               |                     |
| 11. Burns (type preceded by DESIG) |                     |
| 12. Scald                          |                     |



AD30 . . . . Reserved.

AD31 . . . . Reserved.

AD32 . . . . Attention is called to publication, plan or operation order indicated by short title following DESIG. Paragraph number may be added.

AD33. . . . Orders, envelopes, or hand messages (lettered or numbered as indicated) are being distributed. Report by signal if not received by time or date indicated (or \_\_\_\_).  
1. Receipts will be called for by radio at \_\_\_\_ .  
2. Receipts will be called for by V/S at \_\_\_\_ .

*Example: AD33-1-18 DESIG BN135 . . . . Envelopes lettered BN135 are being distributed.  
Receipts will be called for by radio at 1800.*

AD34 . . . . Orders, envelopes, or hand messages (lettered or numbered as indicated) have been received.

AD35 . . . . Reserved.

AD36 . . . . Reserved.

AD37 . . . . Reserved.

AD38 . . . . Number of absentees is \_\_\_\_ (at \_\_\_\_ ).

AD39 . . . . Make \_\_\_\_ report.  
1. SITREP  
2. Progress of berthing/anchoring  
3. Progress of replenishment  
4. Progress of exercise/event presently being carried out  
5. Type in plain language following DESIG

AD40 . . . . Officer indicated following DESIG or his representative is requested to report on board this ship or unit indicated.

AD41 . . . . Reporting for duty.

AD42 . . . . Reserved.

AD43 . . . . Reserved.



## CHAPTER 22

## Antisubmarine Warfare Signals

- AS1 . . . . . Make \_\_\_\_ attack (with ASW weapon indicated following DESIG).  
 1. Deliberate  
 2. Urgent  
 3. Vector aircraft
- AS2 . . . . . Use attack method\* \_\_\_\_ indicated following DESIG.  
*\*The suffix H to the attack method designator indicates that helicopters are taking part.*
- AS3 . . . . . Reserved.
- AS4 . . . . . Reserved.
- AS5 . . . . . Reserved.
- AS6 . . . . . Reserved.
- AS7 . . . . . Set torpedoes to \_\_\_\_ (feet) floor, \_\_\_\_ (feet) ceiling, \_\_\_\_ (feet) initial search depth.
- AS8 . . . . . Set \_\_\_\_ (ASW weapon indicated following DESIG) to a depth of \_\_\_\_ feet.
- AS9 . . . . . ASW weapons are not to open fire unless target is identified as enemy in all sectors (or \_\_\_\_). (ASW weapon indicated following DESIG.)  
 1. Between bearings \_\_\_\_° T and \_\_\_\_° T from formation center  
 2. In sector(s) indicated
- AS10 . . . . . ASW weapon safety range is \_\_\_\_.
- AS11 . . . . . ASW weapons may open fire on any target not identified as friend in all sectors (or \_\_\_\_). (ASW weapon indicated following DESIG.)  
 1. Between bearings \_\_\_\_° T and \_\_\_\_° T from formation center  
 2. In sector(s) indicated
- AS12 . . . . . Reserved.
- AS13 . . . . . Reserved.
- AS14 . . . . . Designate and dispatch \_\_\_\_ search attack unit (SAU) (consisting of \_\_\_\_ number of units, figure followed by H indicates number of helicopters) to investigate contact or datum designation indicated following DESIG (bearing \_\_\_\_° T, distance \_\_\_\_ nm, from this unit or unit indicated). (Maximum speed is \_\_\_\_.)  
 1. Active  
 2. Active/passive at SAU commander's discretion  
 3. Passive

*Example: AS14—3—1—1H DESIG 1232—300—10—15 . . . Designate and dispatch passive SAU consisting of one ship and one helicopter to investigate contact or datum 1232, bearing 300° T, distance 10 nm from this unit. Maximum speed is 15 knots.*

- AS15 . . . . Leave present assignment to investigate \_\_\_\_ (bearing \_\_\_\_° T), (range \_\_\_\_).
1. Active sonar contact
  2. Passive sonar contact
  3. Periscope/snort
  4. Submerged object (following DESIG)
- AS16 . . . . Leave present assignment to investigate datum designation or track number indicated following DESIG in position \_\_\_\_ (position established at time \_\_\_\_).
- AS17 . . . . Terminate SAU ( \_\_\_\_ (*List A*)) ( \_\_\_\_ (*List B*)).
1. If not in contact
    - A. After \_\_\_\_ minutes
    - B. After a search to \_\_\_\_ nm from ZZ
- AS18 . . . . Assume command as SAU commander (or).
1. SAU commander is \_\_\_\_
- AS19 . . . . Form SAU and investigate \_\_\_\_ (bearing \_\_\_\_° T from this unit or unit indicated, distance \_\_\_\_).
1. Bottomed contact (in position \_\_\_\_ ) of unit indicated
  2. Contact
  3. Datum (following DESIG)
  4. Enemy (following DESIG)
  5. Submerged object (following DESIG)
- AS20 . . . . Assume command as scene-of-action commander (SAC) (or).
1. SAC is \_\_\_\_
- AS21 . . . . Detach and take position, no closer than \_\_\_\_ thousand yards to this unit or unit indicated, in a sector so as to intercept contact presently bearing \_\_\_\_° T, distance \_\_\_\_, from this unit or unit indicated. Avoid cavitation and maintain passive search.
- AS22 . . . . Cease passive search and commence active search. (Search bearings \_\_\_\_° T to \_\_\_\_° T), (range from \_\_\_\_ to \_\_\_\_ thousand yards).
- AS23 . . . . Predicted submarine intercept range of \_\_\_\_ is \_\_\_\_ hundred yards.
1. Self-radiated noise
  2. Short-range sonar
  3. Medium-range sonar
  4. Long-range sonar
- AS24 . . . . Bathythermograph. \_\_\_\_.
1. Assume bathythermograph guard duty (and report readings every \_\_\_\_ hour(s))
  2. Bathythermograph drop completed
  3. I am making bathythermograph drop
  4. Make bathythermograph drop and report reading
  5. Report bathythermograph reading

AS25 . . . . Bathythermograph readings are \_\_\_\_.\* Complete signal with as many five-digit groups as are needed to report significant points in the vertical gradient of sea water in multiples of ten feet/meters at which this temperature occurs. The last three digits of each group indicate water temperature to the nearest tenth of a degree of Fahrenheit/Celsius. For depths of less than 100 feet/meters, the first of the five digits of each group will be zero. To report depths greater than 990 feet/meters, separation groups of 99901, 99902, and so on shall be used to indicate that the depths following are between 1,000 to 1,990 feet/meters, 2,000 to 2,990 feet/meters, and so on, respectively. To report negative degrees Celsius, 50 is added to the absolute value of each negative reading (e.g.,  $-1.3 = 50 + |-1.3| = 50 + 1.3 = 513$ ). The final group of the signal indicates the time of the bathythermograph reading.

*\*DESIG C indicates depths are in meters and temperatures are in degrees Celsius.*

*Example: AS25—00602—09602—45565—99901@ 15100543—99902—35501—1245 . . . The sea is 60.2 °F at the surface; 60.2 °F at 90 feet; 56.5 °F at 450 feet; 54.3 °F at 1,000 feet; and 50.1 °F at 2,350 feet. The reading was taken at 1245.*

*AS25—00513—03509—13038—32078—2145 DESIG C . . . The sea is negative 1.3 °C at the surface; negative 0.9 °C at 30 meters; 3.8 °C at 130 meters; and 7.8 °C at 320 meters. The reading was taken at 2145.*

AS26 . . . . Convergence zone \_\_\_\_ annulus range is (inner) \_\_\_\_ thousand yards (outer) \_\_\_\_ thousand yards.

1. First
2. Second
3. Third
4. Bottom bounce

AS27 . . . . Predicted sonar ranges for all sonars of this unit or for unit(s) indicated are as indicated in hundred yards. (Sonar range predictions are for the speed in knots indicated following DESIG).

1. Minimum and maximum above the layer depth
2. In the layer
3. Minimum for a maximum target depth of \_\_\_\_ feet and maximum for a minimum target depth of \_\_\_\_ feet
4. Minimum and maximum below the layer depth for a hull-mounted sonar or below the VDS sonar sound channel
5. Inner and outer edges of convergence zone
6. Horizontal range to first bottom bounce zone

*Minimum ranges are related to the least favorable aspect of the submarine, maximum ranges to the most favorable aspect.*

*Example: AS27—1—70—160—2—3015 13—120—600—30—100—4—60—90—5—260—300 DESIG 10 . . . Predicted sonar ranges for all the sonars of this unit are: between 7,000 and 16,000 yards above the layer depth; 3,000 yards in the layer; greater than 12,000 yards on a submarine at a depth of 600 feet and no more than 3,000 yards on a submarine at a depth of 100 feet; between 6,000 and 9,000 yards below the VDS sonar sound channel; and the convergence zone spreads from 26,000 to 30,000 yards. Sonar range predictions are for a speed of 10 knots.*

AS28 . . . . Tactical sonar range for this unit or unit(s) indicated (or \_\_\_\_ ) is \_\_\_\_ hundred yards.

1. Helicopters
2. Ships

AS29 . . . . Unit(s) indicated is (are) to make sonar range predictions for speed(s) of \_\_\_\_ knots.

AS30 . . . . Layer depth is \_\_\_\_ feet.

AS31 . . . . Aircraft has indicated by \_\_\_\_ contact with a submarine (bearing \_\_\_\_ ° T from this unit or unit indicated, distance \_\_\_\_ nm) (or in position \_\_\_\_ ) at time \_\_\_\_ .

1. Behavior
2. IFF
3. Radio
4. Visual

AS32 . . . . Contact is as indicated.

- (a) Designation
- (b) Position
- (c) Time of latest report
- (d) Source of information is \_\_\_\_ contact (*List A*) ( \_\_\_\_ (*List B*))

*List A*

*List B*

- |                                 |                         |
|---------------------------------|-------------------------|
| 1. Disappearing radar           | A. Active               |
| 3. MAD                          | B. Passive (broadband)  |
| 4. Radar                        | C. Passive (narrowband) |
| 5. Sonar                        |                         |
| 6. Sonobuoy                     |                         |
| 7. Towed array                  |                         |
| 8. Visual                       |                         |
| 9. Other (type following DESIG) |                         |
- (e) Classification

AS33 . . . . Depth of submarine is \_\_\_\_ feet.

AS34 . . . . Aircraft holds contact on \_\_\_\_ (bearing \_\_\_\_ ° T from this unit or unit indicated, range \_\_\_\_ thousand yards).

- |                              |                                 |
|------------------------------|---------------------------------|
| 1. Active sonobuoys          | 6. Passive sonar                |
| 2. Active sonar              | 7. Radar                        |
| 4. Infrared detection system | 8. Visual                       |
| 5. MAD gear                  | 9. Other (type following DESIG) |

AS35 . . . . Submarine indications are \_\_\_\_ (in position \_\_\_\_).

**TOWED ARRAYS, HYDROPHONES,  
or SONOBUOYS**

1. Fast propeller noise
2. Slow propeller noise
3. Can hear submerged signals
4. Can hear echo sounder signals
5. Receipt of submarine attack signals or underwater telephone
6. Discreet frequencies associated with nonfriendly submarine
7. Discreet frequencies associated with friendly submarine

**RADAR**

8. Periscope (or snort) radar echo
9. Disappearing radar echo
10. ....
11. ....
12. ....
13. ....

**SIGHTING**

14. Conning tower (or wake) was seen
15. Snort (or periscope) was seen
16. Diving swirl was seen
17. Oil (or flotsam) was seen
18. ....
19. ....
20. ....

**SONAR**

21. Doppler effect is present

**SONAR (Cont.)**

22. Plot and/or recorders indicate likely movement
23. Recorder trace is satisfactory
24. Echo sounds good
25. Extent of target is satisfactory
26. Bottomed target appears to be shaped like a submarine
27. ....
28. ....
29. ....
30. ....

**SEARCH RECEIVERS and  
DIRECTION FINDERS**

31. Characteristics were those of submarine radar
32. Characteristics were those of submarine VHF voice
33. Characteristics were those of submarine VHF radiotelegraph
34. Interception classified definite ground wave and bearing was accurate
35. Procedure used was probably that of a submarine
36. Preliminary call (or dying out signal) was heard
37. ....
38. ....
39. ....
40. ....

AS36 . . . . Movement of submarine is \_\_\_\_ .

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Accelerating</li> <li>2. Ascending</li> <li>3. Backing down</li> <li>4. Closing this unit or unit indicated</li> <li>5. Diving</li> </ol> | <ol style="list-style-type: none"> <li>6. In hard turn (direction indicated by PORT/STBD)</li> <li>7. Opening this unit or unit indicated</li> <li>8. Slowing</li> <li>9. Stopping</li> <li>10. Surfacing</li> </ol> |
|---|--|

AS37 . . . . Submarine's position was obtained by \_\_\_\_ (*List A*) (of \_\_\_\_ (*List B*)) (and is accurate within \_\_\_\_ nm).

- |   |   |  |
|---|---|--|
| <p style="text-align: center;"><i>List A</i></p> <ol style="list-style-type: none"> <li>1. Bistatics</li> <li>2. Cross-fixing, passive</li> <li>3. Direction finding</li> <li>5. MAD</li> <li>6. Radar</li> <li>7. Sighting</li> <li>8. Sonar, active</li> <li>9. Sonar, passive</li> </ol> | <ol style="list-style-type: none"> <li>10. Sonobuoy, active</li> <li>11. Sonobuoy, passive directional</li> <li>12. Towed array</li> <li>13. Unknown</li> <li>14. Other (type following DESIG)</li> </ol> | <p style="text-align: center;"><i>List B</i></p> <ol style="list-style-type: none"> <li>A. Helicopter</li> <li>B. Patrol aircraft</li> <li>C. Shore</li> <li>D. Surface ship</li> <li>E. Submarine</li> <li>F. Unknown</li> <li>G. Other (type following DESIG)</li> </ol> |
|---|---|--|

- AS38 . . . . Screw count is \_\_\_\_ rpm (on \_\_\_\_ shaft(s)).
- AS39 . . . . Sonobuoy is \_\_\_\_ ( \_\_\_\_ designation of sonobuoy).  
 1. In contact  
 2. Not in contact  
 3. Operating efficiently  
 4. Not operating efficiently
- AS40 . . . . Reserved.
- AS41 . . . . Reserved.
- AS42 . . . . Stream/launch protective devices (or/at \_\_\_\_ ). NEGAT means: "Recover device already streamed."  
 1. Noisemakers  
 2. Torpedo decoys  
 3. Long stay  
 4. Short stay  
 5. \_\_\_\_ feet
- AS43 . . . . Take torpedo defensive measures indicated.  
 1. According to intentions (or plan \_\_\_\_ )  
 2. For closing to attack with short-range weapons  
 3. On entering the torpedo danger area  
 4. Operate torpedo decoys  
 5. Operate torpedo detection equipment  
 6. When submarine is detected within torpedo danger zone
- AS44 . . . . Suspect that submarine has fired torpedo (in position \_\_\_\_ ). Keep clear of this area for 15 minutes and take appropriate defensive measures. Three numerals may be added to indicate estimated initial course of torpedo.
- AS45 . . . . Operate ship's self-generated noise-reduction equipment (masking devices).
- AS46 . . . . Reserved.
- AS47 . . . . Reserved.
- AS48 . . . . Condition of \_\_\_\_ (*List A*) is \_\_\_\_ (*List B*) (until \_\_\_\_ ).  

<i>List A</i>	<i>List B</i>
1. Helicopter sonar	A. Fully operational
2. Hull sonar	B. Capable of omnidirectional transmissions only
3. Onboard ASW processor	C. Capable of passive operation only
4. Towed array	D. Capable of reduced power operation
5. VDS	E. Incapable of being operated
- AS49 . . . . Domes/VDS transducers. \_\_\_\_ .  
 1. Lower domes  
 2. Raise domes  
 3. Lower VDS transducer to depth desired (or to a depth of \_\_\_\_ feet)  
 4. Lower VDS transducer to a maximum depth of \_\_\_\_ feet  
 5. Recover VDS transducer
- AS50 . . . . Frequency of sonar equipment is \_\_\_\_ kiloHertz.

AS51 . . . . Ambient noise at \_\_\_\_ decaHertz is \_\_\_\_ decibels. Complete signal with as many six-digit groups as are needed to report significant ambient noise levels at various frequencies. The first three digits of each group indicate frequency in decaHertz (10 Hertz) at which the measurements were taken. The last three digits of each group indicate the noise level in decibels (dB) with reference to 1 microPascal. For frequencies less than 1,000 Hertz, the first digit shall be zero and for frequencies less than 100 Hertz, the first two digits shall be zero. For noise levels less than 100 dB, the first digit shall be zero. The last group in the signal indicates the time of the ambient noise measurement.

*Example: AS51—005101—010081—020070—100 062—1315 . . . The ambient noise level at 50 Hertz is 101 dB, at 100 Hertz it is 81 dB, at 200 Hertz it is 70 dB, and at 1,000 Hertz it is 62 dB. The time the measurement was taken is 1315.*

AS52 . . . . Use ASW lights (or \_\_\_\_ ).  
 1. Use all around red masthead lights  
 2. Use special ASW lights

AS53 . . . . Stop main and auxiliary machinery for 2 minutes (or \_\_\_\_ minutes) in order to make passive search.

AS54 . . . . Transmit on VDS transducer at depth desired (or at a depth of \_\_\_\_ feet).

AS55 . . . . Sonar operation is as indicated:  
 1. Operate sonar emission equipment in accordance with standard instructions.  
 2. Operate sonar emission equipment for tuning, maintenance, and calibration.  
 3. Sonar emission equipment may be used for navigation.  
 4. Silence all sonar emission equipment.  
 5. Energize VDS transducer.  
 6. De-energize VDS transducer.  
 7. Operation of fathometer is authorized.  
 8. Operation of noisemaker is authorized.  
 9. Operation of underwater telephone is authorized.

AS56 . . . . Set sonar watch (or \_\_\_\_ ). Numerals following indicate frequency in kiloHertz.  
 1. Combined listening/echo watch  
 2. Echo sweep  
 3. For communication purposes with ship in company or with ship(s) or unit(s) indicated  
 4. For communication purposes with submarine(s)  
 5. Listening watch  
 6. To assist in navigation

AS57 . . . . Unable to operate sonar equipment effectively (due to \_\_\_\_ ). (Equipment type may be indicated following DESIG.)  
 1. Excessive self-noise  
 2. High speed  
 3. Interference caused by you or unit indicated  
 4. Marine life  
 5. Shallow water  
 6. Shipping density  
 7. Station in the formation  
 8. Weather conditions

AS58 . . . . Unable to use ASW weapon(s) (until \_\_\_\_ ).

AS59 . . . . \_\_\_\_ towed acoustic arrays or other devices.  
 1. Stream  
 2. Recover

AS60 . . . . Sonar mode of operation is \_\_\_\_ .  
 1. Convergence zone  
 2. Bottom bounce

AS61 . . . . Reserved.

AS62 . . . . Carry out ASW practice number \_\_\_\_ (for \_\_\_\_ minutes).

AS63 . . . . Fire \_\_\_\_ explosive signal charges.

AS64 . . . . Order submarine to \_\_\_\_ (*List A*) by any means (or by \_\_\_\_ (*List B*)).

- | <i>List A</i>   | <i>List B</i>                 |
|---|-------------------------------|
| 1. Close this unit or unit indicated to facilitate communications | A. Explosive signal           |
| 2. Come to communications depth                                   | B. Radio                      |
| 3. Indicate her position  | C. Sonar signaling (SST)      |
| 4. Remain at safe depth   | D. Underwater telephone (UWT) |
| 5. Steer safety course  |                               |
| 6. Surface  |                               |

AS65 . . . . Proceed clear of submarine (and \_\_\_\_ ).

1. Maintain cavitation speed
2. Maintain speed of at least 12 knots
3. Operate at a speed avoiding cavitation
4. Stop engines and tap hull

AS66 . . . . For submarine safety reasons, length of VDS cable is not to exceed \_\_\_\_ feet.

AS67 . . . . Submarine safety course is \_\_\_\_ .

AS68 . . . . Have sighted \_\_\_\_ .

- |                              |                         |
|------------------------------|-------------------------|
| 1. Recognition flare, red    | 6. Submarine markers    |
| 2. Submarine grenade, black  | 7. Torpedo tracks       |
| 3. Submarine grenade, green  | 8. Water shot           |
| 4. Submarine grenade, red    | 9. White smoke candle   |
| 5. Submarine grenade, yellow | 10. Yellow smoke candle |

AS69 . . . . Submerge (or submerge to \_\_\_\_ depth).

1. Communication
2. Exercise
3. Periscope
4. Snort
5. \_\_\_\_ feet

AS70 . . . . Surface (or come to \_\_\_\_ depth).

1. Communication
2. Exercise
3. Periscope
4. Snort
5. \_\_\_\_ feet

AS71 . . . . Take submarine diving station.

AS72 . . . . Take submarine surfacing station.

AS73 . . . . My diving course or submarine diving course is \_\_\_\_ .



AS74 . . . . Unit responsible for surfacing submarine is \_\_\_\_ .

AS75 . . . . Dive for serial \_\_\_\_ . Report when ready to start the exercise.

AS76 . . . . COMEX time is \_\_\_\_ .

AS77 . . . . Reserved.

AS78 . . . . Reserved.

AS79 . . . . Reserved.

### Flag Signals for Submarine and Antisubmarine Exercises

#### a. Safety Precautions and Control Signals.

SIGNAL	USED BY	MEANING
CODE NE2	Any ship	You should proceed with great caution; submarines are exercising in this area.

#### b. Tactical and Informative Signals (not concerned with safety precautions).

SIGNAL	USED BY	MEANING
Flag FOUR over Flag SEVEN	Target ship for submarine attack.	Open to attack by submarine. Torpedoes may be fired in accordance with exercise order.
Flag FOUR over Flag FOUR (displayed on both sides)	Target ship for submarine attack.	Open to attack by submarines. Torpedoes must <i>not</i> be fired.
Flag QUEBEC	Submarine	Disregard me. I am not open to attack. I am not to be reported.

#### c. Submarine Pyrotechnic Signals.

RED Grenade or Emergency Identification Signal	EMERGENCY. Submarine in serious trouble and will surface immediately if possible. Ships are to clear area immediately and stand by to render assistance.
YELLOW or WHITE Smoke or Flare	Submarine coming to surface or periscope depth. Ships are to clear the immediate vicinity and maintain cavitation speed.
GREEN Flare	Submarine attack signal.
NOTE: If an unexpected signal, other than a GREEN signal, is sighted by ASW units, they are to anticipate an emergency surfacing.	



AS91 . . . . Sonobuoy number(s) \_\_\_\_\_ is (are) located bearing \_\_\_\_\_° T from this or unit indicated range \_\_\_\_\_ thousand yards.

AS92 . . . . Search for submarine at datum \_\_\_\_\_ datum time \_\_\_\_\_ .

AS93 . . . . Conduct \_\_\_\_\_ sonar search (between bearings \_\_\_\_\_° T and \_\_\_\_\_° T) (on bearing \_\_\_\_\_° T).  
 1. Active  
 2. Passive

AS94 . . . . Submarine's limiting courses and speeds are as indicated.

1. Limiting courses are \_\_\_\_\_° T to \_\_\_\_\_° T
2. Limiting speeds are \_\_\_\_\_ to \_\_\_\_\_

*Example: AS94—1—270—300—2—12— 18 . . . Submarine's limiting courses and speeds are 270° T to 300° T and 12 to 18 knots.*

AS95 . . . . Reserved.

AS96 . . . . Carry out air plan\* \_\_\_\_\_ indicated following DESIG. Give details of plan by numeral and/or letter groups following in the order given in the plan. Substitute NEGAT for groups omitted.

*\*The suffix H to the plan designator indicates that helicopters are taking part.*

AS97 . . . . Reserved.

AS98 . . . . Reserved.

AS99 . . . . Carry out intercepting search (from \_\_\_\_\_ ).

1. Ahead
2. Astern
3. PORT or STBD flank as indicated and away from reported target position
4. PORT or STBD flank as indicated and towards expected target position

AS100. . . . For \_\_\_\_\_ search, carry out ASW search plan indicated following DESIG.

1. Area
2. Bottom
3. Intercept
4. Lost contact

AS101. . . . Repeat search using previously assigned search center(s) (or use search center bearing \_\_\_\_\_° T distance \_\_\_\_\_ hundred yards from datum).

AS102. . . . Search center is \_\_\_\_\_ at zero time \_\_\_\_\_ ( \_\_\_\_\_ ). Search center must be located by a specific reference point.

1. And is marked with a smoke marker

AS103. . . . Carry out ASW search plan\* \_\_\_\_\_ indicated following DESIG. Give details of plan by numeral and/or letter groups following in the order given in the plan. Substitute NEGAT for groups omitted.

*\*The suffix H to the plan designator indicates that helicopters are taking part.*

AS104. . . . Reserved.

AS105. . . . Carry out support method\* \_\_\_\_\_ indicated following DESIG. Give details of plan by numeral and/or letter groups following in the order given in the plan. Substitute NEGAT for groups omitted.

*\*The suffix H to the method designator indicates that helicopters are taking part.*

AS106. . . . Reserved.

AS107. . . . Reserved.

AS108. . . . Reserved.

AS109. . . . Reserved.

AS110. . . . Reserved.

AS111. . . . Reserved.

AS112. . . . Reserved.

## CHAPTER 23

## Antisubmarine Warfare Action Table

1A . . . . . I am the \_\_\_\_\_ (geographic sector preceded by DESIG).

1. Attacking ship
2. Assisting ship
3. Directing ship

*Example: 1A1 DESIG NW . . . I am the attacking ship in the northwest sector.*

1B . . . . . Assume duties of \_\_\_\_\_ (geographic sector preceded by DESIG).

1. Attacking ship
2. Assisting ship
3. Directing ship

1C . . . . . In event of lost contact, units are to carry out search plan \_\_\_\_ indicated following DESIG.

1D . . . . . Attack. \_\_\_\_\_ (PORT/STBD).

1. I am ready to attack (with ASW weapon following DESIG)
2. I am commencing attack (with ASW weapon following DESIG) (safety range is \_\_\_\_\_)
3. Stand by for weapon firing (with ASW weapon following DESIG) (bearing \_\_\_\_\_° T), (range \_\_\_\_\_)
4. Attack completed (firing bearing \_\_\_\_\_° T), (firing range \_\_\_\_\_)
5. Attack aborted

1E . . . . . Conduct attack (with ASW weapon following DESIG).

1F . . . . . I am holding sonobuoy contact bearing \_\_\_\_\_° T from this unit or position indicated (range \_\_\_\_\_ thousand yards).

1G . . . . . I am maneuvering to maintain ( \_\_\_\_\_ ) contact.

1. Convergence zone
2. Bottom bounce

1H . . . . . I am holding radar contact bearing \_\_\_\_\_° T from this unit or position indicated at range \_\_\_\_\_ hundred yards (believed to be \_\_\_\_\_).

1. Snorkel or periscope
2. Submarine

1I . . . . . I am experiencing acoustic interference. Request unit or units indicated to \_\_\_\_\_.

1. Go passive
2. Open range from this unit
3. Change sonar frequency

1J . . . . . Passive sonar contact ( \_\_\_\_\_ evaluation ) ( \_\_\_\_\_ bearing from this or unit indicated).

1. Torpedo
2. Possible submarine
4. Surface vessel low speed
5. Surface vessel high speed
6. Undetermined

1K . . . . . Submarine aspect is \_\_\_\_ (PORT/STBD).

- 1. Bow
- 2. Beam
- 3. Quarter
- 4. Stern

1L . . . . . I am holding an active sonar contact (bearing \_\_\_\_°) from this unit (range \_\_\_\_ hundred yards) (or in position indicated).

1M . . . . . Reserved.

1N . . . . . I have \_\_\_\_ (List A) ( \_\_\_\_ type (List B)) underwater communications with submarine.

- |                 |               |
|-----------------|---------------|
| <i>List A</i>   | <i>List B</i> |
| 1. Good         | A. Voice      |
| 2. Weak         | B. CW         |
| 3. Fading       | C. RATT       |
| 4. Garbled      | E. IACS       |
| 5. Intermittent |               |
| 6. No           |               |

1O . . . . . Keep clear of this unit or unit indicated or position indicated (or \_\_\_\_).

- 1. Contact (bearing \_\_\_\_° T from me, range \_\_\_\_ hundred yards)
- 2. Operational stand-off range
- 3. Emergency stand-off range
- 4. Sonobuoy field (bearing \_\_\_\_° T from me, range \_\_\_\_ hundred yards)

1P . . . . . Submarine's bearing, range, depth, course, and speed are as indicated from this unit or unit indicated.

- (a) Bearing
- (b) Range in hundreds of yards
- (c) Depth in tens of feet
- (d) Course
- (e) Speed
- (f) Time

1Q . . . . . Operate sonar as desired (or in \_\_\_\_).

- 1. Passive mode
- 2. Active mode

1R . . . . . I have a \_\_\_\_ (List A) sonar contact (on \_\_\_\_ (List B)).

- |                       |                         |
|-----------------------|-------------------------|
| <i>List A</i>         | <i>List B</i>           |
| 1. Reserved           | 9. Mine-like            |
| 2. Reserved           | 10. Sea bottom          |
| 3. Reserved           | 11. Sonar jammer        |
| 4. Reserved           | 12. Surface vessel      |
| 5. Nonsubmarine       | 13. Torpedo             |
| 6. Bottomed submarine | 14. Wake                |
| 7. Decoy              | 15. Wreck               |
| 8. Marine life        |                         |
|                       | A. Active               |
|                       | B. Passive (broadband)  |
|                       | C. Passive (narrowband) |

1S . . . . . Consider your present contact is a submarine (or \_\_\_\_).

- |                       |                    |
|-----------------------|--------------------|
| 1. Reserved           | 9. Mine-like       |
| 2. Reserved           | 10. Sea bottom     |
| 3. Reserved           | 11. Sonar jammer   |
| 4. Reserved           | 12. Surface vessel |
| 5. Nonsubmarine       | 13. Torpedo        |
| 6. Bottomed submarine | 14. Wake           |
| 7. Decoy              | 15. Wreck          |
| 8. Marine life        |                    |

- 1T . . . . . Take station \_\_\_\_ .
1. (Bearing \_\_\_\_ ° T) from this or unit indicated, (range \_\_\_\_ thousand yards)
  2. From this unit on circle, radius \_\_\_\_ thousand yards
  3. From contact on circle, radius \_\_\_\_ thousand yards
  4. In sector(s) indicated
- 1U . . . . . Sonar contact is firm (or \_\_\_\_ ).
1. Strong
  2. Medium
  3. Weak
  4. Fading
  5. Intermittent
- 1V . . . . . Doppler effect is estimated as \_\_\_\_ ( \_\_\_\_ knots).
1. Away/down
  2. Toward/up
  3. None
- 1W . . . . . Submarine has released (or is releasing) decoy of \_\_\_\_ target type.
1. Hydrophone
  2. Noisemaker
  3. Radar
  4. Sonar echo
- 1X . . . . . Submarine is under me or ship indicated (or \_\_\_\_ ).
1. Close to my PORT or STBD side as indicated
  2. Close astern
- 1Y . . . . . I have lost contact (contact last held bearing \_\_\_\_ ° T, range \_\_\_\_ hundred yards).
- 1Z . . . . . Break off. The operation is to be discontinued and ships are to maneuver to avoid collision, resuming the action as soon as practicable.





## CHAPTER 24

## Aircraft Signals

AV7 . . . . Aircraft in distress (is/has \_\_\_\_). DESIG followed by numeral(s) indicates number of personnel in aircraft.

1. Ditched
2. Forced down
3. Engine failure
4. Flying control failure
5. On fire
6. Overdue
7. Showing IFF distress

*Example: AV7—1 DESIG 4 . . . Aircraft in distress has ditched. Four personnel on board.*

AV10 . . . . Number of occupants rescued from crashed aircraft is \_\_\_\_ . State of health is \_\_\_\_ .

- A. Unhurt
- B. Slightly injured
- C. Seriously injured
- D. Dead

*Example: AV10—4A . . . Four persons rescued from crashed aircraft are unhurt.*

AV16 . . . . Carry out flight operations.

AV17 . . . . Intend to conduct helicopter operations. Time signal should be used to indicate commencement of operations.

AV26 . . . . Progress of aircraft (fixed-wing or helicopter) operations is as indicated:

1. I am ready to operate fixed-wing aircraft when wind conditions are suitable.
2. I am ready to operate helicopters when wind conditions are suitable.
3. I am operating fixed-wing aircraft.
4. I am operating helicopters.
5. I have \_\_\_\_ fixed-wing aircraft to launch (and \_\_\_\_ to recover).
6. I have \_\_\_\_ helicopter to launch (and \_\_\_\_ to recover).
7. I have \_\_\_\_ fixed-wing aircraft to launch (and \_\_\_\_ to recover) on out-of-wind course.
8. My flight operations have been delayed (about 10 minutes).
9. My flight operations have been suspended (a time signal indicates estimated time of resumption).
10. I have completed operating fixed-wing aircraft.
11. I have completed operating helicopters.
12. I have extended fixed-wing operations until \_\_\_\_ .
13. I have extended helicopter flight operations until \_\_\_\_ .
14. I am ready to operate helicopter on \_\_\_\_ minutes notice (type following DESIG).
15. I am carrying out a helicopter test flight.

*Examples: AV26—5—6—2 . . . . I have 6 fixed-wing aircraft to launch and 2 to recover.*

## EMERGENCY LANDING SIGNALS FROM AIRCRAFT

Signal

Meaning

Series of SHORT flashes . . . . . Require IMMEDIATE emergency landing.

Series of LONG flashes . . . . . Require emergency landing but can accept short delay.

AV27 . . . . Helicopter status is \_\_\_\_ .

- 1. Alert ( \_\_\_\_ minutes)
- 2. Airborne
- 3. Down for routine maintenance
- 4. Down for repair

AV28 . . . . Take action as indicated.

AV29 . . . . Time required into the wind will be \_\_\_\_ minutes.

AV30 . . . . I am unable to operate aircraft due to \_\_\_\_ . A time signal indicates expected time of operation. Numeral(s) following DESIG indicates number of aircraft waiting to land or take off.

- 1. Damage
- 2. Reserved
- 3. Foul deck
- 4. Lack of wind
- 5. Maintenance
- 6. Motion of ship
- 7. Weather

## CHAPTER 25

## Communication Signals

CM1 . . . . . Close down radio watch (on \_\_\_\_ MegaHertz or circuit indicated following DESIG).

CM2 . . . . . I am not in radio communication (or difficulties exist) with you or unit indicated (on \_\_\_\_ MegaHertz or circuit indicated following DESIG) (action to be taken \_\_\_\_).

1. Check your transmitter
2. Check your receiver
3. Check for steady key

*Example: CM2 DESIG 253 DECIMAL 4—1 . . . I am not in radio communication with you on 253.4 MegaHertz. Check your transmitter.*

CM3 . . . . . Visual watch. \_\_\_\_ .

1. Maintain continuous visual watch
2. Maintain visual watch as ordered
3. Secure visual watch from sunset to sunrise
4. Secure visual watch (from \_\_\_\_ to \_\_\_\_ )
5. Set visual watch

CM4 . . . . . Establish communications with me or unit indicated by \_\_\_\_ (*from CM6 list*).

CM5 . . . . . Establish radio communications with me or unit indicated (on \_\_\_\_ MegaHertz).

CM6 . . . . . Use \_\_\_\_ method.

1. Facsimile	10. Reserved
2. Flaghoist	11. Voice radio
3. Flashing light	12. Radioteletype
4. Reserved	13. Semaphore
5. Reserved	14. Reserved
6. Reserved	15. Sonar
7. Loudhailer	16. Underwater telephone
8. Reserved	17. VHF bridge-to-bridge (channel ____ )
9. Reserved	18. Reserved

*Example: CM6—12—CM12—1—525 . . . Use radioteletype frequency 525 kiloHertz.*

CM7 . . . . . Maintain radio watch (on \_\_\_\_ MegaHertz or circuit indicated following DESIG).

CM8 . . . . . Shift frequency on this or circuit indicated (to \_\_\_\_ ).

1. Primary frequency
2. Secondary frequency
3. Line number (following DESIG)
4. Frequency \_\_\_\_ MegaHertz (following DESIG)
5. Channel (following DESIG)

*Example: CM8—245 DECIMAL 8—CM12—2 . . . Shift frequency on this circuit to 245.8 MegaHertz.*

CM9 . . . . Communication plan in force (at \_\_\_\_ ) is as indicated following DESIG. Frequency column letter/identifier of communication plan is \_\_\_\_ (specified if necessary).

CM10 . . . . Shift to frequencies from column \_\_\_\_ (following DESIG) in present communication plan.

CM11 . . . . Expedite signals by \_\_\_\_ .

1. Acknowledging more promptly	4. Reserved
2. Answering more promptly	5. Reserved
3. Reserved	6. Reserved

CM12 . . . . Frequency in \_\_\_\_ Hertz is \_\_\_\_ .

1. Kilo
2. Mega
3. Giga

CM13 . . . . Groups from International Code of Signals (indicated following INTERCO) have been used for the following (number of groups).

## CHAPTER 26

## Command Signals

CO1 . . . . . You are assigned to this unit or unit indicated.

CO2 . . . . . Assume command (as \_\_\_\_ ).

- |   |   |
|---|---|
| 1. Reserved                                 | 7. Officer conducting the serial (OCS)    |
| 2. Reserved                                 | 8. Task group commander (CTG)             |
| 3. Reserved                                 | 9. Scene of action commander (SAC)        |
| 4. Reserved                                 | 10. Reserved                              |
| 5. Helicopter attack group commander (HAGC) | 11. Search attack unit commander (SAUC)   |
| 6. Officer conducting exercise (OCE)        | 12. Surface action group commander (SAGC) |

CO3 . . . . . Command as \_\_\_\_ (*from CO2 list*) is held in this unit or unit indicated.

CO4 . . . . . Comply with my message (or message \_\_\_\_ ).

CO10 . . . . . Assume \_\_\_\_ organization (number \_\_\_\_ , or as indicated by call sign following DESIG).

1. Task
2. Type

CO14 . . . . . Assume (or \_\_\_\_ ) tactical command of this unit or unit indicated.

1. I am assuming
2. I have resumed

*Example: CO14—1 DESIG ABC . . . I am assuming tactical command of ship ABC.*

CO15 . . . . . Assume (or \_\_\_\_ ) tactical control of this unit or unit indicated.

1. I am assuming
2. I have resumed

CO16 . . . . . Take charge ( \_\_\_\_ ).

1. And conduct the exercise
2. And proceed as previously directed
3. And proceed to port
4. And proceed out of port
5. Of force (or \_\_\_\_ ) and maneuver as necessary for flying operations
6. Of force (or \_\_\_\_ ) for maneuvers
7. Of operations

*Example: CO16—2 . . . Take charge and proceed as previously directed.*



## CHAPTER 27

## Entry and Departure

ED1 . . . . . Anchor is \_\_\_\_\_. PORT or STBD (or DESIG \_\_\_\_ ) may be added to indicate which anchor is to be used.

- |                  |              |
|------------------|--------------|
| 1. At short stay | 5. Lost      |
| 2. Clear         | 6. Recovered |
| 3. Dragging      | 7. Secured   |
| 4. Foul          | 8. Slipped   |

ED2 . . . . . Anchor ( \_\_\_\_ ). PORT or STBD (or DESIG \_\_\_\_ ) may be added to indicate which anchor is to be used.

- |   |  |
|---|--|
| 1. At your discretion                             | 9. In present sequence   |
| 2. In accordance with previous instructions       | 10. In succession from the rear                                      |
| 3. In any unoccupied berth                        | 11. Let go another anchor  |
| 4. In berth ____                                  | 12. On account of fog  |
| 5. In berths previously assigned                  | 13. On bearing ____° T from ship indicated (distance ____ nm)        |
| 6. In berths previously occupied                  | 14. On line of bearing ____ (range between ships ____ hundred yards) |
| 7. In formation (number ____ )                    |  |
| 8. In present position (or in position indicated) |  |

ED3 . . . . . Anchor bears \_\_\_\_ range \_\_\_\_ hundred yards from my foremast. PORT or STBD (or DESIG \_\_\_\_ ) may be added to indicate which anchor is referred to.

ED4 . . . . . Set anchor watch.

ED5 . . . . . Bottom is \_\_\_\_ .

- |                    |                |
|--------------------|----------------|
| 1. Clay            | 6. Pebbles     |
| 2. Coral           | 7. Rock, rocky |
| 3. Covered in weed | 8. Sand        |
| 4. Hard            | 9. Shells      |
| 5. Mud             | 10. Soft       |

ED6 . . . . . Cast or point ship (to PORT or STBD) (or \_\_\_\_ ).

1. As required
2. To course

ED7 . . . . . SHIP is at anchor/moored (using \_\_\_\_ anchor) (anchor position/berth following DESIG).

1. Bow
2. Port
3. Starboard
4. Stern

ED8 . . . . . Have foul hawse. A time signal indicates time at which it is expected hawse will be cleared.

ED9 . . . . . I am unable to kedge off (or \_\_\_\_ ).

1. Kedge is clear
2. Kedge is foul

ED10 . . . . Moor, with anchors, ( \_\_\_\_ ). PORT or STBD may be used to indicate which anchor is to be let go first.

- |   |  |
|---|--|
| 1. At your discretion                       | 4. In berth ____                               |
| 2. In accordance with previous instructions | 5. In berths previously assigned               |
| 3. In any unoccupied berth                  | 6. In berths previously occupied               |
|   | 7. In present position (or position indicated) |

ED11 . . . . Reserved.

ED12 . . . . Ship's head (or \_\_\_\_ ) is \_\_\_\_ .

1. Line of direction between anchors

ED13 . . . . Shorten in to short stay (or \_\_\_\_ ).

1. To \_\_\_\_ fathoms
2. To \_\_\_\_ shackles

ED14 . . . . Unmoor (at \_\_\_\_ ).

ED15 . . . . Reserved.

ED16 . . . . Veer chain ( \_\_\_\_ ).

1. To \_\_\_\_ fathoms
2. To \_\_\_\_ shackles

ED17 . . . . Reserved.

ED18 . . . . Weigh anchor (or \_\_\_\_ ). PORT or STBD may be used to indicate which anchor.

1. Weigh second anchor
2. Secure anchors

ED19 . . . . Reserved.

ED20 . . . . Reserved.

ED21 . . . . Reserved.

ED22 . . . . Berth assignment of this ship or unit indicated is \_\_\_\_ .

ED23 . . . . Hoist your berth assignment.

ED24 . . . . Berth assigned me is occupied.

ED25 . . . . Reserved.

ED26 . . . . Clear berth for this unit or unit indicated.

ED27 . . . . Reserved.

ED28 . . . . Secure alongside ( \_\_\_\_ (*List A*)) (as specified \_\_\_\_ (*List B*)).

- |                    |                             |
|--------------------|-----------------------------|
| 1. This unit       | A. At my port side          |
| 2. Unit indicated  | B. At my starboard side     |
| 3. Berth indicated | C. With your port side      |
|                    | D. With your starboard side |
|                    | E. At station number        |



- ED29 . . . . Secure to buoy(s) ( \_\_\_\_ ).
1. Bow and stern
  2. In accordance with previous instructions
  3. Previously assigned
  4. Previously occupied
  5. To any unoccupied buoy
  6. To buoy \_\_\_\_
- ED30 . . . . Reserved.
- ED31 . . . . Shift berth to \_\_\_\_ indicated. PORT or STBD may be added to indicate which side of the ship is to be next to pier.
1. Berth
  2. Buoy
- ED48 . . . . Delay getting underway ( \_\_\_\_ ).
1. And remain at \_\_\_\_ hours notice
  2. And remain at \_\_\_\_ minutes notice
  3. Until \_\_\_\_
  4. Until further orders
- ED49 . . . . Get underway (and \_\_\_\_ ). (Order of units or types may be indicated by call signs following.)
1. Comply with previous instructions
  2. Form column in order of sequence numbers
  3. Form column in quickest sequence
  4. Proceed at \_\_\_\_ minute intervals
  5. Proceed out of port
- ED50 . . . . Reserved.
- ED51 . . . . Reserved.
- ED52 . . . . Reserved.
- ED53 . . . . Enter harbor (at \_\_\_\_ ).
1. Zero time (zero time may be indicated)
  2. Zero time minus \_\_\_\_ minutes
  3. Zero time plus \_\_\_\_ minutes
- ED54 . . . . Leave harbor (at \_\_\_\_ ). Departure plan may be indicated.
1. Zero time (zero time may be indicated)
  2. Zero time minus \_\_\_\_ minutes
  3. Zero time plus \_\_\_\_ minutes
- ED55 . . . . Reserved.
- ED56 . . . . \_\_\_\_ is open (or will open at \_\_\_\_ ). NEGAT preceding means “ \_\_\_\_ is closed (or will close at \_\_\_\_ ).”
1. Bay
  2. Channel
  3. Entrance
  4. Gate
  5. Harbor
  6. Port
  7. River
- ED57 . . . . Reserved.
- ED58 . . . . Reserved.
- ED59 . . . . Reserved.



## CHAPTER 28

## Exercise Signals

EX1 . . . . . Commence run ( \_\_\_\_ ) (exercise event from message following DESIG).  
 1. From ahead  
 2. From astern  
 3. From port  
 4. From starboard  
 5. Overhead  
 6. To port  
 7. To starboard

EX2 . . . . . Exercise to be conducted indicated following DESIG (officer to conduct exercise).

EX3 . . . . . Exercise or event is \_\_\_\_ (event from tasking message following DESIG).  
 1. Abandoned  
 2. Being conducted  
 3. Canceled  
 4. Completed  
 5. Postponed (until \_\_\_\_ )  
 6. To be repeated now (or at \_\_\_\_ )  
 7. To be resumed now (or at \_\_\_\_ )  
 8. To cease now (or at \_\_\_\_ )  
 9. To commence now (or at \_\_\_\_ )

*Example: EX3—3 DESIG 0410 . . . Exercise event 0410 is canceled.*

EX4 . . . . . Exercise independently, (remain within \_\_\_\_ range of this unit or unit indicated).  
 1. Radar  
 2. VHF  
 3. Visual signaling  
 4. UHF  
 5. \_\_\_\_ nm

EX5 . . . . . Fire \_\_\_\_ explosive signal charges.

EX6 . . . . . Operate in area \_\_\_\_ (exercise to be conducted indicated following DESIG).

EX7 . . . . . Reserved.

EX8 . . . . . Run is \_\_\_\_ .  
 1. Completed  
 2. To be carried out as a dummy run  
 3. To be repeated  
 4. To cease now (or at \_\_\_\_ )  
 5. To commence now (or at \_\_\_\_ )

EX9 . . . . . Tactical maneuvers by flaghoist are to commence now (or at \_\_\_\_ ).

EX10 . . . . . Take target in tow (or \_\_\_\_ ) (distance \_\_\_\_ hundred yards target is to be taken astern).  
 1. Abandon target  
 2. Pick up target  
 3. Stream target sled  
 4. Transfer target to this unit or unit indicated  
 5. Veer target

EX11 . . . . . Reserved.

EX12 . . . . . Reserved.



## CHAPTER 29

## Gunnery and Missiles

GM1. . . . . Reserved.

GM2. . . . . Reserved.

GM3. . . . . Find the ballistic wind at height of \_\_\_\_ thousand feet.

GM4. . . . . Ballistic wind (or \_\_\_\_ ) is from \_\_\_\_ at \_\_\_\_ knots (at height of \_\_\_\_ thousand feet).  
1. Surface wind

GM5. . . . . Reserved.

GM6. . . . . Reserved.

GM7. . . . . Range fouled.

GM8. . . . . Clear the range (or \_\_\_\_ ) from this unit or unit indicated (on bearing \_\_\_\_ ).  
1. Line of fire

GM9. . . . . Firing limit bearing(s) is \_\_\_\_ (or are from \_\_\_\_ to \_\_\_\_ ).

GM10 . . . . . Range clear.

GM11 . . . . . Malfunctions: I have a \_\_\_\_ .  
1. Hangfire  
2. Loaded gun  
3. Misfire  
4. Missile hangfire on launcher  
5. Missile misfire

GM12 . . . . . Bores clear. ( \_\_\_\_ expended rounds).

GM13 . . . . . RAKE CODE. Code groups following this signal are from the Rake Code on page 29-2. Each shot is raked unless the mean point of impact of the salvo is requested. Numeral preceding the letters indicates the salvo number.

*Example: GM13—1—A—AM—M—N . . . The four shots of salvo 1 landed: over 50 yards, hit, short 50 yards, and short 100 yards.*



## CHAPTER 30

## Interdiction and Embargo Operations

IN1 . . . . . Contact \_\_\_\_ (name/track number) is a ( \_\_\_\_ ) (from *List A*) ( \_\_\_\_ ) (from *List B*).

- | <i>List A</i>                   | <i>List B</i>     |
|---------------------------------|-------------------|
| 1. Critical contact of interest | A. Tanker         |
| 2. Contact of interest          | B. Cargo          |
| 3. Potential violator vessel    | C. Tug            |
| 4. Assumed cleared vessel       | D. Fishing vessel |
| 5. Cleared vessel               | E. Ferry          |
| 6. Military vessel              | F. Pleasure craft |
| 7. Civil vessel                 | G. Other ____     |
| 8. Friendly vessel              |                   |

IN2 . . . . . You are directed to \_\_\_\_ (track number/vessel name) for \_\_\_\_ .

1. Query
2. Board
3. Escort
4. Divert

IN3 . . . . . My query/challenge is \_\_\_\_ .

1. In progress
2. Completed
3. Via VHF
4. Via flashing light

IN4 . . . . . My boarding party is \_\_\_\_ .

1. On board my vessel
2. En route to conduct boarding
3. On board potential violator
4. Returning from potential violator
5. In distress

IN5 . . . . . Vessel \_\_\_\_ (name/track number) is \_\_\_\_ my boarding party.

1. Cooperating (with)
2. Not cooperating (with)
3. Resisting
4. Not resisting

IN6 . . . . . Boarding is \_\_\_\_ percent completed.

IN7 . . . . . Vessel's \_\_\_\_ (name/track number) cargo is \_\_\_\_ .

- |                  |                     |
|------------------|---------------------|
| 1. Arms/weapons  | 7. Liquefied gas    |
| 2. Chemicals     | 8. Livestock        |
| 3. Crude oil     | 9. Medical supplies |
| 4. Foodstuffs    | 10. Petroleum       |
| 5. General cargo | 11. Vehicles        |
| 6. In ballast    | 12. Other ____      |

IN8 . . . . . Request \_\_\_\_ (name/call sign) assume tracking/boarding responsibility for contact (name/track number).

IN9 . . . . . I have tracking/boarding responsibility for (name/track number).

IN10. . . . . In my area I hold \_\_\_\_ (number) unknown vessels.





## CHAPTER 31

## Meteorology Signals

ME1 . . . . . Ceiling is \_\_\_\_ hundred feet.

ME2 . . . . . Cloud cover is \_\_\_\_ eighths (at \_\_\_\_ hundred feet).

ME3 . . . . . Fog. \_\_\_\_ from the CTG (or from \_\_\_\_).

1. Fog in sight on bearing \_\_\_\_° T (or between bearings \_\_\_\_° T and \_\_\_\_° T) distance \_\_\_\_ nm

2. Depth of fog in direction \_\_\_\_° T (or between bearings \_\_\_\_° T and \_\_\_\_° T) is \_\_\_\_ nm

*Example: ME3—1—000—030—4 . . . Fog in sight between 000° T and 030° T, distance 4 nm from the CTG.*

ME4 . . . . . Sea state is \_\_\_\_ .

1. Calm

2. Choppy

3. Moderate swell

4. Heavy swell

5. Rough

6. Very rough

ME6 . . . . . Storm or line squall of \_\_\_\_ severity may be expected within \_\_\_\_ hours.

1. Intense

2. Moderate

3. Violent

*Example: ME6—1—2 . . . Intense storm or squall line may be expected within 2 hours.*

ME7 . . . . . Visibility is \_\_\_\_ nm.

ME8 . . . . . Visibility is \_\_\_\_ (on bearing \_\_\_\_° T) from CTG or unit indicated.

1. Deteriorating

2. Improving

3. Not changing

ME9 . . . . . Make weather report.

ME10 . . . . . Wind speed is \_\_\_\_ knots from direction \_\_\_\_° T .



## CHAPTER 32

## Navigation Signals

NA1 . . . . . Reserved.

NA2 . . . . . Reserved.

NA3 . . . . . Check compasses with me or unit indicated by reciprocal bearing.  
*When this signal is executed observation is to be made and each ship is to signal a bearing to indicate result of observation.*

NA4 . . . . . Reserved.

NA5 . . . . . Reserved.

NA6 . . . . . Direction of current is from \_\_\_\_° T, speed \_\_\_\_ knots.

NA7 . . . . . Reserved.

NA8 . . . . . Depth of water is \_\_\_\_ fathoms.  
*Depth may be reported in meters. This must be specified by adding DESIG METERS.*

NA9 . . . . . Reserved.

NA10 . . . . . Sound fog signals.

NA11 . . . . . Reserved.

NA12 . . . . . Reserved.

NA13 . . . . . Your ( \_\_\_\_ ) light(s) (*List A*) is (are) \_\_\_\_ (*List B*).

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Anchor aft</li> <li>2. Anchor forward</li> <li>3. Man overboard</li> <li>4. Masthead</li> <li>5. Minesweeping</li> <li>6. Reserved</li> <li>7. Navigation/running</li> <li>8. Out-of-command/breakdown</li> <li>9. Range</li> <li>10. Red mast/obstruction/red truck</li> <li>11. Reserved</li> <li>12. Side (PORT or STBD may be added)</li> <li>13. Towing</li> <li>14. Other (following DESIG)</li> </ol> | <ol style="list-style-type: none"> <li>A. Correct</li> <li>B. Not showing/cannot be seen</li> <li>C. To be dimmed</li> <li>D. To be taken at full brilliance</li> <li>E. To be turned on</li> <li>F. To be turned out</li> <li>G. Too bright</li> <li>H. Too dim</li> </ol> |
|--|---|

NA14 Turn on navigation lights (or \_\_\_\_\_ lights (*List A*)) ( \_\_\_\_\_ (*List B*)).

- |                            |                          |
|----------------------------|--------------------------|
| <i>List A</i>              | <i>List B</i>            |
| 1. Anchor                  | A. At full brilliance    |
| 2. Minesweeping            | B. Using dimming feature |
| 3. Reserved                | C. Shaded/blue           |
| 4. Overtaking/stern        |                          |
| 5. Red mast/obstruction    |                          |
| 6. Side                    |                          |
| 7. Other (following DESIG) |                          |

NA15 . . . . Reserved.

NA16 . . . . My (or unit indicated) \_\_\_\_\_ is \_\_\_\_\_ meters above waterline.

*Height may be reported in feet. This must be specified by adding DESIG FEET.*

- |  |                                   |
|--|-----------------------------------|
| 1. Mainmast                                    | 6. Upper masthead steaming light  |
| 2. Foremast                                    | 7. Lower steaming light           |
| 3. Funnel (forward funnel if more than one)    | 8. Side light                     |
| 4. Antenna platform (largest if more than one) | 9. Red masthead obstruction light |
| 5. Stern/quarterdeck                           | 10. Horizon bar                   |
|  | 11. Other following DESIG         |

*Example: NA16—1—75 DESIG FEET . . . My mainmast is 75 feet above the waterline.*

NA17 . . . . Reserved.

NA18 . . . . Reserved.

NA19 . . . . Reserved.

NA20 . . . . Reserved.

NA21 . . . . Initial position for scheduled exercise or exercise event indicated following DESIG is latitude \_\_\_\_\_ longitude \_\_\_\_\_ (or bearing \_\_\_\_\_ ° T, distance \_\_\_\_\_ yards from unit indicated).

NA22 . . . . Reserved.

NA23 . . . . Reserved.

NA24 . . . . Position and intended movement (PIM) is as indicated.

- (a) Position
- (b) Time of position in whole hours
- (c) Course
- (d) Speed
- (e) Period in hours for which preceding course and speed are in force

*If the period covered by the PIM includes several changes of course and speed, (c), (d), and (e) may be repeated as necessary.*

NA25 . . . . Extend duration of course and speed now steaming until \_\_\_\_\_ .

NA26 . . . . Geographic position is \_\_\_\_\_ (X coordinate) \_\_\_\_\_ (Y coordinate).

NA27 . . . . Position was obtained by method indicated following DESIG.

*Example: NA27 DESIG CELESTIAL . . . Position was obtained by celestial fix.*

NA28 . . . . Reserved.

NA29 . . . . Reserved.

NA30 . . . . Reserved.

NA31 . . . . This unit or unit indicated will pass through reference point identified by letter and/or numeral following DESIG at \_\_\_\_ (course \_\_\_\_° T and speed \_\_\_\_).

NA32 . . . . Reserved.

NA33 . . . . Reserved.

NA34 . . . . Estimated time of \_\_\_\_ is \_\_\_\_ .

1. Arrival
2. Commencement of flight operations
3. Commencement of serial or event (number \_\_\_\_ )
4. Completion of flight operations
5. Completion of serial or event (number \_\_\_\_ )
6. Departure
7. Rejoining

NA35 . . . . Synchronize watches.

NA36 . . . . Zero time will be indicated by the execution of this signal or by numerals following.

NA37 . . . . Use zone time indicated by letter following DESIG (at \_\_\_\_).

NA38 . . . . Reserved.

NA39 . . . . Reserved.



## CHAPTER 33

## Radar Signals

- RA1 . . . . . Assume ( \_\_\_\_ ) radar guard duty.
1. Air search (between \_\_\_\_ and \_\_\_\_ nm)
  2. Air search (between \_\_\_\_ and \_\_\_\_ ° T)
  3. Surface search (between \_\_\_\_ and \_\_\_\_ nm)
  4. Surface search (between \_\_\_\_ and \_\_\_\_ ° T)
  5. Scan in elevation (between \_\_\_\_ and \_\_\_\_ degrees)
- RA2 . . . . . Reserved.
- RA3 . . . . . Reserved.
- RA4 . . . . . Have radar contact (believed to be \_\_\_\_ indicated following DESIG).  
*Example: RA4 DESIG SUBMARINE . . . Have radar contact believed to be a submarine.*
- RA5 . . . . . Reserved.
- RA6 . . . . . Operate IFF/SIF ( \_\_\_\_ ) (in sector).
1. Airborne
  2. At discretion
  3. Shipborne
  4. To challenge and identify target
  5. Using MODE \_\_\_\_
- RA7 . . . . . Reserved.
- RA8 . . . . . Reserved.
- RA9 . . . . . Reserved.





## CHAPTER 34

## Readiness Signals

RE1 . . . . . Officer \_\_\_\_ is disabled (following DESIG).

RE2 . . . . . Personnel casualties. \_\_\_\_ . Numeral(s) following TACK may be added to indicate number of casualties.

1. Prepare to receive personnel casualties
2. Hoist flag M at yardarm when ready to receive personnel casualties
3. This unit or unit indicated has \_\_\_\_ personnel casualties

RE3 . . . . . Personnel remaining available for duty is \_\_\_\_ percent of original complement.

RE4 . . . . . Reserved.

RE5 . . . . . Reserved.

RE6 . . . . . This unit (or unit indicated) has sustained \_\_\_\_ (*List A*) category damage, including ( \_\_\_\_ (*List B*)); assessment of damage to indicated unit (DESIG \_\_\_\_ number of percentage damaged)).

*List A*

- A. Sunk
- B. Imminent loss
- C. Inoperable
- D. Mission aborted
- E. Immobilized
- F. Major damage
- G. Medium damage
- H. Minor damage
- I. Reserved
- J. No damage

*List B*

1. Reserved
2. Reserved
3. Reserved
4. Reserved
5. Communications and navigation impaired
6. Flight operations capability
7. Loss of sensors
8. Major fire
9. Major flooding
10. Major propulsion damage
11. Reserved
12. Minor fire
13. Minor flooding
14. Onboard repairs
15. Personnel injuries
16. Speed reduced
17. Underwater penetration

RE7 . . . . . Require ( \_\_\_\_ ) assistance.

1. Decontamination party
2. Explosive ordnance disposal team (EOD)
3. Fire and rescue party
4. Fire tug
5. Firefighting equipment (type indicated following DESIG)
6. Medical
7. Medical/casualty evacuation (MEDEVAC/CASEVAC)
8. No
9. Salvage party
10. Towing

RE8 . . . . . Reserved.

RE9 . . . . Reserved.

RE10 . . . . This unit or unit indicated is able to continue on assigned mission.

RE11 . . . . This ship or ship(s) indicated has/have been damaged by \_\_\_\_ (*List A*) resulting in \_\_\_\_ (*List B*). (A time signal indicates time at which damage will be repaired.)

*List A*

- A. Bombs
- B. Collision
- C. Fire
- D. Grounding
- E. Guns
- F. Heavy leakage
- G. Mines
- H. Missiles
- I. Storm
- J. Torpedo (PORT or STBD may be indicated)
- K. Underwater explosion

*List B*

- 1. No restriction
- 2. Reduced anti-air warfare (AAW) capability
- 3. Reduced anti-surface warfare (ASUW) capability
- 4. Reduced anti-submarine warfare (ASW) capability
- 5. Reduced mobility
- 6. Sinking
- 7. Withdrawing

*Example: RE11—C—5 DESIG ABC . . . Ship ABC has been damaged by fire and has reduced mobility.*

RE12 . . . . Ship indicated has a fire on board.

RE13 . . . . Fire is (flames are) \_\_\_\_ .

- 1. Extinguished
- 2. Increasing
- 3. Serious
- 4. Under control

RE14 . . . . Friendly unit sunk (in position \_\_\_\_ ° T) (call sign \_\_\_\_ ).

RE15 . . . . Flight deck has been damaged.

RE16 . . . . Report damage or what is wrong with you.

RE17 . . . . Send rescue and assistance detail/team to this unit or unit indicated.

RE18 . . . . Ship or unit indicated is flooding. (Flooding is \_\_\_\_ .)

- 1. At the rate of \_\_\_\_ gallons per minute
- 2. Being dewatered
- 3. Beyond the capacity of ship's pumps
- 4. Reserved
- 5. Reserved
- 6. Reserved
- 7. Out of control
- 8. Under control

RE19 . . . . Reserved.

RE20 . . . . Reserved.

RE20 . . . . Reserved.

RE21 . . . . Reserved.

- RE22 . . . . Weapon(s) indicated following DESIG \_\_\_\_ .  
1. Can be brought into action in \_\_\_\_ minutes  
2. Is (are) ready
- RE23 . . . . Prepare for heavy weather (about \_\_\_\_ ).
- RE24 . . . . Reserved.
- RE25 . . . . Reserved.
- RE26 . . . . Reserved.
- RE27 . . . . Reserved.
- RE28 . . . . Reserved.
- RE29 . . . . Ammunition \_\_\_\_ .  
1. Amount of \_\_\_\_ ammunition remaining is \_\_\_\_ percent  
2. Conserve ( \_\_\_\_ )  
3. Have ( \_\_\_\_ ) ammunition ready for use  
4. Number of rounds or units of \_\_\_\_ ammunition remaining on board is \_\_\_\_
- RE30 . . . . Equipment indicated following DESIG is operating at reduced efficiency.
- RE31 . . . . Equipment indicated following DESIG is inoperative. (A time signal indicates estimated time at which repairs will be completed.)
- RE32 . . . . Operate \_\_\_\_ equipment indicated.  
1. Continuously  
2. Intermittently
- RE33 . . . . Repairs can be effected ( \_\_\_\_ ). (A time signal indicates time at which repairs will be completed.)  
1. But must stop for repairs  
2. By ship's crew  
3. Only by dry docking  
4. With shipyard help
- RE34 . . . . Repairs have been completed on equipment indicated following DESIG.
- RE35 . . . . Reserved.
- RE36 . . . . Equipment indicated following DESIG is unreliable.
- RE37 . . . . Total number of running hours on equipment indicated is \_\_\_\_ . (Estimated life remaining is \_\_\_\_ hours.)
- RE38 . . . . Reserved.
- RE39 . . . . Reserved.

- RE40 . . . . Percentage of \_\_\_\_ remaining on board is \_\_\_\_ percent at noon (or \_\_\_\_ ).
- |                        |                               |
|------------------------|-------------------------------|
| 1. AVCAT               | 7. JP-5                       |
| 2. Aviation gasoline   | 8. Lubricating oil            |
| 3. Burnable oil        | 9. Feed water                 |
| 4. Diesel oil          | 10. Potable water             |
| 5. Distillate fuel/DFM | 11. DESIG ____ type of liquid |
| 6. Gasoline            |                               |

*Example: RE40—4—75 . . . 75 percent of diesel oil remains on board at noon.*

RE41 . . . . Reserved.

- RE42 . . . . Readiness (or condition) of this ship or unit indicated is \_\_\_\_ .
- Antiaircraft guns usable
  - List in degrees (PORT or STBD may be added)
  - Main battery guns usable
  - Missile battery usable
  - Maximum draft in feet
  - Maximum speed possible

- RE43 . . . . Tow. \_\_\_\_ .
- Require tug to tow this ship or unit indicated
  - Take this ship or unit indicated in tow
  - This ship or unit indicated will take you in tow
  - Tow has parted
  - Tow this ship or unit indicated into shallow water
  - Transfer tow to this ship or unit indicated

RE44 . . . . Reserved.

RE45 . . . . Reserved.

RE46 . . . . Reserved.

- RE47 . . . . Have shaft power available for \_\_\_\_ (at \_\_\_\_ hours notice).
- Ensuring safety
  - Flying operations
  - Maximum fuel economy (single boiler/trail shaft operation permitted)
  - Maximum speed
  - Speed in knots indicated by numeral group following TACK
  - Working anchors/cables

- RE48 . . . . Delay getting underway ( \_\_\_\_ ).
- Remain at \_\_\_\_ hours notice
  - Remain at \_\_\_\_ minutes notice
  - Until \_\_\_\_
  - Until further notice

RE49 . . . . Come to or revert to \_\_\_\_ hours notice for getting underway (at \_\_\_\_ knots).

- RE50 . . . . Estimated time of \_\_\_\_ is \_\_\_\_ .
- Readiness for sea
  - Steam (being at new notice for)

RE51 . . . . Reserved.

RE52 . . . . Reserved.

## CHAPTER 35

## Replenishment Signals

RS1 . . . . . Close me or unit indicated for transfer (of \_\_\_\_ (List A)) (at \_\_\_\_ transfer station (List B)) (ship to provide gear or boat is \_\_\_\_ (List C)). (PORT or STBD may be added to indicate side of ship being closed.)

- | <i>List A</i>           | <i>List B</i>           | <i>List C</i>                    |
|-------------------------|-------------------------|----------------------------------|
| 1. Fuel                 | A. FWD                  | 21. Closing ship(s)              |
| 2. Guard mail           | B. AMID                 | 22. Ship being closed            |
| 3. Mail                 | C. AFT                  | 23. Ship designated by call sign |
| 4. Movies               | D. Boat                 |                                  |
| 5. Officer courier mail | E. Light line           |                                  |
| 6. Personnel            | F. Highline rig*        |                                  |
| 7. Stores               | G. Light jackstay rig** |                                  |
|                         | H. VERTREP              |                                  |

\*Support line with pelican hook

\*\*Support line without pelican hook

RS2 . . . . . Fuel to capacity (or \_\_\_\_ percent).

RS3 . . . . . I have mail/light material for \_\_\_\_ transfer.

1. Light line, my STBD side
2. Light line, my PORT side
3. Manila highline rig\*, my STBD side
4. Manila highline rig\*, my PORT side
5. Light jackstay rig\*\*, my STBD side
6. Light jackstay rig\*\*, my PORT side

\*Support line with pelican hook

\*\*Support line without pelican hook

RS4 . . . . . I require \_\_\_\_ (List A), quantity \_\_\_\_ units \_\_\_\_ (List B) by \_\_\_\_ (List C).

- | <i>List A</i>            | <i>List B</i>       | <i>List C</i>              |
|--------------------------|---------------------|----------------------------|
| 1. AVCAT                 | A. Tons             | 21. Probe coupling         |
| 2. Aviation gasoline     | B. Liters           | 22. Reserved               |
| 3. Burnable oil          | C. Cubic meters     | 23. Reserved               |
| 4. Diesel oil            | D. US gallons       | 24. Quick-release coupling |
| 5. Distillate fuel       | E. Imperial gallons | 25. Method following DESIG |
| 6. Gasoline              | F. US barrels       |                            |
| 7. JP-5                  |                     |                            |
| 8. Lubricating oil       |                     |                            |
| 9. Feed water            |                     |                            |
| 10. Potable water        |                     |                            |
| 11. DESIG type of liquid |                     |                            |

*Example: RS4—5—500D—21 . . . I require 500 U.S. gallons of distillate fuel by probe coupling.*

RS5 . . . . . I received/supplied \_\_\_\_\_ (List A), quantity \_\_\_\_\_ units \_\_\_\_\_ (List B).

- |                          |                     |
|--------------------------|---------------------|
| <i>List A</i>            | <i>List B</i>       |
| 1. AVCAT                 | A. Tons             |
| 2. Aviation gasoline     | B. Liters           |
| 3. Burnable oil          | C. Cubic meters     |
| 4. Diesel oil            | D. US gallons       |
| 5. Distillate fuel       | E. Imperial gallons |
| 6. Gasoline              | F. US barrels       |
| 7. JP-5                  |                     |
| 8. Lubricating oil       |                     |
| 9. Feed water            |                     |
| 10. Potable water        |                     |
| 11. DESIG type of liquid |                     |

RS6 . . . . . \_\_\_\_\_ rig for transfer.

1. I will provide
2. You provide

RS7 . . . . . Replenish ( \_\_\_\_\_ ) ( \_\_\_\_\_ call sign of receiving ship) ( \_\_\_\_\_ time ZULU).

1. Fuel
2. Stores
3. Ammunition
4. Potable water

RS8 . . . . . Replenish/transfer ( \_\_\_\_\_ (List A)) (by \_\_\_\_\_ rig or means (List B)) (at \_\_\_\_\_ transfer station (List C)) (from PORT or STBD side of supplying ship or ship indicated).

- |                          |                              |                       |
|--------------------------|------------------------------|-----------------------|
| <i>List A</i>            | <i>List B</i>                | <i>List C</i>         |
| 1. Ammunition            | A. Abeam                     | 31. FWD               |
| 2. Aviation gasoline     | B. Astern fueling            | 32. AMID              |
| 3. Burnable oil          | C. Boat                      | 33. AFT               |
| 4. Diesel oil            | D. Breakable-spool coupling  | 34. Station No. _____ |
| 5. Distillate fuel       | E. Burton                    |                       |
| 6. Feed water            | F. Close-in                  |                       |
| 7. Fleet freight         | G. Double Burton             |                       |
| 8. General stores        | H. Heavy jackstay            |                       |
| 9. JP-4                  | J. Helicopter                |                       |
| 10. JP-5                 | K. Housefall                 |                       |
| 11. Lubricating oil      | L. Jackstay fueling          |                       |
| 12. Mail                 | M. Large derrick             |                       |
| 13. Movies               | N. Light jackstay            |                       |
| 14. Personnel            | P. Light line                |                       |
| 15. Potable water        | Q. Manila/synthetic highline |                       |
| 16. Provisions           | R. Modified housefall        |                       |
| 17. Retrograde/empties   | S. Probe coupling            |                       |
| 18. DESIG type of liquid | T. Spanwire                  |                       |
|                          | U. Reserved                  |                       |
|                          | V. Reserved                  |                       |
|                          | W. Wire highline             |                       |

*Example: RS8—15—S—31 . . . Transfer potable water by probe coupling at forward station.*

RS9 . . . . . Control of alterations of course and speed by replenishment unit is to be by Method ALFA, BRAVO, or CHARLIE (Flag A, B, or C following DESIG) (in \_\_\_\_\_ steps, using ANSWER for 5° steps and ONE for 10° steps). See CORPEN N in Chapter 14 for control method procedures.

- METHOD: ALFA. Telephone/loudhailer  
 BRAVO. Voice radio  
 CHARLIE. Visual flags be day, light by night.

RS10 . . . . Sequence of replenishment (from ship \_\_\_\_\_ ) is to be \_\_\_\_\_ .  
1. STBD side (in order of call signs)  
2. PORT side (in order of call signs)  
3. ASTERN (in order of call signs)

RS11 . . . . \_\_\_\_\_ astern fueling rig.  
1. Stream (PORT or STBD may be indicated)  
2. Recover

RS12 . . . . Estimated time of replenishment is \_\_\_\_\_ .  
1. Duration of RAS is \_\_\_\_\_ minutes  
2. Time of commencement of RAS is \_\_\_\_\_  
3. Time of completion of RAS is \_\_\_\_\_

RS13 . . . . Reserved.

RS14 . . . . Reserved.

RS15 . . . . Reserved.





## CHAPTER 36

## Antisurface Warfare Signals

SU1 . . . . . Reserved.

SU2 . . . . . Reserved.

SU3 . . . . . Attack. \_\_\_\_\_.

1. Attack from direction \_\_\_\_\_ is being carried out by unit indicated
2. Break off the attack
3. Delay attack (until \_\_\_\_\_)
4. Carry out feint attack from bearing \_\_\_\_\_ ° T (bearing is taken from center of enemy)
5. Close and attack
6. Attack completed

SU4 . . . . . Close range ( \_\_\_\_\_ ).

- |   |                                   |
|---|-----------------------------------|
| 1. As rapidly as possible                   | 5. To maximum effective gun range |
| 2. Consistent with keeping all guns bearing | 6. To maximum gun range           |
| 3. To effective missile range               | 7. To maximum missile range       |
| 4. To effective torpedo range               | 8. To maximum torpedo range       |
|   | 9. To _____ thousand yards        |

SU5 . . . . . Attack is to be coordinated at time indicated.

SU6 . . . . . Reserved.

SU7 . . . . . Open range ( \_\_\_\_\_ ).

- |  |   |
|--|---|
| 1. As rapidly as possible                | 5. Consistent with keeping all guns bearing |
| 2. Beyond effective gun range of enemy   | 6. To maximum gun range                     |
| 3. Beyond maximum gun range of enemy     | 7. To maximum missile range                 |
| 4. Beyond maximum missile range of enemy | 8. To maximum torpedo range                 |
|  | 9. To _____ thousand yards                  |

SU8 . . . . . Reserved.

SU9 . . . . . I am maneuvering to unmask ( \_\_\_\_\_ ).

1. Guns
2. Missile launcher
3. Rocket-assisted ASW weapon
4. Torpedo tubes

SU10 . . . . . Assume command as SAG commander (or)

1. SAG commander is \_\_\_\_\_.

SU11 . . . . Form surface action group (SAG) and clear the force in direction \_\_\_\_ (*List A*) (or on bearing \_\_\_\_° T) to investigate \_\_\_\_ (*List B*).

- |               |                     |
|---------------|---------------------|
| <i>List A</i> | <i>List B</i>       |
| 1. North      | A. Skunk indicated  |
| 2. East       | B. Racket indicated |
| 3. South      | C. Visual sighting  |
| 4. West       |                     |

SU12 . . . . Investigate track identity \_\_\_\_, be prepared to illuminate and engage.

SU13 . . . . Form helicopter action group (HAG) and clear the force in direction \_\_\_\_ (*List A*) (or on bearing \_\_\_\_° T) to investigate \_\_\_\_ (*List B*).

- |               |                     |
|---------------|---------------------|
| <i>List A</i> | <i>List B</i>       |
| 1. North      | A. Skunk indicated  |
| 2. East       | B. Racket indicated |
| 3. South      | C. Visual sighting  |
| 4. West       |                     |

SU14 . . . . Clear line of fire from this unit or unit indicated (on bearing \_\_\_\_° T).

SU15 . . . . Reserved.

SU16 . . . . Target range is \_\_\_\_ thousand yards.

SU17 . . . . Reserved.

SU18 . . . . Reserved.

SU19 . . . . Fight a \_\_\_\_ action.

- |              |                              |
|--------------|------------------------------|
| 1. Delaying  | 5. Surface, detaching SAG    |
| 2. Harassing | 6. Surface, using all forces |
| 3. Pursuit   | 7. Withdrawing               |
| 4. Retiring  |                              |

SU20 . . . . Reserved.

SU21 . . . . Reserved.

SU22 . . . . Reserved.

SU23 . . . . Surface action plan is based on keeping our force in position \_\_\_\_ .

1. Between the enemy and his base
2. Between the enemy and our base
3. Between the enemy and our convoy
4. Between the enemy and our high value unit(s)
5. To leeward of enemy
6. To windward of enemy

SU24 . . . . Reserved.

SU25 . . . . Reserved.

SU26 . . . . Reserved.

SU27 . . . . Your sector of attack will be (from the \_\_\_\_ of the enemy) with the enemy as the reference point. A group of three numerals following the basic group, separated by TACK, indicates true bearing from which to attack. DECIMAL may be used for 5°.

1. Northward
2. Southward
3. Eastward
4. Westward

*Examples: SU27—3 . . . Your sector of attack will be from the eastward of the enemy with the enemy as the reference point.*

*SU27—0508 DECIMAL . . . Your sector of attack will be between 050° and 085° true with the enemy as the reference point.*

*SU27—170 . . . Attack enemy from bearing 170° true.*

SU28 . . . . Reserved.

SU29 . . . . Torpedoes have just been fired (or were fired at time indicated) by ships of my unit (on torpedo course \_\_\_\_).

SU30 . . . . Proceed to most advantageous position for torpedo attack and \_\_\_\_ .

1. Attack with torpedoes
2. Do not attack until ordered

SU31 . . . . Proceed to your sector(s) (or to sector(s) \_\_\_\_ with the enemy as reference point). A group of three numerals indicates true bearing from which to attack.

SU32 . . . . Reserved.

SU33 . . . . All torpedoes (or \_\_\_\_ number) have been recovered. Ships to whom they belong may be indicated.

SU34 . . . . Reserved.

SU35 . . . . Chase and recover torpedoes (or torpedoes \_\_\_\_).

1. Are in sight
2. Are to be recovered
3. Have sunk

SU36 . . . . Reserved.

SU37 . . . . Reserved.



## CHAPTER 37

## Torpedo Action Table

- 9A . . . . . Fire torpedoes ( \_\_\_\_ ) (to PORT or STBD as indicated). Number to be fired may be indicated by numerals following DESIG.
- |                                   |   |
|-----------------------------------|---|
| 1. Using base torpedo course plan | 6. At maximum torpedo range                   |
| 2. Using coordinated attack plan  | 7. At range of ____ hundred yards             |
| 3. Using individual target plan   | 8. For exercise                               |
| 4. Using mutual target plan       | 9. From as close as possible                  |
| 5. As soon as enemy is sighted    | 10. Outside visibility range; firing by radar |
- 9B . . . . . Reserved.
- 9C . . . . . Attack with torpedoes (in sector \_\_\_\_ ).
- 9D . . . . . Time of firing will be as indicated.
- 9E . . . . . Use torpedo attack plan indicated.
- 9F . . . . . Proceed to attack sectors (or sector \_\_\_\_ ). (Remain outside \_\_\_\_ thousand yards from nearest enemy unit.)
- 9G . . . . . Attack with torpedoes in sector \_\_\_\_ .
- 9H . . . . . Method of attack will be \_\_\_\_ .
- |  |           |
|--|-----------|
| 1. Formation attack in close formation | 4. Sector |
| 2. Formation attack in open formation  | 5. Spread |
| 3. Independent                         |           |
- 9I . . . . . Continue to close enemy after the attack to disguise moment of firing torpedoes.
- 9J . . . . . Enemy ship to be used as point of aim for torpedo firing bears \_\_\_\_ ° T from this unit or unit indicated, range \_\_\_\_ thousand yards.
- 9K . . . . . Reserved.
- 9L . . . . . Base torpedo course is as indicated (torpedo speed is as indicated by suffix below following TACK).
- |         |                 |        |
|---------|-----------------|--------|
| 1. High | 2. Intermediate | 3. Low |
|---------|-----------------|--------|
- 9M . . . . . Mean torpedo course for this unit or unit indicated is \_\_\_\_ ° T .
- 9N . . . . . Use \_\_\_\_ shot angle to PORT or STBD as indicated.
- |        |         |            |
|--------|---------|------------|
| 1. Bow | 2. Beam | 3. Quarter |
|--------|---------|------------|
- 9O . . . . . Set torpedoes to run at depth of \_\_\_\_ feet.
- 9P . . . . . Set torpedo for \_\_\_\_ speed ( \_\_\_\_ knots).
- |         |                 |        |
|---------|-----------------|--------|
| 1. High | 2. Intermediate | 3. Low |
|---------|-----------------|--------|

- 9Q . . . . . Target speed across to be used for firing is \_\_\_\_ knots.
- 9R . . . . . Deflection angle to be used for firing is \_\_\_\_ degrees.
- 9S . . . . . Use individual settings for target speed across or deflection angle.
- 9T . . . . . Time of hitting is to be synchronized so that all torpedoes will hit at \_\_\_\_ .
- 9U . . . . . Torpedoes will strike target at \_\_\_\_ .
- 9V . . . . . Turn as required (to PORT or STBD) and fire torpedoes, returning to original course (or course \_\_\_\_° T) after firing.
- 9W . . . . . Turn in succession (to PORT or STBD) and fire torpedoes, returning to original course (or course \_\_\_\_° T) after firing.
- 9X . . . . . Turn together (to PORT or STBD) and fire torpedoes, returning to original course (or course \_\_\_\_° T) after firing.
- 9Y . . . . . Retire on approximate course \_\_\_\_ after firing.
- 9Z . . . . . Close target by steady bearings (present bearings).

**Special Night Torpedo Firing Signals**

*NOTE: These signals may be used independently or in conjunction with torpedo action signals. The CTG will endeavor to lead on to a course suitable for firing before making the “turn and fire” signal.*

Long RED flashes	Contact has been made on the PORT side.
Long GREEN flashes	Contact has been made on the STBD side.
Steady RED light	Stand by to fire torpedoes — PORT side.
Steady GREEN light	Stand by to fire torpedoes — STBD side.
Short RED flashes	Turn as required and fire torpedoes to port. OTC intends to steady on a course which is the reciprocal of the bearing of the target on firing, unless otherwise ordered.
Short GREEN flashes	Turn as required and fire torpedoes to starboard. OTC intends to steady on a course which is the reciprocal of the bearing of the target on firing, unless otherwise ordered.
GREEN Very Star	Exercise signal to indicate that torpedoes have been fired.

**Special Day Torpedo Firing Signal**

GREEN or BLACK Smoke Grenade	Exercise signal to indicate that torpedoes have been fired.
------------------------------	---

## CHAPTER 38

## Surface Action Table — General

- 2A . . . . . The reference point for all contacts reported by this unit or unit indicated is \_\_\_\_ .
1. TT
  2. XX
  3. YY
  4. ZZ
  5. SIM (submarine position and intended movement)
  6. Reserved
  7. Other following DESIG
- 2B . . . . . The position of reference point \_\_\_\_ (from *List A*) is \_\_\_\_ (from *List B*) and is effective at \_\_\_\_ (time).
- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. TT</li> <li>2. XX</li> <li>3. YY</li> <li>4. ZZ</li> <li>5. SIM (submarine position and intended movement)</li> <li>6. Reserved</li> <li>7. Other following DESIG</li> </ol> | <p style="text-align: center;"><i>List B</i></p> <ol style="list-style-type: none"> <li>A. ____ (latitude) ____ (longitude)</li> <li>B. ____ (bearing) ____ (distance)</li> <li>C. Reference point ____ previously issued</li> <li>D. Reserved</li> </ol> |
|--|---|
- 2C . . . . . Designations for contacts held by this unit is \_\_\_\_ .
- 2D . . . . . Redesignate your contact or contact indicated as \_\_\_\_ .
- 2E . . . . . All contact data following this signal pertains to \_\_\_\_ .
- 2F . . . . . Designated contact is unknown or \_\_\_\_ (and is identified as \_\_\_\_ following DESIG).
1. Certain
  2. Probable
  3. Possible
- 2G . . . . . Contact \_\_\_\_ (designation) is located on bearing \_\_\_\_ ° T from this unit or unit/reference point indicated, distance \_\_\_\_ nm, at \_\_\_\_ (time). Position is estimated to be accurate within a distance of \_\_\_\_ nm.
- 2H . . . . . Have lost \_\_\_\_ contact with target or target indicated (last bearing \_\_\_\_ ° T) (last distance \_\_\_\_ yards) (time \_\_\_\_ ).
1. Visual
  2. Sonar
  3. Radar
  4. FLIR
  5. All sensors
  6. Other (following DESIG)

2I . . . . . Bearing of designated contact from this unit or unit indicated is \_\_\_\_\_° T by \_\_\_\_\_  
(*List A*) with accuracy within \_\_\_\_\_° T based on \_\_\_\_\_ (from *List B*).

- |                            |                                 |
|----------------------------|---------------------------------|
| <i>List A</i>              | <i>List B</i>                   |
| 1. Visual                  | A. Measured system error        |
| 2. Sonar                   | B. Estimated system error       |
| 3. Radar                   | C. Target motion analysis (TMA) |
| 4. FLIR                    |                                 |
| 5. RDF                     |                                 |
| 6. Other (following DESIG) |                                 |

2J . . . . . Contact course is \_\_\_\_\_° T and speed is \_\_\_\_\_ knots.

*If course and speed cannot be determined accurately, a cardinal or inter-cardinal heading and descriptive speed preceded by DESIG may be given.*

*Example: 2J 000—10 . . . Contact course is 000° T and speed is 10 knots.*

2K . . . . . Contact \_\_\_\_\_ (designation) is held by this unit or unit indicated on \_\_\_\_\_ .

- |                       |                             |
|-----------------------|-----------------------------|
| 1. Visual             | 6. Radar (surface search)   |
| 2. Active sonar       | 7. RDF                      |
| 3. Passive sonar      | 8. Intelligence             |
| 4. Radar (airborne)   | 9. Infrared/electro-optics  |
| 5. Radar (air search) | 10. Other (following DESIG) |

*Example: 2K DESIG A23—6 . . . I hold contact A23 on surface search radar.*

2L . . . . . Investigate contact \_\_\_\_\_ (designation) using \_\_\_\_\_ (from *List A*) to determine \_\_\_\_\_  
(from *List B*). Permitted degree of risk to investigating unit is \_\_\_\_\_ (from *List C*).

- |                      |                             |               |
|----------------------|-----------------------------|---------------|
| <i>List A</i>        | <i>List B</i>               | <i>List C</i> |
| 1. Helicopter        | A. Type of ship             | 31. Low       |
| 2. Patrol aircraft   | B. Class of ship            | 32. Medium    |
| 3. Tactical aircraft | C. Nationality              | 33. High      |
| 4. Submarine         | D. Hull number              |               |
| 5. Surface ship      | E. Battle damage assessment |               |

2M . . . . . Your contact or contact indicated is \_\_\_\_\_ .

1. Correctly identified
2. Incorrectly identified

*Example: 2M—1 DESIG A23 . . . Your contact A23 is correctly identified.*

2N . . . . . Engage target (bearing \_\_\_\_\_° T) or target indicated \_\_\_\_\_ .

- |   |   |
|---|---|
| 1. As soon as possible                          | 7. When target is visible                 |
| 2. When weapons bear                            | 8. If target is identified as hostile     |
| 3. When ready                                   | 9. If target commits a hostile act        |
| 4. At maximum weapon range                      | 10. If target demonstrates hostile intent |
| 5. At maximum effective range                   | 11. For harassment                        |
| 6. When range closes to _____<br>thousand yards |   |

2O . . . . . Reserved.

2P . . . . . Target is within my maximum \_\_\_\_\_ range.

1. Gun
2. Missile
3. Torpedo

2Q . . . . . Target indicated has opened fire with \_\_\_\_\_ .

1. Guns
2. Missiles
3. Torpedoes



2R . . . . . Reserved.

2S . . . . . Reserved.

2T . . . . . Reserved.

2U . . . . . Reserved.

2V . . . . . Reserved.

2W . . . . . This unit or unit indicated has suffered damage and is \_\_\_\_ .  
1. Continuing action  
2. Withdrawing  
3. Neutralized

2X . . . . . Reserved.

2Y . . . . . Reserved.

2Z . . . . . Reserved.



CHAPTER 39

Surface Action Table — Over-the-Horizon Engagement

3A . . . . . Prepare to engage with OTH ASSM on target or target indicated using \_\_\_\_ (from List A) (in accordance with surface action plan \_\_\_\_ (from List B)).

- |   |               |
|---|---------------|
| <i>List A</i>   | <i>List B</i> |
| 1. Designated missile firing unit(s) and target reporting unit(s)                         | A. Reserved   |
| 2. Designated missile firing unit(s) using own sensors only                               | B. DESIG ____ |
| 3. Designated missile firing unit(s) and forward observer(s) to control flight of missile | C. ____       |

*Example: 3A—2134—1—DESIG ABC—DESIG DEF—DESIG A . . . Prepare to engage with OTH ASSM track 2134 with ship ABC as firing unit and ship DEF as target reporting unit in accordance with surface action plan A.*

3B . . . . . Conduct OTH attack \_\_\_\_ (from List A) against target or target indicated (using surface action plan \_\_\_\_ (from List B) (as coordinated by \_\_\_\_ (from List C)).

- |                                      |               |                                      |
|--------------------------------------|---------------|--------------------------------------|
| <i>List A</i>                        | <i>List B</i> | <i>List C</i>                        |
| 1. Immediately                       | A. Reserved   | 31. CTG                              |
| 2. Launch time ____                  | B. DESIG ____ | 32. Reserved                         |
| 3. When ready                        | C. ____       | 33. SAGC                             |
| 4. To achieve time on target of ____ |               | 34. Designated firing unit           |
| 5. As previously directed            |               | 35. Designated target reporting unit |
| 6. As directed by attack coordinator |               | 36. Designated forward observer      |
|                                      |               | 37. Designated unit                  |
|                                      |               | 38. Independently                    |
|                                      |               | 39. ____                             |

*Example: 3B3—2134—B DESIG A—37—DESIG GHI . . . Conduct OTH attack when ready against track 2134 using surface action plan A as coordinated by ship GHI.*

3C . . . . . I am conducting OTH attack using surface action plan \_\_\_\_ (from List A) against target or target indicated using \_\_\_\_ (from List B) as follows \_\_\_\_ (from List C).

- |               |  |                                       |
|---------------|--|---------------------------------------|
| <i>List A</i> | <i>List B</i>                          | <i>List C</i>                         |
| 1. Reserved   | A. Designated target reporting unit(s) | 10. Immediately                       |
| 2. DESIG ____ | B. Own sensors only                    | 11. Launch time ____                  |
| 3. ____       | C. Designated forward observer(s)      | 12. When ready                        |
|               |  | 13. To achieve time on target of ____ |
|               |  | 14. As previously directed            |

*Example: 3C2 DESIG A—2134—B14 . . . I am conducting OTH attack using surface action plan A against track 2134 using own sensors only as previously directed.*

- 3D . . . . . Fire. \_\_\_\_\_ fire on target or target indicated.
1. Commence (commence previously directed fire mission or an urgent attack)
  2. Hold (stop launch and destroy all missiles in flight)
  3. Cease (stop launch, do not destroy missiles in flight)
  4. Check (stop launch, stand by to resume)
  5. Resume (launch remainder missiles allocated for this fire mission)
  6. Repeat (repeat fire mission with same number of missiles at the same target)
- 3E . . . . . I have \_\_\_\_\_ fire on target or target indicated.
1. Commenced ( \_\_\_\_\_ launched ASSM)
  2. Held (stopped launch and destroyed all missiles in flight)
  3. Ceased (fired ordered number of missiles)
  4. Checked (stopped launch, standing by to resume)
  5. Resumed (launching remaining allocated missiles)
  6. Repeated (launching same number of allocated missiles)
- 3F . . . . . When ordered to engage, unit(s) indicated attack target or target indicated with type of missile indicated following DESIG (number may be indicated by numerals following TACK).
- 3G . . . . . Designated firing unit's position is \_\_\_\_\_ .
- 3H . . . . . Target reporting unit is to take station for reporting data on target or target indicated as required, reporting own position in \_\_\_\_\_ (from *List A*).
- |  |                       |
|--|-----------------------|
| <i>List A</i>  | <i>List B</i>         |
| 1. _____ (latitude) _____ (longitude)  | A. Reference position |
| 2. _____ (x coordinate) _____ (y coordinate)   | B. Firing unit        |
| 3. Bearing _____° T and range _____<br>(thousand yards) from _____ (from <i>List B</i> ) | C. Indicated unit     |
- 3I . . . . . I am reporting data on target or target indicated from position \_\_\_\_\_ (from *List A*).
- |  |                       |
|--|-----------------------|
| <i>List A</i>  | <i>List B</i>         |
| 1. _____ (latitude) _____ (longitude)  | A. Reference position |
| 2. _____ (x coordinate) _____ (y coordinate)   | B. Firing unit        |
| 3. Bearing _____° T and range _____<br>(thousand yards) from _____ (from <i>List B</i> ) | C. Indicated unit     |
- 3J . . . . . Intended long-range ASSM line of fire is \_\_\_\_\_° T.
- 3K . . . . . Request intended long-range ASSM line of fire (° T).
- 3L . . . . . Reserved.
- 3M . . . . . Reserved.
- 3N . . . . . Reserved.
- 3O . . . . . Reserved.
- 3P . . . . . Unit designated is to report attack results.
- 3Q . . . . . Estimate of results of attack on target by designated firing unit(s) is \_\_\_\_\_ .
- |                    |                       |
|--------------------|-----------------------|
| 1. Sunk            | 6. Dead in the water  |
| 2. Sinking         | 7. Underway but hit   |
| 3. Heavily damaged | 8. Miss               |
| 4. Lightly damaged | 9. Missile unobserved |
| 5. Undamaged       | 10. Unable to assess  |

3R . . . . . Use \_\_\_\_ (from *List A*) terminal guidance with \_\_\_\_ (from *List B*) search pattern.

- List A*
1. Active
  2. Passive
  3. Active/passive
  4. Passive/active
  5. \_\_\_\_

- List B*
- A. Small
  - B. Medium
  - C. Large
  - D. BOL unmodified
  - E. BOL with minimum attack range of \_\_\_\_ thousand yards
  - F. BOL with maximum attack range of \_\_\_\_ thousand yards
  - G. Mode \_\_\_\_

3S . . . . . I am using \_\_\_\_ (from *List A*) terminal guidance and \_\_\_\_ (from *List B*) search pattern.

- List A*
1. Active
  2. Passive
  3. Active/passive
  4. Passive/active
  5. \_\_\_\_

- List B*
- A. Small
  - B. Medium
  - C. Large
  - D. BOL unmodified
  - E. BOL with minimum attack range of \_\_\_\_ thousand yards
  - F. BOL with maximum attack range of \_\_\_\_ thousand yards
  - G. Mode \_\_\_\_

3T . . . . . The area of probability for target or target indicated is as follows:

- (a) Bearing, latitude, or x coordinate
- (b) Reference point
- (c) Distance, longitude, or y coordinate
- (d) Semi-major axis
- (e) Semi-minor axis
- (f) Orientation of ellipse
- (g) Time ellipse is valid
- (h) Target course
- (i) Target speed
- (j) Probability of containment

*Example: 3T—125—A—45—15—3015 10 45—1215—NEGAT—NEGAT—90—DESIG 2164 . . .*  
*The area of probability for track 2164 is 125° T from reference point A, distance 45 nm. The ellipse is 30 nm X 60 nm, oriented 045° T, at time 1215 ZULU. Target course and speed are unknown. Probability that the target is within the ellipse is 90 percent.*

3U . . . . . Range within 10° of the line of fire is \_\_\_\_ (from *List A*) and within a 20 nm radius of the target is \_\_\_\_ (from *List B*).

- List A*
1. Clear
  2. Foul by \_\_\_\_ (number of ships or radar contacts)
  3. Unable to assess

- List B*
- A. Clear
  - B. Foul by \_\_\_\_ (number of ships or radar contacts)
  - C. Unable to assess

3V . . . . . Prepare to observe. \_\_\_\_ (number) of ASSM fired by designated firing unit(s) will be at target in \_\_\_\_ (seconds).

3W . . . . . Long-range ASSMs are to be fired on target or target indicated to achieve a time on target of \_\_\_\_ .

3X . . . . . Reserved.

3Y . . . . . Unit designated is to take station on bearing \_\_\_\_\_° T from firing unit or unit indicated, distance \_\_\_\_\_ nm, (and/or in position \_\_\_\_\_) to act as forward observer for controlling missile flight against target indicated.

3Z . . . . . Reserved.

## CHAPTER 40

# Surface Action Table — To-the-Horizon Range Engagement

- 4A . . . . . Carry out action plan \_\_\_\_ against target or target indicated.
1. Reserved
  2. Reserved
  3. DESIG \_\_\_\_
  4. \_\_\_\_
- 4B . . . . . Engage (with \_\_\_\_ ) on target indicated (or target bearing \_\_\_\_ ° T from this unit or unit indicated) (range \_\_\_\_ thousand yards).
- |                          |                     |
|--------------------------|---------------------|
| 1. Short-range SSMs      | 7. Rockets          |
| 2. Long-range SAMs       | 8. Close-range guns |
| 3. Medium-range SAMs     | 9. Machineguns      |
| 4. Short-range SAMs      | 10. Torpedoes       |
| 5. Main gun battery      | 11. All weapons     |
| 6. Secondary gun battery |                     |
- 4C . . . . . Cease fire (with \_\_\_\_ ) on target indicated (or target bearing \_\_\_\_ from this unit or unit indicated) (range \_\_\_\_ thousand yards).
- |                          |                     |
|--------------------------|---------------------|
| 1. Short-range SSMs      | 7. Rockets          |
| 2. Long-range SAMs       | 8. Close-range guns |
| 3. Medium-range SAMs     | 9. Machineguns      |
| 4. Short-range SAMs      | 10. Torpedoes       |
| 5. Main gun battery      | 11. All weapons     |
| 6. Secondary gun battery |                     |
- 4D . . . . . I am engaging target or target indicated with \_\_\_\_ .
- |                          |                     |
|--------------------------|---------------------|
| 1. Short-range SSMs      | 7. Rockets          |
| 2. Long-range SAMs       | 8. Close-range guns |
| 3. Medium-range SAMs     | 9. Machineguns      |
| 4. Short-range SAMs      | 10. Torpedoes       |
| 5. Main gun battery      | 11. All weapons     |
| 6. Secondary gun battery |                     |
- 4E . . . . . I have ceased firing on target or target indicated with \_\_\_\_ .
- |                          |                     |
|--------------------------|---------------------|
| 1. Short-range SSMs      | 7. Rockets          |
| 2. Long-range SAMs       | 8. Close-range guns |
| 3. Medium-range SAMs     | 9. Machineguns      |
| 4. Short-range SAMs      | 10. Torpedoes       |
| 5. Main gun battery      | 11. All weapons     |
| 6. Secondary gun battery |                     |
- 4F . . . . . Illuminate target or sector \_\_\_\_ (with \_\_\_\_ ) (bearing \_\_\_\_ ° T) (range \_\_\_\_ thousand yards).
- |               |                 |
|---------------|-----------------|
| 1. Starshells | 3. Searchlights |
| 2. Rockets    | 4. Flares       |
- 4G . . . . . I am illuminating (with \_\_\_\_ ).
- |               |                 |
|---------------|-----------------|
| 1. Starshells | 3. Searchlights |
| 2. Rockets    | 4. Flares       |

4H . . . . . Fire starshell search spread to \_\_\_\_\_, and upon attaining satisfactory adjustment, maintain continuous illumination of target. Suspected target's bearing and range may be added.

1. Illuminate suspected target
2. Locate suspected target

4I . . . . . Follow movements of this unit or unit indicated in opening fire.

4J . . . . . Fire distribution is \_\_\_\_\_.

1. Normal fire distribution
2. Concentrate fire on target indicated
3. Split fire distribution

*Example: 4J2 DESIG 1234 . . . Concentrate fire on track 1234.*

4K . . . . . Fire independently ( \_\_\_\_\_ ).

1. At targets of opportunity
2. At nearest enemy
3. At fast patrol boat targets

4L . . . . . Shift fire \_\_\_\_\_.

1. To target bearing \_\_\_\_\_° T from this unit or unit indicated
2. To right of target being engaged
3. To left of target being engaged

4M. . . . . Fire on \_\_\_\_\_.

1. Center of formation
2. Leading ship of formation
3. Left of formation
4. Right of formation
5. Ship number \_\_\_\_\_ in line counting from left to right
6. Ship number \_\_\_\_\_ in line counting from right to left
7. Nearest ship
8. On track number \_\_\_\_\_
9. On target bearing \_\_\_\_\_ from reference point \_\_\_\_\_ at \_\_\_\_\_ thousand yards

4N . . . . . Track target or target indicated and be prepared to engage.

4O . . . . . Fire pre-action calibration (bearing \_\_\_\_\_° T) (range \_\_\_\_\_ thousand yards).

4P . . . . . Use ammunition with \_\_\_\_\_ fuzes.

1. Airburst
2. Impact
3. Mixed impact and airburst
4. Proximity
5. Proximity/time

4Q . . . . . Reserved

4R . . . . . Verify fall of shot using standard procedure.

4S . . . . . Fall of shot is \_\_\_\_\_.

- |                                 |               |
|---------------------------------|---------------|
| 1. Over ( _____ hundred yards)  | 6. Far short  |
| 2. Short ( _____ hundred yards) | 7. Far right  |
| 3. Right ( _____ tens of yards) | 8. Far left   |
| 4. Left ( _____ tens of yards)  | 9. Unobserved |
| 5. Far over                     | 10. Straddle  |



4T . . . . . Short-range SSMs are to be fired on target or target indicated to achieve a time on target of \_\_\_\_ .

4U . . . . . Reserved.

4V . . . . . Reserved.

4W . . . . . Reserved.

4X . . . . . Reserved.

4Y . . . . . Reserved.

4Z . . . . . Reserved.







## CHAPTER 42

# Signal Index

*Note: This chapter provides an index that can be used to encode signals. It is provided to assist the user in locating signals. It does not provide detailed procedures for using or executing the signals. For that information the user must refer to other sections of the manual.*

	<i>Signal</i>	<i>Page</i>
<b>A</b>		
ABANDON (ED)		
abandon target . . . . .	EX10	28-1
exercise/event is abandoned . . . . .	EX3	28-1
ABEAM		
replenish by method at abeam station . . . . .	RS8	35-2
take abeam station for replenishment/transfer . . . . .	STATION L	12-2
ABLE TO CONTINUE ON ASSIGNED MISSION . . . . .	RE10	34-2
ABORTED, ATTACK . . . . .	1D	23-1
ACKNOWLEDGING		
expedite signals by acknowledging promptly . . . . .	CM11	25-2
ACOUSTIC		
cease all acoustic emissions . . . . .	EMERG 2	18-3
I am experiencing acoustic interference . . . . .	1I	23-1
stream/recover towed acoustic arrays . . . . .	AS59	22-7
ACT (ACTION)		
act independently . . . . .	TA92	16-4
carried out, action is being . . . . .	BA	17-1
carried out, action is not being . . . . .	BI	17-1
carry out action plan against target . . . . .	4A	40-1
completed, action is. . . . .	BB	17-1
expedite action . . . . .	TA44	16-2
fight action . . . . .	SU19	36-2
take action (aircraft operations). . . . .	AV28	24-1
take individual avoiding action . . . . .	EMERG 1	18-3
weapons can be brought into action . . . . .	RE22	34-1
ADJUST (ING) COURSE		
adjust base course . . . . .	CORPEN B	14-1
adjust course (towing) . . . . .	6V	41-2
I am adjusting course . . . . .	P CORPEN	14-3
AFFIRMATIVE (towing). . . . .	6Y	41-2

	<i>Signal</i>	<i>Page</i>
<b>A</b>		
<b>AHEAD</b>		
commence run from ahead . . . . .	EX1	18-1
disengage ahead . . . . .	TA97	16-4
keep ahead . . . . .	TA100	16-5
mine detected/sighted ahead . . . . .	EMERG M	18-2
my engines are turning ahead . . . . .	H SPEED	15-3
my engines are turning ahead (towing) . . . . .	6J	41-1
pass ahead of unit . . . . .	TA103	16-5
take station ahead of Guide . . . . .	STATION A	12-2
AIR BEDDING AND BUNTING . . . . .	AD21	21-3
<b>AIRCRAFT</b>		
contact, aircraft holds . . . . .	AS34	22-4
contact with submarine, aircraft has indicated . . . . .	AS31	22-4
distress, aircraft in . . . . .	AV7	24-1
enemy detected/sighted bearing, aircraft presumed . . . . .	EMERG A	18-1
friendly aircraft crashed . . . . .	EMERG V	18-2
friendly aircraft detected . . . . .	AA2	19-1
landing in emergency, I have aircraft . . . . .	EMERG F	18-1
number and state of health of personnel rescued from crashed aircraft . . . . .	AV10	24-1
progress of aircraft operations . . . . .	AV26	24-1
rescue crew of aircraft sinking/sunk . . . . .	TA63	16-3
safety sectors for friendly aircraft . . . . .	AA4	19-1
speed for impending launching/recovery of aircraft. . . . .	F SPEED	15-2
splashed, aircraft . . . . .	7S	20-2
unable to operate aircraft . . . . .	AV30	24-2
unidentified aircraft detected/sighted bearing. . . . .	EMERG B	18-1
AIR PLAN INDICATED, CARRY OUT . . . . .	AS96	22-11
<b>ALONGSIDE</b>		
secure alongside berth/unit . . . . .	ED28	27-2
take alongside station for replenishment/transfer. . . . .	STATION L	12-2
<b>ALTER COURSE</b> . . . . .		
I am about to alter course. . . . .	CORPEN	14-1
intend to alter course . . . . .	X CORPEN	14-3
replenishment units alter course when ordered . . . . .	H CORPEN	14-3
	CORPEN N	14-2
AMBIENT NOISE . . . . .	AS51	22-7
<b>AMMUNITION</b>		
and fuzes . . . . .	GM17	29-2
replenish . . . . .	RS7	35-2
status . . . . .	RE29	34-3
use ammunition with fuzes . . . . .	4P	40-2

*Signal*      *Page***A**

## ANCHOR (S) (AGE) (ING)

as indicated, anchor . . . . .	ED2	27-1
as indicated, anchor is . . . . .	ED1	27-1
bears from foremast, anchor . . . . .	ED3	27-1
ceremonially, anchor . . . . .	AD10	21-2
line of direction between anchors. . . . .	ED12	27-2
moor with anchors . . . . .	ED10	27-2
proceed to anchorage . . . . .	TA88	16-4
report progress of anchoring . . . . .	AD39	21-4
set anchor watch . . . . .	ED4	27-1
ship is at anchor . . . . .	ED7	27-1
weigh anchor . . . . .	ED18	27-2

## ANGLE

deflection angle for firing . . . . .	9R	37-2
use shot angle . . . . .	9N	37-1

## ANSWER (ING)

expedite answer to signal. . . . .	TA44	16-2
expedite signals by answering promptly . . . . .	CM11	25-2

## APPROACH

commence/commencing approach (towing) . . . . .	6H	41-1
intend approach to datum indicated . . . . .	AS82	22-10
datum/contact information, approach to . . . . .	AS83	22-10

## AREA

for area search, carry out ASW plan indicated . . . . .	AS100	22-11
in my area I hold number unknown vessels . . . . .	IN10	30-1
operate in area (exercise) . . . . .	EX6	28-1
probability of target is as indicated, area of. . . . .	3T	39-3
remain in assigned area during the night. . . . .	TA109	16-5
weapons coordination method in force . . . . .	AA7	19-1

ARRIVAL, ESTIMATED TIME OF . . . . .	NA34	32-3
--------------------------------------	------	------

ASPECT, SUBMARINE. . . . .	1K	23-2
----------------------------	----	------

## ASSIGNED

able to continue on assigned mission . . . . .	RE10	34-2
berth (See BERTH)		
remain in assigned area during the night. . . . .	TA109	16-5
take assigned station . . . . .	STATION	12-1
you are assigned to. . . . .	CO1	26-1

## ASSIST (ING) (ANCE)

assume duties of assisting ship. . . . .	1B	23-1
boat in trouble on bearing, assist . . . . .	AD1	21-1
damaged ship or ship indicated, assist . . . . .	TA53	16-2
I am assisting ship . . . . .	1A	23-1

Signal Page

**A**

unit, assist . . . . .	TA52	16-2
require assistance . . . . .	RE7	34-1
send rescue and assistance detail/team . . . . .	RE17	34-2
<b>ASSUME</b>		
bathythermograph guard duty . . . . .	AS24	22-2
command as scene of action commander . . . . .	AS20	22-2
command as search attack unit commander . . . . .	AS18	22-2
command as surface action group commander . . . . .	SU10	36-1
duties of attacking/assisting/directing ship . . . . .	1B	23-1
duty indicated . . . . .	TA54	16-3
radar guard duty . . . . .	RA1	33-1
sequence number. . . . .	STATION F	12-2
tactical command . . . . .	CO14	26-1
tactical control . . . . .	CO15	26-1
task/type organization . . . . .	CO10	26-1
<b>ASTERN</b>		
commence run from astern . . . . .	EX1	18-1
disengage astern . . . . .	TA97	16-5
keep astern . . . . .	TA100	16-5
my engines are turning astern . . . . .	H SPEED	15-3
my engines are turning astern (towing). . . . .	6J	41-1
pass astern of unit . . . . .	TA103	16-5
stream/recover astern fueling rig . . . . .	RS11	35-3
submarine is close astern. . . . .	1X	23-3
take astern station for replenishment/transfer . . . . .	STATION L	12-2
take station astern of Guide . . . . .	STATION B	12-2
<b>ATTACK (ING)</b>		
assume duties of attacking ship . . . . .	1B	23-1
attack . . . . .	1D	23-1
	SU3	36-1
ASW attack method, use . . . . .	AS2	22-1
avoid attack, maneuver independently to. . . . .	TA93	16-4
conduct attack . . . . .	1E	23-1
conduct over-the-horizon attack against target . . . . .	3B	39-1
continue to close enemy after attack to disguise moment of firing torpedoes. . . . .	9I	37-1
coordinated, attack is to be . . . . .	SU5	36-1
I am attacking ship . . . . .	1A	23-1
make deliberate/vector aircraft/urgent attack. . . . .	AS1	22-1
results, designated unit report attack . . . . .	3P	39-2
results of attack on target. . . . .	3Q	39-2
torpedo attack, method of. . . . .	9H	37-1
torpedo attack plan, use . . . . .	9E	37-1
torpedo attack, proceed to most advantageous position for . . . . .	SU30	36-3
torpedo attack sectors, proceed to . . . . .	9F	37-1



	<i>Signal</i>	<i>Page</i>
<b>A</b>		
torpedoes, attack with . . . . .	9C	37-1
torpedoes in sector, attack with. . . . .	9G	37-1
when ordered to engage, units attack target with missiles . . . . .	3F	39-2
your sector of attack . . . . .	SU27	36-3
ATTENTION IS CALLED TO		
bearing . . . . .	TA42	16-2
danger or emergency on bearing . . . . .	EMERG	18-1
publication, plan, or operation order . . . . .	AD32	21-4
AVAILABLE		
personnel remaining available for duty . . . . .	RE3	34-1
shaft power available . . . . .	RE47	34-4
AVOID (ING)		
maneuver independently to avoid attack . . . . .	TA93	16-4
maneuver to avoid shipping . . . . .	TA101	16-5
take individual avoiding action . . . . .	EMERG 1	18-3
AWNINGS, FURL/SPREAD . . . . .	AD22	21-3
<b>B</b>		
BALLISTIC WIND. . . . .	GM4	29-1
find ballistic wind . . . . .	GM3	29-1
BASE COURSE . . . . .	B CORPEN	14-2
adjust base course . . . . .	CORPEN B	14-1
base course will be . . . . .	J CORPEN	14-3
remain on present base course during the night . . . . .	TA109	16-5
torpedo course, base . . . . .	9L	37-1
BASE SPEED. . . . .	B SPEED	15-2
BATHYTHERMOGRAPH		
assume bathythermograph guard duty . . . . .	AS24	22-2
act independently to take bathythermograph readings . . . . .	TA92	16-4
readings. . . . .	AS25	22-3
BAY IS OPEN/CLOSED . . . . .	ED56	27-3
BEACH GUARD/LIAISON OFFICER, SEND. . . . .	AD27	21-3
BEAR (S)		
anchor bears from foremast . . . . .	ED3	27-1
datum/contact bears from unit . . . . .	AS85	22-10
sonobuoy pattern bears from unit. . . . .	AS90	22-10
unit bears from unit . . . . .	TA32	16-2
you bear from unit/position . . . . .	TA17	16-1

Signal Page

**B****BEARING (S)**

anchor on bearing/line of bearing . . . . .	ED2	27-1
assist boat in trouble on bearing . . . . .	AD1	21-1
attention is called to bearing . . . . .	TA42	16-2
attention is called to danger or emergency on bearing . . . . .	EMERG	18-1
bearings and distances are to be preserved/resumed . . . . .	TA11	16-1
close target by steady bearings. . . . .	9Z	37-3
contact's bearing . . . . .	2I	38-2
firing limit bearings . . . . .	GM9	29-1
form line of bearing . . . . .	FORM	11-2
man overboard sighted bearing. . . . .	TA46	16-2
relative bearing (See RELATIVE BEARINGS)		
true bearing (See TRUE BEARINGS)		

BEDDING, AIR . . . . .	AD21	21-3
------------------------	------	------

**BERTH (ING)**

anchor in berth . . . . .	ED2	27-1
assignment of ship/unit, berth . . . . .	ED22	27-2
clear berth for unit . . . . .	ED26	27-2
hoist your berth assignment . . . . .	ED23	27-2
moor with anchors in berth . . . . .	ED10	27-2
occupied, berth assigned me is. . . . .	ED24	27-2
proceed independently to berth. . . . .	TA88	16-4
report progress of berthing . . . . .	AD39	21-4
secure alongside berth . . . . .	ED28	27-2
shift berth to berth/buoy. . . . .	ED31	27-3

BILGES, PUMP. . . . .	AD26	21-3
-----------------------	------	------

BLOW TUBES . . . . .	TA43	16-2
----------------------	------	------

**BOARD (ING)**

completed, boarding is . . . . .	IN6	30-1
I have boarding responsibility for . . . . .	IN9	30-1
my boarding party is . . . . .	IN4	30-1
request unit assume boarding responsibility . . . . .	IN8	30-1
vessel is/is not cooperating with/resisting my boarding party. . . . .	IN5	30-1
you are directed to board vessel . . . . .	IN2	30-1

**BOAT (S) (ING)**

all boats are. . . . .	AD4	21-1
assist boat in trouble on bearing . . . . .	AD1	21-1
capsized or in danger, boat. . . . .	AD2	21-1
hoist all boats . . . . .	AD6	21-1
send boat . . . . .	AD5	21-1
suspend all boating . . . . .	AD6	21-1

BOLO/GUNLINE, PASS (towing). . . . .	6N	41-1
--------------------------------------	----	------

	<i>Signal</i>	<i>Page</i>
		<b>B</b>
BOMBS, SHIP DAMAGED BY . . . . .	RE11	34-2
BORES CLEAR. . . . .	GM12	29-1
BOTTOM		
conditions, bottom . . . . .	ED5	27-1
for bottom search, carry out ASW plan indicated. . . . .	AS100	22-11
BOTTOM BOUNCE		
I am maneuvering to maintain bottom bounce contact . . . . .	1G	23-1
sonar mode of operation is bottom bounce. . . . .	AS60	22-8
BREAKAWAY, EMERGENCY . . . . .	EMERG 6	18-3
BREAKDOWN		
unable to keep station/carry out movements due to breakdown . . . . .	B STATION	12-3
BREAK OFF . . . . .	1Z	23-3
BUNTING, AIR . . . . .	AD21	21-3
BUOY (S)		
secure to buoys. . . . .	ED29	27-3
shift berth to buoy. . . . .	ED31	27-3
		<b>C</b>
CALIBRATION, FIRE PRE-ACTION . . . . .	4O	40-2
CALL SIGNS		
sequence numbers are in order of call signs . . . . .	S FORM	11-4
CANCELED, EXERCISE/EVENT IS . . . . .	EX3	28-1
CAPSIZED, BOAT . . . . .	AD2	21-1
CARGO OF VESSEL . . . . .	IN7	30-1
CARRY (IED) (ING) OUT		
action is being carried out . . . . .	BA	17-1
action is not being carried out . . . . .	BI	17-1
action plan against target, carry out . . . . .	4A	40-1
air plan indicated, carry out. . . . .	AS96	22-11
ASW practice number, carry out . . . . .	AS62	22-8
ASW search plan, carry out. . . . .	AS103	22-11
ASW support method, carry out . . . . .	AS105	22-12
flight operations, carry out . . . . .	AV16	24-1
for type of search, carry out ASW plan indicated. . . . .	AS100	22-11

	<i>Signal</i>	<i>Page</i>
<b>C</b>		
helicopter operations, I am carrying out . . . . .	AV26	24-1
intercepting search, carry out. . . . .	AS99	22-11
CAST SHIP . . . . .	ED6	27-1
CASUALTY (See PERSONNEL)		
CAVITATION		
proceed at cavitation speed . . . . .	SPEED C	15-1
proceed clear of submarine and maintain cavitation speed/avoid cavitation . . . . .	AS65	22-8
CEASE (D)		
acoustic emissions, cease all . . . . .	EMERG 2	18-3
electromagnetic emissions, cease all. . . . .	EMERG 3	18-3
exercise/event is to cease now . . . . .	EX3	28-1
fire on target, cease. . . . .	3D	39-2
fire on target, I have ceased . . . . .	3E	39-2
fire on target indicated, cease . . . . .	4C	40-1
fire on target indicated, I have ceased . . . . .	4E	40-1
operation, cease . . . . .	TA110	16-6
passive search and commence active search, cease . . . . .	AS22	22-1
run is to cease now . . . . .	EX8	28-1
CEILING . . . . .	ME1	31-1
CENTER OF FORMATION BEARS . . . . .	K FORM	11-4
CEREMONIALLY . . . . .	AD10	21-2
CHAIN (towing). . . . .	6R	41-2
veer chain. . . . .	ED16	27-2
CHALLENGE		
my challenge is in progress/completed . . . . .	IN3	30-1
operate IFF/SIF to challenge and identify target . . . . .	RA6	33-1
CHANGING SPEED . . . . .	D SPEED	15-2
CHANNEL IS OPEN/CLOSED . . . . .	ED56	27-3
CHASE AND RECOVER TORPEDOES . . . . .	SU35	36-3
CHECK FIRE ON TARGET. . . . .	3D	39-2
I have checked fire on target . . . . .	3E	39-2
CHEER SHIP . . . . .	AD10	21-2
CIRCULAR FORMATION, FORM . . . . .	FORM 14-19	11-1

*Signal*      *Page***C**

## CLEAR (ED)

act independently to pass clear of shipping, resume station		
when clear . . . . .	TA92	16-4
anchor is clear . . . . .	ED1	27-1
berth for unit, clear . . . . .	ED26	27-2
bores clear . . . . .	GM12	29-1
clear all sides, using emergency breakaway procedure . . . . .	EMERG 6	18-3
colors, clear. . . . .	AD11	21-2
formation/unit, clear. . . . .	TA85	16-3
form helicopter action group and clear the force . . . . .	SU13	36-2
form surface action group and clear the force . . . . .	SU11	36-2
kedge is clear . . . . .	ED9	27-1
keep clear of unit/position. . . . .	1O	23-2
keep clear during maneuvers. . . . .	TA100	16-5
keep clear, you are on collision course with me . . . . .	EMERG C	18-1
line of fire, clear. . . . .	SU14	36-2
proceed clear of submarine. . . . .	AS65	22-8
range, clear . . . . .	GM8	29-1
range clear . . . . .	GM10	29-1
vessel, contact is cleared . . . . .	IN1	30-1

## CLOSE (D)

bay/channel/entrance/gate/harbor/port/river is closed . . . . .	ED56	27-3
bow/stern (towing), will close your . . . . .	6F	41-1
continue to close enemy after attack to disguise moment of firing torpedoes. . . . .	9I	37-1
me or unit, close . . . . .	TA94	16-4
order submarine to close to facilitate communications . . . . .	AS64	22-8
radio watch, close down . . . . .	CM1	25-1
range, close. . . . .	SU4	36-1
submarine is close to side/astern. . . . .	1X	23-3
target by steady bearings, close . . . . .	9Z	37-3
transfer, close for . . . . .	RS1	35-1
up, close . . . . .	TA95	16-4

CLOUD COVER . . . . .	ME2	31-1
-----------------------	-----	------

## COLLISION

keep clear, you are on collision course with me . . . . .	EMERG C	18-1
ship has been in a collision . . . . .	EMERG D	18-1
ship damaged by collision . . . . .	RE11	34-2

COLORS . . . . .	AD11	21-2
size of colors . . . . .	AD12	21-2

## COLUMN (See FORM)

COLUMN OPEN ORDER, FORM . . . . .	FORM E	11-3
-----------------------------------	--------	------

COMEX TIME. . . . .	AS76	22-9
---------------------	------	------

	<i>Signal</i>	<i>Page</i>
<b>C</b>		
COME TO DEPTH . . . . .	AS70	22-8
COMMAND		
assume command as search attack unit commander . . . . .	AS18	22-2
assume command as surface action group commander . . . . .	SU10	36-1
assume/resume tactical command (or I am assuming/resuming) . . . . .	CO14	26-1
COMMENCE (D) (ING) (MENT)		
active search, cease passive search and commence . . . . .	AS22	22-2
approach (towing), commence/commencing . . . . .	6H	41-1
attack, I am commencing . . . . .	1D	23-1
exercise/event is to commence now . . . . .	EX3	28-1
estimated time of commencement . . . . .	NA34	32-3
estimated time of replenishment commencement . . . . .	RS12	35-3
fire on target, commence . . . . .	3D	39-2
fire on target, I have commenced. . . . .	3E	39-2
operation/run, commence. . . . .	TA110	16-6
run, commence exercise . . . . .	EX1	28-1
run is to commence now . . . . .	EX8	28-1
tactical maneuvers by flaghoist are to commence now. . . . .	EX9	28-1
tow (towing), I am commencing/ready to commence. . . . .	6S	41-2
COMMUNICATION (S)		
come to communication depth . . . . .	AS70	22-8
difficulties, communication . . . . .	CM2	25-1
establish communications by . . . . .	CM4	25-1
establish radio communications . . . . .	CM5	25-1
frequency from column in communication plan, use . . . . .	CM10	25-2
groups from International Code of Signals . . . . .	CM13	25-2
method, use communication . . . . .	CM6	25-1
not in radio communication with you . . . . .	CM2	25-1
order submarine to come to communication depth/close to facilitate communications . . . . .	AS64	22-8
plan in force, communication . . . . .	CM9	25-2
submerge to communication depth. . . . .	AS69	22-8
underwater communications with submarine, I have . . . . .	1N	23-2
COMPANY		
proceed in company . . . . .	TA88	16-4
ships in company . . . . .	TA29	16-1
COMPASSES, CHECK. . . . .	NA3	32-1
COMPLETED (ION)		
action completed . . . . .	BB	17-1
attack completed . . . . .	1D	23-1
boarding completed. . . . .	IN6	30-1

*Signal*      *Page***C**

estimated time of completion . . . . .	NA34	32-3
estimated time of completion of replenishment . . . . .	RS12	35-3
duty completed . . . . .	TA60	16-3
exercise/event completed. . . . .	EX3	28-1
my challenge is completed . . . . .	IN3	30-1
operation completed . . . . .	TA110	16-6
repairs on equipment completed . . . . .	RE34	34-3
run completed. . . . .	EX8	28-1
 COMPLY WITH MY MESSAGE . . . . .	 CO4	 26-1
 CONDITIONS		
bottom conditions . . . . .	ED5	27-1
target conditions . . . . .	GM14	29-2
towing conditions . . . . .	6W	41-2
 CONDUCT (ED) (ING)		
attack, conduct . . . . .	1E	23-1
exercise/event is being conducted . . . . .	EX3	28-1
exercise to be conducted . . . . .	EX2	28-1
helicopter operations, intend to conduct . . . . .	AV17	24-1
over-the-horizon attack against target, conduct . . . . .	3B	39-1
over-the-horizon attack against target, I am conducting . . . . .	3C	39-1
sonar search, conduct . . . . .	AS93	22-11
take charge and conduct the exercise . . . . .	CO16	26-1
 CONFORM TO MOVEMENTS OF UNIT . . . . .	 TA70	 16-3
 CONTACT		
active sonar contact on bearing from unit, I am holding . . . . .	1L	23-2
aircraft has indicated contact with submarine . . . . .	AS31	22-4
aircraft holds contact . . . . .	AS34	22-4
approach to contact information . . . . .	AS83	22-10
bearing, contact's . . . . .	2I	38-2
bears from unit, contact. . . . .	AS85	22-10
consider your present contact is . . . . .	1S	23-2
contact is . . . . .	2F	38-1
contact is as indicated . . . . .	AS32	22-4
contact is (identified as). . . . .	IN1	30-1
course, contact's . . . . .	L CORPEN	14-3
course and speed, contact's . . . . .	2J	38-2
data pertains to, contact . . . . .	2E	38-1
designations for contacts . . . . .	2C	38-1
disappearing radar contact detected bearing. . . . .	EMERG W	18-2
form search attack unit and investigate contact . . . . .	AS19	22-2
held by unit, contact is . . . . .	2K	38-2
identified, contact is correctly/incorrectly . . . . .	2M	38-2

Signal Page

**C**

investigate contact . . . . .	2L	38-2
investigate sonar contact, leave present assignment to . . . . .	AS15	22-2
investigating unknown contact, I am . . . . .	EMERG Q	18-2
keep between unit and contact . . . . .	TA100	16-5
location, contact's . . . . .	2G	38-1
lost contact, I have . . . . .	1Y	23-3
lost contact indicated, I have . . . . .	2H	38-1
lost contact, in event of; carry out search plan . . . . .	1C	23-1
lost contact search, for; carry out ASW plan indicated . . . . .	AS100	22-11
maintain contact, I am maneuvering to . . . . .	1G	23-1
passive sonar contact. . . . .	1J	23-1
radar contact, I have . . . . .	RA4	33-1
radar contact on bearing from unit, I am holding . . . . .	1H	23-1
radar, contact reported by . . . . .	TA116	16-6
redesignate contact. . . . .	2D	38-1
reference point for contacts. . . . .	2A	38-1
sonar contact, I have . . . . .	1R	23-2
sonar contact is. . . . .	1U	23-3
sonobuoy contact on bearing from unit, I am holding. . . . .	1F	23-1
submarine contact bearing, I have . . . . .	EMERG R	18-2
submarine contact sighted . . . . .	EMERG S	18-2
surface contact sighted . . . . .	EMERG E	18-1
 CONTINUE		
able to continue on assigned mission . . . . .	RE10	34-2
close enemy after attack to disguise moment of firing torpedoes, continue to . . . . .	9I	37-1
search, continue the . . . . .	AS84	22-10
 CONTROL		
alterations of course and speed by replenishment unit, control of . . . . .	RS9	35-2
assume/resume tactical control (or I am assuming/resuming) . . . . .	CO15	26-1
 CONVERGENCE ZONE		
I am maneuvering to maintain convergence zone contact . . . . .	1G	23-1
range, convergence zone. . . . .	AS26	22-2
sonar mode of operation is convergence zone . . . . .	AS60	22-8
 COOPERATING		
vessel is/is not cooperating with my boarding party . . . . .	IN5	30-1
 COURSE . . . . .		
adjust course (towing) . . . . .	K CORPEN	14-3
adjusting course, I am . . . . .	6V	41-2
alter course . . . . .	P CORPEN	14-3
alter course, I am about to . . . . .	CORPEN	14-1
alter course, intend to . . . . .	X CORPEN	14-3
alter course, intend to . . . . .	H CORPEN	14-3



*Signal*      *Page***C**

base course. . . . .	B CORPEN	14-2
base course, adjust. . . . .	CORPEN B	14-1
base course during night, remain on present. . . . .	TA109	16-5
base course will be . . . . .	J CORPEN	14-3
base torpedo course . . . . .	9L	37-1
collision course with me, you are on; keep clear . . . . .	EMERG C	18-1
contact's course. . . . .	L CORPEN	14-3
contact's course and speed. . . . .	2J	38-2
extend duration of course and speed now steaming . . . . .	NA25	32-2
Guide's course . . . . .	G CORPEN	14-3
Guide steer course . . . . .	CORPEN P	14-2
limiting courses and speeds, submarine's . . . . .	AS94	22-11
maintain present course . . . . .	CORPEN U	14-2
my course. . . . .	M CORPEN	14-3
my/submarine diving course . . . . .	AS73	22-8
replenishment course . . . . .	R CORPEN	14-3
replenishment unit, control of alterations of course and speed by . . . . .	RS9	35-2
replenishment units alter course when ordered . . . . .	CORPEN N	14-2
retire on course after firing . . . . .	9Y	37-2
safety course . . . . .	B CORPEN	14-2
safety course, steer. . . . .	CORPEN E	14-1
safety course, submarine . . . . .	AS67	22-8
steer course. . . . .	CORPEN A	14-1
stop the turn and steady on course indicated. . . . .	CORPEN C	13-1
		14-1
torpedo course, mean . . . . .	9M	37-1
turn together to course . . . . .	TURN	13-1
what is your course? . . . . .	INT CORPEN	14-1

**CRASHED**

friendly aircraft crashed. . . . .	EMERG V	18-2
number and state of health of personnel rescued from crashed aircraft . . . . .	AV10	24-1

CRITICAL CONTACT OF INTEREST, CONTACT IS . . . . .	IN1	30-1
--	-----	------

CURRENT, DIRECTION AND SPEED OF . . . . .	NA6	32-1
---	-----	------

**D****DAMAGE (D)**

act independently to repair damage . . . . .	TA92	16-4
assist damaged ship . . . . .	TA53	16-2
flight deck has been damaged . . . . .	RE15	34-2
report damage . . . . .	RE16	34-2
ship damaged by . . . . .	RE11	34-2

Signal Page

**D**

unable to carry out operations due to damage . . . . .	TA111	16-6
unable to operate aircraft due to damage . . . . .	AV30	24-2
unit has suffered damage . . . . .	2W	38-3
unit has sustained damage . . . . .	RE6	34-1
<b>DANGER</b>		
attention is called to danger on bearing . . . . .	EMERG	18-1
boat in danger . . . . .	AD2	21-1
you are standing into danger . . . . .	EMERG U	18-2
<b>DATUM</b>		
approach to datum information . . . . .	AS83	22-10
approach to datum, intend . . . . .	AS82	22-10
bears from unit, datum . . . . .	AS85	22-10
datum is as indicated . . . . .	AS86	22-10
drop marker at datum . . . . .	AS89	22-10
form search attack unit and investigate datum . . . . .	AS19	22-2
leave present assignment to investigate datum . . . . .	AS16	22-2
search for submarine at datum . . . . .	AS92	22-11
DECONTAMINATION PARTY, REQUIRE . . . . .	RE7	34-1
DECOY, SUBMARINE HAS RELEASED. . . . .	1W	23-3
DE-ENERGIZE VARIABLE DEPTH SONAR TRANSDUCER . . . . .	AS55	22-7
DEFLECTION ANGLE FOR FIRING . . . . .	9R	37-2
use independent settings for deflection angle . . . . .	9S	37-2
<b>DELAY (ED)</b>		
delay getting underway . . . . .	ED48	27-3
delay operation until further orders . . . . .	TA110	16-6
my flight operations are delayed temporarily . . . . .	AV26	24-1
DELIBERATE ATTACK, MAKE. . . . .	AS1	22-1
<b>DEPTH</b>		
layer depth . . . . .	AS30	22-4
communication depth, come to . . . . .	AS70	22-8
communication depth, order submarine to come to . . . . .	AS64	22-8
communication depth, submerge to . . . . .	AS69	22-8
fog in direction, depth of . . . . .	ME3	31-1
set torpedo to run at depth . . . . .	9O	37-1
submarine, depth of. . . . .	AS33	22-4
water, depth of . . . . .	NA8	32-1

*Signal*      *Page***D**

## DESIRE

if you desire . . . . .	BJ	17-1
when you desire . . . . .	BK	17-1

## DETACH (ED)

friendly force/unit is temporarily detached . . . . .	TA26	16-1
take position, detach and . . . . .	AS21	22-2
you are detached . . . . .	TA89	16-4

## DETECTED

aircraft presumed enemy detected bearing . . . . .	EMERG A	18-1
disappearing radar contact detected bearing . . . . .	EMERG W	18-2
enemy missile detected bearing . . . . .	EMERG G	18-1
friendly aircraft detected . . . . .	AA2	19-1
mine detected ahead . . . . .	EMERG M	18-2
surface craft detected bearing . . . . .	EMERG J	18-1
torpedo detected bearing . . . . .	EMERG T	18-2
unidentified aircraft detected bearing . . . . .	EMERG B	18-1

DIAMOND FORMATION, FORM . . . . .	FORM D	11-2
-----------------------------------	--------	------

## DIP

colors, dip . . . . .	AD11	21-2
helicopters are to random dip . . . . .	AS87	22-10

## DIRECT (ED) (ING) (ION)

approach to datum, intend direct . . . . .	AS82	22-10
assume duties of directing ship . . . . .	1B	23-1
current, direction and speed of . . . . .	NA6	32-1
I am directing ship . . . . .	1A	23-1
line of direction between anchors . . . . .	ED12	27-2
take charge and proceed as previously directed . . . . .	CO16	26-1
turn together in the direction indicated . . . . .	TURN	13-1
you are directed to vessel . . . . .	IN2	30-1

DISAPPEARING RADAR CONTACT DETECTED . . . . .	EMERG W	18-2
---	---------	------

DISENGAGE . . . . .	TA97	16-4
---------------------	------	------

DISPATCHING CASUALTY . . . . .	AD17	21-2
--------------------------------	------	------

DISPOSE OF REFUSE . . . . .	AD26	21-3
-----------------------------	------	------

## DISTANCE (S)

bearings and distances are to be preserved/resumed . . . . .	TA11	16-1
distance between units/guides of units/standard distance . . . . .	TA14	16-1
distance (towing) . . . . .	6K	41-1

	<i>Signal</i>	<i>Page</i>
<b>D</b>		
line guides resume previous relative bearings and distances from the Guide . . . . .	FORM V	11-3
maintain present distance/take distance/standard distance . . . . .	TA12	16-1
ships resume previous relative bearings and distances from their guides . . . . .	FORM U	11-3
your/unit distance . . . . .	TA18	16-1
<b>DISTRESS</b>		
aircraft in distress . . . . .	AV7	24-1
my boarding party is in distress. . . . .	IN4	30-1
<b>DISTRIBUTED (ION)</b>		
fire distribution is . . . . .	4J	40-2
orders, envelopes, or hand messages are distributed . . . . .	AD33	21-4
DITCHED, AIRCRAFT IN DISTRESS HAS . . . . .	AV7	24-1
<b>DIVE (ING)</b>		
my/submarine diving course . . . . .	AS73	22-8
serial, dive for; report when ready to start exercise. . . . .	AS75	22-9
station, take submarine diving . . . . .	AS71	22-8
DIVERT VESSEL, YOU ARE DIRECTED TO . . . . .	IN2	30-1
DOMES, RAISE/LOWER . . . . .	AS49	22-6
DOPPLER EFFECT . . . . .	1V	23-3
DRESS SHIP . . . . .	AD13	21-2
DRAGGING, ANCHOR IS . . . . .	ED1	27-1
DROP MARKER AT DATUM/IN POSITION . . . . .	AS89	22-10
DUMMY RUN . . . . .	EX8	28-1
DUMP TRASH AND GARBAGE . . . . .	AD26	21-3
<b>DUTY (IES)</b>		
assume bathythermograph guard duty . . . . .	AS24	22-2
assume duties of assisting/attacking/directing ship. . . . .	1B	23-1
assume duty indicated . . . . .	TA54	16-3
assume radar guard duty . . . . .	RA1	33-1
completed, duty. . . . .	TA60	16-3
personnel remaining available for duty . . . . .	RE3	34-1
proceed and report for duty to/on duty assigned . . . . .	TA88	16-4
reporting for duty . . . . .	AD41	21-4

	<i>Signal</i>	<i>Page</i>
<b>E</b>		
ECONOMICAL SPEED, PROCEED AT . . . . .	SPEED O	15-2
ELECTROMAGNETIC EMISSIONS, CEASE ALL . . . . .	EMERG 3	18-3
EMERGENCY		
aircraft landing in emergency, I have . . . . .	EMERG F	18-1
attention is called to emergency on bearing . . . . .	EMERG	18-1
clear all sides, using emergency breakaway procedure . . . . .	EMERG 6	18-3
helicopter landing in emergency, I have . . . . .	EMERG H	18-1
rudder, use emergency . . . . .	TA104	16-5
stand-off range, emergency . . . . .	1O	23-2
ENEMY		
AAW weapons are not to open fire unless target is identified as enemy . . . . .	7T	20-2
aircraft presumed enemy sighted bearing . . . . .	EMERG A	18-1
ASW weapons are not to open fire unless target is identified as enemy . . . . .	AS9	22-1
continue to close enemy after attack to disguise moment of firing torpedoes . . . . .	9I	37-1
form search attack unit and investigate enemy . . . . .	AS19	22-2
missile detected/sighted bearing, enemy . . . . .	EMERG G	18-1
ship to be used as aimpoint for torpedo firing, enemy . . . . .	9J	37-1
ENERGIZE VARIABLE DEPTH SONAR TRANSDUCER . . . . .	AS55	22-7
ENGAGE (ING)		
engage . . . . .	7E	20-1
engaging target indicated, I am . . . . .	4D	40-1
engaging with . . . . .	AA1	19-1
investigate track, be prepared to illuminate and engage . . . . .	SU12	36-2
over-the-horizon missile on target, prepare to engage with target, engage . . . . .	3A	39-1
target, engage . . . . .	2N	38-2
target indicated, engage . . . . .	4B	40-1
track target and be prepared to engage . . . . .	4N	40-2
when ordered to engage, units attack target with missiles . . . . .	3F	39-2
ENGINE (S)		
aircraft in distress has engine failure . . . . .	AV7	24-1
Guide is to stop engines, other ships maintain station . . . . .	SPEED 0	15-1
my engines are turning ahead/astern . . . . .	H SPEED	15-3
my engines are turning ahead/astern/stopped (towing) . . . . .	6J	41-1
proceed clear of submarine, stop engines and tap hull . . . . .	AS65	22-8
stop engines . . . . .	SPEED S	15-2
stop engines (towing) . . . . .	6I	41-1
stop ship by reversing engines . . . . .	SPEED A	15-1

	<i>Signal</i>	<i>Page</i>
<b>E</b>		
<b>ENGINEERING</b>		
maximum speed with present engineering configuration . . . . .	W SPEED	15-3
proceed at maximum speed with present engineering configuration . . .	SPEED M	15-2
unable to keep station or carry out movements due to engineering restrictions . . . . .	B STATION	12-3
<b>ENSIGN, SHIFT . . . . .</b>	AD11	21-2
<b>ENTER (ING)</b>		
harbor, enter . . . . .	ED53	27-3
parade band/guard for entering harbor . . . . .	AD10	27-2
<b>ENTRANCE IS OPEN/CLOSED . . . . .</b>	ED56	27-3
<b>EQUIPMENT</b>		
inoperative, equipment is . . . . .	RE31	34-3
operate equipment indicated . . . . .	RE32	34-3
reduced efficiency, equipment is operating at . . . . .	RE30	34-3
repairs to equipment can be effected. . . . .	RE33	34-3
repairs to equipment completed . . . . .	RE34	34-3
sonar, condition of helicopter/hull. . . . .	AS48	22-6
sonar equipment effectively, unable to operate. . . . .	AS57	22-7
sonar/towed array/variable depth sonar, condition of. . . . .	AS48	22-6
total number of running hours on equipment . . . . .	RE37	34-3
unreliable, equipment is . . . . .	RE36	34-3
<b>ESCORT VESSEL, YOU ARE DIRECTED TO. . . . .</b>	IN2	30-1
<b>ESTIMATED TIME OF . . . . .</b>	NA34	32-3
replenishment. . . . .	RS12	35-3
readiness for sea . . . . .	RE50	34-4
<b>EXCHANGE STATIONS . . . . .</b>	STATION J	12-2
<b>EXERCISE</b>		
come to exercise depth . . . . .	AS70	22-8
commence exercise run . . . . .	EX1	28-1
conducted, exercise to be . . . . .	EX2	28-1
exercise/event is as indicated . . . . .	EX3	28-1
independently, exercise. . . . .	EX4	28-1
initial position for scheduled exercise. . . . .	NA21	32-2
report progress of exercise/event. . . . .	AD39	21-4
report when ready to start exercise, dive for serial . . . . .	AS75	22-9
run completed/commenced/postponed/repeated, exercise. . . . .	EX8	28-1
submerge to exercise depth . . . . .	AS69	22-8
take charge and conduct the exercise . . . . .	CO16	26-1

*Signal*      *Page***E**

## EXPEDITE

action/answer/maneuver/response . . . . .	TA44	16-2
operation . . . . .	TA110	16-6
signals . . . . .	CM11	25-2

## EXPLOSIVE

fire explosive signal charges . . . . .	AS63	22-8
	EX5	28-1
require explosive ordnance disposal team . . . . .	RE7	34-1

## EXTEND (ED)

aircraft/helicopter operations, I have extended . . . . .	AV26	24-1
duration of course and speed now steaming, extend. . . . .	NA25	32-2

**F**

## FACSIMILE

establish communications by facsimile . . . . .	CM4	25-1
use facsimile method . . . . .	CM6	25-1

FALL OF SHOT. . . . .	4S	40-2
verify fall of shot . . . . .	4R	40-2

FATHOMETER OPERATION AUTHORIZED . . . . .	AS55	22-7
---	------	------

FIGHT ACTION. . . . .	SU19	36-2
-----------------------	------	------

## FIRE (D) (ING)

AAW weapons are not to open fire unless target is identified as enemy . . . . .	7T	20-2
AAW weapons may open fire on target not identified as friend. . . . .	7F	20-1
ASW weapons are not to open fire unless target is identified as enemy . . . . .	AS9	22-1
ASW weapons may open fire on target not identified as friend. . . . .	AS11	22-1
ceased fire on target, I have . . . . .	3E	39-2
ceased fire on target indicated, I have . . . . .	4E	40-1
cease fire on target . . . . .	3D	39-2
cease fire on target indicated . . . . .	4C	40-1
clear line of fire . . . . .	SU14	36-2
continue to close enemy after attack to disguise moment of firing torpedoes . . . . .	9I	37-1
deflection angle for firing . . . . .	9R	37-2
designated firing unit's position . . . . .	3G	39-2
distribution is, fire . . . . .	4J	40-2
enemy ship to be used as aimpoint for torpedo firing. . . . .	9J	37-1
explosive signal charges, fire . . . . .	AS63	22-8
	EX5	28-1
fire on . . . . .	4M	40-2

Signal Page

**F**

firing limit bearings . . . . .	GM9	29-1
follow movements of unit in opening fire . . . . .	4I	40-2
hold fire . . . . .	7H	20-1
independently, fire . . . . .	4K	40-2
long-range missile line of fire, intended . . . . .	3J	39-2
long-range missile line of fire, request intended . . . . .	3K	39-2
long-range missiles are to be fired on target . . . . .	3W	39-3
open fire . . . . .	7Q	20-1
pre-action calibration, fire . . . . .	4O	40-2
prepare to observe missile fired on target . . . . .	3V	39-3
range within 10° of line of fire and within 20 nm radius of target . . . . .	3U	39-3
retire on course after firing . . . . .	9Y	37-2
salute, fire a. . . . .	AD10	21-2
shift fire . . . . .	4L	40-2
short-range missiles on target indicated, fire . . . . .	4T	40-3
stand by for weapon firing . . . . .	1D	23-1
starshell search spread to illuminate/locate target, fire . . . . .	4H	40-2
target, I have fired on . . . . .	3E	39-2
target, fire on . . . . .	3D	39-2
target has opened fire . . . . .	2Q	38-2
torpedoes, fire . . . . .	9A	37-1
torpedoes, time of firing. . . . .	9D	37-1
<b>FIRE (Flames)</b>		
aircraft in distress is on fire . . . . .	AV7	24-1
fire is extinguished/increasing/serious/under control . . . . .	RE13	34-2
require fire and rescue party/fire tug/firefighting equipment . . . . .	RE7	34-1
ship damaged by fire . . . . .	RE11	34-2
ship has a fire on board. . . . .	EMERG P	18-2
	RE12	34-2
<b>FLAGHOIST</b>		
establish communications by flaghoist . . . . .	CM4	25-1
tactical maneuvers by flaghoist are to commence now. . . . .	EX9	28-1
use flaghoist method . . . . .	CM6	25-1
<b>FLASHING LIGHT</b>		
establish communications by flashing light . . . . .	CM4	25-1
my query/challenge is via flashing light. . . . .	IN3	30-1
use flashing light method . . . . .	CM6	25-1
FLEET FREIGHT . . . . .	RS8	35-2
FLIGHT DECK DAMAGED . . . . .	RE15	34-2
<b>FLIGHT OPERATIONS</b>		
carry out flight operations . . . . .	AV16	24-1
progress of flight operations . . . . .	AV26	24-1



	<i>Signal</i>	<i>Page</i>
		<b>F</b>
speed for impending launching/recovery of aircraft . . . . .	F SPEED	15-3
take action (aircraft operation) . . . . .	AV28	24-2
take charge of force and maneuver as necessary for flight operations . . . . .	CO16	26-1
time into wind for flight operations . . . . .	AV29	24-2
unable to operate aircraft . . . . .	AV30	24-2
 FLOODING, SHIP IS . . . . .	 RE18	 34-2
 FLYING CONTROL		
aircraft in distress has flying control failure . . . . .	AV7	24-1
 FOG		
anchor on account of fog . . . . .	ED2	27-1
depth of fog in direction/fog in sight on bearing. . . . .	ME3	31-1
sound fog signals . . . . .	NA10	32-1
 FOLLOW		
at safe speed . . . . .	SPEED U	15-2
movements of unit in opening fire . . . . .	4I	40-2
unit or unit indicated . . . . .	TA98	16-4
 FORM		
circular formation, form . . . . .	FORM 14-19	11-1
column, form . . . . .	FORM 1	11-1
column in quickest sequence on most advanced ship, form . . . . .	FORM A	11-2
column in quickest sequence/order of sequence numbers, get underway and form. . . . .	ED49	27-3
column in reverse order of sequence numbers, form. . . . .	FORM 2	11-1
column open order, form . . . . .	FORM E	11-3
diamond, form . . . . .	FORM D	11-3
helicopter action group and clear the force, form. . . . .	SU13	36-2
line abreast in quickest sequence on the Guide, form . . . . .	FORM B	11-2
line abreast to port, form . . . . .	FORM 4	11-1
line abreast to starboard, form . . . . .	FORM 3	11-1
line of bearing, form. . . . .	FORM	11-1
maneuvering purposes, form part of unit for . . . . .	TA99	16-4
reverse order of ships in column from the rear . . . . .	FORM F	11-3
second column to port, form . . . . .	FORM 6	11-1
second column to starboard, form . . . . .	FORM 5	11-1
second line abreast to port, form . . . . .	FORM 10	11-1
second line abreast to starboard, form . . . . .	FORM 9	11-1
sector screen . . . . .	SCREEN K	15A-1
search attack unit and investigate, form . . . . .	AS19	22-2
ships form on true/relative bearings from the Guide . . . . .	FORM	11-2
surface action group and clear the force, form . . . . .	SU11	36-2

Signal Page

**F****FORMATION**

anchor in formation . . . . .	ED2	27-1
center of formation bears . . . . .	K FORM	11-4
clear formation . . . . .	TA85	16-3
close up formation . . . . .	TA95	16-4
force is in formation number . . . . .	B FORM	11-3
circular formation, form . . . . .	FORM 14-19	11-1
column formation (See FORM)		
column open order formation, form . . . . .	FORM E	11-3
diamond formation, form . . . . .	FORM D	11-2
line abreast formation (See FORM)		
Guide of formation . . . . .	G FORM	11-3
join/rejoin formation . . . . .	TA86	16-3
leave formation . . . . .	TA87	16-4
pass through formation . . . . .	TA103	16-5
pass through formation, proceed as necessary to . . . . .	TA88	16-4
regain position in formation . . . . .	TA77	16-3
remain in present formation . . . . .	FORM Z	11-3
remain in present formation during the night . . . . .	TA109	16-5
resume previous formation . . . . .	FORM W	11-3
unit take station in formation number . . . . .	STATION S	12-3

**FOUL (ED)**

anchor is foul . . . . .	ED1	27-1
hawse, have foul . . . . .	ED8	27-1
kedge is foul . . . . .	ED9	27-1
range fouled . . . . .	GM7	29-1
unable to operate aircraft due to foul deck . . . . .	AV30	24-2

**FREQUENCY**

. . . . .	CM12	25-2
of sonar equipment . . . . .	AS50	22-6
shift frequency . . . . .	CM8	25-1
shift to frequency from column in communication plan . . . . .	CM10	25-2

**FRIEND (LY)**

AAW weapons may open fire on any target not identified as friend . . . . .	7F	20-1
aircraft crashed, friendly . . . . .	EMERG V	18-2
aircraft detected, friendly . . . . .	AA2	19-1
ASW weapons may open fire on any target not identified as friend . . . . .	AS11	22-1
force/unit is, friendly . . . . .	TA26	16-1
safety sectors for friendly aircraft . . . . .	AA4	19-1
submarine bearing, friendly . . . . .	EMERG Z	18-2
sunk, friendly unit . . . . .	RE14	34-2

**FUEL (ING)**

astern fueling rig, stream/recover . . . . .	RS11	35-3
capacity/percent, fuel to . . . . .	RS2	35-1

	<i>Signal</i>	<i>Page</i>
<b>F</b>		
received/supplied, fuel . . . . .	RS5	35-2
required, fuel . . . . .	RS4	35-1
percentage of fuel remaining on board at noon. . . . .	RE40	34-4
replenish fuel . . . . .	RS8	35-2
FULL		
dress ship, full . . . . .	AD13	21-2
rudder, use full . . . . .	TA104	16-5
FURL AWNINGS . . . . .	AD22	21-3
FUZES		
ammunition and fuzes . . . . .	GM17	29-2
use ammunition with fuzes . . . . .	4P	40-2
<b>G</b>		
GARBAGE, DUMP . . . . .	AD26	21-3
GATE IS OPEN/CLOSED . . . . .	ED56	27-3
GEOGRAPHIC POSITION . . . . .	NA26	32-2
GET UNDERWAY . . . . .	ED49	27-3
GROUNDING, SHIP DAMAGED BY . . . . .	RE11	34-2
GUIDE (S) (ANCE)		
course, Guide's . . . . .	G CORPEN	14-3
course, Guide steer. . . . .	CORPEN P	14-2
distance between guides of units . . . . .	TA14	16-1
formation center bears from the Guide . . . . .	K FORM	11-4
formation, Guide of . . . . .	G FORM	11-3
line guides resume previous relative bearings and distances from the Guide. . . . .	FORM V	11-3
ships form on true/relative bearings from the Guide . . . . .	FORM	11-2
ships resume previous relative bearings and distances from their guides . . . . .	FORM U	11-3
ship take station and become Guide . . . . .	STATION G	12-2
speed, Guide proceed at; other ships maintain station . . . . .	SPEED	15-1
speed, Guide's . . . . .	G SPEED	15-3
speed on passing point, Guide proceed at . . . . .	SPEED G	15-1
stop engines, Guide is to; other ships maintain station . . . . .	SPEED 0	15-1
terminal guidance with search pattern, I am using . . . . .	3S	39-3
terminal guidance with search pattern, use. . . . .	3R	39-3
GUNLINE/BOLO, PASS (towing). . . . .	6N	41-1

Signal Page

**G**

GUN (S)		
contact has fired guns . . . . .	2Q	38-2
I am maneuvering to unmask guns . . . . .	SU9	36-1
ship damaged by guns . . . . .	RE11	34-2
target within gun range . . . . .	2P	38-2

**H**

HALFMAST COLORS . . . . .	AD11	21-2
HANGFIRE . . . . .	GM11	29-1
HARBOR		
dispose of refuse prior to entry into/when clear of harbor . . . . .	AD26	21-3
enter harbor. . . . .	ED53	27-3
leave harbor . . . . .	ED54	27-3
open/closed, harbor is . . . . .	ED56	27-3
shift ensign to harbor position . . . . .	AD11	21-2
HAUL DOWN COLORS . . . . .	AD11	21-1
HAUSER (towing). . . . .	6Q	41-2
HAWSE, HAVE FOUL . . . . .	ED8	27-1
HEIGHT ABOVE WATERLINE . . . . .	NA16	32-2
HELICOPTER		
act independently to conduct helicopter operations . . . . .	TA92	16-4
condition of helicopter sonar . . . . .	AS48	22-6
form helicopter action group and clear the force . . . . .	SU13	36-2
intend to conduct helicopter operations. . . . .	AV17	24-1
landing in emergency, I have helicopter . . . . .	EMERG H	18-1
progress of helicopter operations. . . . .	AV26	24-1
random dip, helicopters are to . . . . .	AS87	22-10
send helicopter . . . . .	AD5	21-1
status of helicopter . . . . .	AV27	24-2
HOIST		
berth assignment, hoist your . . . . .	ED23	27-2
boats, hoist all . . . . .	AD6	21-1
colors, hoist. . . . .	AD11	21-1
sequence/station number, hoist your . . . . .	STATION V	12-3

	<i>Signal</i>	<i>Page</i>
		<b>H</b>
HOLD FIRE . . . . .	7H	20-1
target, hold fire on . . . . .	3D	39-2
target, I have held fire on . . . . .	3E	39-2
HULL SONAR, CONDITION OF . . . . .	AS48	22-6
		<b>I</b>
I		
am . . . . .	BA	17-1
am assuming tactical command . . . . .	CO14	26-1
am assuming tactical control . . . . .	CO15	26-1
am attacking/assisting/directing ship . . . . .	1A	23-1
am not . . . . .	BI	17-1
am ready/not ready (towing) . . . . .	6G	41-1
have. . . . .	BB	17-1
have boarding responsibility . . . . .	IN9	30-1
have resumed tactical command . . . . .	CO14	26-1
have resumed tactical control. . . . .	CO15	26-1
recommend . . . . .	BC	17-1
IDENTIFICATION SAFETY RANGE . . . . .	AA3	19-1
IDENTIFY (IED)		
contact is correctly/incorrectly identified . . . . .	2M	38-2
contact is (identified as). . . . .	IN1	30-1
operate IFF/SIF to challenge and identify target . . . . .	AA6	33-1
unit, identify . . . . .	TA115	16-6
IDENTITY		
contact's identity . . . . .	2F	38-1
unit's identity . . . . .	TA117	16-6
IF YOU DESIRE . . . . .	BJ	17-1
IFF		
aircraft showing IFF distress . . . . .	AV7	24-1
operate IFF/SIF to challenge and identify target . . . . .	AA6	33-1
ILLUMINATE (ING)		
fire starshell search spread to illuminate target. . . . .	4H	40-2
I am illuminating . . . . .	4G	40-1
investigate track, be prepared to illuminate and engage . . . . .	SU12	36-2
ship, illuminate . . . . .	AD10	21-2
target, illuminate . . . . .	4F	40-1
IMCO SEPARATION ZONE		
act independently to pass through . . . . .	TA92	16-4

Signal Page

**I**

## INDEPENDENT (LY)

act independently . . . . .	TA92	16-4
exercise independently . . . . .	EX4	28-1
fire independently . . . . .	4K	40-2
maneuver independently to avoid attack . . . . .	TA93	16-4
proceed independently . . . . .	TA88	16-4
use independent settings for deflection angle . . . . .	9S	37-2

INOPERATIVE EQUIPMENT . . . . .	RE31	34-3
---------------------------------	------	------

## INTEND (INTENTIONS)

alter course, intend to . . . . .	H CORPEN	14-3
approach to datum indicated, intend . . . . .	AS82	22-10
conduct helicopter operations, intend to . . . . .	AV17	24-1
my present intention is to . . . . .	BG	17-1
search attack unit commander's intentions . . . . .	AS88	22-10

## INTERCEPT (ING)

carry out intercepting search . . . . .	AS99	22-11
for intercept search, carry out ASW plan indicated . . . . .	AS110	22-11
intend intercept approach to datum . . . . .	AS82	22-10
predicted submarine intercept range . . . . .	AS23	22-1

INTERFERENCE, I AM EXPERIENCING ACOUSTIC . . . . .	1I	23-1
--	----	------

INTERNATIONAL CODE OF SIGNALS, GROUPS FROM . . . . .	CM13	25-2
--	------	------

## INTERVAL (S)

get underway and proceed at intervals . . . . .	ED49	27-3
take interval indicated . . . . .	TA15	16-1

## INVESTIGATE (ING)

contact, investigate . . . . .	2L	38-2
form search attack unit and investigate . . . . .	AS19	22-2
I am investigating unknown contact . . . . .	EMERG Q	18-2
leave present assignment to investigate datum/sonar contact . . . . .	AS15	22-2
leave present assignment to investigate track . . . . .	AS16	22-2
object indicated, investigate . . . . .	TA62	16-3
track, investigate; be prepared to illuminate and engage . . . . .	SU12	36-2

**J**

## JOIN (ING)

friendly force/unit is joining up . . . . .	TA26	16-1
join as indicated . . . . .	TA86	16-3
joining information . . . . .	J TURN	13-1

	<i>Signal</i>	<i>Page</i>
<b>K</b>		
KEDGE IS CLEAR/FOUL/UNABLE TO KEDGE OFF . . . . .	ED9	27-1
KEEP		
as indicated, keep . . . . .	TA100	16-5
clear of unit/position, keep . . . . .	1O	23-2
clear, keep; you are on collision course with me . . . . .	EMERG C	18-1
on to sea, keep . . . . .	TA72	16-3
range indicated, keep within . . . . .	TA73	16-3
<b>L</b>		
LANDING		
aircraft landing in emergency, I have . . . . .	EMERG F	18-1
helicopter landing in emergency, I have . . . . .	EMERG H	18-1
LAUNCH (ING)		
act independently to launch/recover towed array/variable depth sonar. . . . .	TA92	16-4
number of aircraft/helicopters to launch . . . . .	AV26	24-1
protective devices, launch . . . . .	AS42	22-6
speed for impending launching of aircraft . . . . .	F SPEED	15-3
LAYER DEPTH . . . . .	AS30	22-4
LEADING SHIP, JOIN AS . . . . .	TA86	16-3
LEAVE (ING)		
formation, leave. . . . .	TA87	16-4
harbor, leave . . . . .	ED54	27-3
present assignment to investigate datum/sonar contact, leave. . . . .	AS15	22-1
present assignment to investigate track, leave . . . . .	AS16	22-1
parade band/guard for leaving harbor . . . . .	AD10	21-2
LEAVE AND LIBERTY MAY BE GRANTED . . . . .	AD23	21-3
LIGHT (S)		
height of light . . . . .	NA16	32-2
show no light/only lights indicated . . . . .	TA36	16-2
turn on lights . . . . .	TA38	16-2
turn on navigation lights . . . . .	NA14	32-2
use ASW lights/masthead lights . . . . .	AS52	22-7
you have a light showing . . . . .	TA37	16-2
your lights are. . . . .	NA13	32-1
LIGHT MATERIAL FOR TRANSFER. . . . .	RS3	35-1
LIMITING COURSES AND SPEEDS, SUBMARINE'S . . . . .	AS94	22-11

Signal Page

**L**

## LINE (S)

abreast, line (See FORM)

bearing, line of (See BEARING, FORM)

fire, line of (See FIRE)

pass between/through lines. . . . . TA103 16-5

## LOCATE

fire starshell search spread to locate target . . . . . 4H 40-2

## LOST

anchor is lost . . . . . ED1 27-1

contact, lost (See CONTACT)

man overboard has been given up for lost . . . . . TA46 16-3

## LOUDHAILER

establish communications by loudhailer . . . . . CM4 25-1

use loudhailer method . . . . . CM6 25-1

LOWER DOMES/VARIABLE DEPTH SONAR TRANSDUCERS . . . . . AS49 22-6

**M**

MACHINERY, STOP MAIN AND AUXILIARY . . . . . AS53 22-7

## MAIL

mail for transfer . . . . . RS3 35-1

transfer mail. . . . . RS8 35-2

## MAINTAIN

contact, I am maneuvering to maintain . . . . . 1G 23-1

course, maintain present . . . . . CORPEN U 14-2

distance, maintain present . . . . . TA12 16-1

radio watch, maintain . . . . . CM7 25-1

station, ships maintain . . . . . STATION P 12-2

visual watch, maintain . . . . . CM3 25-1

## MAINTENANCE

helicopter is down for routine maintenance. . . . . AV27 24-2

unable to operate aircraft due to maintenance . . . . . AV30 24-2

MALFUNCTION . . . . . GM11 29-1

## MANEUVER (S) (ING)

avoid attack, maneuver independently to. . . . . TA93 16-4

avoid shipping, maneuver to . . . . . TA101 16-5

blow tubes, maneuver as necessary to. . . . . TA43 16-2



*Signal*      *Page***M**

expedite maneuver . . . . .	TA44	16-2
form part of unit for maneuvering purposes . . . . .	TA99	16-4
keep clear during maneuvers . . . . .	TA100	16-5
maintain contact, I am maneuvering to . . . . .	1G	23-1
note circumstances of maneuver for later discussion . . . . .	TA102	16-5
tactical maneuvers by flaghoist are to commence now . . . . .	EX9	28-1
take charge of force for maneuvers . . . . .	CO16	26-1
unmask, I am maneuvering to . . . . .	SU9	36-1
MAN OVERBOARD		
given up for lost/picked up/sighted bearing . . . . .	TA46	16-2
MAN SHIP CEREMONIALLY . . . . .	AD10	21-2
MARKER AT DATUM/IN POSITION, DROP . . . . .	AS89	22-10
MAXIMUM RUDDER, USE . . . . .	TA104	16-5
MAXIMUM SPEED		
proceed at maximum speed with present engineering configuration . . . . .	SPEED M	15-2
required during the night, maximum speed . . . . .	U SPEED	15-3
ship/unit, maximum speed of . . . . .	V SPEED	15-3
maintained, maximum speed that can be . . . . .	C SPEED	15-2
maintained with present engineering configuration, maximum speed that can be . . . . .	W SPEED	15-3
MEAL, OFFICERS HAVE TIME FOR NEXT . . . . .	AD24	21-3
MEDICAL		
require medical assistance . . . . .	RE7	34-1
send medical officer . . . . .	AD18	21-3
MESSAGE (S)		
comply with my message . . . . .	CO4	26-1
hand messages are distributed . . . . .	AD33	21-4
hand messages are received . . . . .	AD34	21-4
MESSENGER		
heavy messenger (towing) . . . . .	6P	41-2
light messenger (towing) . . . . .	6O	41-1
METEOROLOGY (See WEATHER)		
MINE		
detected/sighted ahead, mine . . . . .	EMERG M	18-2
ship damaged by mine . . . . .	RE11	34-2

	<i>Signal</i>	<i>Page</i>
<b>M</b>		
MISFIRE . . . . .	GM11	29-1
<b>MISSILE</b>		
contact has fired missile . . . . .	2Q	38-2
enemy missile detected/sighted bearing . . . . .	EMERG G	18-1
forward observer of missile flight, designated unit take station as . . . . .	3Y	39-4
long-range missile line of fire, intended . . . . .	3J	39-2
long-range missile line of fire, request intended . . . . .	3K	39-2
long-range missiles are to be fired on target . . . . .	3W	39-3
observe missile fired on target, prepare to . . . . .	3V	39-3
over-the-horizon missile attack against target, conduct . . . . .	3B	39-1
over-the-horizon missile attack against target, I am conducting . . . . .	3C	39-1
over-the-horizon missile on target, prepare to engage with . . . . .	3A	39-1
range within 10° of line of fire and within 20 nm radius of target . . . . .	3U	39-3
ship damaged by missile . . . . .	RE11	34-2
short-range missiles on target indicated, fire . . . . .	4T	40-3
splashed, missile . . . . .	7S	20-2
target within missile range . . . . .	2P	38-2
unmask missile launcher, I am maneuvering to . . . . .	SU9	36-1
when ordered to engage, units attack target with missiles . . . . .	3F	39-2
<b>MOOR (ED)</b>		
anchors, moor with . . . . .	ED10	27-2
ship is moored . . . . .	ED7	27-1
<b>MOVEMENT (S)</b>		
conform to movements of unit . . . . .	TA70	16-3
follow movements of unit in opening fire . . . . .	4I	40-2
join as leading/rear ship and conform to movements . . . . .	TA86	16-3
extend duration of course and speed now steaming . . . . .	NA25	32-2
position and intended movement (PIM). . . . .	NA24	32-2
purpose or reason for present movement . . . . .	TA75	16-3
submarine, movement of . . . . .	AS36	22-5
unit unable to carry out movements . . . . .	B STATION	12-3
MOVIES, TRANSFER . . . . .	RS8	35-2
<b>MY</b>		
boarding party . . . . .	IN4	30-1
challenge/query is in progress/completed . . . . .	IN3	30-1
course. . . . .	M CORPEN	14-3
diving course . . . . .	AS73	22-8
engines are turning ahead/astern. . . . .	H SPEED	15-3
present intention is to . . . . .	BG	17-1
sonar speed. . . . .	P SPEED	15-3
speed . . . . .	M SPEED	15-3
station. . . . .	M STATION	12-3

	<i>Signal</i>	<i>Page</i>
		<b>N</b>
NAME OF . . . . .	AD25	21-3
NAVIGATION		
sonar emission equipment may be used for navigation . . . . .	AS55	22-7
turn on navigation lights . . . . .	NA14	32-2
NEGATIVE (towing) . . . . .	6Z	41-2
NIGHT		
maximum speed required during the night . . . . .	U SPEED	15-3
remain during the night . . . . .	TA109	16-5
NOISE (MAKER)		
ambient noise . . . . .	AS51	22-7
operate ship's noise-reduction equipment . . . . .	AS45	22-6
operation of noisemaker is authorized . . . . .	AS55	22-7
stream/launch noisemaker . . . . .	AS42	22-6
submarine has released noisemaker . . . . .	1W	23-3
NOTICE		
delay getting underway and remain at notice. . . . .	ED48	27-3
getting underway, come to/revert to notice for . . . . .	RE49	34-4
NUMBER OF		
aircraft/helicopters to launch/recover . . . . .	AV26	24-1
occupants rescued from crashed aircraft . . . . .	AV10	24-1
unknown vessels in my area . . . . .	IN10	30-1
		<b>O</b>
OBJECT OF SEARCH . . . . .	TA47	16-2
OBJECTIVE'S LAST KNOWN POSITION . . . . .	TA28	16-1
OBSERVE (R)		
forward observer of missile flight, designated unit take station as . . . . .	3W	39-4
missile fired on target, prepare to observe . . . . .	3V	39-3
OCCUPIED, BERTH ASSIGNED ME IS . . . . .	ED24	27-2
OFFICER (S)		
disabled, officer is. . . . .	RE1	34-1
join/rejoin your senior officer . . . . .	TA86	16-3
meal, officers have time for next . . . . .	AD24	21-3
recall officers . . . . .	AD27	21-3
report on board, officer requested to . . . . .	AD40	21-1
send beach liaison officer. . . . .	AD27	21-3
send medical officer . . . . .	AD18	21-3

	<i>Signal</i>	<i>Page</i>
<b>O</b>		
OFFICIAL CALLS MAY BE DISPENSED WITH . . . . .	AD9	21-1
OFFSET APPROACH TO DATUM, INTEND. . . . .	AS82	22-10
OPEN (ED)		
bay/channel/entrance/gate/harbor/port/river is open . . . . .	ED56	27-3
fire, open . . . . .	7O	20-1
range, open . . . . .	SU7	36-1
target has opened fire . . . . .	2Q	38-2
OPERATION		
cease, commence, completed, delay, or expedite operation . . . . .	TA110	16-6
friendly force is operating in vicinity. . . . .	TA26	16-1
progress of operation (aircraft) . . . . .	AV26	24-1
take charge of operation . . . . .	CO16	26-1
unable to carry out operation . . . . .	TA111	16-6
OPERATIONAL STAND-OFF RANGE . . . . .	1O	23-2
ORDERS		
attention is called to operation orders . . . . .	AD32	21-4
delay getting underway until further orders . . . . .	ED48	27-3
delay operation until further orders . . . . .	TA110	16-6
distributed, orders are . . . . .	AD33	21-4
join/rejoin when present orders are carried out. . . . .	TA86	16-3
received, orders are . . . . .	AD34	21-4
OUT OF THE WAY, KEEP . . . . .	TA100	16-5
OVERDUE, AIRCRAFT IN DISTRESS IS . . . . .	AV7	24-1
OVER-THE-HORIZON ATTACK (See MISSILE)		
<b>P</b>		
PARADE BAND/GUARD . . . . .	AD10	21-2
PASS		
act independently to pass clear of shipping, resume station when clear . . . . .	TA92	16-4
bolo/gunline (towing), pass . . . . .	6N	41-1
pass ahead/astern/between lines/through formation . . . . .	TA103	16-5
proceed as necessary to pass through formation . . . . .	TA88	16-4
reference point, unit will pass through . . . . .	NA31	32-3

*Signal*      *Page***P**

## PERISCOPE

come to periscope depth . . . . .	AS70	22-8
sighted bearing, periscope . . . . .	EMERG S	18-2
submerge to periscope depth. . . . .	AS69	22-8

PERMISSION TO, REQUEST . . . . .	BH	17-1
----------------------------------	----	------

## PERSONNEL

available for duty, personnel . . . . .	RE3	34-1
casualties, personnel . . . . .	RE2	34-1
dispatching casualty . . . . .	AD17	21-2
officer (See OFFICER)		
recall personnel. . . . .	AD27	21-3
rescue crew of aircraft/ship sinking/sunk . . . . .	TA63	16-1
rescued from crashed aircraft, number and state of health of personnel. . . . .	AV10	24-1
transfer personnel . . . . .	RS8	35-2

## PICK (ED) UP

man overboard has been picked up . . . . .	TA46	16-2
target, pick up. . . . .	EX10	28-1

PIM (POSITION AND INTENDED MOVEMENT). . . . .	NA24	32-2
---	------	------

## PLAN

attention is called to plan . . . . .	AD32	21-4
carry out action plan against target. . . . .	4A	40-1
carry out air plan indicated . . . . .	AS96	22-11
carry out ASW search plan . . . . .	AS103	22-11
communication plan in force . . . . .	CM9	25-2
communication plan, use frequency from column in . . . . .	CM10	25-2
for type of search, carry out ASW plan indicated. . . . .	AS100	22-11
in event of lost contact, carry out search plan . . . . .	1C	23-1
torpedo attack plan, use . . . . .	9E	37-1

## POL (PETROLEUM, OIL, LUBRICANTS)

percentage of POL remaining on board at noon . . . . .	RE40	34-4
received/supplied, POL. . . . .	RS5	35-2
replenish POL. . . . .	RS8	35-2
required, POL. . . . .	RS4	35-1

## PORT

get underway and proceed out of port . . . . .	ED49	27-3
open/closed, port is open . . . . .	ED56	27-3
proceed independently to port/out of port. . . . .	TA88	16-4
take charge and proceed to port . . . . .	CO16	26-1

Signal Page

**P****POSITION**

anchor in position . . . . .	ED2	27-1
be in position at time . . . . .	TA68	16-3
designated firing unit's position . . . . .	3G	39-2
detach and take position . . . . .	AS21	22-2
drop marker in position . . . . .	AS89	22-10
geographic position . . . . .	NA26	32-2
initial position for scheduled exercise. . . . .	NA21	32-2
keep clear of position indicated. . . . .	1O	23-2
moor with anchors in position. . . . .	ED10	27-2
near your position, I will be . . . . .	TA75	16-3
objective's last known position . . . . .	TA28	16-1
obtained by method, position was . . . . .	NA27	32-3
order submarine to indicate position . . . . .	AS64	22-8
position and intended movement (PIM). . . . .	NA24	32-2
proceed as necessary to position/to reach position . . . . .	TA88	16-4
reference point position. . . . .	2B	38-1
reference point (position) for contacts . . . . .	2A	38-1
regain position . . . . .	TA77	16-3
remain in your present position. . . . .	TA78	16-3
rendezvous in position . . . . .	TA79	16-3
submarine's position obtained by . . . . .	AS37	22-5
unable to arrive in position at prescribed time . . . . .	TA68	16-3
you bear from position . . . . .	TA17	16-1

**POSTPONED**

exercise/event is postponed . . . . .	EX3	28-1
exercise run is postponed . . . . .	EX8	28-1

**POTENTIAL VIOLATOR VESSEL**

contact is potential violator vessel . . . . .	IN1	30-1
my boarding party is on board/returning from potential violator vessel. . . . .	IN4	30-1

**PREDICTED RANGE**

sonar range, predicted . . . . .	AS27	22-3
submarine intercept range, predicted. . . . .	AS23	22-2

**PRESENT**

course, maintain present . . . . .	CORPEN U	14-2
distance, maintain present . . . . .	TA12	16-1
formation, remain in present . . . . .	FORM Z	11-3
my present intention is to . . . . .	BG	17-1
position, remain in your present . . . . .	TA78	16-3
station, remain in your present . . . . .	STATION U	12-3

PRESERVED, BEARINGS AND DISTANCES ARE TO BE . . . . .	TA11	16-1
---	------	------

	<i>Signal</i>	<i>Page</i>
		<b>P</b>
PROBABILITY OF TARGET, AREA OF . . . . .	3T	39-3
PROCEED		
as indicated, proceed . . . . .	TA88	16-4
best speed, proceed at . . . . .	SPEED B	15-1
cavitation speed, proceed at . . . . .	SPEED C	15-1
clear of submarine, proceed . . . . .	AS65	22-8
economical speed, proceed at . . . . .	SPEED O	15-2
get underway and proceed at intervals/out of port . . . . .	ED49	27-3
indicated speed, proceed at . . . . .	SPEED H	15-1
maximum speed with present engineering configuration, proceed at . . . . .	SPEED M	15-2
most advantageous position for torpedo attack, proceed to . . . . .	SU30	36-3
sectors, proceed to your . . . . .	SU31	36-3
sonar speed, proceed at . . . . .	SPEED P	15-2
steerageway speed, proceed at . . . . .	SPEED V	15-2
take charge and proceed as previously directed/to port . . . . .	CO16	26-1
torpedo attack sectors, proceed to . . . . .	9F	37-1
PROPER		
distance, take proper . . . . .	TA12	16-1
proper interval, take proper . . . . .	TA15	16-1
rudder, use proper . . . . .	TA104	16-5
PROTECTIVE DEVICES, STREAM/LAUNCH . . . . .	AS42	22-6
PROVIDE TRANSFER RIG . . . . .	RS6	35-2
PROVISIONS, TRANSFER. . . . .	RS8	35-2
PUBLICATION, ATTENTION CALLED TO . . . . .	AD32	21-4
PUMP BILGES . . . . .	AD26	21-3
		<b>Q</b>
QUERY		
my query is in progress/completed . . . . .	IN3	30-1
you are directed to query vessel . . . . .	IN2	30-1
		<b>R</b>
RADAR		
aircraft holds contact on radar . . . . .	AS34	22-4
assume radar guard duty . . . . .	RA1	33-1
bearing of contact from unit by radar . . . . .	2I	38-2

Signal Page

**R**

contact held by unit on radar . . . . .	2K	38-2
contact, I have radar . . . . .	RA4	33-1
contact reported by radar . . . . .	TA116	16-6
disappearing radar contact detected bearing . . . . .	EMERG W	18-2
exercise independently, remain within radar range . . . . .	EX4	28-1
holding radar contact on bearing from unit, I am . . . . .	1H	23-1
investigating unknown radar contact, I am . . . . .	EMERG Q	18-2
keep within radar range . . . . .	TA73	16-3
lost radar contact, I have . . . . .	2H	38-1
stand-off range, emergency/operational . . . . .	1O	23-2
submarine has released radar decoy . . . . .	1W	23-3
use radar means of recognition . . . . .	TA118	16-6
<b>RADIO</b>		
check your transmitter/receiver/steady key . . . . .	CM2	25-1
close down radio watch . . . . .	CM1	25-1
establish communications by radio . . . . .	CM4	25-1
establish radio communications . . . . .	CM5	25-1
frequency (See FREQUENCY)		
keep within radio range . . . . .	TA73	16-6
maintain radio watch . . . . .	CM7	25-1
not in radio communication with you . . . . .	CM2	25-1
use radio method . . . . .	CM6	25-1
<b>RAISE DOMES</b> . . . . .	AS49	22-6
<b>RAKE CODE</b> . . . . .	GM13	29-1
<b>RANDOM DIP, HELICOPTERS</b> . . . . .	AS87	22-10
<b>RANGE</b>		
ASW safety range . . . . .	AS10	22-1
clear range . . . . .	GM8	29-1
clear, range . . . . .	GM10	29-1
close range . . . . .	SU4	36-1
convergence zone range . . . . .	AS26	22-3
exercise independently, remain within designated range . . . . .	EX4	28-1
fouled, range . . . . .	GM7	29-1
keep within range . . . . .	TA73	16-3
line of fire, range within 10° of; and within 20 nm radius of target . . . . .	3U	39-3
make sonar range predictions . . . . .	AS29	22-4
predicted sonar range . . . . .	AS27	22-3
predicted submarine intercept range . . . . .	AS23	22-2
stand-off range, emergency/operational . . . . .	1O	23-2
tactical sonar range . . . . .	AS28	22-4
target range/conditions . . . . .	GM14	29-2
target range is . . . . .	SU16	36-2
target within range . . . . .	2P	38-2



*Signal*      *Page***R**

## READY (READINESS)

able to continue mission . . . . .	RE10	34-2
am ready . . . . .	BF	17-1
am ready/not ready (towing) . . . . .	6G	41-1
attack, I am ready to attack . . . . .	1D	23-1
commence tow (towing), I am ready to . . . . .	6S	41-2
dive for serial, report when ready to start exercise . . . . .	AS75	22-9
helicopter readiness . . . . .	AV27	24-2
operate aircraft, ready to . . . . .	AV26	24-1
report time you will be ready . . . . .	BD	17-1
report when ready . . . . .	BE	17-1
ship readiness . . . . .	RE42	34-4
weapons ready . . . . .	RE22	34-3
when ready . . . . .	BL	17-1

REAR SHIP, JOIN AS . . . . .	TA86	16-3
------------------------------	------	------

## RECEIVED

commodity, received . . . . .	RS5	35-2
orders, envelopes, or hand messages are received . . . . .	AD34	21-4

RECOGNITION, USE MEANS OF . . . . .	TA118	16-6
-------------------------------------	-------	------

RECOMMEND . . . . .	BC	17-1
---------------------	----	------

## RECOVER (ED) (Y)

act independently to launch/recover towed array/variable depth sonar. . . . .	TA92	16-4
all torpedoes have been recovered. . . . .	SU33	36-3
anchor is recovered. . . . .	ED1	27-1
astern fueling rig, recover. . . . .	RS11	35-3
chase and recover torpedoes. . . . .	SU35	36-3
number of aircraft/helicopters to recover . . . . .	AV26	24-1
protective devices, recover . . . . .	AS42	22-6
speed for impending recovery of aircraft . . . . .	F SPEED	15-3
towed acoustic arrays, recover . . . . .	AS59	22-7
variable depth sonar transducers, recover . . . . .	AS49	22-6

REDESIGNATE CONTACT . . . . .	2D	38-1
-------------------------------	----	------

REDUCE SPEED . . . . .	SPEED R	15-2
------------------------	---------	------

REDUCED EFFICIENCY, EQUIPMENT OPERATING AT . . . . .	RE30	34-3
--	------	------

## REFERENCE POINT

contacts, reference point for . . . . .	2A	38-1
position, reference point . . . . .	2B	38-1
unit will pass through reference point. . . . .	NA31	32-3

	<i>Signal</i>	<i>Page</i>
<b>R</b>		
REFUSE, DISPOSE OF . . . . .	AD26	21-3
REGAIN POSITION . . . . .	TA77	16-3
REJOIN (ING)		
estimated time of rejoining . . . . .	NA34	32-3
rejoin . . . . .	TA86	16-3
RELATIVE BEARINGS		
attention is called to danger or emergency on relative bearing. . . . .	EMERG	18-1
line guides resume previous relative bearings and distances from the Guide . . . . .	FORM V	11-3
relative bearings and distances are to be preserved/resumed . . . . .	TA11	16-1
ships form on relative bearings from the Guide. . . . .	FORM	11-2
ships resume previous relative bearings and distances from their guides . . . . .	FORM U	11-3
take station on relative bearing from the Guide. . . . .	STATION	12-2
REMAIN (ING)		
delay getting underway and remain at notice. . . . .	ED48	27-3
formation, remain in present . . . . .	FORM Z	11-3
fuel remaining on board at noon, percent of night, remain during the. . . . .	RE40	34-4
personnel remaining available for duty . . . . .	TA109	16-5
position, remain in your present . . . . .	RE3	34-1
station, remain in your present . . . . .	TA78	16-3
	STATION U	12-3
RENDEZVOUS IN POSITION . . . . .	TA79	16-3
REPAIR (S)		
act independently to repair damage . . . . .	TA92	16-4
helicopter is down for repair . . . . .	AV27	24-2
repairs can be effected . . . . .	RE33	34-3
repairs on equipment completed . . . . .	RE34	34-3
REPEAT (ED)		
exercise/event is to be repeated now. . . . .	EX3	28-1
fire on target, I have repeated . . . . .	3E	39-2
fire on target, repeat . . . . .	3D	39-2
run is to be repeated . . . . .	EX8	28-1
search using search center, repeat. . . . .	AS101	22-11
REPLENISH (MENT)		
alter course when ordered, replenishment units . . . . .	CORPEN N	14-2
alter speed when ordered, replenishment units . . . . .	SPEED L	15-2
clear all sides using emergency breakaway procedure. . . . .	EMERG 6	18-3

*Signal*      *Page***R**

commodity, replenish . . . . .	RS7	35-2
control of alterations of course and speed by replenishment unit . . . . .	RS9	35-2
course for replenishment . . . . .	R CORPEN	14-3
estimated time of replenishment . . . . .	RS12	35-3
method at station, replenish by . . . . .	RS8	35-2
report progress of replenishment . . . . .	AD39	21-4
sequence of replenishment . . . . .	RS10	35-3
speed for replenishment . . . . .	R SPEED	15-3
take station for replenishment . . . . .	STATION L	12-2

## REPORT (ING)

bathymograph readings, report . . . . .	AS24	22-2
damage or what is wrong with you, report . . . . .	RE16	34-2
designated unit is to report attack results. . . . .	3P	39-2
dive for serial, report when ready to start exercise . . . . .	AS75	22-9
duty, reporting for . . . . .	AD41	21-4
indicated report, make . . . . .	AD39	21-4
officer requested to report on board . . . . .	AD40	21-4
proceed and report for duty . . . . .	TA88	16-4
target data, I am reporting . . . . .	3I	39-2
target reporting unit is to take station . . . . .	3H	39-2
time you will be ready, report . . . . .	BD	17-1
weather report, make . . . . .	ME9	31-1
when you are in station, report . . . . .	STATION R	12-2
when ready, report . . . . .	BE	17-1

## REQUEST

boarding responsibility, request unit assume . . . . .	IN8	30-1
long-range missile line of fire, request intended . . . . .	3K	39-2
permission, request. . . . .	BH	17-1

## REQUIRE (D)

assistance, require . . . . .	RE7	34-1
commodity required. . . . .	RS4	35-1
maximum speed required during the night . . . . .	U SPEED	15-3
tug for tow, require . . . . .	RE43	34-4

## RESCUE (D)

crew of aircraft/ship sinking/sunk, rescue. . . . .	TA63	16-3
number and state of health of personnel rescued from crashed aircraft . . . . .	AV10	24-1
send rescue and assistance detail/team . . . . .	RE17	34-2

RESISTING MY BOARDING PARTY, VESSEL IS/IS NOT . . . . .	IN5	30-1
---	-----	------

## RESULTS

attack on target, results of . . . . .	3Q	39-2
designated unit is to report attack results. . . . .	3P	39-2

Signal Page

**R****RESUME (D)**

act independently to pass clear of shipping, resume station when clear . . . . .	TA92	16-4
bearings and distances are to be resumed . . . . .	TA11	16-1
exercise/event is to be resumed now . . . . .	EX3	28-1
fire on target, I have resumed . . . . .	3E	39-2
fire on target, resume . . . . .	3D	39-2
formation, resume previous . . . . .	FORM W	11-3
line guides resume previous relative bearings and distances from the Guide . . . . .	FORM V	11-3
ships resume previous relative bearings and distances from their guides . . . . .	FORM U	11-3
station, resume . . . . .	STATION E	12-2
tactical command (or I am resuming), resume . . . . .	CO14	26-1
tactical control (or I am resuming), resume . . . . .	CO15	26-1

RETIRE ON COURSE AFTER FIRING . . . . .	9Y	37-2
---	----	------

**REVERSE (ING)**

form column in reverse order of sequence numbers . . . . .	FORM 2	11-1
order of ships in column from the rear, reverse the . . . . .	FORM F	11-3
stop ship by reversing engines . . . . .	SPEED A	15-1

**RIG**

provide rig for transfer . . . . .	RS6	35-2
stream/recover astern fueling rig . . . . .	RS11	35-3

RIVER IS OPEN/CLOSED . . . . .	ED56	27-3
--------------------------------	------	------

ROUTINE CALLS MAY BE DISPENSED WITH . . . . .	AD9	21-1
---	-----	------

**RUDDER**

my rudder is left/right . . . . .	X TURN	13-1
use rudder as indicated . . . . .	TA104	16-5

RUN. . . . .	EX8	28-1
commence run . . . . .	EX1	28-1
	TA110	16-6

**S****SAFE (TY)**

course, safety . . . . .	B CORPEN	14-2
course, submarine safety . . . . .	AS67	22-8
course, steer safety . . . . .	CORPEN E	14-1

*Signal*      *Page***S**

for submarine safety, variable depth sonar cable length is . . . . .	AS66	22-8
order submarine to remain at safe depth/steer safety course . . . . .	AS64	22-8
range, ASW weapon safety. . . . .	AS10	22-1
range, identification safety . . . . .	AA3	19-1
sectors for friendly aircraft, safety . . . . .	AA4	19-1
speed, follow at safe . . . . .	SPEED U	15-2
SALUTE, FIRE A . . . . .	AD10	21-2
SALVAGE PARTY, REQUIRE . . . . .	RE7	34-1
SCATTER, ALL SHIPS . . . . .	EMERG 0	18-3
SCENE-OF-ACTION COMMANDER, ASSUME COMMAND AS . . . . .	AS20	22-2
SCREEN, FORM SECTOR. . . . .	SCREEN K	15A-1
SCREW COUNT . . . . .	AS38	22-6
SEA		
keep on to sea . . . . .	TA72	16-3
sea state is . . . . .	ME4	31-1
shift ensign to sea position . . . . .	AD11	21-2
SEARCH		
ASW search plan, carry out. . . . .	AS103	22-11
attack unit and investigate, form search . . . . .	AS19	22-2
attack unit commander, assume command as search . . . . .	AS18	22-2
attack unit commander's intentions, search . . . . .	AS88	22-10
attack unit, designate and dispatch search . . . . .	AS14	22-1
attack unit, terminate search . . . . .	AS17	22-2
cease passive search and commence active search. . . . .	AS22	22-1
center is, search . . . . .	AS102	22-11
center, repeat search using search. . . . .	AS101	22-11
continue the search. . . . .	AS84	22-10
for type of search, carry out ASW plan indicated. . . . .	AS100	22-11
in event of lost contact, carry out search plan . . . . .	1C	23-1
intercepting search, carry out. . . . .	AS99	22-11
object of search. . . . .	TA47	16-2
pattern, I am using, terminal guidance with search . . . . .	3S	39-3
pattern, use, terminal guidance with search . . . . .	3R	39-3
radar guard duty, assume air/surface search . . . . .	RA1	33-1
sonar search, conduct . . . . .	AS93	22-11
submarine at datum, search for. . . . .	AS92	22-11
turn, search . . . . .	CORPEN S	14-2

Signal Page

**S****SECTOR (S)**

attack with torpedo in sector . . . . .	9G	37-1
form sector screen . . . . .	SCREEN K	15A-1
illuminate sector . . . . .	4F	40-1
proceed to torpedo attack sectors . . . . .	9F	37-1
proceed to your sectors. . . . .	SU31	36-3
safety sectors for friendly aircraft . . . . .	AA4	19-1
threat sector . . . . .	AA6	19-1
your sector of attack . . . . .	SU27	36-3

**SECURE (D)**

anchor is secured . . . . .	ED1	27-1
berth/unit, secure alongside . . . . .	ED28	27-2
buoys, secure to . . . . .	ED29	27-3
visual watch, secure . . . . .	CM3	25-1

**SEMAPHORE**

establish communications by semaphore . . . . .	CM4	25-1
use semaphore method. . . . .	CM6	25-1

**SEND**

boat/helicopter/vehicle, send . . . . .	AD5	21-1
medical officer, send . . . . .	AD18	21-3
rescue and assistance detail/team, send . . . . .	RE17	34-2

**SEQUENCE**

number, assume sequence . . . . .	STATION F	12-2
number, hoist your sequence . . . . .	STATION V	12-3
numbers are in order of call signs, sequence. . . . .	S FORM	11-4
numbers, form column in reverse order of sequence . . . . .	FORM 2	11-1
quickest sequence on most advanced ship, form column in . . . . .	FORM A	11-2
quickest sequence, form a line abreast in the . . . . .	FORM B	11-2
quickest sequence/in order of sequence numbers, get underway and form column in . . . . .	ED49	27-3
replenishment sequence . . . . .	RS10	35-3

**SET**

anchor watch . . . . .	ED4	27-1
ASW weapon to depth . . . . .	AS8	22-1
torpedo for speed . . . . .	9P	37-1
torpedo to run at depth . . . . .	9O	37-1
torpedo to search depth . . . . .	AS7	22-1
visual watch. . . . .	CM3	25-1

SHAFT POWER AVAILABLE. . . . .	RE47	34-4
--------------------------------	------	------

SHEER OUT . . . . .	TA105	16-5
---------------------	-------	------

*Signal*      *Page***S**

## SHIFT

berth to berth/buoy . . . . .	ED31	27-3
ensign. . . . .	AD11	21-1
fire . . . . .	4L	40-2
frequency . . . . .	CM8	25-1
frequency from column in communication plan, shift to . . . . .	CM10	25-2

## SHIP (S) (PING)

act independently to pass clear of shipping, resume station when clear . . . . .	TA92	16-1
anchor, ship is at . . . . .	ED7	27-1
berth assignment of ship . . . . .	ED22	27-2
cast ship . . . . .	ED6	27-1
close up, leaving places vacant/without regard for ships out of formation . . . . .	TA95	16-4
collision, ship has been in a . . . . .	EMERG D	18-1
company, ships in. . . . .	TA29	16-1
damaged by, ship. . . . .	RE11	34-2
damaged ship or ship indicated, assist . . . . .	TA53	16-2
darken ship (show no light) . . . . .	TA36	16-2
exchange stations, ships . . . . .	STATION J	12-2
fire on board, ship has a . . . . .	EMERG P	18-2
	RE12	34-2
flooding, ship is . . . . .	RE18	34-2
full dress ship . . . . .	AD13	21-2
head, ship's . . . . .	ED12	27-2
head, ship's (towing) . . . . .	6C	41-1
illuminate ship. . . . .	AD10	21-2
maneuver to avoid shipping . . . . .	TA101	16-5
moored, ship is . . . . .	ED7	27-1
pass ships unable to keep station . . . . .	TA103	16-5
readiness of ship . . . . .	RE42	34-4
scatter and move out at maximum speed, all ships . . . . .	EMERG 0	18-3
sinking/sunk, rescue crew of ship. . . . .	TA63	16-3
speed of ship, maximum . . . . .	V SPEED	15-3
station and become Guide, ship take. . . . .	STATION G	12-2
station, ships maintain . . . . .	STATION P	12-2
tow ship. . . . .	RE43	34-4

## SHORT STAY

anchor is at short stay . . . . .	ED1	27-1
shorten in to short stay . . . . .	ED13	27-2

## SHOT

angle, use shot . . . . .	9N	37-1
fall of shot. . . . .	4S	40-2
verify fall of shot . . . . .	4R	40-2

	<i>Signal</i>	<i>Page</i>
<b>S</b>		
SHOW (ING)		
no light/only lights indicated. show . . . . .	TA36	16-2
speed flags, show. . . . .	SPEED K	15-1
you have a light showing . . . . .	TA37	16-2
 SIDE, SUBMARINE IS CLOSE TO. . . . .	 1X	 23-3
SIGHT (ED)		
aircraft presumed enemy sighted bearing . . . . .	EMERG A	18-1
enemy missile sighted bearing . . . . .	EMERG G	18-1
flare/grenade/smoke sighted . . . . .	AS68	22-8
fog in sight on bearing . . . . .	ME3	31-1
friendly force/unit sighted . . . . .	TA26	16-1
man overboard has been sighted. . . . .	TA46	16-2
mine sighted ahead. . . . .	EMERG M	18-2
object indicated sighted. . . . .	TA30	16-2
submarine/periscope sighted bearing . . . . .	EMERG S	18-2
torpedo sighted bearing. . . . .	EMERG T	18-2
unidentified aircraft sighted bearing . . . . .	EMERG B	18-1
unidentified surface craft sighted bearing. . . . .	EMERG E	18-1
SIGNAL (S)		
expedite answer to signal. . . . .	TA44	16-2
expedite signals. . . . .	CM11	25-2
fire explosive signal charges . . . . .	AS63	22-8
	EX5	28-1
sound fog signals . . . . .	NA10	32-1
 SILENCE ALL SONAR EMISSION EQUIPMENT . . . . .	 AS55	 22-7
 SITUATION REPORT, MAKE . . . . .	 AD39	 21-4
 SIZE OF COLORS . . . . .	 AD12	 21-2
 SLIPPED, ANCHOR IS. . . . .	 ED1	 27-1
SNORT		
come to snort depth. . . . .	AS69	22-8
submerge to snort depth . . . . .	AS70	22-8
SONAR		
active sonar contact on bearing, I am holding . . . . .	1L	23-2
aircraft holds contact on sonar . . . . .	AS34	22-4
bearing of contact from unit by sonar. . . . .	2I	38-2
condition of helicopter/hull sonar . . . . .	AS48	22-6



Signal Page

**S**

contact held by unit on sonar . . . . .	2K	38-2
contact, I have sonar . . . . .	1R	23-2
communication method, use sonar . . . . .	CM6	25-1
communications, establish sonar . . . . .	CM4	25-2
frequency of sonar equipment . . . . .	AS50	22-6
leave present assignment to investigate sonar contact. . . . .	AS15	22-2
lost sonar contact, I have . . . . .	2H	38-1
means of recognition, use sonar . . . . .	TA118	16-6
mode of operation, sonar . . . . .	AS60	22-8
my sonar speed. . . . .	P SPEED	15-3
operate sonar . . . . .	1Q	23-2
passive sonar contact. . . . .	1J	23-1
predicted sonar range . . . . .	AS27	22-3
proceed at sonar speed. . . . .	SPEED P	15-2
range predictions, make sonar . . . . .	AS29	22-4
search, conduct sonar . . . . .	AS93	22-11
set sonar watch . . . . .	AS56	22-7
sonar contact is . . . . .	1U	23-3
sonar operation is as indicated . . . . .	AS55	22-7
submarine has released sonar echo decoy. . . . .	1W	23-3
tactical sonar range. . . . .	AS28	22-4
towed array sonar (See TOWED ARRAY)		
unable to operate sonar equipment effectively . . . . .	AS57	22-7
variable depth sonar (See VARIABLE DEPTH SONAR)		
<b>SONOBUOY</b>		
aircraft holds contact on active sonobuoys . . . . .	AS34	22-4
contact on bearing from unit, I am holding sonobuoy . . . . .	1F	23-1
contact, sonobuoy is in/is not in . . . . .	AS39	22-6
number located on bearing from unit, sonobuoy . . . . .	AS91	22-11
operating/not operating effectively, sonobuoy is . . . . .	AS39	22-6
pattern bears from unit, sonobuoy . . . . .	AS90	22-10
<b>SOUND FOG SIGNALS . . . . .</b>		
	NA10	32-1
<b>SPEED</b>		
base speed . . . . .	B SPEED	15-2
best speed, proceed at . . . . .	SPEED B	15-1
cavitation speed, proceed at . . . . .	SPEED C	15-1
cavitation speed, proceed clear of submarine and maintain . . . . .	AS65	22-8
changing speed. . . . .	D SPEED	15-2
contact's course and speed. . . . .	2J	38-2
control of alterations of course and speed by replenishment unit . . . . .	RS9	35-2
current, direction and speed of . . . . .	NA6	32-1
decrease speed. . . . .	SPEED D	15-1
economical speed, proceed at . . . . .	SPEED O	15-2

	<i>Signal</i>	<i>Page</i>
<b>S</b>		
extend duration of course and speed now steaming . . . . .	NA25	32-2
follow at safe speed. . . . .	SPEED U	15-2
Guide proceed at speed on passing point . . . . .	SPEED G	15-1
Guide proceed at speed, other ships maintain station . . . . .	SPEED	15-1
Guide's speed . . . . .	G SPEED	15-3
increase speed . . . . .	SPEED I	15-1
indicated speed, proceed at . . . . .	SPEED H	15-1
launching and recovery of aircraft, speed for impending . . . . .	F SPEED	15-3
maximum speed of ship/unit . . . . .	V SPEED	15-3
maximum speed required during the night . . . . .	U SPEED	15-3
maximum speed that can be maintained . . . . .	C SPEED	15-2
maximum speed that can be maintained with present engineering configuration . . . . .	W SPEED	15-3
maximum speed with present engineering configuration, proceed at . . . . .	SPEED M	15-2
my sonar speed. . . . .	P SPEED	15-3
my speed . . . . .	M SPEED	15-3
reduce speed . . . . .	SPEED R	15-2
remain at present speed during the night. . . . .	TA109	16-5
replenishment speed . . . . .	R SPEED	15-3
replenishment units alter speed when ordered . . . . .	SPEED L	15-2
set torpedo for speed . . . . .	9P	37-1
show speed flags . . . . .	SPEED K	15-1
sonar speed, proceed at . . . . .	SPEED P	15-2
speed in excess of, not required until. . . . .	U SPEED	15-3
speed through water (towing). . . . .	6U	41-2
stationing speed . . . . .	S SPEED	15-3
steerageway speed, proceed at . . . . .	SPEED V	15-2
submarine's limiting courses and speeds. . . . .	AS94	22-11
what is your speed? . . . . .	INT SPEED	15-1
wind speed and direction . . . . .	ME10	31-1
wind speed and direction (towing) . . . . .	6D	41-1
 SPLASHED, AIRCRAFT . . . . .	 7S	 20-2
 SPLICE THE MAINBRACE. . . . .	 AD28	 21-3
 SPREAD AWNINGS . . . . .	 AD22	 21-3
 STANDARD		
standard distance. . . . .	TA14	16-1
take standard distance . . . . .	TA12	16-1
use standard rudder . . . . .	TA104	16-5
 STANDING INTO DANGER, YOU ARE . . . . .	 EMERG U	 18-2
 STAND-OFF RANGE, EMERGENCY/OPERATIONAL . . . . .	 10	 23-2

*Signal*      *Page***S**

## STATION

act independently to pass clear of shipping, resume station when clear . . . . .	TA92	16-4
ahead of Guide, take station . . . . .	STATION A	12-2
assigned station, take. . . . .	STATION	12-1
astern of Guide, take station . . . . .	STATION B	12-2
designated unit take station as forward observer of missile flight . . . .	3Y	39-4
diving station, take submarine . . . . .	AS71	22-8
exchange stations, ships . . . . .	STATION J	12-2
Guide is to stop engines, other ships maintain station . . . . .	SPEED 0	15-1
hoist your station number. . . . .	STATION V	12-3
maintain station, ships . . . . .	STATION P	12-2
my station. . . . .	M STATION	12-3
pass ships unable to keep station . . . . .	TA103	16-5
proceed independently to station . . . . .	TA88	16-4
remain in your present station . . . . .	STATION U	12-3
replenishment/transfer, take station for . . . . .	STATION L	12-2
report when you are in station . . . . .	STATION R	12-2
resume station . . . . .	STATION E	12-2
ship take station and become Guide . . . . .	STATION G	12-2
surfacing station, take submarine. . . . .	AS72	22-8
take station . . . . .	1T	23-3
	STATION	12-1
target reporting unit is to take station . . . . .	3G	39-2
unable to keep station . . . . .	B STATION	12-3
unit is in station . . . . .	A STATION	12-3
unit's station . . . . .	M STATION	12-3
unit take station in formation number. . . . .	STATION S	12-3
what is your station? . . . . .	INT STATION	12-1
STATIONING SPEED . . . . .	S SPEED	15-3
STEAMING		
extend duration of course and speed now steaming . . . . .	NA25	32-2
STEER COURSE . . . . .	CORPEN A	14-1
Guide steer course . . . . .	CORPEN P	14-2
safety course, steer. . . . .	CORPEN E	14-1
STEERAGEWAY SPEED, PROCEED AT . . . . .	SPEED V	15-2
STOP (PED)		
Guide is to stop engines, other ships maintain station . . . . .	SPEED O	15-1
my engines are stopped (towing). . . . .	6J	41-1
proceed clear of submarine, stop engines and tap hull. . . . .	AS65	22-8

	<i>Signal</i>	<i>Page</i>
<b>S</b>		
stop engines . . . . .	SPEED S	15-2
stop engines (towing) . . . . .	6I	41-1
stop main and auxiliary machinery . . . . .	AS53	22-7
stop ship by reversing engines . . . . .	SPEED A	15-1
stop the turn and steady on course indicated. . . . .	CORPEN C	13-1
		14-1
stop (towing), the way is off my ship . . . . .	6L	41-1
<b>STORES</b>		
replenish stores. . . . .	RS7	35-2
transfer stores . . . . .	RS8	35-2
<b>STORM</b>		
ship damaged by storm. . . . .	RE11	34-2
storm or squall, severe . . . . .	ME6	31-1
<b>STREAM</b>		
astern fueling rig . . . . .	RS11	35-3
protective devices. . . . .	AS42	22-6
target sled. . . . .	EX10	28-1
towed acoustic arrays. . . . .	AS59	22-7
<b>SUBMARINE</b>		
aircraft has indicated contact with submarine . . . . .	AS31	22-4
as indicated, submarine is . . . . .	1P	23-2
aspect, submarine . . . . .	1K	23-2
clear of submarine, proceed . . . . .	AS65	22-8
close to side/astern, submarine is . . . . .	1X	23-3
contact, I have a submarine . . . . .	EMERG R	18-2
decoy/noisemaker, submarine has released . . . . .	1W	23-3
depth of submarine . . . . .	AS33	22-4
diving course, submarine . . . . .	AS73	22-8
diving station, take submarine . . . . .	AS71	22-8
indications, submarine . . . . .	AS35	22-5
limiting courses and speeds, submarine's . . . . .	AS94	22-11
movement of submarine . . . . .	AS36	22-5
order submarine to . . . . .	AS64	22-8
position obtained by, submarine's . . . . .	AS37	22-5
predicted submarine intercept range . . . . .	AS23	22-1
safety course, submarine . . . . .	AS67	22-8
search for submarine at datum . . . . .	AS92	22-11
sighted bearing, submarine. . . . .	EMERG S	18-2
submerge (submarine) . . . . .	AS69	22-8
surface (submarine) . . . . .	AS70	22-8
surfacing station, take submarine. . . . .	AS72	22-8
surfacing submarine, unit responsible for. . . . .	AS74	22-9

*Signal*      *Page***S**

tap hull; proceed clear of submarine, stop engines and . . . . .	AS65	22-8
torpedo, suspect submarine has fired . . . . .	AS44	22-6
under me/ship, submarine is . . . . .	1X	23-3
underwater communications with submarine, I have . . . . .	1N	23-2
variable depth sonar cable length is, for submarine safety . . . . .	AS66	22-8

## SUBMERGE (ED)

form search attack unit and investigate submerged object . . . . .	AS19	22-2
leave present assignment to investigate submerged object . . . . .	AS15	22-2
submerge (submarine) . . . . .	AS69	22-8

## SUNK

friendly unit sunk . . . . .	RE14	34-2
rescue crew of aircraft/ship sinking/sunk . . . . .	TA63	16-3
unit indicated sunk . . . . .	RE6	34-1

SUPPLIED, COMMODITY . . . . .	RS5	35-2
-------------------------------	-----	------

SUPPORT METHOD, CARRY OUT . . . . .	AS105	22-12
-------------------------------------	-------	-------

## SURFACE (ING)

action plan is based on keeping force, surface . . . . .	SU23	36-2
assume command as surface action group commander . . . . .	SU10	36-1
form surface action group and clear the force . . . . .	SU11	36-2
order submarine to surface . . . . .	AS64	22-8
surface craft detected bearing . . . . .	EMERG J	18-1
surface craft sighted bearing, enemy or unidentified . . . . .	EMERG E	18-1
surface (submarine) . . . . .	AS70	22-8
take submarine surfacing station . . . . .	AS72	22-8
unit responsible for surfacing submarine . . . . .	AS74	22-9

## SUSPEND (ED)

boating, suspend all . . . . .	AD6	21-1
flight operations suspended . . . . .	AV26	24-1

SYNCHRONIZE WATCHES . . . . .	NA35	32-3
-------------------------------	------	------

**T**

## TACTICAL

assume/resume tactical command . . . . .	CO14	26-1
assume/resume tactical control. . . . .	CO15	26-1
maneuvers by flaghoist are to commence now, tactical . . . . .	EX9	28-1
sonar range, tactical . . . . .	AS28	22-4

Signal Page

## T

## TAKE

action (aircraft operation) . . . . .	AV28	24-2
assigned station . . . . .	STATION	12-1
charge . . . . .	CO16	26-1
distance indicated. . . . .	TA12	16-1
individual avoiding action . . . . .	EMERG 1	18-3
interval indicated . . . . .	TA15	16-1
position, detach and take . . . . .	AS21	22-2
station. . . . .	1T	23-3
station ahead of Guide . . . . .	STATION A	12-2
station astern of Guide . . . . .	STATION B	12-2
station on true/relative bearing . . . . .	STATION	12-1
station for replenishment/transfer. . . . .	STATION L	12-2
submarine diving station . . . . .	AS71	22-8
submarine surfacing station . . . . .	AS72	22-8
target in tow. . . . .	EX10	28-1
torpedo defensive measures . . . . .	AS43	22-6
under tow (towing) . . . . .	6E	41-1
unit take station in formation number . . . . .	STATION S	12-3

## TARGET

abandon target . . . . .	EX10	28-1
area of probability for target . . . . .	3T	39-3
carry out action plan against target . . . . .	4A	40-1
cease fire on target . . . . .	4C	40-1
ceased firing on target, I have . . . . .	4E	40-1
close target by steady bearings. . . . .	9Z	37-3
engage target . . . . .	2N	38-2
engage target indicated. . . . .	4B	40-1
engaging target, I am engaging. . . . .	4D	40-1
fire on target . . . . .	3D	39-2
fired on target, I have . . . . .	3E	39-2
illuminate target. . . . .	4F	40-1
long-range missiles are to be fired on target . . . . .	3W	39-2
opened fire, target . . . . .	2Q	38-2
over-the-horizon missile attack against target, conduct . . . . .	3B	39-1
over-the-horizon missile attack against target, I am conducting . . . . .	3C	39-1
over-the-horizon missile on target, prepare to engage with . . . . .	3A	39-1
range/conditions, target. . . . .	GM14	29-2
range, target . . . . .	SU16	36-2
range, target within . . . . .	2P	38-2
range within 10° of line of fire and within 20 nm of target. . . . .	3U	39-3
reporting data on target, I am reporting. . . . .	3I	39-2
results of attack on target, estimate of . . . . .	3Q	39-2
short-range missiles are to be fired on target. . . . .	4T	40-3

Signal Page

**T**

speed across for firing, target . . . . .	9Q	37-2
speed across, use individual settings for target . . . . .	9S	37-2
target reporting unit is to take station . . . . .	3H	39-2
torpedoes will strike target at . . . . .	9U	37-2
tow, take target in . . . . .	EX10	28-1
track target and be prepared to engage . . . . .	4N	40-2
when ordered to engage, units attack target with missiles . . . . .	3F	39-2
 TASK ORGANIZATION, ASSUME . . . . .	 CO10	 26-1
 TERMINAL GUIDANCE		
I am using terminal guidance with search pattern . . . . .	3S	39-3
use terminal guidance with search pattern . . . . .	3R	39-3
 TERMINATE SEARCH ATTACK UNIT . . . . .	 AS17	 22-2
 THREAT		
assessed . . . . .	AA5	19-1
sectors . . . . .	AA6	19-1
 TIME		
be in position at time . . . . .	TA68	16-3
COMEX time . . . . .	AS76	22-9
estimated time of arrival/commencement/completion/ departure/rejoining . . . . .	NA34	32-3
estimated time of commencing/completing replenishment . . . . .	RS12	35-3
firing torpedoes, time of . . . . .	9D	37-1
flight operations, time into wind for . . . . .	AV29	24-2
indicator, time . . . . .	BT	17-1
report time you will be ready . . . . .	BD	17-1
time check . . . . .	BT	17-1
use zone time indicated. . . . .	NA37	32-3
zero time indicated by signal . . . . .	NA36	32-3
 TORPEDO (ES)		
all torpedoes have been recovered . . . . .	SU33	36-3
attack with torpedoes . . . . .	9C	37-1
attack with torpedoes in sector . . . . .	9G	37-1
base torpedo course . . . . .	9L	37-1
chase and recover torpedoes. . . . .	SU35	36-3
contact has fired torpedo . . . . .	2Q	38-2
continue to close enemy after attack to disguise moment of firing torpedoes. . . . .	9I	37-1
decoy, stream/launch torpedo . . . . .	AS42	22-6
enemy ship to be used as aimpoint for torpedo firing. . . . .	9J	37-1
fire torpedoes . . . . .	9A	37-1
fired, torpedoes have just been. . . . .	SU29	36-3

Signal Page

## T

mean torpedo course . . . . .	9M	37-1
proceed to most advantageous position for torpedo attack. . . . .	SU30	36-3
proceed to torpedo attack sectors . . . . .	9F	37-1
set torpedo for speed . . . . .	9P	37-1
set torpedo to initial search depth . . . . .	AS7	22-1
set torpedo to run at depth . . . . .	9O	37-1
suspect submarine has fired torpedo . . . . .	AS44	22-6
ship damaged by torpedo. . . . .	RE11	34-2
take torpedo defensive measures . . . . .	AS43	22-6
target within torpedo range . . . . .	2P	38-2
time of hitting is synchronized so all torpedoes hit at. . . . .	9T	37-2
torpedo detected/sighted bearing. . . . .	EMERG T	18-2
torpedoes will strike target at . . . . .	9U	37-2
tubes, I am maneuvering to unmask torpedo. . . . .	SU9	36-1
turn as required and fire torpedoes . . . . .	9V	37-2
turn in succession and fire torpedoes. . . . .	9W	37-2
turn together and fire torpedoes . . . . .	9X	37-2
use torpedo attack plan indicated. . . . .	9E	37-1
TOW (ING)		
approach (towing), tow . . . . .	6F	41-1
me/unit (towing), tow . . . . .	6A	41-1
require towing. . . . .	RE7	34-1
take target in tow . . . . .	EX10	28-1
tow . . . . .	RE43	34-4
will take you under tow (towing) . . . . .	6E	41-1
TOWED ARRAY		
act independently to launch/recover towed array. . . . .	TA92	16-4
condition of towed array . . . . .	AS48	22-6
stream/recover towed acoustic arrays . . . . .	AS59	22-7
TRACK (ING)		
I have tracking responsibility for vessel. . . . .	IN9	30-1
investigate track, be prepared to illuminate and engage . . . . .	SU12	36-2
leave present assignment to investigate track . . . . .	AS16	22-1
request unit assume tracking responsibility for vessel . . . . .	IN8	30-1
target and be prepared to engage, track . . . . .	4N	40-2
TRANSFER		
close for transfer . . . . .	RS1	35-1
mail or other light material for transfer . . . . .	RS3	35-1
method at station, transfer by. . . . .	RS8	35-2
provide transfer rig . . . . .	RS6	35-2
take station for transfer . . . . .	STATION L	12-2
target, transfer . . . . .	EX10	28-1
tow, transfer. . . . .	RE43	34-4



	<i>Signal</i>	<i>Page</i>
		<b>T</b>
TRANSMIT ON VDS TRANSDUCER . . . . .	AS54	22-7
TRASH, DUMP . . . . .	AD26	21-3
TRUE BEARINGS		
ships are to form on true bearings from their Guide . . . . .	FORM	11-2
take station on true bearing from the Guide . . . . .	STATION	12-1
true bearings and distances are to be preserved/resumed . . . . .	TA11	16-1
TUBES, BLOW . . . . .	TA43	16-2
TURN (ING)		
as required and fire torpedoes, turn . . . . .	9V	37-2
in succession and fire torpedoes, turn . . . . .	9W	37-2
lights, turn on . . . . .	TA38	16-2
my engines are turning ahead/astern. . . . .	H SPEED	15-3
my engines are turning ahead/astern (towing) . . . . .	6J	41-1
navigation lights, turn on . . . . .	NA14	32-2
search turn . . . . .	CORPEN S	14-2
stop the turn and steady on course indicated. . . . .	CORPEN C	13-1
		14-1
together and fire torpedoes, turn . . . . .	9X	37-2
together to course or direction, turn . . . . .	TURN	13-1
TYPE ORGANIZATION, ASSUME . . . . .	CO10	26-1
		<b>U</b>
UHF		
exercise independently, remain within UHF range . . . . .	EX4	28-1
keep within UHF radio range . . . . .	TA73	16-3
UNABLE TO . . . . .	BU	17-1
arrive in position at prescribed time. . . . .	TA68	16-3
carry out operation . . . . .	TA111	16-6
ledge off . . . . .	ED9	27-1
keep station or carry out movements. . . . .	B STATION	12-3
operate aircraft . . . . .	AV30	24-2
operate sonar equipment effectively . . . . .	AS57	22-7
use ASW weapons . . . . .	AS58	22-7
UNDER ME/SHIP, SUBMARINE IS . . . . .	1X	23-3
UNDERWATER		
establish communications by underwater telephone . . . . .	CM4	25-1
I have underwater communications with submarine . . . . .	1N	23-2

Signal Page

**U**

keep within underwater telephone range . . . . .	TA73	16-3
operation of underwater telephone is authorized . . . . .	AS55	22-7
ship is damaged by underwater explosion . . . . .	RE11	34-2
use underwater telephone method . . . . .	CM6	25-1
<b>UNDERWAY</b>		
come to/revert to notice for getting underway . . . . .	RE49	34-4
delay getting underway and remain at notice. . . . .	RE48	34-4
get underway . . . . .	ED49	27-3
<b>UNIDENTIFIED</b>		
aircraft detected/sighted bearing . . . . .	EMERG B	18-1
surface craft sighted bearing . . . . .	EMERG E	18-1
<b>UNIFORM IS . . . . .</b>		
	AD29	21-3
<b>UNIT</b>		
able to continue on assigned mission, unit . . . . .	RE10	34-2
assigned to unit, you are . . . . .	CO1	26-1
assist unit . . . . .	TA52	16-2
assume tactical command of unit (or I am assuming) . . . . .	CO14	26-1
assume tactical control of unit (or I am assuming) . . . . .	CO15	26-1
bear from unit, you . . . . .	TA17	16-1
bears from unit, unit. . . . .	TA32	16-2
berth assignment of unit . . . . .	ED22	27-2
clear berth for unit . . . . .	ED26	27-2
clear unit . . . . .	TA85	16-3
close unit . . . . .	TA94	16-4
conform to movements of unit . . . . .	TA70	16-3
contact is held by unit. . . . .	2K	38-2
damage, unit has suffered . . . . .	2W	38-3
damage, unit has sustained . . . . .	RE6	34-1
designated firing unit's position . . . . .	3G	39-2
designated unit is to report attack results. . . . .	3P	39-2
designated unit take station as forward observer for missile flight . . . . .	3Y	39-4
distance between units . . . . .	TA14	16-1
distance from unit. . . . .	TA18	16-1
flooding, unit is . . . . .	RE18	34-2
follow movements of unit in opening fire . . . . .	4I	40-2
follow unit . . . . .	TA98	16-4
form part of unit for maneuvering purposes . . . . .	TA99	16-4
friendly, unit is . . . . .	TA26	16-1
friendly unit sunk . . . . .	RE14	34-2
identify unit . . . . .	TA115	16-6
identity of unit . . . . .	TA117	16-6
join/rejoin unit . . . . .	TA86	16-3

	<i>Signal</i>	<i>Page</i>
		<b>U</b>
keep between unit and contact . . . . .	TA100	16-5
keep clear of unit . . . . .	1O	23-2
keep in wake of unit/to port/starboard of unit . . . . .	TA100	16-5
light showing, unit has . . . . .	TA37	16-2
maneuver your unit to avoid shipping. . . . .	TA101	16-5
maximum speed of unit . . . . .	V SPEED	15-3
pass ahead/astern/to port/starboard of unit. . . . .	TA103	16-5
pass through reference point, unit will . . . . .	NA31	32-3
readiness of unit . . . . .	RE42	34-4
resume tactical command of unit (or I am resuming). . . . .	CO14	26-1
resume tactical control or unit (or I am resuming) . . . . .	CO15	26-1
station of unit . . . . .	M STATION	12-3
station, unit is in . . . . .	A STATION	12-3
target reporting unit is to take station . . . . .	3H	39-2
unable to keep station or carry out movements directed, unit . . . . .	B STATION	12-3
when ordered to engage, units attack target with missiles . . . . .	3F	39-2
 UNMASK, I AM MANEUVERING TO. . . . .	 SU9	 36-1
 UNMOOR. . . . .	 ED14	 27-2
 UNRELIABLE EQUIPMENT . . . . .	 RE36	 34-3
 URGENT ATTACK, MAKE . . . . .	 AS1	 22-1
		<b>V</b>
VARIABLE DEPTH SONAR		
act independently to launch/recover variable depth sonar . . . . .	TA92	16-4
condition of variable depth sonar . . . . .	AS48	22-6
energize/de-energize variable depth sonar transducer. . . . .	AS55	22-7
for submarine safety, variable depth sonar cable length is . . . . .	AS66	22-8
transducers, lower/recover variable depth sonar . . . . .	AS49	22-6
transmit on variable depth sonar transducer . . . . .	AS54	22-7
 VECTOR AIRCRAFT ATTACK, MAKE. . . . .	 AS1	 22-1
 VEER		
chain . . . . .	ED16	27-2
target . . . . .	EX10	28-1
 VHF		
establish communications by VHF . . . . .	CM4	25-1
exercise independently, remain within VHF range . . . . .	EX4	28-1
keep within VHF radio range . . . . .	TA73	16-3
my query/challenge is via VHF . . . . .	IN3	30-1
use VHF method . . . . .	CM6	25-1

	<i>Signal</i>	<i>Page</i>
<b>V</b>		
VISIBILITY . . . . .	ME7	31-1
	ME 8	31-1
wait for visibility to improve . . . . .	TA153	16-6
VISUAL		
aircraft holds contact on visual . . . . .	AS34	22-4
bearing of contact from unit by visual. . . . .	2I	38-2
contact held by unit by visual . . . . .	2K	38-2
exercise independently, remain within visual signaling range . . . . .	EX4	28-1
keep within visual signaling range . . . . .	TA73	16-3
lost visual contact, I have . . . . .	2H	38-1
maintain/secure/set visual watch . . . . .	CM3	25-1
use visual means of recognition . . . . .	TA118	16-6
VOICE		
establish voice communications . . . . .	CM4	25-1
use voice communication method . . . . .	CM6	25-1
<b>W</b>		
WAKE, KEEP IN/JUST CLEAR OF . . . . .	TA100	16-5
WATCH (ES)		
close down radio watch . . . . .	CM1	25-1
maintain radio watch . . . . .	CM7	25-1
maintain/secure/set visual watch . . . . .	CM3	25-1
set anchor watch . . . . .	ED4	27-1
set sonar watch . . . . .	AS56	22-7
synchronize watches . . . . .	NA35	32-3
WATER		
depth of water. . . . .	NA8	32-1
percentage of water remaining on board at noon. . . . .	RE40	34-4
received/supplied, water . . . . .	RS5	35-2
replenish water . . . . .	RS8	35-2
required, water . . . . .	RS4	35-1
WEAPON (S)		
coordination method, weapon . . . . .	AA7	19-1
may open fire on any target not identified as friend, AAW weapon. . . . .	7F	20-1
may open fire on any target not identified as friend, ASW weapon. . . . .	AS11	22-1
not to open fire unless target is identified as enemy, AAW weapon is. . . . .	7T	20-2
not to open fire unless target is identified as enemy, ASW weapon is. . . . .	AS9	22-1
safety range, ASW weapon. . . . .	AS10	22-1

*Signal*      *Page***W**

set ASW weapon to depth . . . . .	AS8	22-1
stand by for weapon firing . . . . .	1D	23-1
status, weapons . . . . .	RE22	34-3
unable to use ASW weapons . . . . .	AS58	22-7
<b>WEATHER</b>		
act independently for meteorological tasks . . . . .	TA92	16-4
ceiling . . . . .	ME1	31-1
cloud cover . . . . .	ME2	31-1
fog . . . . .	ME3	31-1
make weather report . . . . .	ME9	31-1
prepare for heavy weather . . . . .	RE23	34-3
sea state . . . . .	ME4	31-1
storm/squall, severe . . . . .	ME6	31-1
unable to carry our operations due to weather . . . . .	TA111	16-6
unable to keep station due to weather . . . . .	B STATION	12-3
unable to operate aircraft due to weather. . . . .	AV30	24-2
visibility . . . . .	ME7	31-1
	ME8	31-1
weather is suitable for . . . . .	TA154	16-6
wind speed and direction . . . . .	ME10	31-1
wind speed and direction (towing) . . . . .	6D	41-1
<b>WEIGH ANCHOR.</b> . . . .	ED18	27-2
<b>WELL DONE</b> . . . . .	BZ	17-1
<b>WHAT IS</b>		
wrong with you, report damage or what is . . . . .	RE16	34-2
your course . . . . .	INT CORPEN	14-1
your speed . . . . .	INT SPEED	15-1
your station . . . . .	INT STATION	12-1
<b>WHEN</b>		
report when ready . . . . .	BE	17-1
report when you are in station . . . . .	STATION R	12-2
when ready . . . . .	BL	17-1
when you desire . . . . .	BK	17-1
<b>WIND</b>		
ballistic wind . . . . .	GM4	29-1
find ballistic wind . . . . .	GM3	29-1
ready to operate aircraft when wind conditions are suitable . . . . .	AV26	24-1
speed and direction, wind. . . . .	ME10	31-1
speed and direction (towing), wind . . . . .	6D	41-1
time into wind . . . . .	AV29	24-2
unable to operate aircraft due to lack of wind. . . . .	AV30	24-2

Signal Page

**Y****YOU (R)**

anchor at your discretion . . . . .	ED2	27-1
assigned to, you are . . . . .	CO1	26-1
bear from unit/position, you. . . . .	TA17	16-1
board/query vessel, you are directed to . . . . .	IN2	30-1
consider your present contact is . . . . .	1S	23-2
desire, if you . . . . .	BJ	17-1
desire, when you . . . . .	BK	17-1
detached, you are. . . . .	TA89	16-4
distance, your. . . . .	TA18	16-1
keep clear, you are on collision course with me . . . . .	EMERG C	18-1
light showing, you have a . . . . .	TA37	36-2
lights are, your . . . . .	NA13	32-1
moor with anchors at your discretion . . . . .	ED10	27-2
not in radio communication with you . . . . .	CM2	25-1
remain in your present station . . . . .	STATION U	12-3
remain in your present position. . . . .	TA78	16-3
report damage or what is wrong with you. . . . .	RE16	34-2
report time you will be ready . . . . .	BD	17-1
report when you are in station . . . . .	STATION R	12-2
sector of attack, your . . . . .	SU27	36-3
sectors, proceed to your . . . . .	SU31	36-3
standing into danger, you are. . . . .	EMERG U	18-2
will close your bow/stern (towing). . . . .	6F	41-1

**Z**

ZERO TIME INDICATED BY EXECUTION OF SIGNAL . . . . .	NA36	32-3
ZONE . . . . .	AS26	22-3
convergence zone (See CONVERGENCE ZONE)		
use zone time indicated. . . . .	NA37	32-3
weapon coordination method in force . . . . .	AA7	19-1

# PART III — REPORTS AND MESSAGES





## CHAPTER 45

## Tasking Message

**4501 Introduction**

A tasking message will be promulgated for each exercise or operation conducted in accordance with this manual. The tasking message will be developed by the command or country hosting the exercise or operation, or by the commander designated as the CTG. The tasking message will be distributed to all participants sufficiently in advance of the exercise or operation to ensure all have time to incorporate the message's contents into their planning and preparation.

**4502 Tasking Message Format**

**1. Exercise or Operation Name.** States the name of the exercise or operation the participants have agreed to conduct. All information in the tasking message is valid only for the identified exercise or operation.

**2. Exercise or Operation Date.** Provides the inclusive dates for the exercise or operation.

**3. Schedule of Events.** Provides a detailed schedule of events for the planned exercise or operation. The schedule of events should be as detailed as necessary to ensure a smooth and orderly execution of the exercise or operation.

**4. Task Organization.** Provides a detailed task organization for the exercise or operation. It shall identify task organization commanders and assigned units, scheduled changes of operational control (CHOPs), and joinings and detachments.

**5. Formations.** Provides formation information for the exercise or operation, and includes:

- a. Cruise and speed requirements.

- b. Standard distance.

- c. Standard interval.

- d. Sequence numbers.

- e. Standard circular formations.

**6. Reports.** Outlines routine reports required during the exercise or operation, including:

- a. Unit readiness reports.

- b. Own-ship position reports.

- c. Contact reports.

- d. Navigation danger reports.

**7. Communications.** Provides communication information needed to support the exercise or operation, including information on:

- a. Radioteletype circuits.

- b. Voice radio circuits.

- c. Voice call signs.

- d. Special tactical signals.

**8. Additional Comments.** Provides any additional comments, guidance, or direction, as needed.

**4503 Sample Tasking Message**

Figure 45-1 provides a sample tasking message.

From: Nation A Commander Destroyer Squadron XYZ

To: Nation A Ship DEF  
Nation A Ship GHI  
Nation A Ship JKL  
Nation B Ship ABC

Info: Nation A National Authorities (as appropriate)  
Nation B National Authorities (as appropriate)

Subj: Exercise Tasking Message

The following information is provided in accordance with EXTAC 1000, Maritime Maneuvering and Tactical Procedures:

1. Exercise Name: Joining Hands 94
2. Exercise Dates: 11 April 1994 to 12 April 1994
3. Schedule of Events:
  - a. Event 11A - 111200Z April Participants report for duty to CTG 12.1 in vicinity of 55°N, 20°W. Take station in order of sequence numbers in FORM 18 on Guide Ship DEF. Ship DEF on course 040°T, speed 10 knots.
  - b. Event 11B - 111300Z to 111800Z April TG12.1 conduct tactical maneuvering exercises as ordered by CTG 12.1.
  - c. Event 11C - 111800Z April CTG 12.1 CHOP TG12.1 ships to CTUs for night steaming. CHOP to occur in vicinity of 56°N, 20°W. During night steaming CTUs remain within voice radio communication distance of CTG 12.1. CTUs issue intentions for night steaming to TU ships and CTG 12.1.
  - d. Event 12A - 120700Z April CTUs CHOP ships to CTG 12.1 in vicinity 57°N, 18°W. Ships take station in order of sequence numbers in a column formation on Guide Ship ABC. Ship ABC on course 090°T, speed 10 knots.
  - e. Event 12B - 120700Z to 121500Z April TG 12.1 conduct tactical maneuvering exercises as ordered by CTG 12.1.
  - f. Event 12C - 121200Z April CTG 12.1 detach Ship JKL to national authority. Ship JKL proceed in accordance with national directions.
  - g. Event 12D - 121500Z April CTG 12.1 detach TG 12.1 ships to national authorities. CTG 12.1 ships proceed in accordance with national directions.

---

Figure 45-1. Sample Tasking Message (Sheet 1 of 3)

## 4. Task Organization:

## a. Task Group Designation: TG 12.1

CTG 12.1	COMDESRON XYZ (embarked ship DEF)
TG 12.1	COMDESRON XYZ
	Ship ABC
	Ship DEF
	Ship GHI
	Ship JKL (120700Z to 121200Z only)

CTU 12.1.1	COMDESRON XYZ
TU 12.1.1	COMDESRON XYZ
	Ship DEF
	Ship GHI
	Ship JKL (120700Z to 121200Z only)

CTU 12.1.2	CO SHIP ABC
TU 12.1.2	Ship ABC

## b. CHOPs/Joinings and Detachments:

(1) CTG 12.1 activated at 111200Z Apr 94. All participants (less Ship JKL) CHOP to TG 12.1 at that time.

(2) TG 12.1 terminated at 121500Z Apr 94. All participants (less Ship JKL) CHOP to national authority at that time.

(3) Ship JKL join exercise and CHOP to TG 12.1 at 120700Z Apr 94.

(4) Ship JKL detached at 121200Z Apr 94.

## 5. Formations:

a. Maximum speed required for tactical maneuvers is 18 knots. Normal formation speed will be 8 to 15 knots. Speed and course changes should conform to movements of Guide.

b. Standard distance (D) is 1,000 yards.

c. Standard interval (I) is 2,000 yards.

d. Sequence numbers as follows:

Sequence #1	Ship DEF
Sequence #2	Ship GHI
Sequence #3	Ship ABC
Sequence #4	Ship JKL.

e. Formations to be employed are as follows:

---

Figure 45-1. Sample Tasking Message (Sheet 2 of 3)

FORM 17	Station 1	ZZ
	Station 2	020° to 030° ZZ 1,000 to 1,500 yards
	Station 3	130° to 150° ZZ 1,000 to 1,500 yards
	Station 4	250° to 280° ZZ 1,000 to 1,500 yards
FORM 18	Station 1	ZZ
	Station 2	350° to 010° ZZ 500 to 1,000 yards
	Station 3	080° to 090° ZZ 500 to 1,000 yards
	Station 4	260° to 280° ZZ 500 to 1,000 yards
FORM 19	Station 1	ZZ
	Station 2	045° ZZ 1,500 yards
	Station 3	180° ZZ 1,500 yards
	Station 4	325° ZZ 1,500 yards

6. Reports:

a. Unit Readiness Reports. Upon reporting for duty all units submit readiness reports to CTG. Units report changes in readiness as occurring. Fully ready to participate in exercise requires:

- (1) Ability to make speeds up to 18 knots.
- (2) Steering system fully operable.
- (3) Small boat operable, able to be launched, and qualified boat crew available.
- (4) Surface and air search radars operable.
- (5) Two UHF and one VHF voice radio circuits available to meet communication requirements.
- (6) One UHF radio teletype circuit available to meet communication requirements.
- (7) All navigation lights operable.
- (8) Capable of flashing light and flaghoist communications.

b. Own-Position Reports. All participants report own-position to CTG 12.1 at 111500Z and 120800Z; report position to appropriate CTU at 120000Z. CTUs report TU position to CTG 12.1 at 120100Z.

c. Contact Reports. All participants report surface and air contacts to CTG 12.1 upon detection. Contact reports to be submitted in format provided in EXTAC 1000, Maritime Maneuvering and Tactical Procedures.

d. Danger Reports. All participants report any navigation dangers to CTG 12.1, appropriate CTU, and/or ships standing into danger.

---

Figure 45-1. Sample Tasking Message (Sheet 3 of 5)

## 7. Communications:

## a. Radio Teletype Circuits:

- Circuit Name: RATT 1  
Frequency: 527 kHz  
Back-up Frequency: 617 kHz  
Intended Use: All radioteletype traffic  
Control: COMDESRON XYZ  
Participants: All TG 12.1

## b. Voice Radio Circuits

- Circuit Name: TAC 1 (111100Z to 111800Z and 120700Z to 121600Z only)  
Frequency: 373.7 MHz  
Back-up Frequency: 412.0 MHz  
Intended Use: All TG 12.1 tactical signals  
Control: COMDESRON XYZ  
Participants: All TG 12.1
  
- Circuit Name: TAC 2 (111800Z to 120700Z only)  
Frequency: 515 MHz  
Back-up frequency: 770 MHz  
Intended Use: TU 12.1.1 tactical and admin traffic  
Control: COMDESRON XYZ  
Participants: All TU 12.1.2
  
- Circuit Name: TAC 3 (111800Z to 120700Z only)  
Frequency: 612 MHz  
Back-up Frequency: 917 MHz  
Intended Use: TU 12.1.2 tactical and admin traffic  
Control: CO Ship ABC  
Participants: All TU 12.1.1
  
- Circuit Name: ADMIN 1 (Note)  
Frequency: 400 MHz  
Back-up Frequency: 450 MHz  
Intended Use: All TG 12.1 admin traffic  
Control: COMDESRON XYZ  
Participants: All TG 12.1

Note: COMDESRON XYZ and Ship ABC guard ADMIN 1 throughout exercise. All others guard ADMIN 1 from 111100Z to 111800Z and 120700Z to 121600Z only.

---

Figure 45-1. Sample Tasking Message (Sheet 4 of 5)

## c. Voice Call Signs:

COMMAND	NAME	CALL SIGNS
CTG 12.1	COMDESRON XYZ	Universe
TG 12.1	Collective	Earth
CTU 12.1.1	COMDESRON XYZ	Blizzard
TU 12.1.1	Collective	Snow
CTU 12.1.2	CO Ship ABC	Hurricane
TU 12.1.2	Collective	Wind
Ships	Ship ABC	Alfa Bravo Charlie
	Ship DEF	Delta Echo Foxtrot
	Ship GHI	Golf Hotel India
	Ship JKL	Juliett Kilo Lima

d. Special Tactical Signals. In addition to signals listed in EXTAC 1000, Maritime Maneuvering and Tactical Procedures, and paragraph 5e of this message, the following are effective for Joining Hands 94:

C017...CHOP to TU 12.1.1. Rejoin TG 12.1 at 120700Z.

CO18...CHOP to TU 12.1.2. Rejoin TG 12.1 at 120700Z.

CO 19...CHOP to TU 12.1 at this time.

CM13...Shift to TAC 2. Resume guard on TAC 1 at 120700Z.

CM14...Shift to TAC 3. Resume guard on TAC 1 at 120700Z.

CM15...Shift to TAC 1 at this time.

8. Additional Comments. Post exercise critique will be held during port visit of COMDESRON XYZ and Ships ABC and DEF to Portsmouth, England, 22 to 24 April 94. If representatives of Ships GHI and JKL cannot attend, comments should be forwarded to COMDESRON XYZ prior to 22 April. Details on meeting time and place will be forwarded when known.

---

Figure 45-1. Sample Tasking Message (Sheet 5 of 5)

## ANNEX A

# Glossary of Terms, Acronyms, and Abbreviations

## 0A01 Introduction

This annex provides a glossary of terms, with reference paragraphs in parentheses, and a list of acronyms and abbreviations used in this manual.

## 0A02 Glossary of Terms

**chain of command.** The succession of authority of commanders within a task organization. (0101.d)

**change of operational control (CHOP).** The shift of responsibility for command and/or control from one commander to another. (0102.3)

**circular formation.** A formation in which ships are assigned stations around a central location. (0301.2)

**column formation.** A line formation in which ships are aligned bow to stern. (0301.1a)

**column open order.** A modification of a line formation in which ships are displaced on each side of the stern of the lead ship. (0301.1d)

**command.** The authority vested in an individual to direct, coordinate, and control forces. (0102.1)

**commander task element.** The commander assigned command and control authority over forces assigned to a task element. (0101.c)

**commander task group.** The commander assigned command and control authority over forces assigned to a task group. (0101.a)

**commander task unit.** The commander assigned command and control authority over forces assigned to a task unit. (0101.b)

**control.** The authority exercised by a commander over part of the activities of subordinates. (0102.1c)

**coordination.** The establishment of planned actions to achieve the best overall results. (0102.1b)

**corpen.** A line formation maneuver in which ships alter course so that the relative bearing to the Guide is the same at the completion of the maneuver as it was at the start of the maneuver. (0302.2)

**designated station.** An area or point established in advance for assigning ships within a formation. Designated stations apply only to the exercise or operation for which they are developed. (0201.3)

**diamond formation.** A formation of ships that resembles a diamond. A diamond formation can be formed only from a column formation. (0301.1e)

**direction.** The process of planning, establishing priorities, formulating policies, and imposing decisions. (0102.1a)

**distance.** The distance between ships in a line. (0203.3)

**formation.** The orderly grouping of ships for the purpose of safely and efficiently completing an exercise or operation objective. (0301)

**Guide.** The ship in a formation on which other ships take station. (0203.5)

**INTERCO.** A code word that indicates signals are from the International Code of Signals. (0403.13)

**INTERROGATIVE.** A signal modifier that denotes a question. (0403.6)

**interval.** The distance between lines of ships in a multiple line formation. (0203.3)

**line abreast formation.** A line formation in which ships are aligned beam to beam. (0301.1b)

**line formation.** One of several basic formations in which ships are stationed along a line. (0301.1)

**line of bearing formation.** A line formation in which ships are aligned along a designated bearing. (0301.1c)

**NEGAT.** A signal modifier that denotes “cease or do not.” (0403.6)

**operational command and control.** The authority to assign ships as participants in an exercise or operation, to deploy ships to meet exercise or operation commitments, and to authorize ships to detach from an exercise or operation. (0102.2a)

**position and intended movement (PIM).**  
The general track along which a task group will proceed. A PIM consists of a position, time of position, course, speed, and time in hours for which the course and speed is in force. (0203.2)

**PREP.** A signal modifier that denotes “prepare to.” (0403.6)

**readiness.** The ability of a command to carry out an assigned exercise or operation. (0104)

**sequence number.** A number assigned to a ship in a task group to facilitate close maneuvering and stationing. (0203.6)

**standard position.** One of a series of positions that are valid during all exercises or operations. (0201.4)

**station.** The position within a formation assigned to a ship. (0203.4)

**tactical command.** The authority to assign ships to specific tasks within an exercise or operation. (0102.2b)

**tactical control.** The authority to direct and control the movements or maneuvers of ships to accomplish an exercise or operation. (0102.2c)

**task element.** A command and control grouping of forces subordinate to a task unit. (0101.c)

**task group.** The largest command and control grouping of forces involved in an exercise or operation. (0101.a)

**task organization.** The structure that delineates command and control responsibility of forces involved in an exercise or operation. (0101)

**task unit.** A command and control grouping of forces subordinate to a task group. (0101.b)

**turn.** A formation maneuver in which all ships alter course simultaneously and maintain true bearing to the Guide. (0302.1)

## 0A03 List of Acronyms and Abbreviations

**CHOP.** Change of operational command

**CTE.** Commander task element

**CTG.** Commander task group

**CTU.** Commander task unit

**D.** Standard distance

**d.** Distance

**DESIG.** Designation

**EMERG.** Emergency

**FORM.** Formation

**GMT.** Greenwich Mean Time (Zone 0, Z)

**I.** Standard interval

**INT.** Interrogative



**INTERCO.** Signals are from the International Code of Signals

**kt.** Knot(s)

**NEGAT.** Cease or do not

**nm.** Nautical mile(s)

**PIM.** Position and intended movement

**POL.** Petroleum, oil, and lubricants

**PREP.** Prepare to

**QQ.** Center of the front of a formation

**R.** Relative

**RAS.** Replenishment at sea

**RP.** Reference point

**STBD.** Starboard

**T.** True or time

**TACK.** Tackline ( — )

**TE.** Task element

**TG.** Task group

**TT.** Originator's position

**TU.** Task unit

**VERTREP.** Vertical replenishment

**XX.** Position upon which an evolution is based

**yd.** Yard(s)

**YY.** Addressee's position

**ZZ.** Formation center

**°.** Degree(s)



# INDEX

	<i>Page No.</i>		<i>Page No.</i>
<b>A</b>			
Abbreviations . . . . .	1-3	Completing a signal . . . . .	4-5
Acronyms . . . . .	1-3	Contact positions . . . . .	2-1
Action signals . . . . .	4-3	Control . . . . .	1-1
Administration signals . . . . .	21-1	Change of operational control . . . . .	1-2
Aircraft signals . . . . .	24-1	Command and control . . . . .	1-1
Alphabetical flags, single. . . . .	4-7	Tactical control. . . . .	1-2
Altering formation course . . . . .	3-8	Coordination . . . . .	1-1
Antiair warfare:		Corpen . . . . .	3-9
Action table . . . . .	20-1	Signals . . . . .	14-1
Signals . . . . .	19-1	Course:	
Antisubmarine warfare:		Altering formation course . . . . .	3-8
Action table . . . . .	23-1	Changes . . . . .	2-1
Signals . . . . .	22-1	Speed, course and . . . . .	2-1
Antisurface warfare signals . . . . .	36-1	<b>D</b>	
Arrival and departure . . . . .	2-3	Danger, avoiding . . . . .	2-4
Automatic Guide changes. . . . .	3-10	Date(s):	
Avoiding danger . . . . .	2-4	Exercise or operation date . . . . .	45-1
<b>B</b>			
Bearing and distance . . . . .	2-1	Times and dates . . . . .	4-5
Breakdown . . . . .	2-5	Departure:	
<b>C</b>			
Call signs, voice . . . . .	4-1	Arrival and departure. . . . .	2-3
Chain of command . . . . .	1-1	Entry and departure . . . . .	27-1
Change(s):		Designated stations. . . . .	2-1
Automatic Guide changes. . . . .	3-10	Designation signal . . . . .	4-5
Course changes. . . . .	2-1	Detaching, joining and . . . . .	2-3
Formation, change of . . . . .	3-10	Detachments:	
Operational control, change of. . . . .	1-2	Scheduled . . . . .	2-3
Speed changes . . . . .	2-1	Unscheduled . . . . .	2-4
Circular formations. . . . .	3-4	Diamond . . . . .	3-3
Guide changes in . . . . .	3-14	Guide changes in . . . . .	3-14
Column. . . . .	3-1	Direction . . . . .	1-1
Formation recovery in . . . . .	3-14	Disposition of forces . . . . .	1-3
Guide changes in . . . . .	3-10	Distance and interval . . . . .	2-2
Open order, column . . . . .	3-3	<b>E</b>	
Guide changes in . . . . .	3-13	Element, task . . . . .	1-1
Command:		Embargo operations, interdiction and . . . . .	30-1
Chain of command . . . . .	1-1	EMERG, instructions for use of . . . . .	18-1
Control, command and. . . . .	1-1	Emergency signals . . . . .	18-1
Levels of command . . . . .	1-1	Entry and departure . . . . .	27-1
Signals . . . . .	26-1	Events, schedule of . . . . .	45-1
Tactical command . . . . .	1-2	Execution of messages by non-executive method . . . . .	4-7
Communications. . . . .	1-3, 4-1, 45-1	Exercise:	
Signals . . . . .	25-1	Date . . . . .	45-1
		Name . . . . .	45-1
		Signals . . . . .	28-1

	<i>Page No.</i>		<i>Page No.</i>
<b>F</b>		<b>M</b>	
Flags:		Man overboard . . . . .	2-4
Single alphabetical and numerical flags . . . . .	4-7	Maneuvering:	
Special flags and pennants . . . . .	4-7	Standard maneuvering concepts . . . . .	2-1
Speed flags . . . . .	2-2	Special maneuvering rules . . . . .	2-4
Fog and restricted visibility . . . . .	2-6	Position, movement and maneuvering . . . . .	1-3
Forces, disposition of . . . . .	1-3	Maneuvers, individual ship . . . . .	3-14
Format, tasking message . . . . .	45-1	Meaning, signals with no . . . . .	4-7
Formation:		Message, tasking . . . . .	1-3, 45-1
Altering formation course . . . . .	3-8	Meteorology signals . . . . .	31-1
Changing formation. . . . .	3-10	Method, execution of messages by	
Recovery procedures . . . . .	3-14	non-executive . . . . .	4-7
Signals . . . . .	11-1	Missiles, gunnery and . . . . .	29-1
Formations . . . . .	45-1	Modifiers:	
Basic . . . . .	3-1	Signal modifiers . . . . .	4-3
Circular . . . . .	3-4	Two-letter modifiers . . . . .	4-5, 17-1
Line . . . . .	3-1	Movement:	
Multiple line . . . . .	3-3	Position and intended movement. . . . .	2-2
<b>G</b>		Position, movement and maneuvering . . . . .	1-3
Glossary of terms, acronyms, and		Multiple line formations . . . . .	3-3
abbreviations . . . . .	1-3	<b>N</b>	
Group, task . . . . .	1-1	Name, exercise or operation. . . . .	45-1
Guide . . . . .	2-3	Navigation signals . . . . .	32-1
Automatic Guide changes. . . . .	3-10	Non-executive method, execution of	
Gunnery and missiles . . . . .	29-1	messages by . . . . .	4-7
<b>I</b>		Numbers, sequence. . . . .	2-3
Individual ship maneuvers . . . . .	3-14	Numerical flags, single . . . . .	4-7
Interdiction and embargo operations . . . . .	30-1	<b>O</b>	
International signals . . . . .	4-5	Operation:	
Interval, distance and . . . . .	2-2	Date . . . . .	45-1
<b>J</b>		Name . . . . .	45-1
Joining:		Operational command and control . . . . .	1-1, 1-2
Detaching, joining and . . . . .	2-3	Ordering corpen. . . . .	14-1
Scheduled and unscheduled . . . . .	2-4	Organization, task . . . . .	1-1, 45-1
<b>L</b>		Own-ship position . . . . .	2-1
Latitude and longitude . . . . .	2-1	<b>P</b>	
Levels of command. . . . .	1-1	Pennants, special flags and . . . . .	4-7
Line abreast . . . . .	3-1	Position(s):	
Guide changes in . . . . .	3-13	Contact positions . . . . .	2-1
Formation recovery in . . . . .	3-14	Movement, and maneuvering; position . . . . .	1-3
Line formations . . . . .	3-1	Movement, position and intended . . . . .	2-2
Line of bearing . . . . .	3-1	Own-ship position . . . . .	2-1
Guide changes in . . . . .	3-13	Reference systems . . . . .	2-1
Formation recovery in . . . . .	3-14	Reporting, position . . . . .	2-1
		Standard positions . . . . .	2-1

	<i>Page No.</i>
<b>R</b>	
Radar signals . . . . .	33-1
Radioteletype communications . . . . .	4-1
Readiness . . . . .	1-2
Signals . . . . .	34-1
Recovery procedures, formation . . . . .	3-14
Replenishment signals . . . . .	35-1
Reporting:	
Position reporting . . . . .	2-1
Tasking and reporting . . . . .	1-2
Reports . . . . .	45-1
Rules of the road . . . . .	2-4
<b>S</b>	
Sample tasking message . . . . .	45-1
Schedule of events . . . . .	45-1
Scheduled:	
Detachments . . . . .	2-3
Joining . . . . .	2-4
Screen signals . . . . .	15A
Sequence numbers . . . . .	2-3
Signal(s):	
Action signals . . . . .	4-3
Completing a signal . . . . .	4-5
Designation signal . . . . .	4-5
Index, signal . . . . .	42-1
International signals . . . . .	4-6
Modifiers, signal . . . . .	4-3
No meaning, signals with . . . . .	4-7
Tactical signals . . . . .	4-2
Single alphabetical and numerical flags . . . . .	4-7
Special:	
Flags and pennants . . . . .	4-7
Maneuvering rules . . . . .	2-4
Tactical signals . . . . .	16-1
Specified amount, turn of . . . . .	13-1
Speed:	
Changes . . . . .	2-1
Course and speed. . . . .	2-1
Flags . . . . .	2-2
Signals . . . . .	15-1
Standard:	
Maneuvering concepts . . . . .	2-1
Positions . . . . .	2-1
Station . . . . .	2-3
Designated station . . . . .	2-1
Signals . . . . .	12-1

Stopping an ordered turn . . . . .	13-1
Surface action table:	
General . . . . .	38-1
Over-the-horizon engagement . . . . .	39-1
To-the-horizon range engagement . . . . .	40-1

**T**

Tackline . . . . .	4-5
Tactical:	
Command . . . . .	1-2
Control . . . . .	1-2
Signals . . . . .	4-2
Special tactical signals . . . . .	16-1
Task:	
Element. . . . .	1-1
Group. . . . .	1-1
Organization . . . . .	1-1, 45-1
Unit. . . . .	1-1
Tasking:	
Reporting, tasking and . . . . .	1-2
Message . . . . .	1-3, 45-1
Terms, glossary of . . . . .	1-3
Times and dates. . . . .	4-5
Torpedo action table . . . . .	37-1
Towing signal table . . . . .	41-1
Turn . . . . .	3-8
Signals . . . . .	13-1
Specified amount, turn of. . . . .	13-1
Unspecified amount, turn of . . . . .	13-1
Two-letter modifiers . . . . .	4-5, 17-1

**U**

Unit, task . . . . .	1-1
Unscheduled:	
Detachments . . . . .	2-4
Joining . . . . .	2-4
Unspecified amount, turn of. . . . .	13-1

**V**

Visibility, fog and restricted . . . . .	2-6
Visual communications . . . . .	4-1
Voice:	
Call signs . . . . .	4-1
Procedures . . . . .	4-1
Radio communications. . . . .	4-1



## LIST OF EFFECTIVE PAGES

Effective Pages	Page Numbers
Original	1000-I (Reverse Blank)
Original	1000-III (Reverse Blank)
Original	1000-V thru 1000-XIII (Reverse Blank)
Original	1000-XV (Reverse Blank)
Original	1000-XVII (Reverse Blank)
Original	1000-1-1 thru 1000-1-3 (Reverse Blank)
Original	1000-2-1 thru 1000-2-6
Original	1000-3-1 thru 1000-3-15 (Reverse Blank)
Original	1000-4-1 thru 1000-4-16
Original	1000-XIX (Reverse Blank)
Original	1000-11-1 thru 1000-11-4
Original	1000-12-1 thru 1000-12-3 (Reverse Blank)
Original	1000-13-1 (Reverse Blank)
Original	1000-14-1 thru 1000-14-3 (Reverse Blank)
Original	1000-15-1 thru 1000-15-3 (Reverse Blank)
Original	1000-15A-1 (Reverse Blank)
Original	1000-16-1 thru 1000-16-6
Original	1000-17-1 (Reverse Blank)
Original	1000-18-1 thru 1000-18-3 (Reverse Blank)
Original	1000-19-1 (Reverse Blank)
Original	1000-20-1, 1000-20-2
Original	1000-21-1 thru 1000-21-4
Original	1000-22-1 thru 1000-22-12
Original	1000-23-1 thru 100-23-3 (Reverse Blank)
Original	1000-24-1, 1000-24-2
Original	1000-25-1, 1000-25-2
Original	1000-26-1 (Reverse Blank)
Original	1000-27-1 thru 1000-27-3 (Reverse Blank)
Original	1000-28-1 (Reverse Blank)
Original	1000-29-1, 1000-29-2
Original	1000-30-1 (Reverse Blank)
Original	1000-31-1 (Reverse Blank)
Original	1000-32-1 thru 1000-32-3 (Reverse Blank)
Original	1000-33-1 (Reverse Blank)
Original	1000-34-1 thru 1000-34-4
Original	1000-35-1 thru 1000-35-3 (Reverse Blank)
Original	1000-36-1 thru 1000-36-3 (Reverse Blank)
Original	1000-37-1, 1000-37-2
Original	1000-38-1 thru 1000-38-3 (Reverse Blank)
Original	1000-39-1 thru 1000-39-4
Original	1000-40-1 thru 1000-40-3 (Reverse Blank)
Original	1000-41-1, 1000-41-2
Original	1000-42-1 thru 1000-42-58
Original	1000-XXI (Reverse Blank)
Original	1000-45-1 thru 1000-45-6
Original	1000-A-1 thru 1000-A-3 (Reverse Blank)
Original	1000-Index-1 thru 1000-Index-3 (Reverse Blank)
Original	1000-LEP-1 (Reverse Blank)







**UNCLASSIFIED**

**EXTAC 1000**

**UNCLASSIFIED**