

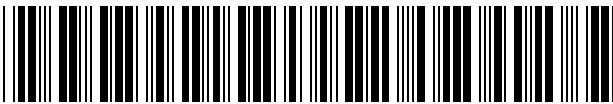
**NATO-UNCLASSIFIED**

MTP 1(D), Vol. II

**MTP 1(D), VOLUME II  
MULTINATIONAL  
MARITIME TACTICAL  
SIGNAL AND  
MANEUVERING BOOK**

MAY BE CARRIED IN AIRCRAFT

**MARCH 2003**



0410LP1032353

**NATO-UNCLASSIFIED**

**ORIGINAL**

ALPHABETICAL AND NUMERAL FLAGS

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

April 2004

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- 1. Change 1 to MTP 1(D), Volume II, MULTINATIONAL MARITIME TACTICAL SIGNAL AND MANEUVERING BOOK, is available in the Navy Warfare Library. The effective date will be promulgated by the Commander, Navy Warfare Development Command, for U.S. Navy holders. \_\_\_\_\_
- 2. MTP 1(D), Volume II, contains releasable data from ATP 1(D), Volume II. Data that is considered not releasable has been omitted in text and replaced with the label NOT RELEASABLE. \_\_\_\_\_
- 3. Summary of Change 1: \_\_\_\_\_
  - a. Editorial and terminological corrections were made to update data. \_\_\_\_\_
  - b. SIGNAL CM39 was expanded. \_\_\_\_\_
  - c. New technology was incorporated (i.e., infrared damage assessment). \_\_\_\_\_
  - d. SIGNAL RE26 was added to enhance counterterrorism measures. \_\_\_\_\_
  - e. TURN J was expanded to prevent confusion in maneuvering the HVU/MEU. \_\_\_\_\_
  - f. SCREEN O examples were amended to illustrate the allocation of individual sectors, areas, stations, or patrol lines. \_\_\_\_\_

\_\_\_\_\_  
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January 2003

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Jan H ERIKSEN  
Rear Admiral, NONA  
Director

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATIONS BY NATIONS
1	NONE
2	US
3	NONE
4	NONE
5	NONE
6	NONE
7	NONE
8	NONE
9	NONE
10	NONE
11	NONE
12	NONE
13	NONE
14	NONE
15	NONE
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19	NONE
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22	NONE
23	NONE
24	NONE
25	NONE
26	NONE
27	NONE
28	NONE
29	NONE
30	NONE
31	NONE
32	NONE
33	NONE
34	NONE
35	NONE

**RECORD OF RESERVATIONS**

<b>NATION</b>	<b>SPECIFIC RESERVATIONS</b>
US	The U.S. Navy does not agree with the meaning of Flag K, and will operate using the meanings listed below. Since the meanings are different from those used by other NATO warships, U.S. commanding officers must take extra care when in port, or at anchorages in which NATO warships are present, to ensure that all concerned understand the requisite precautions that must be taken with personnel working aloft, over the side, or both: a. K Personnel working aloft. Stand clear. b. K1 Personnel working over the side. Stand clear. c. K3 Personnel working aloft and over the side. Stand clear.





DEPARTMENT OF THE NAVY  
NAVY WARFARE DEVELOPMENT COMMAND  
686 CUSHING ROAD  
NEWPORT RI 02841-1207

March 2003

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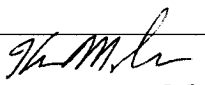
A handwritten signature in black ink, appearing to read "R. A. Route".

R. A. ROUTE

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Identification of Change, Reg. No. (if any), and Date	Date Entered	NATO Effective Date	By Whom Entered (Signature; Rank, Grade or Rate; Name of Command)
Change 1	10/18/04	12/1/04	 GS-12 NWDC

**RECORD OF CHANGES**

<b>Identification of Change, Reg. No. (if any), and Date</b>	<b>Date Entered</b>	<b>NATO Effective Date</b>	<b>By Whom Entered (Signature; Rank, Grade or Rate; Name of Command)</b>

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\* For microfiche (microfilm) holders only.

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**GENERAL  
INSTRUC-  
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CHAPTER 1

GENERAL INSTRUCTIONS

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## 100 BASIC PRECEPTS

### 101 PURPOSE AND SCOPE

The primary purpose of the Allied Maritime Tactical Signal and Maneuvering Book is to facilitate the dissemination of orders and information pertinent to Allied maritime operations. It contains maneuvering signals, standard operational signals, the more common administrative signals, and basic maneuvering instructions. The book is designed for communication between naval ships of all types. It can be used with any method of signaling.

### 102 SECURITY WARNING

Although this book is classified, a simple unchanging code is used and the groups herein have no security at all. If the method of signaling utilized is subject to interception by any means, great care should be taken to limit the messages to those that contain unclassified information. If security is required, an appropriate cryptographic system must be used.

**103 USE AND INTERPRETATION**

a. **ARRANGEMENT OF SIGNALS.** The signal vocabulary of this book is collected into chapters and arranged under headings for ease of reference. Chapter 2 contains single flag and pennant signals. Chapter 3 contains emergency alarm and emergency action signals. Chapters 4 to 9 contain maneuvering signals utilizing a special pennant. Chapters 10 to 35 contain the main signal vocabulary, which consists of operational and administrative signals arranged alphabetically under appropriate headings. The signal index at the end will assist the user in finding the desired groups when encoding signals. The use of all capital letters in a signal indicates the primary word(s) or phrase(s) under which the signal is indexed. Do not read a word or phrase in all capital letters as part of the signal, unless it is required to complete the meaning of the signal.

b. **ENCODING.** To encode a signal, reference should be made first to the signal index where the groups will be found indexed under the key words of the meaning of the group. Reference must then be made to the signal vocabulary chapters, which are indicated by the reference numbers in the index. The meanings in the index are not complete; instructions have been omitted and only the basic meaning is given. For this reason, the index is not to be used separately for encoding signals.

c. **DECODING.** To decode a signal, reference should be made to the single flag and pennant chapter, special pennant chapters, or the main signal vocabulary, as applicable, for the basic signal.

d. **SENSE WHEN ACTION IS SIGNALLED.** A signal from this book ordering an action to be carried out is to be read in its imperative sense if made by a senior; if made by a junior, the signal should read as a request for the action to be carried out by the senior to whom it is addressed.

e. **SPECIAL FLAG AND PENNANT SIGNALS.** The special pennant signals in Chapters 4 to 9 are in general arranged so that, for those requiring action, the special pennant precedes the alphabetical flag, and for those signaled for information, the special pennant follows the alphabetical flag. The information signals in Chapters 4 to 9 are not to be repeated or answered unless preceded by a call. Information signals are not to be used to order an action.

f. **SELECTION OF THE APPROPRIATE SIGNAL.** The instructions peculiar to the execution of any particular signal are found in this book along with the meaning of the signal. However, the consideration affecting the choice of any particular signal, as well as the restrictions on its use, are contained in Allied Maritime Tactical Procedures and Instructions (Volume I). When required, relevant chapter references are shown as a note against the signal.

g. **SINGULAR AND PLURAL.** Groups in this book may be used in either the singular or plural sense.

h. 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 is implied (e.g., INT AS27). Where a “ ( \_\_\_\_ ), ” an “ (as indicated), ” or an instruction in parentheses appears, the addition of suffixes or supplementing data is optional. Other instructions are self-explanatory.

i. NUMERALS. The numerals used with signals in this book represent numeral flags unless it is specifically indicated that they are numeral pennants. Numeral flags are written as digits, e.g., 1, 34; the same numbers by numeral pennants are written as p1, p3p4.

j. TACKLINE. The tackline is transmitted and spoken TACK and written as a dash “ — . ” It is used:

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

(2) When, for the needs of a particular signal, the instructions order that a tackline be used. When there are more flags in a signal than can be made in a single hoist the signal should be broken into two or more hoists, the breaks being made where TACK would normally be inserted to avoid ambiguity.

*Examples: N—STATION . . . Your movements are not understood. Take proper or assigned station.*

*RE2—1—48 . . . Prepare to receive 48 personnel casualties.*

*EMERG Q2—345—10 . . . I am investigating a radar contact still unclassified which might be a submarine, bearing 345°, range 1,000 yards.*

## 104 SIGNALS COVERING MORE THAN ONE MEANING

a. CHAPTER GROUP. A chapter group is a two-letter group allocated to a particular chapter and the main vocabulary from which all signals in that chapter are derived. It is normally formed by the first two letters of the chapter title; but where this is not possible, a self-evident group has been allocated.

*Examples: AS . . . Antisubmarine warfare.*

*CM . . . Communications.*

*EW . . . Electronic warfare.*

b. BASIC GROUP. A basic group is a signal consisting of the chapter group followed by one or more figures, as listed in the signal vocabulary, with no addition whatsoever. As indicated in paragraph 103h, basic groups containing a “ \_\_\_\_ ” or “ as indicated ” in the meaning of the signal may not be used alone.

c. SUFFIXES. Many signals in this book contain a list of numeral and/or letter suffixes in the meaning of the signal. These lists are provided so that the basic meaning can be varied by the use of the appropriate suffix(es). When a suffix is used, it must follow the last figure of the group separated by a TACK. The tackline may be omitted if the omission cannot cause ambiguity.

*Examples: ED1 . . . Anchor is \_\_\_\_ . (Note this group cannot be used alone, a suffix must be added to complete the meaning.)*

*ED1—4 . . . Anchor is foul.*

*TA62 . . . Investigate.*

*TA62—18 . . . Investigate small boat.*

*TA62—1—8 . . . Investigate buoy and lightship (tackline avoids confusion with 18).*

*1R6 . . . I have a bottomed submarine contact.*

d. SEQUENCE OF DATA. There are certain signals in which the sequence of the data to be signaled is indicated in the meaning. Except for the last item(s) of such data, NEGAT must be signaled in place of any item that is not being signaled.

*Examples: 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*

*1P 125 . . . SUBMARINE's bearing is 125° from this unit.*

*1P NEGAT 12 . . . SUBMARINE's range is 1,200 yards from this unit.*

*1P 125 NEGAT NEGAT 320 . . . SUBMARINE's bearing is 125° from this unit and its course is 320°.*

## 105 SIGNALS WITH NO MEANING

Type, fleet, and appropriate task organization commanders may assign meanings for signals that presently have no meaning listed in this publication. Meanings for such signals will be promulgated in operation orders for a specific operation, as promulgated by the commander's operation or exercise order.

**110 SUPPLEMENTING SIGNALS**

The signals from this book may be supplemented or modified by:

- (1) Governing pennants.
- (2) Governing groups.
- (3) Call signs, sequence numbers, and unit indicators.
- (4) Description signals.
- (5) Plain text.
- (6) Operating signals.
- (7) International Code of Signals.
- (8) Tables.

**111 GOVERNING PENNANTS**

a. TABLE OF MEANINGS.

Pennant	Preceding the Signal
PREPARATIVE	Prepare to ____ .
INTERROGATIVE	Questions or inquiries.
NEGATIVE	Cease, do not ____ , or gives a negative sense to an otherwise affirmative or informative statement.

b. POSITION IN THE SIGNAL. The governing pennant immediately precedes the signal.

*Examples: PREP SCREEN H1 . . . Prepare to form sector screen.  
 PREP TA2—8 . . . Prepare to attack under smoke screen.  
 INT TA2 . . . Are you attacking?  
 NEGAT TA2 . . . Do not attack, or cease attacking.*

c. USE WITH SEVERAL SIGNALS. When one governing pennant is used with several signals, the following rules apply:

- (1) ALL SIGNALS. The governing pennant shall govern all signals when separated from the signals by a TACK.
- (2) ONE SIGNAL ONLY. If the governing pennant is required to govern only one of several signals, it must immediately precede the signal to be governed; other signals must be separated from the governed signal by TACK.

*Examples: TA94 . . . Close me.  
 RS8—1 . . . Replenish ammunition.  
 AD18 . . . Send medical officer as soon as possible.*

*PREP—TA94—RS8—1—AD18 . . . Prepare to close me; prepare to replenish ammunition; prepare to send medical officer as soon as possible.*

*PREP—TA94—AD18—NEGAT RS8—1 . . . Prepare to close me; prepare to send medical officer as soon as possible; do not replenish ammunition.*

*TA94—PREP RS8—1—NEGAT AD18 . . . Close me; prepare to replenish ammunition; do not send medical officer.*

**112 GOVERNING GROUPS**

a. TABLE OF MEANINGS.

BA	Action is being carried out (or I am)
BB	Action is completed (or I have)
BC	I recommend
BD	Report time when 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
BM	Enemy/opponent is or I am being ____
BT	For use, see Articles 164e and 164g.
BU	Unable to ____
BV	Take action or information as indicated from appropriate supplementary table (see Chapter 34)
BX	Indicates end of series of groups governed by governing group
BY	Report when action completed
BZ	Well done

b. POSITION IN THE SIGNAL. The governing group, followed by a tackline, precedes the signal and governs that signal only. The governing group may be used alone when no ambiguity will result.

*Examples: TA94 . . . Close me.*

*TA2 . . . Attack.*

*BB—TA2 . . . Attack completed.*

*BE—TA2—TA94 . . . Report when ready to attack; close me.*

c. USE WITH SEVERAL SIGNALS. When the governing group applies to two or more signals following it, BX is inserted after the last of the signals to which the governing group is to apply.

*Examples: TA36 . . . Show no light.*

*TA88—3 . . . Proceed as previously directed.*

*ED18 . . . Weigh anchor.*

*ED54 . . . Leave harbor.*

*BG—TA36—ED18 BX . . . My present intention is to show no light and weigh anchor.*

*TA36—ED18—BE—ED54—TA88—3 BX . . . Show no light; weigh anchor; report when ready to leave harbor and proceed as previously directed.*

*BK—ED18—TA88—3 BX—BI—ED54 . . . When you desire, weigh anchor and proceed as previously directed; I am not leaving harbor.*

*BU—26B . . . Unable to delay enemy.*

### 113 CALL SIGNS, SEQUENCE NUMBERS, AND UNIT INDICATORS

a. CALL SIGNS AND SEQUENCE NUMBERS. Call signs, address groups, and sequence numbers may be used in conjunction with groups from this book to complete, amplify, or vary the meaning of the signal. Numerals appearing in visual call signs represent numeral pennants, except in the Special Task Organization Calls (ACP 130), where a numeral flag/numeral pennant combination is used. Sequence numbers are represented by numeral flags. The following format is to be used to address or indicate ships, units, or commanders.

(1) Call signs indicating ships, units, or commanders referred to in the meaning of the signal follow the entire signal, except for signals indicating bearing and distance from a unit where the call sign appears within the signal (see Article 166).

*Examples: RE42—8 NEGAT 10 NEGAT NEGAT 25 Cp3p7 . . . Readiness of Cruiser 37 is: 8 anti-aircraft guns usable, 10 main battery guns usable, maximum possible speed 25 knots.*

*BG—AD5—8A—Cp3p7 . . . My present intention is to send helicopter to Cruiser 37 for the Admiral.*

(2) In circumstances where the call does not adequately serve as the address, a call sign may immediately precede a signal in order to specifically address ships, units, or commanders to take the signal for action.

*Example: All ships, this is the OTC—1—Dp6p7 AS19—2—Dp7 AS18 . . . All ships, this is the OTC: destroyers 6 and 7 form SAU and investigate contact; destroyer 7 assume command as SAU commander.*

b. UNIT INDICATORS. A unit indicator (i.e., FLOT/GROUP, SQUAD, DIV, SUBDIV) following a signal indicates the unit to be used in carrying out the meaning of the signal.

*Example: TA2 DIV . . . ATTACK. The attack unit is the DIVISION.*



## 114 DESCRIPTION SIGNALS

Description signals may be used to describe own or enemy forces or to convey other information. A description signal consists of DESIG followed by:

- (1) Numerals indicating how many (if required), and/or
- (2) Single-letter “type” indicator(s) or multiletter “class” designator(s).

*Example: EMERG E 345—10 DESIG 3CL2D . . . Enemy surface craft sighted bearing 345° from this ship, distance 10 miles, are two light cruisers and two destroyers.*

## 115 PLAIN TEXT

When appropriate, DESIG followed by letter(s) and/or numerals(s) must be used to indicate that such a group is to be interpreted literally, such as octal numbers used to designate a datum or track number, and not as a coded group. DESIG shall immediately precede the group to be interpreted literally and will govern only that group. When more than one group are to be interpreted literally, DESIG will govern all groups separated from the groups by TACK. Exceptions to this are: when a plain number must be used to complete the meaning of a signal as explained in paragraph 103h (e.g., AV26—3, “I am operating fixed-wing aircraft”); and when used as prescribed in the meaning of the signals contained in Chapter 20. In this way, words may be spelled out within the text of a signal to complete or modify the meaning. Plan indicators, points, numbers, berths, etc., may also be signaled without conflicting with signal groups. DESIG must not be used to signal sectors (see Article 168).

*Examples: TA117—3 DESIG CHILE . . . Identity of unit is neutral and of Chilean registry.*

*EX3—5—16 DESIG 2B . . . Exercise 2B is postponed until 1600.*

*AS19—3 DESIG 3130 . . . Form SAU and investigate datum 3130.*

## 116 OPERATING SIGNALS

The Q and Z Communication Operating Signals contained in ACP 131 may be used alone or to supplement groups from this book. The miscellaneous abbreviations and symbols in Chapter 4, ACP 131, are not to be used by flaghoist or to supplement groups from this book.

*Example: CM11—2—ZJD1 . . . Expedite signals by answering more promptly. Use better light.*

**117 INTERNATIONAL CODE OF SIGNALS**

Groups from the International Code of Signals may be used alone or in conjunction with signal groups from this book. Whenever international groups are used alone in a flaghoist, international procedure is to be used in answering.

(1) Whenever military use is made of the International Code of Signals, groups will be preceded by CODE when transmitted by flaghoist, or INTERCO by Morse, voice, or semaphore.

(a) Whenever international signals are used alone, CODE or INTERCO followed by TACK shall be used as the first group to indicate that all groups following are taken from the International Code of Signals. When the signal consists of only one group, TACK may be omitted.

(b) Whenever signals from this book are supplemented by a group from the International Code of Signals, CODE or INTERCO shall immediately precede the signal group to indicate that only that group is taken from the International Code of Signals.

(c) For flaghoist signaling, a call sign preceding CODE indicates Allied procedure will be used in answering, repeating, questioning, and canceling the display. For multiple signals, a call sign preceding CODE may be hoisted in a superior position and left flying during several succeeding hoists of international code groups. In either case, hauling down the call sign and CODE indicates the end of the message.

(2) When communicating with non-military ships or stations or non-Allied warships, refer to the International Code of Signals.

**118 TABLES**

a. ACTION TABLES. The AAW Action (Flag 7) Table in Chapter 10, the ASW Action (Flag 1) Table in Chapter 13, and the Surface Action (Flags 2, 3, and 4) and Torpedo Action (Flag 9) Tables in Chapter 32 enable the most important and commonly used signals to be made in the shortest possible form. The numeral flag indicator for the table may be left flying in a superior position when successive signals from the same table are being made.

b. SUPPLEMENTARY TABLES. The Supplementary Tables A, B, C, D, E, F, L, M, P, U, V, W, X, Y, and Z have been included in this publication as Chapter 34. The tables are primarily intended to expand the meaning of certain basic groups, but they may be used with any signal from this publication. When adding an item from supplementary tables to the basic group as indicated in its meaning, the table identifying letter must follow the item number. When a signal from the supplementary tables is used with a basic group that contains alphabetical letters in the suffix, or when alphabetical letters complete the basic group, the governing group, BV, must precede the supplementary table signal in cases where confusion could exist. When a signal from the supplementary tables is used by itself, the governing group, BV, must precede it; except for supplementary table X, where it may be preceded by 2nd substitute. Numeral flags 1 to 9 are not to be used in any supplementary table.

*Examples: TA2—11—33A—65F . . . Attack enemy main body with antiship torpedoes.*

*M—32W . . . Disregard my movements during period of flight operations.*

*BJ—25B . . . If you desire, operate defensively.*

*BV—33B . . . Investigate and board if necessary.*

c. SPECIAL PURPOSE SIGNAL TABLES. The following special purpose signal tables have been included in this publication.

- (1) Optical Guidance (Flag G) Signals — Article 2604.
- (2) Towing Signal (Flag 6) Table — Article 3007.
- (3) Helicopter Transfer/Vertical Replenishment Signals — Article 3102.
- (4) Special Fast Patrol Boat (FPB) Maneuvering Signals — Article 3209.
- (5) SAG Signal Table — Article 3210.

#### **119 TRANSMISSION OTHER THAN BY FLAGHOIST**

a. CALL SIGN TRANSMISSION. Each call sign in the text of a signal from this publication sent by Morse or semaphore will be preceded by the visual prosign, "PT overscored," meaning, "Call sign follows." Call signs in the text may be spelled out if conditions make it advisable. In the text of signals sent by radiotelephone, voice call signs may be used when available, or visual call signs, signal letters, or address groups, spoken phonetically, may be used; voice call signs are to be preceded by the words, "Call sign."

b. MORSE SYMBOLS. At the discretion of the OTC, when conditions and operator's capabilities permit, all of the alphabetical and numerical flags and numeral pennants comprising a signal from ATP 1, Vol. II, may be transmitted as their Morse symbols to expedite signaling.

c. SUBSTITUTES. Substitutes are used by flashing light or radiotelephone only when expediting a flaghoist preceded by a substitute (ACP 130 series).

# NATO-UNCLASSIFIED

MTP 1(D), Vol. II

Flag-Pennant	MORSE/TELETYPE		SEMAPHORE		SPOKEN	
	Call Sign	Text	Call Sign	Text	Call Sign	Text
A to Z	A to Z	ALFA to ZULU	A to Z	ALFA to ZULU	ALFA to ZULU (See Note)	
1 to 0	1 to 0	ONE to ZERO	ONE to ZERO		ONE to ZERO (See Note)	
p1 to p0	1 to 0	1 to 0	ONE to ZERO		Pennant ONE to Pennant ZERO	
ANSWER		ANS		ANS	ANSWER	
CODE		INTERCO		INTERCO	INTERCO	
CORPEN		CORPEN		CORPEN	CORPEN	
DESIG		DESIG		DESIG	DESIG	
DIVISION	DIV	DIV	DIV	DIV	DIV	
EMERGENCY		EMERG		EMERG	EMERGENCY	
FLOTILLA/ GROUP	FLOT/ GROUP	FLOT/ GROUP	FLOT/ GROUP	FLOT/ GROUP	FLOT/ GROUP	
FORMATION		FORM		FORM	FORMATION	
INTERROGATIVE		INT		INT	INTERROGATIVE	
NEGATIVE		NEGAT		NEGAT	NEGAT	
PREPARATIVE		PREP		PREP	PREP	
PORT		PORT		PORT	PORT	
SCREEN		SCREEN		SCREEN	SCREEN	
SPEED		SPEED		SPEED	SPEED	
SQUADRON	SQUAD	SQUAD	SQUAD	SQUAD	SQUAD	
STARBOARD		STBD		STBD	STARBOARD	
STATION		STATION	STATION	STATION	STATION	
SUBDIVISION	SUBDIV	SUBDIV	SUBDIV	SUBDIV	SUBDIV	
TURN		TURN		TURN	TURN	
SUBSTITUTES	See Article 119c					
Note: When transmitted in their single meaning, alphabetical and numeral flags are to be preceded by the word FLAG.						

**120 PRINCIPAL RULES FOR MANEUVERING**

**121 MANEUVERING DISTANCES**

a. UNIT OF DISTANCE. The nautical mile (2,000 yards) is the unit of distance. In circular formations, 1,000 yards is the unit of distance for circle spacing, unless otherwise ordered.

b. DISTANCE AND INTERVAL.

(1) STANDARD DISTANCE. The distance between adjacent ships in a line is measured between the foremasts or between the navigation bridges of ships without foremasts. For the sake of uniformity, the standard distance between two adjacent ships when formed in a line will be 1,000 yards between large ships (ships over 450 feet in length) and 500 yards between small ships (ships 450 feet long or less) and submarines, unless otherwise ordered. The distance between a large ship and a small ship or submarine will be 1,000 yards or the distance ordered for the large ship. See Figure 1-1.

(2) MANEUVERING INTERVAL. The interval between line guides will be the sum of the standard or ordered distances of the longest line, plus the longest single distance in any one line. See Figure 1-1.

(3) EXTENDED MANEUVERING INTERVAL. Unless otherwise ordered, extended maneuvering interval, which allows for station-keeping errors, will be the maneuvering interval plus 500 yards.

**122 STANDARD AND REDUCED TACTICAL DIAMETER**

a. TACTICAL DIAMETER. Figure 1-2 illustrates the turning distances for a ship on a turning circle using constant rudder angle. Tactical diameter is the transfer for a turn of 180°.

b. SIZE OF DIAMETER. When ships of dissimilar type or size maneuver in the same formation, tactical diameters will be as follows:

Type or Size	Tactical Diameter (yards)	
	Standard	Reduced
Carrier present. . . . .	2,500	1,500
More than one cruiser or large ship present; logistic or large amphibious ship present . . . . .	1,200	1,000
Only one cruiser or large ship present. . . . .	1,000	800
Only small ships and submarines present. . . . .	800	600

Note: Reduced tactical diameter will be used for turns of unspecified amount and emergency turns.

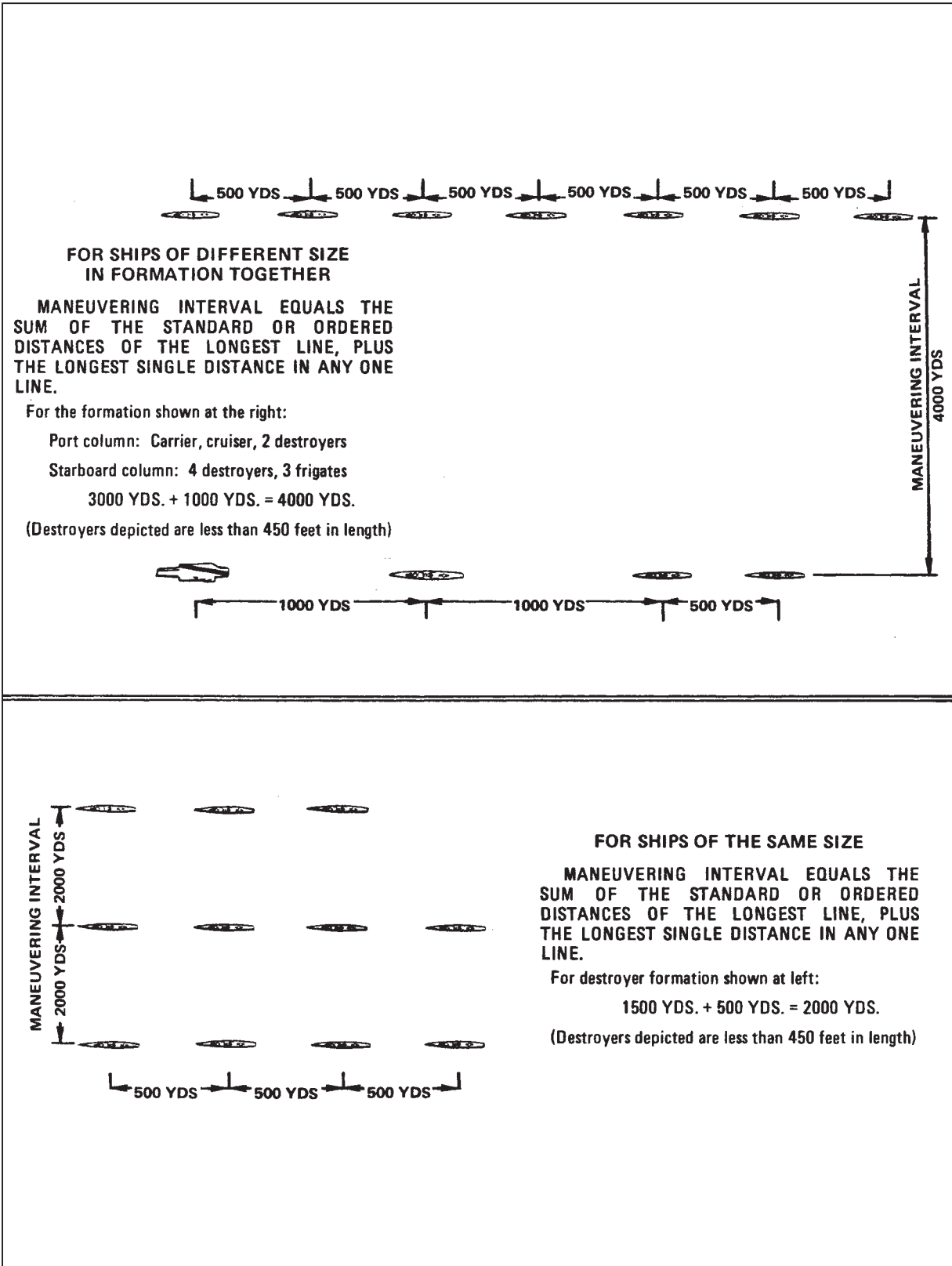


Figure 1-1. Standard Distances and Maneuvering Intervals

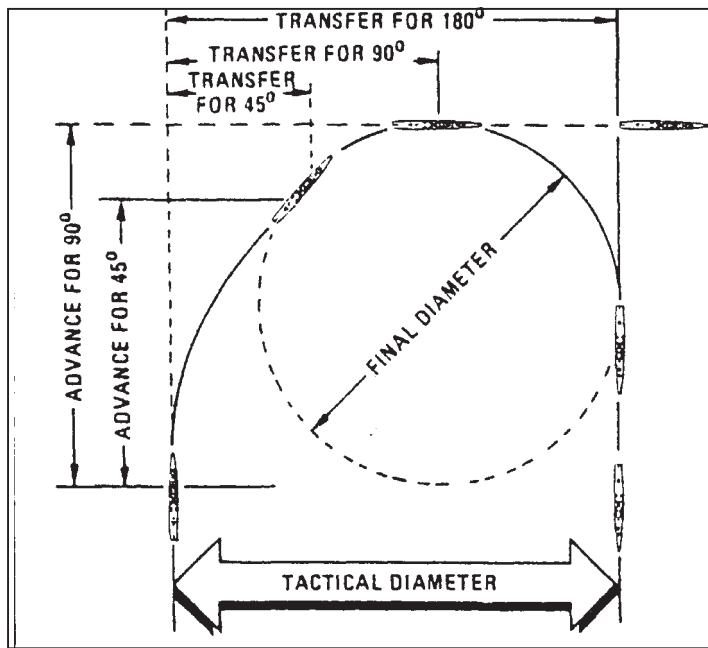


Figure 1-2. Turning Distances

c. **CHANGING SIZE OF DIAMETER.** A type or unit commander may, however, order a different standard tactical diameter or a different reduced tactical diameter for his ships.

d. **AMOUNT OF RUDDER USED.** For precision in maneuvers, the amount of rudder used by individual ships must be adjusted so that they turn as nearly as possible with the same turning circle as their guide.

e. **DIVERSE FORCES.** When diverse ship types of different nationalities are present and confusion could arise, the OTC is to order the sizes of the standard and reduced tactical diameters to be used.

f. **AIRCRAFT CARRIERS.** Turns by aircraft carriers may not conform to listed tactical diameter due to flight deck heel constraints during periods of aircraft operations.

### 123 ACCELERATION AND DECELERATION

a. **CHANGING SPEED.** Ships operating together should normally employ uniform acceleration and deceleration rates when changing speed. This is necessary for smoothness of maneuver to facilitate station keeping.

b. **TABLES.** The OTC or type commander may prescribe acceleration and deceleration tables as a guide. Figure 1-3 is an example for use by a formation containing one or more aircraft carriers.

c. **EMERGENCY ACCELERATION.** Emergency acceleration is to be at double the normal rate prescribed by the OTC; that is, accomplished in one-half the time.

	KNOTS		MINUTES		RATE
	CHANGE OF SPEED		TIME REQUIRED FOR CHANGE	TOTAL ELAPSED TIME	KNOTS PER MINUTE
	FROM	TO			
← FASTER	ZERO	15	3	3	5
	15	19	2	5	2
	19	24	5	10	1
	24	29	10	20	1/2
	29	31	6	26	1/3
	31	33	8	34	1/4
← SLOWER	33	30	7 1/2	7 1/2	2/5
	30	29	2	9 1/2	1/2
	29	27	3	12 1/2	2/3
	27	23	4	16 1/2	1
	23	20	2	18 1/2	1 1/2
	20	18	1	19 1/2	2
	18	15	1	20 1/2	3
	15	ZERO	3	23 1/2	5

Figure 1-3. Example Acceleration and Deceleration Table

**124 SPEEDS WHILE MANEUVERING**

a. METHOD OF ORDERING. Operational and stationing speeds will be ordered by signal or issued in orders to the formation. They will also be signaled to any unit joining.

b. RESERVE SPEED FOR STATION KEEPING. When ships are maneuvering, the signaled speed should be appreciably less than the operational speed, so as to leave a reserve power for taking up and keeping station. On other occasions, one knot less than the operational speed leaves a sufficient margin for station keeping.

c. ESTABLISHING STATIONING SPEED. The use of a speed slower than operational speed normally enables changes of station to be completed within an acceptable time. This speed, known as stationing speed, should be previously established, either by signal or in operation orders, particularly when substantial economy of fuel will result. Ordering stationing speed does not restrict the OTC from signaling any speed up to operational speed.



d. **SPEED WHEN TAKING OR CHANGING STATION.** When a unit being maneuvered in formation by its unit commander needs to increase speed to take or change station, the speed ordered for that unit is normally to be one knot less than stationing speed. Ships needing to increase speed when taking or changing station independently should normally proceed at stationing speed.

e. **CHANGE IN SIGNALLED SPEED.** When the speed of the Guide is changed by signal during a maneuver involving units taking station on the Guide, ships in the unit being maneuvered are not to change to the Guide's new speed until so ordered by their unit commander.

f. **ROUGH WEATHER.** In rough weather, commanding officers are to report to their unit commander on inability to maintain signaled speed without damage and are authorized to reduce speed as necessary.

## 125 SPEED FLAGS

In order to facilitate station keeping, the speed at which a ship is proceeding may be indicated by small-sized numeral flags displayed from the navigation bridge or by regular-sized flags at the dip from an outboard signal halyard. Speed flags are normally used only when entering or leaving harbor in formation, when minesweeping, or when ordered by the unit commander. They are not to be used for ordering changes in speed, which are always to be signaled.

## 126 STATIONING

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. Station is expressed by one of the following methods:

- (1) A true bearing and distance.

*Example: STATION 170—5 . . . Take station bearing 170° from the Guide, distance 5 miles.*

- (2) A relative bearing and distance.

*Example: STATION STBD 3—D85—5 . . . Take station 30° on the starboard side of (call sign), distance 5 miles.*

- (3) A general relative area, such as the van or rear — an approximate distance may be included.

*Example: STATION C—1 . . . Take station in the van at approximately 1 mile.*

- (4) A numbered or lettered station on a diagram.

*Example: STATION 14 . . . Take station 14.*

- (5) The circular method (see ATP 1, Vol. I).

- (6) The sector method (See Article 168).

- (7) The skeleton screen diagram (see Chapter 9).

## 127 HOISTING STATION NUMBERS BY DAY

When ordered, a ship hoists DESIG followed by her station letter(s) and/or numeral(s) to confirm to the OTC that she has correctly interpreted his stationing instruction and to indicate to adjacent ships the position to which she is proceeding. By hauling down, she indicates that she is in station.

**128 STATION KEEPING**

## a. MAINTAINING TRUE BEARING.

(1) 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. (But see ATP 1, Vol. I, for rescue destroyers.)

(2) 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.

(3) 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.

## b. MANEUVERING REQUIREMENTS.

(1) 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.

(2) UNITS AUTOMATICALLY FORM PART OF THE UNIT ON WHICH STATIONED, for maneuvering purposes, when stationed on the unit at or inside the maneuvering interval or within one mile of a single ship unit.

## c. TACTICAL REQUIREMENTS.

(1) WHEN A UNIT CONSISTING OF MORE THAN ONE SHIP TAKES STATION, including one stationed by the circular method, the unit commander is to place his unit in a formation appropriate to the tactical situation, with the unit guide occupying the indicated station.

(2) WHEN THE OTC SIGNALS A SPECIFIC DUTY, such as "aircraft warning picket," to amplify the stationing signal, the performance of the assigned specific duty takes precedence over accurate station keeping.

## d. ADJUSTING STATION TO ASSIST VISUAL SIGNALING.

(1) Commanding officers are authorized to use their discretion in handling their ships to facilitate visual signaling. A ship in line having an urgent signal to pass to the OTC or unit commander may haul out of line sufficiently to do so.

(2) Unit commanders may similarly adjust station of their units to facilitate visual signaling.

**129 JOINING AND LEAVING**

## a. UNITS CLOSING OR REJOINING.

(1) MEANING OF ORDER TO CLOSE OR REJOIN. An order to close or rejoin means that the unit addressed, except a screen unit, is to come closer to receive further orders. It does not in itself order the unit to take up any particular station. A unit ordered to close or rejoin is not to enter the formation without further orders.

(2) RESUMING PREVIOUS STATION. Should the OTC desire a unit to resume its previous station, a signal to this effect is available.

b. UNITS TEMPORARILY DETACHED. A unit temporarily detached is not to act on or to answer maneuvering signals made by the OTC unless its own call sign is specifically included in the address of the maneuvering signal.

c. UNITS JOINING. The OTC will normally appraise the force of the expected time and general direction of approach of a unit joining. When within range, a unit joining is to establish communications (EMCON permitting) and identify itself to the OTC, who will pass tactical information as required. Information to be exchanged by surface warships joining a formation and the OTC is given in APP 4. During radio silence, the first ship to sight a unit joining is to inform the OTC and pass any required tactical information as directed by the OTC, using a system within the EMCON plan in force.

**130 GUIDES**

## a. DESCRIPTION AND DEFINITION.

(1) In general terms, a ship on which other ships take station when forming up, or keep station when formed, is a guide. It is called unit guide in a unit consisting of more than one ship; line guide in a line of ships when formed in a multiple line formation; formation guide in a formation of ships; and disposition guide in a disposition.

(2) When ships are formed in divisions and subdivisions, those ships occupying the corresponding station to the formation guide may be referred to as division and subdivision guides.

(3) The ship on which all other guides (i.e., unit, line, subdivision, division, and formation guides) or, in the absence of other guides, all ships form up and keep station on, is called the Guide.

b. OTC'S SHIP. The ship in which the OTC is embarked is the Guide unless otherwise ordered or unless the Guide changes automatically in accordance with Article 131. The OTC's ship may hoist the Guide flag temporarily for identification when the force is forming up or when a unit joins.

c. DESIGNATED SHIP. A ship (not the OTC's) designated as Guide is to hoist the Guide flag and keep it flying until the Guide is changed. When a formation or disposition diagram indicates the station designated as the Guide's, the ship in that station automatically assumes duty as the Guide and, if she is not the OTC's ship, hoists the Guide flag.

d. DESIGNATION OF NEW GUIDE. The designation of a new Guide does not in itself order a shift in stations; ships must, therefore, maintain their present positions but keep station on the new Guide.

### 131 AUTOMATIC CHANGING OF THE GUIDE

The Guide does not automatically change when a new task or type organization is ordered or with a change in tactical command. In a formation, the Guide changes automatically only on the following occasions:

- (1) SHIP BEING FORMED ON becomes the Guide.
- (2) LINE GUIDE OF THE LINE BEING FORMED ON becomes the Guide.
- (3) SHIP BECOMING THE PIVOT SHIP for a maneuver becomes the Guide (see Chapter 7).
- (4) WHEN REVERSING THE ORDER OF SHIPS IN COLUMN FROM THE REAR, the rear ship automatically becomes the Guide.
- (5) WHEN FORMING A LOOSE LINE OF COLUMN, COLUMN OPEN ORDER, OR DIAMOND FORMATION, the leading ship becomes the Guide.
- (6) WHEN A WHEEL SIGNAL IS EXECUTED:
  - (a) WHEN IN SINGLE COLUMN, the leading ship will be the Guide.
  - (b) WHEN IN DIAMOND FORMATION, the leading ship will be the Guide.
  - (c) WHEN IN MULTIPLE COLUMNS, the leading ship of the pivot column will be the Guide.
- (7) WHEN WHEELING LINES SIMULTANEOUSLY, the leading or pivot ship of the Guide's line becomes the Guide and the leading or pivot ships of the other lines become line guides.
- (8) WHEN ALTERING COURSE BY SEARCH TURN, the wing ship on the side away from the direction of the new course will turn to the course indicated and become the Guide.
- (9) WHEN THE GUIDE HAULS OUT, the new Guide is as follows:
  - (a) WHEN IN COLUMN, the next ship ahead (if no ship is ahead, the next ship astern).
  - (b) WHEN IN LINE ABREAST OR LINE OF BEARING, the next ship to starboard (if no ship to starboard, the next ship to port).

### 132 UNIT, FORMATION, AND LINE GUIDES

a. UNIT GUIDE. When within a formation and more than one ship is stationed as a separate unit, the ship designated as unit guide is to keep station on the formation guide; all other ships of the unit are to keep station on the unit guide.

b. FORMATION GUIDE. A ship in a formation on which the units in the formation take or keep station. When two or more formations form a disposition; the ship designated as formation guide is to keep station on the disposition guide; all other units of the formation are to keep station on the formation guide.

c. LINE GUIDES. The ship in a multiple line formation which becomes the Guide also becomes guide of its line. All ships occupying stations corresponding to hers in the other lines automatically become line guides; if, in any of the other lines, no ship occupies the corresponding station (due to there being fewer ships in that line), the OTC will designate the line guide. Line guides are to keep station on the Guide; ships in a line are to keep station on the line guide. When a line guide makes the signal to disregard his movements and hauls out of the line, the next ship in the line, or, when the line guide is not at the end of the line, the next ship ahead in a column or to starboard in a line abreast or a line of bearing, becomes the line guide.

**133 ANNOUNCEMENT BY THE GUIDE**

At night or in low visibility, after execution of a signaled course change, the Guide of a formation may announce, "This is . . . , I am turning to port (starboard)."

**134 RESTRICTIONS, LIMITS, AND REQUIREMENTS FOR ALTERING COURSE**

Figure 1-4 summarizes the restrictions, limits, and requirements for altering course by search turn, by turn-together, and by wheeling. This table should be read in conjunction with Chapter 6 (TURN) and Chapter 7 (CORPEN).

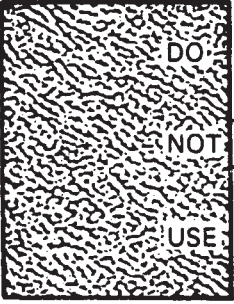

SEARCH TURN	TURN TOGETHER ↓ All formations listed below alter course by this method.(1) (2)	WHEEL
<b>LIMIT</b>		<b>LIMIT</b>
Not less than 45° nor more than 135°	<p>Line abreast → yes</p> <p>Loose line abreast → yes</p> <p>(3)</p>	90°
	<p>Column → yes</p> <p>Loose line of column → (4)</p> <p>Column open order → (4)</p>	180°
	<p>Diamond → yes</p>	30°
	<p>Line of bearing</p> <p>Loose line of bearing</p> <p>Circular formations</p>	
	<p>NOTE:</p> <p>(1) At night or in low visibility, formation turns in excess of 90° should normally be executed in two or more increments by the delayed executive method.</p> <p>(2) It is normally inadvisable to exceed 90° when ships with dissimilar turning characteristics are involved.</p> <p>(3) Spacing must be at least 1,000 yd when in line abreast and at least 1,500 yd when in loose line abreast.</p> <p>(4) Upon execution of the signal ordering the wheel, ships in:</p> <ol style="list-style-type: none"> <li>1. Column open order form a column.</li> <li>2. Loose line of column turn towards the Guide.</li> </ol> <p>In both situations, ships are to follow in the wake of the Guide.</p> <p>Upon completion of the wheel:</p> <ol style="list-style-type: none"> <li>1. Column open order automatically reforms.</li> <li>2. Loose line of column does not automatically reform unless signaled.</li> </ol>	

Figure 1-4. Restrictions, Limits, and Requirements for Altering Course

**135 MANEUVERING ORDERS AND INSTRUCTIONS****136 TYPES OF LINE FORMATIONS**

a. **SINGLE LINE.** Although a single line is normally considered to be only one unit, it can comprise two or more components, such as divisions or subdivisions. Single line formations, illustrated in Figures 1-5 and 1-6, are:

- (1) Column.
- (2) Loose line of column.
- (3) Line abreast.
- (4) Loose line abreast.
- (5) Line of bearing.
- (6) Loose line of bearing.
- (7) Column open order.
- (8) Diamond formation.

b. **MULTIPLE LINE.** Each line of a multiple line formation is considered to be one unit. Multiple line formations, illustrated in Figures 1-7, 1-8, and 1-9, are:

- (1) Divisions in column, division guides bearing abeam.
- (2) Subdivisions in column, subdivision guides bearing abeam.
- (3) Divisions in line abreast, division guides bearing astern.
- (4) Subdivision in line abreast, subdivision guides bearing astern.
- (5) Special line formations for destroyer type ships (Formations 21 to 24), or as previously designed and ordered by the OTC (Formations 25 to 29).

c. **VARIATIONS TO LINE FORMATIONS.** Most formations listed in paragraphs A and B may be varied in accordance with paragraph 138c.

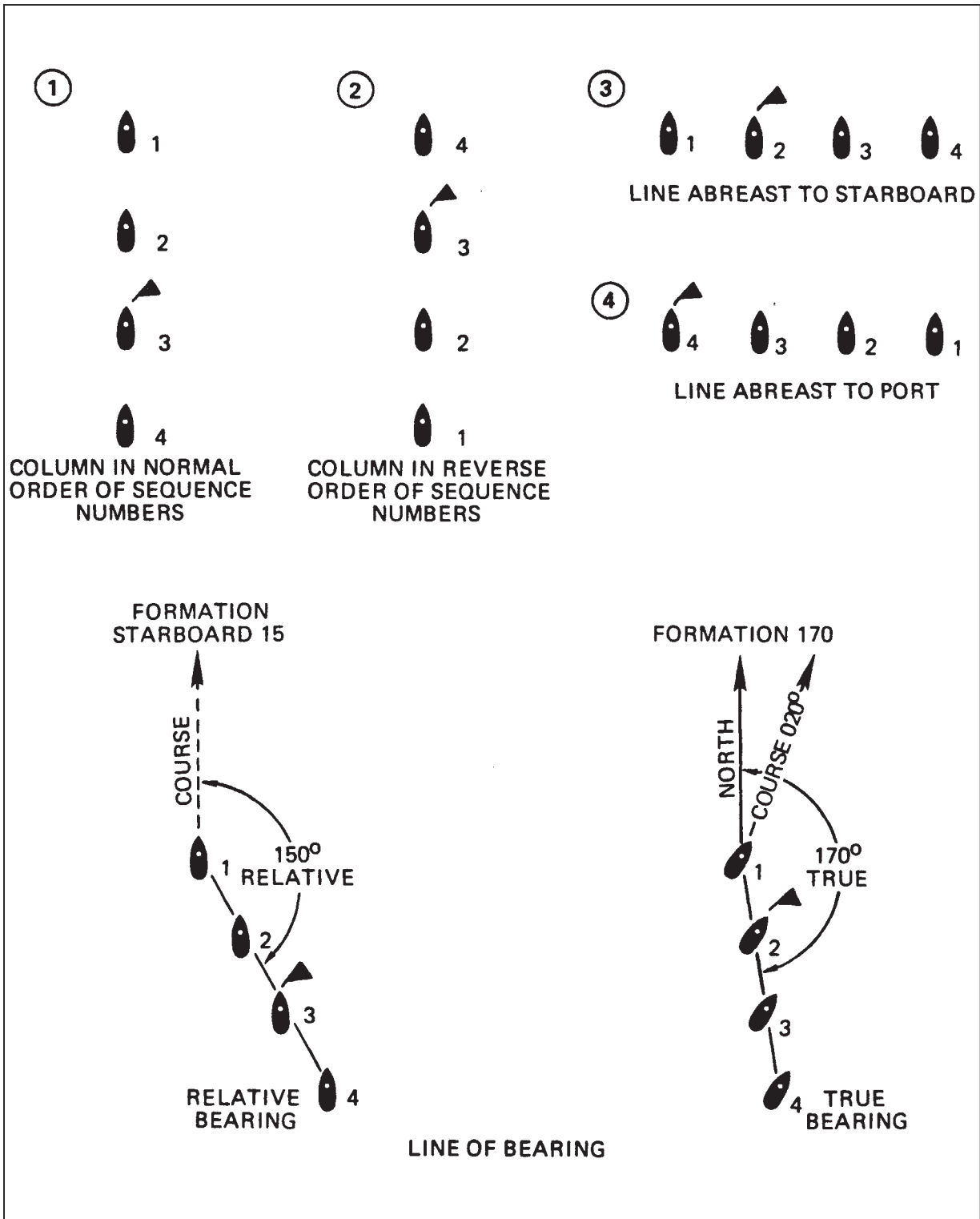


Figure 1-5. Single Line Formations 1, 2, 3, and 4

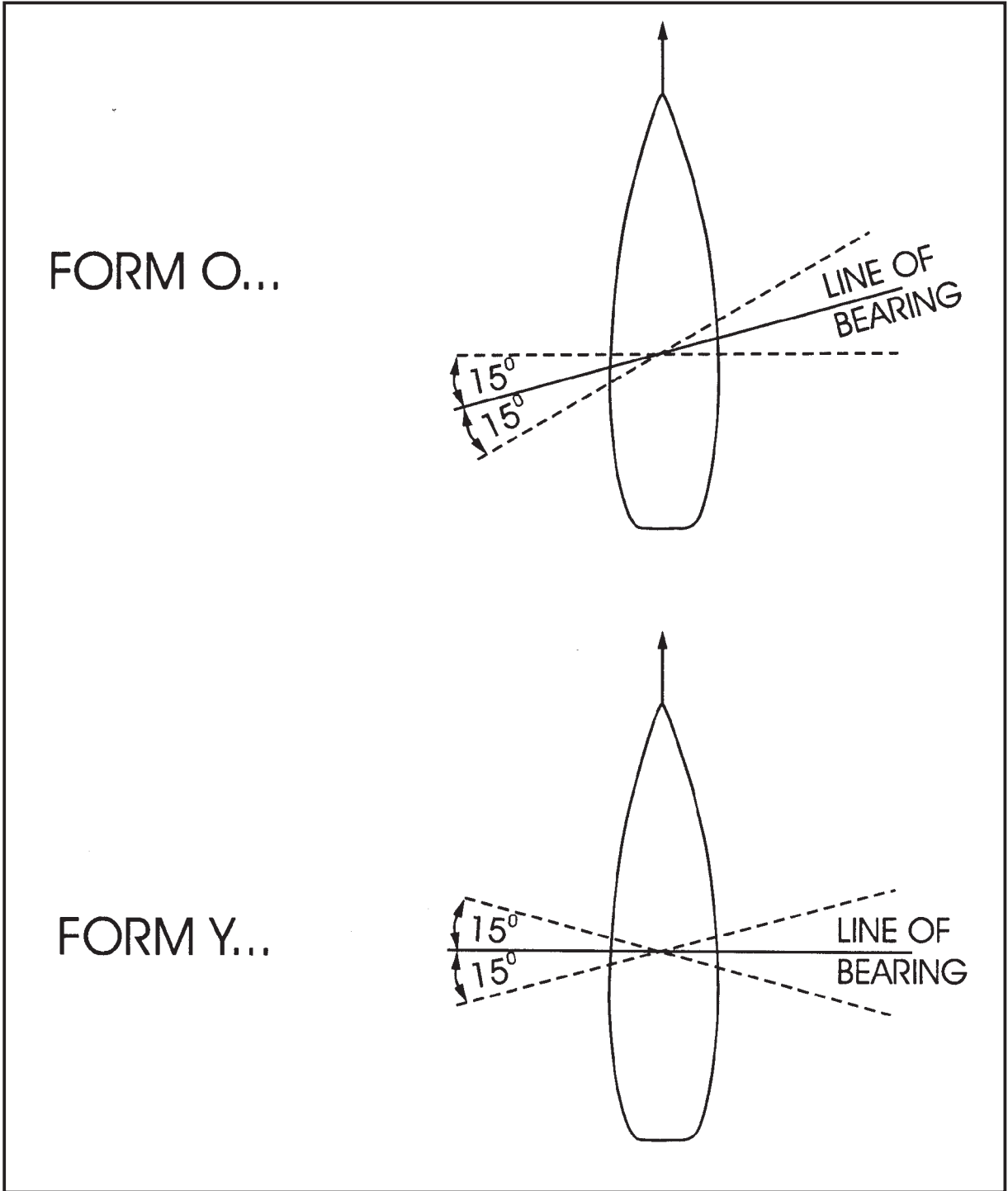


Figure 1-5A. Formations OSCAR and YANKEE



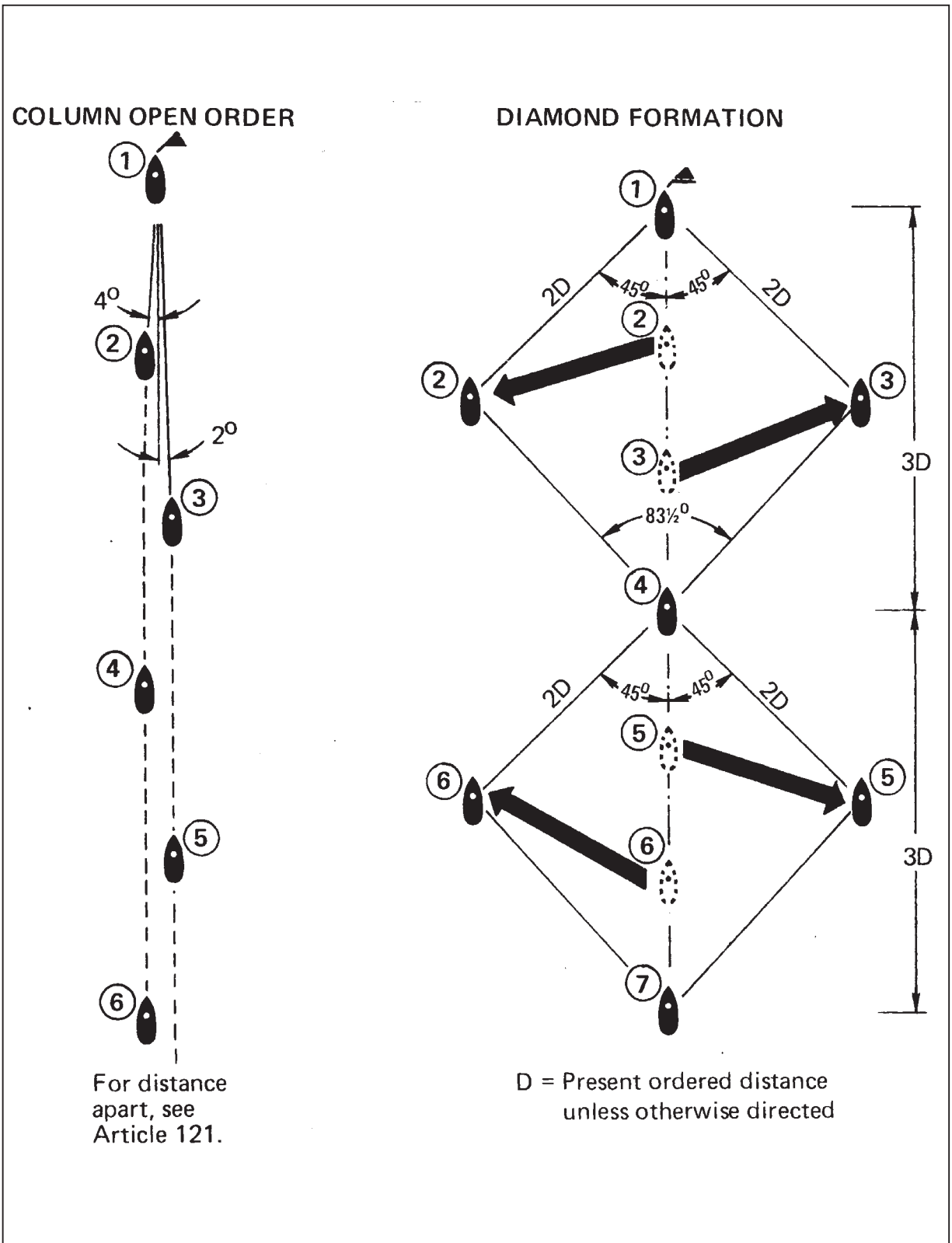


Figure 1-6. Column Open Order and Diamond Formation

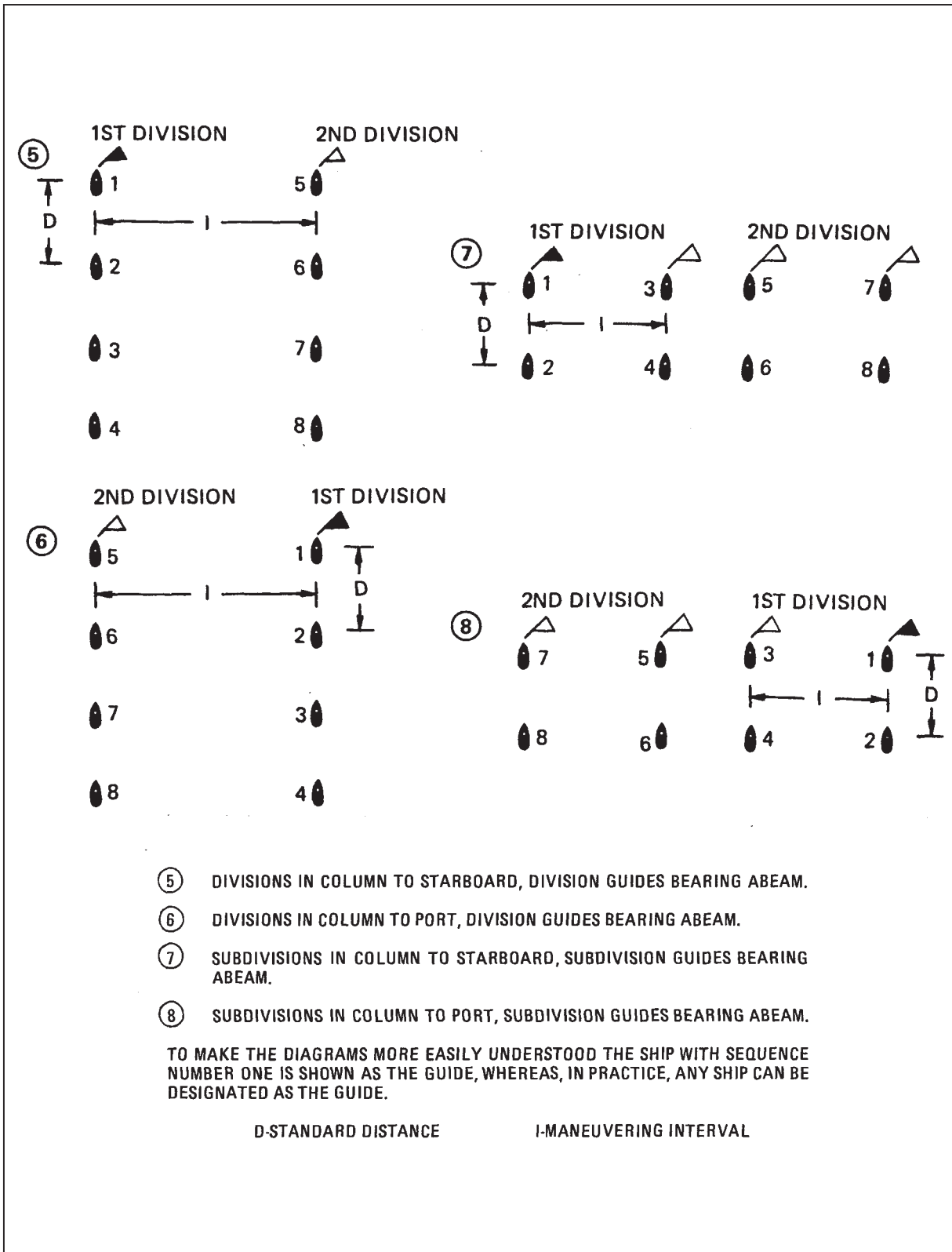


Figure 1-7. Multiple Line Formations 5, 6, 7, and 8

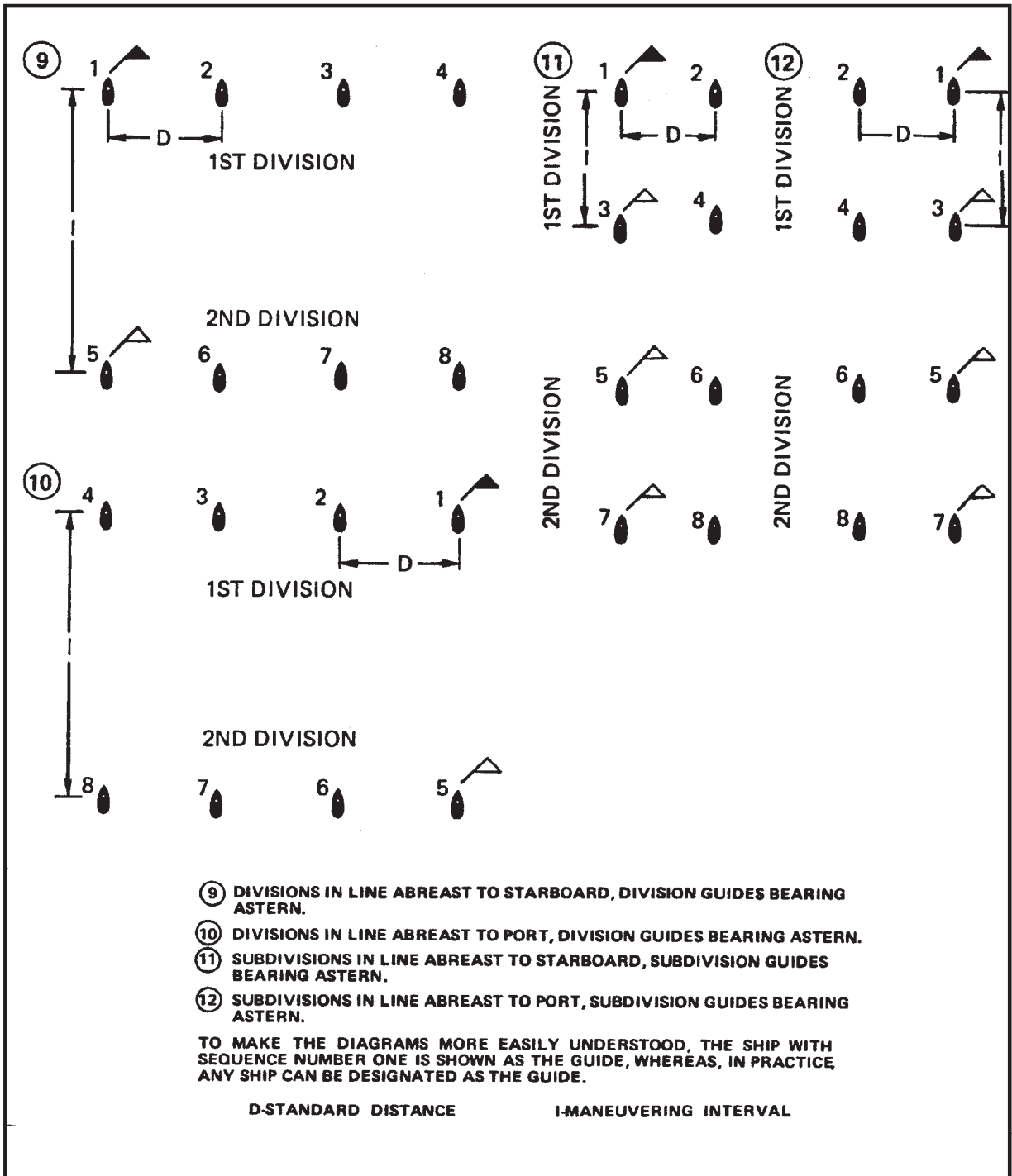


Figure 1-8. Multiple Line Formations 9, 10, 11, and 12

**137 ASSUMING FORMATION**

a. **FORMING OF SHIPS.** When assuming a single or multiple line formation, or when required to alter the formation, ships may be formed as follows:

- (1) In consecutive numerical order of sequence numbers.
- (2) By variations in numerical order of sequence numbers.
- (3) In order in which call signs are indicated.
- (4) In quickest sequence, without regard to sequence numbers.

(5) By means of special instructions for loose line of column, loose line abreast, loose line of bearing, column open order, and diamond formation. (See Articles 136 and 141.)

b. **SHIP SEQUENCE NUMBERS.** The OTC or an assigned subordinate may find it advantageous to assign each ship in his organization a number to facilitate close maneuvering. This number is known as the sequence number and indicates each ship's position in the line. The number assigned should consider such various factors as the relative seniority of commanding officers, differences in ships' characteristics, and other matters. The sequence number is not normally changed unless operational requirements make a change necessary.

c. **CHANGE IN SEQUENCE NUMBERS.** When a ship joins and is assigned a sequence number already held by a ship present, the latter ship and all ships holding a higher sequence number are automatically to take the next higher number. For example, a ship joins and is assigned sequence number 3, a number already held by a ship present; the latter ship takes number 4 and all higher numbered ships take the next higher number. An order changing sequence numbers does not automatically direct any ship to move to her new station; an additional order to form in the new sequence or to proceed to the new station is required.

**138 FORMING LINES IN CONSECUTIVE NUMERICAL ORDER OF SEQUENCE NUMBERS**

a. FORMATIONS. Formations which can be assumed in numerical order of sequence numbers, ships already in formation or not, are:

- (1) Column.
- (2) Line abreast.
- (3) Line of bearing.
- (4) Multiple line formations.

b. PROCEDURE.

(1) STATIONS. Each ship moves independently to the new station, unless ships are already formed and the new formation signal can be complied with by the movement of a line (or division or subdivision) as a whole; in which case, the line (or division or subdivision) commander maneuvers his unit by signal into the new station.

(2) FORMING.

(a) Standard line formations are listed in Article 401.

(b) Ships form on their respective line guides in the order of sequence numbers, at standard distance unless otherwise ordered. If the line has already been formed, ships remain at their present distance apart.

(c) Lines form in numerical sequence of divisions (subdivisions) from van to rear if formed astern, from port to starboard if formed to starboard, or from starboard to port if formed to port. Lines form at maneuvering interval unless otherwise ordered, on the line containing the Guide.

(3) FORMING ON THE GUIDE. Whether the Guide is the OTC's ship or an indicated ship, ships and lines invariably form on the Guide.

(4) FORMING ON A LINE OF BEARING. When forming on a line of bearing (true or relative) from an unformed state, if it is to be other than the quickest sequence, ships are to form in the order in which their call signs or sequence numbers are indicated from port to starboard. For forming in quickest sequence, see paragraphs 139d(3) and d(4).

c. VARIATIONS TO SINGLE AND MULTIPLE LINE FORMATIONS. The formations listed in paragraph 138a can be varied by using the appropriate basic formation signal supplemented by signal(s) for the maneuvers listed below. When varying the formation, the instructions in paragraph 138b will apply, except when the supplementary signal specifically amends any portion of the instructions.

(1) Ships in line form in the sequence in which their call signs are made, or in the order in which their sequence numbers are indicated.

(2) Lines form in the sequence in which the call signs of divisions (subdivisions) are made.

(3) Ships in line form in reverse order of sequence numbers.

(4) Ships in line form on a specified true or relative line of bearing from their line guide.

(5) Line guides form on a specified true or relative line of bearing from the Guide.

**139 FORMING LINES IN QUICKEST SEQUENCE**

a. FORMATIONS. Formations which can be assumed in quickest sequence without regard to the numerical order of sequence numbers are:

- (1) Column.
- (2) Line abreast.
- (3) Loose line abreast.
- (4) Line of bearing (true or relative).
- (5) Loose line of bearing (true or relative).

b. PROCEDURE. Each ship moves to her station independently and forms on the Guide (line guide for line of bearing) or ship indicated. If the line is already formed, ships are to remain at their present distance apart. If not formed up, ships are to form at standard distance unless otherwise ordered.

c. HOW QUICKEST SEQUENCE IS DETERMINED. The quickest sequence depends on each ship's present position relative to the line guide or the ship indicated, and not on the numerical order of sequence numbers.

d. INSTRUCTIONS FOR FORMING IN QUICKEST SEQUENCE.

(1) FORMING COLUMN IN THE QUICKEST SEQUENCE ON THE MOST ADVANCED SHIP OR SHIP INDICATED. Unless a particular ship has been indicated, the ship to be formed on is the most advanced ship on the present course. The remaining ships are to form astern of her in the quickest sequence according to their positions relative to her. If the ship to be formed on has been indicated, ships are to form ahead or astern of her in the quickest sequence.

(2) FORMING SINGLE LINE ABREAST IN THE QUICKEST SEQUENCE ON THE GUIDE OR SHIP INDICATED. Ships are to form on the nearest beam of the Guide or ship indicated, relative to her course or to the course indicated. Ships are to form in the quickest sequence according to their positions relative to her.

(3) FORMING ON A TRUE LINE OF BEARING IN THE QUICKEST SEQUENCE ON THE LINE GUIDE OR SHIP INDICATED. Ships are to form on the line guide or ship indicated on the bearing indicated or its reciprocal, in one line and in the quickest sequence according to their positions relative to her.

(4) FORMING ON A RELATIVE LINE OF BEARING IN THE QUICKEST SEQUENCE ON THE LINE GUIDE OR SHIP INDICATED. Ships are to form on the line guide or ship indicated in the direction indicated or its reciprocal relative to her course, and in the quickest sequence according to their positions relative to her.

**140 ALTERING LINE FORMATIONS**

a. REVERSING ORDER OF SHIPS IN COLUMN. In reversing order of ships in column in succession from the rear, the rear ship automatically becomes the Guide and increases speed to 1 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 OTC reduces speed by 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.

b. ALTERING A LINE OF BEARING. When ships are in a formed state, it may be necessary to alter the true or relative lines of bearing: (1) of ships from their line guide or ship indicated, and (2) of line guides from the Guide or ship indicated.

(1) OF SHIPS FROM LINE GUIDE.

(a) TRUE LINE OF BEARING. If altering the true line of bearing, ships are to move independently so as to form at their present distance apart, in their present sequence, and on the true bearing indicated from the line guide or ship indicated.

(b) RELATIVE LINE OF BEARING. If altering the relative line of bearing, ships are to move independently so as to form at their present distance apart, in their present sequence, and on the bearing indicated relative from the line guide or ship indicated.

(c) GUIDE NOT AT END OF LINE. If altering the line of bearing by either true or relative method, with the Guide not at the end of the line, ships are to form on the *true* or *relative* bearing indicated from the Guide or ship indicated, or its reciprocal, *whichever is nearer*. An alteration of the line of bearing of exactly 90° is to be carried out in two separate increments, except for the situations outlined in subparagraph (d) below.

(d) ALTERING FROM COLUMN TO LINE ABREAST OR VICE VERSA.

(i) COLUMN. If altering directly from column to line abreast, with the Guide not at an end of the line, ships *ahead* of the Guide form on the bearing indicated, the remainder on the reciprocal.

(ii) LINE ABREAST. If altering directly from line abreast to column with the Guide not an end ship, ships to *port* of the Guide form on the bearing indicated, the remainder on the reciprocal.

(2) OF LINE GUIDES FROM THE GUIDE.

(a) TRUE LINE OF BEARING. If altering the true line of bearing of line guides, line commanders are to move their lines by signal to take up their new stations. Lines are to form at their present interval apart, in their present sequence, and on the true line of bearing indicated from the Guide or ship indicated.

(b) RELATIVE LINE OF BEARING. If altering the relative line of bearing of line guides, line commanders are to move their lines by signal to take up their new stations. Lines are to form at their present interval apart, in their present sequence, and on the relative bearing indicated from the Guide or ship indicated.

(c) GUIDE NOT IN AN END LINE. If altering the line of bearing of line guides by either true or relative method, with the Guide not in an end line, line commanders are to move their lines by signal to take up their new stations. Lines are to form at their present interval apart, in their present sequence, and on the *true* or *relative* bearing indicated from the Guide or ship indicated, or its reciprocal, *whichever is the nearer*. An alteration of a line of bearing of exactly 90° is to be carried out in two separate increments, except for the situations outlined in subparagraph (d) below.

(d) ALTERING FROM LINE GUIDES AHEAD AND ASTERN TO LINE GUIDES ABEAM AND VICE VERSA.

(i) LINE GUIDES AHEAD AND ASTERN. If altering directly from line guides ahead and astern to line guides abeam (Guide not in an end line), line commanders are to move their lines by signal. Lines are to form at their present interval apart, in their present sequence, on the Guide or ship indicated. Lines *ahead* of the Guide form on the *true* or *relative* bearing indicated, the remainder on the reciprocal.

(ii) LINE GUIDES ABEAM. If altering from line guides bearing abeam (Guide not in an end line) directly to line guides bearing ahead and astern, line commanders are to move their lines by signal. Lines are to form at their present interval apart, in their present sequence, on the Guide or ship indicated. Lines to *port* of the Guide form on the *true* or *relative* bearing indicated, the remainder on the reciprocal.



**141 FORMATIONS DERIVED FROM LINE FORMATIONS**

a. **LOOSE LINE OF COLUMN.** This line formation is employed mainly when steaming at high speed while engaged with the enemy or in conducting a torpedo attack during daylight. This is an approximate line of bearing within 15° of column. Distance may be increased to reduce yawing.

(1) **FORMING.** A loose line of column can only be formed when ships are in column. The leading ship is automatically to become the Guide.

(a) **WITHOUT SIGNAL.** Loose line of column may be assumed without orders to reduce enfilade or yawing, to unmask gun batteries, to facilitate reading signals, to avoid smoke, or to reduce wake interference with sonar search.

(b) **WITH SIGNAL.** Ships are to take station on the indicated quarters of the Guide on an approximate line of bearing within 15° of column.

b. **LOOSE LINE ABREAST.** This line formation is employed mainly by an SAU when engaged in ASW searching and a set pattern is not desired.

(1) **FORMING.** Ships are to form within 15° of the nearest beam of the Guide or ship indicated, relative to her course or the course indicated, in the quickest sequence according to their positions relative to her.

(2) **DISTANCE.** Ships are to form at present distance or as indicated.

c. **LOOSE LINE OF BEARING.** This line formation can be assumed on the basis of either a true or relative line of bearing.

(1) **FORMING.** Ships are to form on the Guide or ship indicated within 15° of the bearing or its reciprocal, in the quickest sequence according to their positions relative to her.

(2) **DISTANCE.** Ships are to form at present distance or as indicated.

d. **COLUMN OPEN ORDER** (see Figure 1-6). In forming column open order, 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.

(1) **FORMING.** 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.

(2) **DISTANCE.** 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.

e. **DIAMOND FORMATION** (see Figure 1-6). This formation may be used when mutual AAW support and additional maneuvering space are required at short notice.

(1) **FORMING.** A diamond formation can only be formed when ships are in column. 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, and the fourth ship in the wake. 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.

(2) DISTANCE. Unless otherwise ordered:

- (a) Ships are to use their present ordered distance as D in Figure 1-6.
- (b) When the column is formed of large and small ships, ships use the distance of the largest ship as D throughout the formation.
- (c) When the formation is terminated, ships use this D distance as their present ordered distance when proceeding to new stations.

#### **142 ALTERING COURSE BY WHEELING**

a. ORDERING.

(1) DIRECTION. The direction of the wheel must always be indicated. The side to which the wheel is to be made is indicated with the use of the PORT flag or STBD pennant immediately after the CORPEN pennant.

(2) AMOUNT. The amount of the wheel is indicated in one of two ways.

- (a) By three numerals, giving the true course to which the wheel is to be made.
- (b) By one or two numerals, giving the number of tens of degrees ships are to wheel relative to the present course. The ANSWER pennant can be used to indicate a wheel to within 5°.

#### **143 WHEELING IN SINGLE COLUMN**

a. EXECUTION. The leading ship is to alter course and become the Guide. Remaining ships are to follow round in her wake. See Figure 1-10.

b. LEADING SHIP OF A SINGLE COLUMN ALTERS COURSE WITHOUT SIGNAL. When the leading ship of a column is the Guide and alters course without signaling the alteration to her column, the remaining ships of the column are to follow in the wake of the leading ship, unless the leading ship has signaled breakdown, man overboard, or to disregard her movements. When the leading ship is not the Guide and alters course without signaling, all other ships in formation should disregard this movement and remain in formation. In such cases, caution should always be exercised as prescribed by Rule 2b of the International Regulations for Preventing Collisions at Sea.

#### **144 WHEELING IN COLUMN OPEN ORDER**

Upon execution of the signal ordering the wheel, ships are first to form column at once, without further signal, then carry out the wheel in accordance with Article 143. They are automatically to resume column open order after all ships have completed the wheel.

#### **145 WHEELING IN LOOSE LINE OF COLUMN**

Upon execution of the signal ordering the wheel, ships in the line are to turn toward the leading ship of the line and follow in her wake to complete the maneuver. On completion, a loose line of column does not reform automatically unless circumstances make it necessary. (See paragraph 141a.)

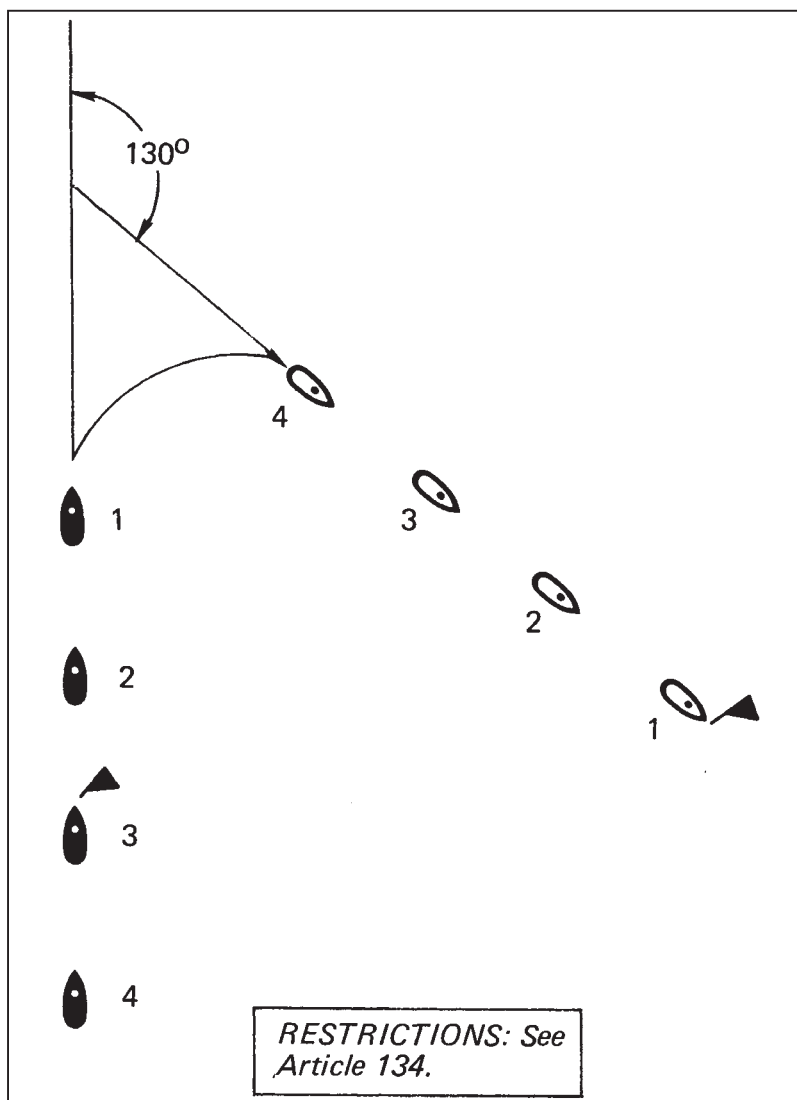


Figure 1-10. Wheeling in Single Column

#### 146 WHEELING IN SINGLE LINE ABREAST

The pivot ship is to alter to the new course and become the Guide. See Figure 1-11. Remaining ships are to:

- (1) Increase speed as necessary up to stationing speed to complete the maneuver expeditiously.
- (2) Alter course independently to regain by the most direct route their previous relative bearings and distances from the pivot ship.
- (3) Adjust their course and speed to that of the pivot ship.

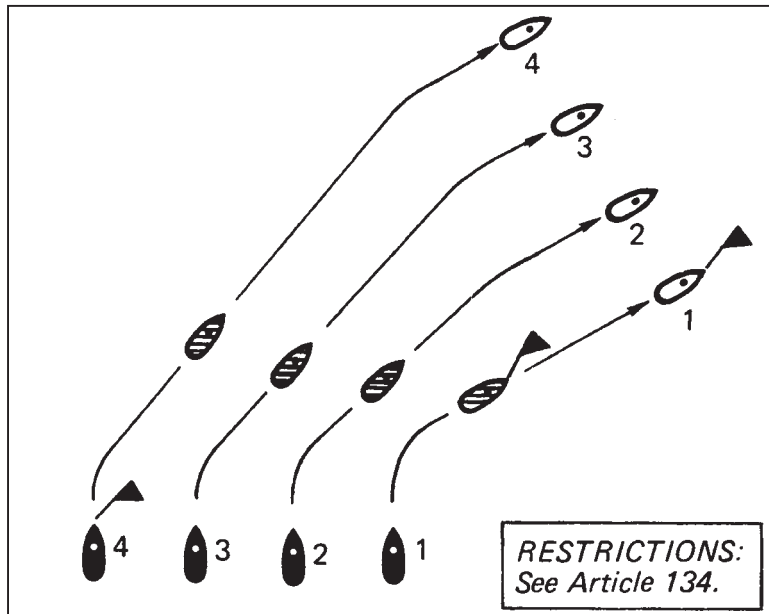


Figure 1-11. Wheeling in Single Line Abreast

#### 147 WHEELING IN DIAMOND FORMATION

If a wheel is executed when in diamond formation, the leading ship is to turn to the new course and become the Guide. Remaining ships are to adjust course and speed to regain previous relative bearings from the "Guide" expeditiously.

#### 148 WHEELING IN MULTIPLE LINE FORMATION

a. SHIPS IN COLUMN WITH LINE GUIDES BEARING ABEAM. See Figure 1-12. This maneuver is accomplished as follows:

- (1) Leading ship of the pivot column is to turn to the new course and become the Guide.
- (2) Leading ships of the remaining columns are to alter course independently to resume their previous relative bearings and distances from the Guide by the most direct route. The speed of the remaining columns is to be increased by signal from each column commander to one knot less than stationing speed.
- (3) Remaining ships are to follow the leading ship of their column. The subsequent reduction of speed of each column to that of the pivot column is to be ordered by signal by each column commander.

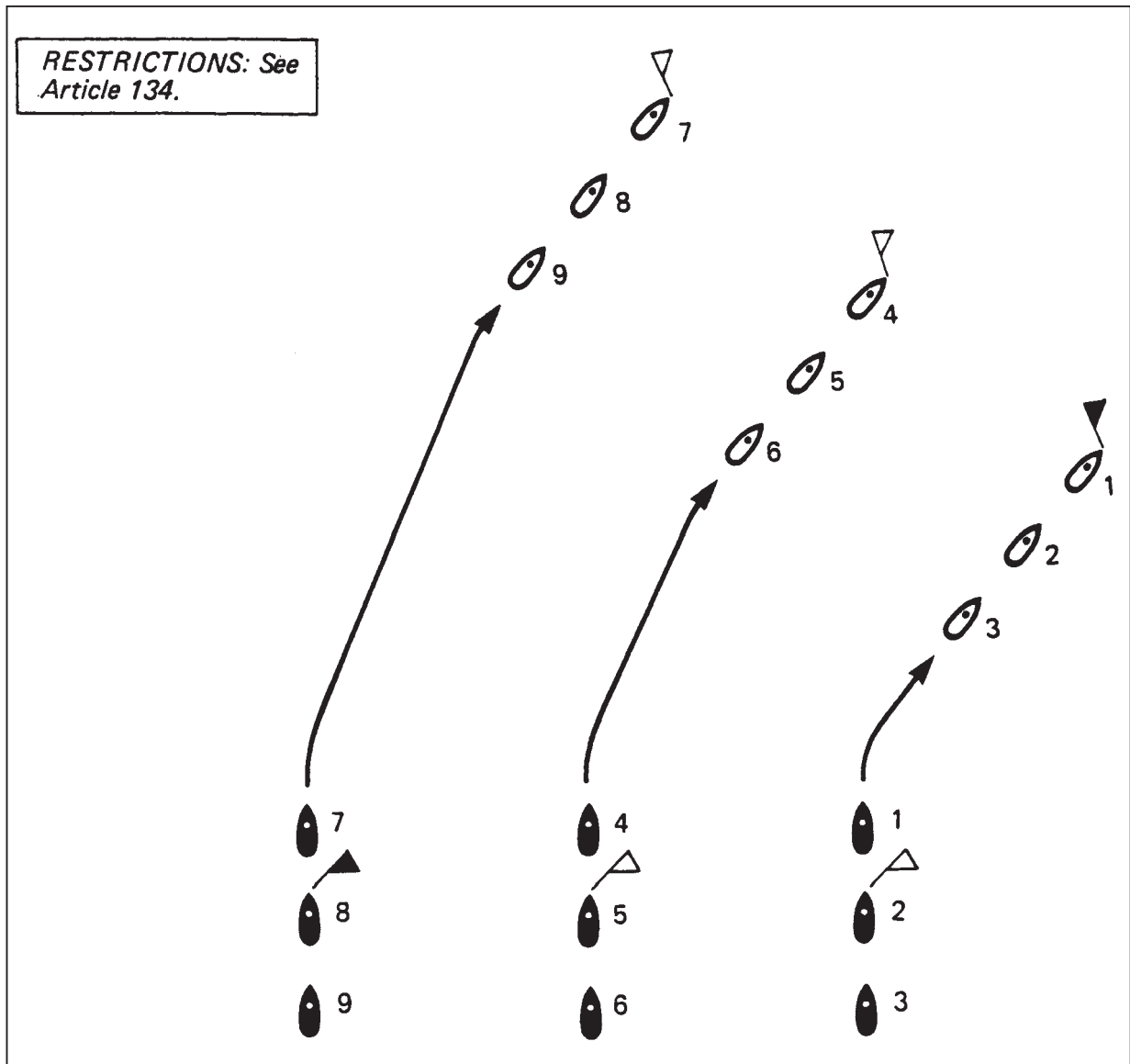


Figure 1-12. Wheeling in Multiple Line Formations

b. SHIPS IN LINE ABREAST WITH LINE GUIDES BEARING ASTERN. See Figure 1-13. This maneuver is accomplished as follows:

(1) Leading line is to alter course as described in Article 146.

(2) Each succeeding line is to alter course in a similar manner, in the same water as that in which the leading line wheeled. At the appropriate moment, each line commander will order his line to wheel.

c. ADJUSTING SPEED OF PIVOT.

(1) ORDERING. At the same time that the OTC orders the wheel, he may reduce the speed of the pivot ship or pivot column, to expedite the completion of the maneuver. This reduction is effected by ordering a new signaled speed, which remains in force until otherwise ordered.

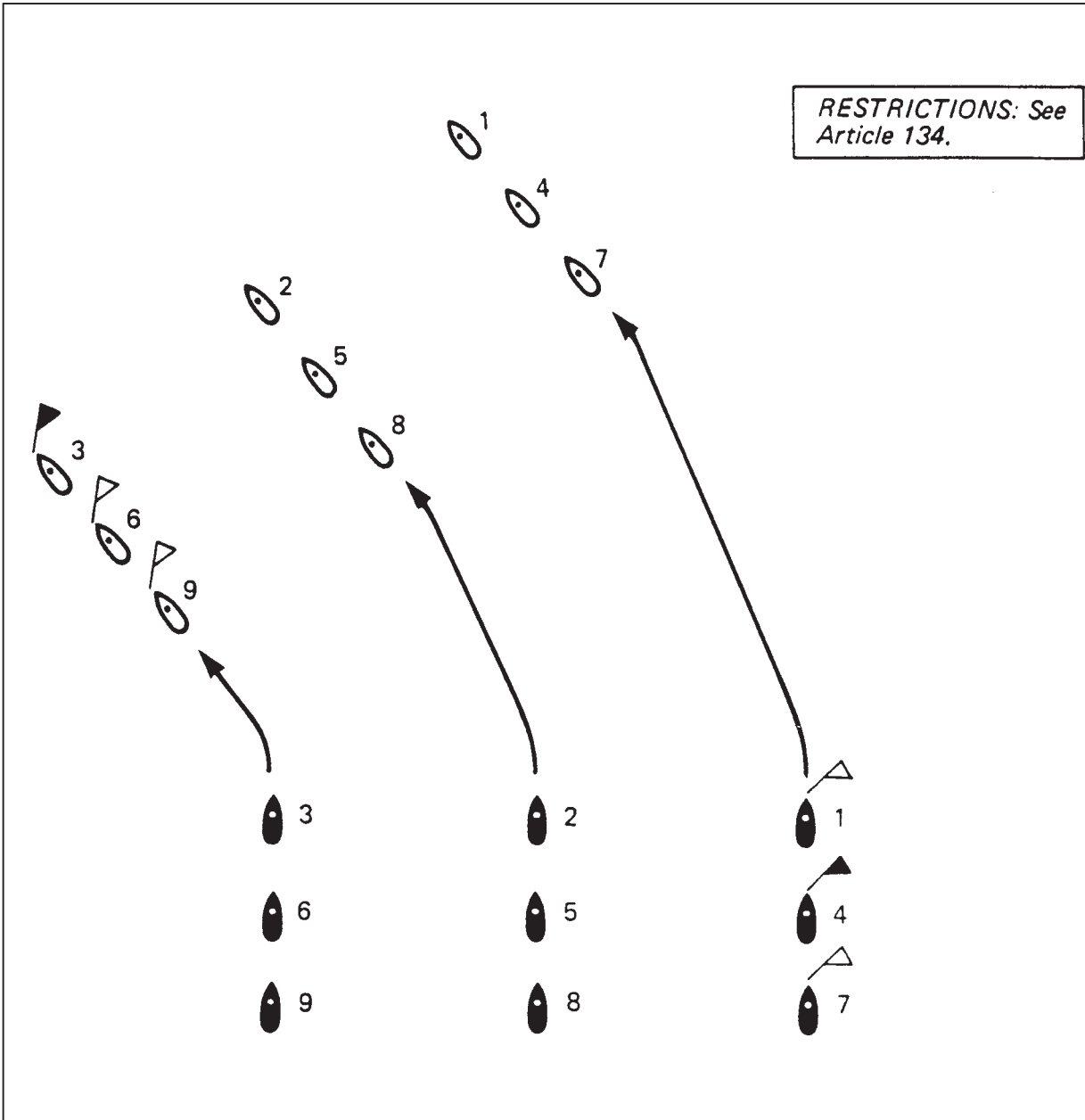


Figure 1-13. Wheeling With Line Guides Bearing Astern

(2) IN COLUMN WITH LINE GUIDES BEARING ABEAM. If the speed is reduced when in column with line guides bearing abeam, all ships of the pivot column are to proceed at the new signaled speed at the same time as the Guide.

(3) IN LINE ABREAST WITH LINE GUIDES BEARING ASTERN. In this situation, all lines except the leading line are to proceed at the new signaled speed at the same time as the Guide.

149 SPECIAL METHODS FOR ALTERING COURSE

For occasions when a simple turn-together (Chapter 6) or wheel (Chapter 7) does not meet the requirements of the OTC, various special methods for altering course are available. A special method is signaled by the CORPEN pennant followed by an alphabetical flag and three numerals (see Chapter 7). When carrying out the meaning of these signals, course is to be altered the shortest way. If it is necessary to specify the direction of the alteration, the STBD pennant or PORT flag is to follow the three numerals.

a. LINES OR UNITS WHEELING SIMULTANEOUSLY. See Figures 1-14 and 1-15.

(1) RESTRICTIONS. If line guides are at less than maneuvering interval apart, wheels in this manner are to be limited so that lines do not become unduly close during the maneuver. The restrictions on wheeling (Article 134) apply to each line separately.

(2) EXECUTION. Each line or unit designated is to wheel simultaneously to the new course. On completion of the maneuver, ships in each line will be in their former relative positions, and line guides will have maintained their true bearings and intervals from the Guide.

b. EACH UNIT MAINTAINING TRUE BEARING FROM THE GUIDE.

(1) USE. This method is for use if the OTC does not wish to use a general turn-together when any unit consisting of more than one ship is present. If only single-ship units are present, a general turn-together should be ordered instead.

(2) EXECUTION. At the time ordered, single-ship units are to turn individually to the new course. Remaining units are to turn to the new course as directed by their unit commanders, who have discretion as to the method of altering the course of their units and their resulting formation.

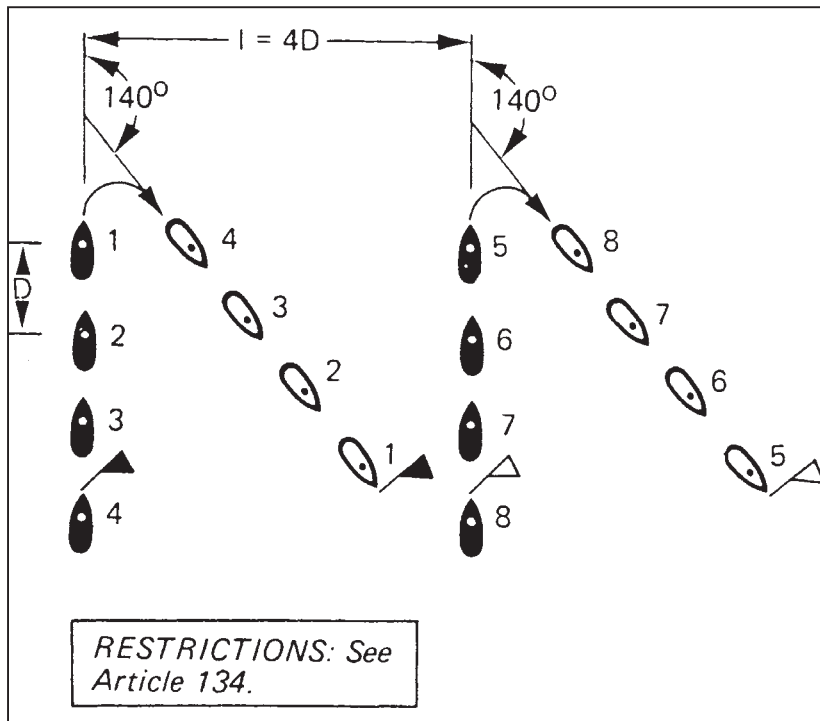


Figure 1-14. Wheeling Lines Simultaneously

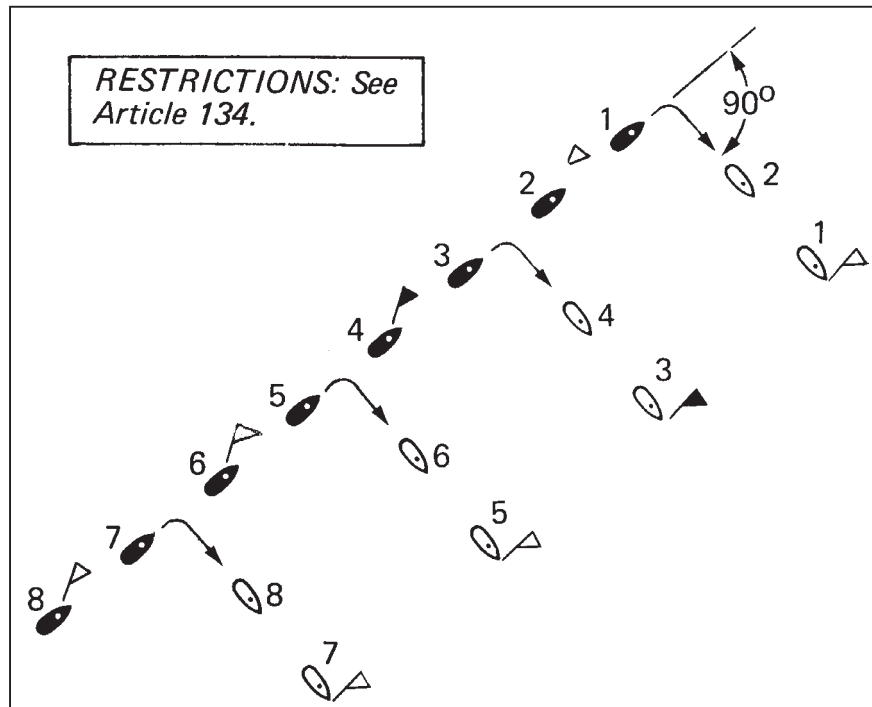


Figure 1-15. Wheeling Units Simultaneously

c. EACH UNIT MAINTAINING RELATIVE BEARING.

(1) Execution When in a Circular Formation. When ships in a circular formation are to alter course with units maintaining relative bearings, the course is altered to the new course and the formation axis rotated (see Chapter 7) the same number of degrees in the same direction. Altering course and rotating the axis may be done successively or simultaneously. If done successively, course may be altered by a turn-together or by the method described in paragraph b above; the axis should then be rotated to conform with the maximum of  $60^\circ$  in one step. If done simultaneously, the method described in paragraph d below should be used.

(2) Execution When Not in a Circular Formation. At the time ordered, the Guide is to turn to the new course; remaining units are to regain their relative bearings and distances from the Guide. Single-ship units are to proceed independently, remaining units by order of their unit commanders.

d. ALTERING COURSE AND ROTATING FORMATION AXIS SIMULTANEOUSLY WHEN IN A CIRCULAR FORMATION. In good visibility, the course may be altered simultaneously with the rotation of the formation axis (see Chapter 7) the same number of degrees in the same direction or to the same true direction.



- (1) RESTRICTION. Alteration of course and axis simultaneously is not to exceed 60° in one step.
- (2) CAUTION. Simultaneous alteration of course and formation axis should not be carried out at night or in low visibility.
- (3) EXECUTION. The Guide is to turn to the new course. Single-ship units are to alter course and speed individually; remaining units are to proceed by order of their unit commanders. All units regain:
  - (a) Their stations relative to the new formation axis on the new course, if the axis is rotated to the same true direction.
  - (b) Their previous relative bearings and distances from the Guide on the new course, if the axis is rotated the same number of degrees in the same direction.
- e. ALTERING COURSE BY THE CONFORMING METHOD. When it is desired that the unit containing the Guide should pass through waters already traversed by advanced units and when the OTC can forecast the time at which he intends to alter course, the conforming method is available.
  - (1) RESTRICTION. This method is not to be used when in a circular formation.
  - (2) CAUTION. If evasive steering is being carried out, the OTC should order the formation to stop evasive steering and resume the base course before the most advanced unit is due to alter course.
  - (3) EXECUTION. Units with stations on the Guide's line of advance, either ahead or astern, are to alter course on passing through the position where the Guide alters course. Units not on the Guide's line of advance, on arrival abeam of the point where the Guide alters course, are to proceed to their stations relative to the new course. Single-ship units are to proceed independently, remaining units by order of their unit commanders.
- f. ALTERING COURSE BY SEARCH TURN. The search turn (see Figure 1-16) is for use when altering course while searching an area with ships in line abreast or loose line abreast.
  - (1) RESTRICTION. 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 not be less than 45° or more than 135°.
  - (2) EXECUTION. 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 OTC should consider ordering ships to reform in line abreast before executing the search turn.

**150 NOT RELEASABLE**

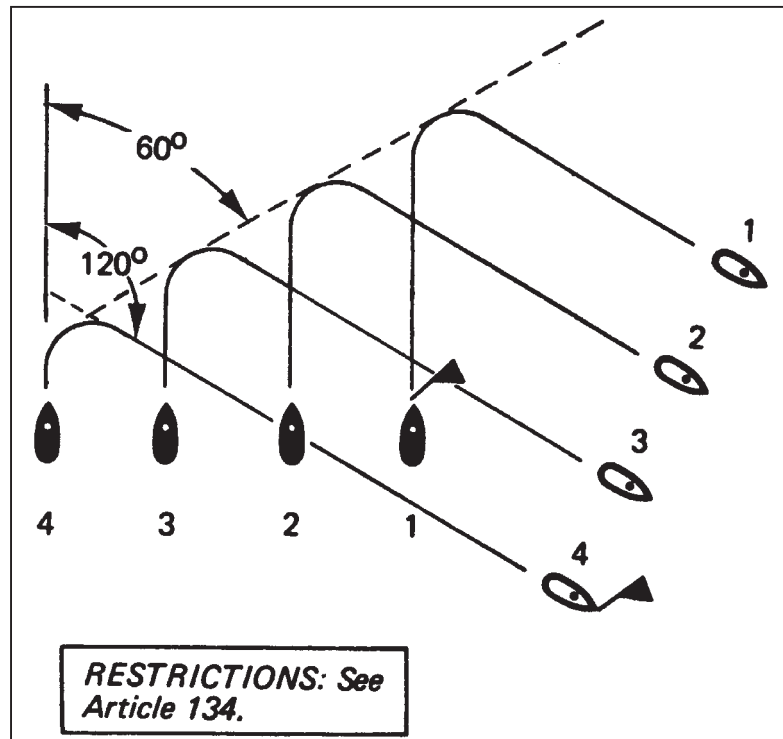


Figure 1-16. Search Turn

## 160 MISCELLANEOUS INSTRUCTIONS

The instructions in this section cover:

- (1) Substitutes.
- (2) Units of reference.
- (3) Fractions.
- (4) Times and dates.
- (5) Position.
- (6) Bearing, direction, and distance.
- (7) Courses and speeds.
- (8) Standard sector system.

## 161 SUBSTITUTES

a. USE. Substitutes are used only when signaling by flags, except as noted in paragraph 119c. They are written as 1st, 2nd, 3rd, and 4th.

b. PURPOSE. Substitutes are used to repeat a flag or pennant in the same hoist only.

c. APPLICATION. Substitutes are used in the following manner:

- (1) FIRST substitute repeats the first flag or pennant in a hoist.
- (2) SECOND substitute repeats the second flag or pennant in a hoist.
- (3) THIRD substitute repeats the third flag or pennant in a hoist.
- (4) FOURTH substitute repeats the fourth flag or pennant in a hoist.

When two or more halyards are used to hoist a signal, each hoist is to be considered separately as regards substitutes. When a tackline is used to separate the components of a hoist, it is disregarded in the substitute count. Once a substitute has been used, it is no longer to be thought of as a substitute, but as the flag or pennant for which it has been substituted.

*Examples: T1410 may be hoisted as T 1 4 2nd 0*  
*161416 may be hoisted as 1 6 1st 4 3rd 2nd*

**162 UNITS OF REFERENCE**

When a signal makes reference to numbers, distances, ranges, heights, depths, speeds, or weights, the unit of reference is as indicated below, unless otherwise stated in the meaning of the signal. However, for clarity, the units of reference are stated against some groups using the standard units which otherwise would not need such a statement. For international use, the units of measurement of the nation concerned may be used.

Altitude . . . . .	hundreds of feet
Distance . . . . .	nautical miles (2,000 yards)
Range . . . . .	hundreds of yards
Height . . . . .	feet
Depth . . . . .	feet
Speed . . . . .	knots
Weight . . . . .	tons (2,000 pounds)
Sector boundaries . . . . .	tens of degrees
Sector limits . . . . .	thousands of yards

**163 FRACTIONS**

ANSWER is used in the text of signals to indicate the decimal point or one-half.

*Examples: SPEED H 12 ANS . . . Proceed at 12-1/2 knots.*  
*SPEED H 12 ANS 8 . . . Proceed at 12.8 knots.*  
*TURN STBD 4 ANS . . . Turn together 45° to starboard.*  
*SCREEN Q3-B3 ANS . . . Change inner and outer limits of sector assigned towards screen center 3,500 yards.*

**164 TIMES AND DATES**

a. TIMES. In the text of signals, times are expressed as four numerals, the first two numerals denote the hours from 00 through 23 and the last two numerals denote the minutes.

- (1) USE OF ANSWER. ANSWER may be used in place of the last two numerals to indicate 30 minutes.
- (2) OMISSION OF MINUTES. When it is desired to signal an exact hour, the minutes may be omitted, but the hours must always be expressed in two figures.

b. DATES. Date-time groups in the text of signals are expressed as six numerals plus the zone indicator: the first pair of numerals denotes the date, the second pair the hours, and the third pair the minutes. When unable to make this display in one hoist, it may be broken between the date and the time group.

*Example: CO4—20 . . . first hoist*

*1000Z . . . second hoist . . . Comply with my message 201000Z.*

c. FLAG T AS INDICATOR. When desiring to signal a time in conjunction with a signal group, the time indicator, Flag T, will be used as follows:

(1) T PRECEDING NUMERALS. The time indicator T preceding numerals signifies that action is to (or will) commence at that time.

(2) T FOLLOWING NUMERALS. The time indicator T following numerals signifies that action is to (or will) be completed by that time.

(3) NUMERALS PRECEDING AND FOLLOWING T. Numeral groups preceding and following the time indicator T indicate time by which action is to be completed and time at which action is to commence, respectively.

(4) T PRECEDING NUMERALS ALONE. If the signal consists only of T plus two or four numerals, it signifies a time check. The time of execution is the time indicated.

*Examples: TA36 . . . Show no light.*

*TA36—T1845 . . . Show no light. Action is to commence at 1845.*

*TA36—18 ANS T . . . Show no light. Action is to be completed by 1830.*

*TA36—19T1845 . . . Show no light. Action is to commence at 1845 and is to be completed by 1900.*

d. OMISSION OF FLAG T. When time is referred to in the meaning of a signal group, the time indicator Flag T may be omitted if the omission cannot cause any ambiguity.

*Examples: ED14 . . . Unmoor (at \_\_\_\_).*

*ED14—1745 . . . Unmoor at 1745.*

*ED14—18 . . . Unmoor at 1800.*

e. SIGNALS GOVERNED BY THE SAME TIME SIGNAL. A time signal applies only to the group immediately preceding it. When it is required to apply to two or more groups preceding it, "BT" is inserted before the first of the groups to which the time signal is to apply.

*Examples: FORM 3—CORPEN STBD 275—SPEED 15—T13 . . . FORM 3 and CORPEN STBD 275 are to be executed when hauled down. SPEED 15 will be carried out at 1300 GMT.*

*BT—FORM 3—CORPEN STBD 275—SPEED 15—T13 . . . In this case, all signals between BT and T13 will be carried out at 1300 GMT.*

f. CANCELING A SIGNAL. NEGAT over a time signal cancels all signals governed by that time signal.

g. BT HOISTED SEPARATELY. If BT is hoisted separately as the first hoist and left flying during several successive hoists, all hoists made in this period will be executed when BT is hauled down. No time signal is needed with this method of execution.

h. TIME ZONE INDICATORS. All times signaled throughout this book refer to GMT (ZONE 0 (Z)), unless otherwise indicated; suffixes, therefore, are not required except to indicate the exception, as below:

*Example: TA36—T18R . . . Show no light. Action is to commence at 1800R.*

EAST LONGITUDES			WEST LONGITUDES		
Zone	Number	Letter	Zone	Number	Letter
7½ W to 7½ E	0	Z	7½ W to 22½ W	+1	N
7½ E to 22½ E	-1	A	22½ W to 37½ W	+2	O
22½ E to 37½ E	-2	B	37½ W to 52½ W	+3	P
37½ E to 52½ E	-3	C	52½ W to 67½ W	+4	Q
52½ E to 67½ E	-4	D	67½ W to 82½ W	+5	R
67½ E to 82½ E	-5	E	82½ W to 97½ W	+6	S
82½ E to 97½ E	-6	F	97½ W to 112½ W	+7	T
97½ E to 112½ E	-7	G	112½ W to 127½ W	+8	U
112½ E to 127½ E	-8	H	127½ W to 142½ W	+9	V
127½ E to 142½ E	-9	I	142½ W to 157½ W	+10	W
142½ E to 157½ E	-10	K	157½ W to 172½ W	+11	X
157½ E to 172½ E	-11	L	172½ W to 180	+12	Y
172½ E to 180	-12	M			

(1) Letter N is also used to designate -13; this is to provide for a ship in zone -12 keeping Daylight Saving Time.

(2) Reference should be made to a Time Zone Chart in order to learn the exact zone boundaries, since they sometimes deviate slightly to accommodate national boundaries, and so forth. For time midway between zones, the zone to be utilized will be designated by the OTC.

**165 POSITION**

a. LATITUDE AND LONGITUDE. Position in latitude and longitude will be signaled by two four-numeral groups, each group preceded by the letter P. The first group will denote degrees and minutes of the latitude, the second group will denote degrees and minutes of the longitude.

(1) ADDITION OF LETTERS. When confusion may arise, the letters N, S, E, or W may be added to denote North, South, East, or West.

(2) ADDITIONAL NUMERALS. When signaling longitudes over 100, five numerals may be used if necessary to avoid ambiguity.

b. OMISSION OF FLAG P. When position is referred to in the meaning of a signal group, the position indicator P may be omitted if the omission cannot cause ambiguity.

*Examples: NA22 . . . My position (or \_\_\_\_ ) is as indicated by accompanying position signal.  
Time may be indicated by time signal.*

*NA22—3215—7023—T16 . . . My position is latitude 32°15' longitude 70°23' at 1600.*

- c. STANDARD POSITION INDICATORS. Standard positions in the force are:
- (1) QQ — The center of the front of the main body or convoy when not in a circular formation.
  - (2) TT — Originator's present position.
  - (3) XX — The standard position established by the OTC on which a search, enemy reporting, and so forth, is to be based.
  - (4) YY — Addressee's present position.
  - (5) ZZ — The center of the force. This standard position should not be used in convoy signaling, standard position QQ being used instead.

## 166 BEARING, DIRECTION, AND DISTANCE

- a. REFERENCE POINTS. Bearings and distances may be signaled from:

- (1) A point on the earth's surface specially designated by double letters or code names; e.g., 125MM45.
- (2) A point of land or navigational mark; e.g., 112 HATTERAS 12.
- (3) A standard position in the force; e.g., 310ZZ7.
- (4) A ship or unit; e.g., 273—Dp4p1—12 (visual); 273 CALL SIGN HOTSHOT 12 (voice).

- b. BEARINGS AND DIRECTIONS.

(1) TRUE BEARING. True bearing is signaled by three numerals. Such a signal may be used in conjunction with any signal group to indicate the bearing of the subject of that group, provided another meaning for three numerals following is not given in the meaning or instructions for that group.

(2) RELATIVE DIRECTION. Relative direction may be signaled by the PORT Flag or STARBOARD Pennant. One or two numerals may be used to indicate the number of tens of degrees from right-ahead (dead ahead) following the PORT Flag or STARBOARD Pennant.

*Examples: PORT 5 . . . 50° on the port bow.*

*STBD 0 . . . Right-ahead.*

c. BEARING AND DISTANCE. Unless otherwise stated in the meaning of a signal, bearing and distance from a position or unit are indicated by the numeral group for bearing, followed by the position or unit indicated (if required), and then the numeral group for distance in miles.

*Examples: STATION X 5 . . . Take station as communication linking ship.*

*STATION X 5—045—Dp8p4—15—18 ANS T . . . Destroyer 3: prepare to take station as communication linking ship on bearing 045° true from ship D84, distance 15 miles, to be in station by 1830.*

**167 COURSES AND SPEEDS**

a. **COURSES.** Courses are signaled by using the appropriate Corpen signal from Chapter 7. When the course is referred to in the meaning of a signal, the special pennant Corpen may be omitted provided there can be no ambiguity. Corpen signals may be used in conjunction with any signal group to indicate the course of the subject of the group.

*Examples: CORPEN U 135 . . . Maintain course 135°.*

*TA97—1—180 . . . Disengage ahead on course 180°.*

*G FORM 3 Dp2p7—G CORPEN 270 . . . Guide of this unit is Destroyer 27. Guide's course is 270°.*

b. **SPEEDS.** Unless otherwise stated in the meaning of the signal, a numeral group immediately following an informative course signal indicates speed in knots.

*Example: K CORPEN 045—20 . . . Course is 045°, speed 20 knots.*

**168 STANDARD SECTOR SYSTEM**

The standard sector system may be used for ordering sector screens and in all other cases in which sectors may be ordered. The sector method is illustrated in Figure 1-17.

a. **SECTOR ALLOCATION.** Sectors are allocated by indicating sector boundaries and, if necessary, sector depth, separated by TACK, followed by the call sign of the unit assigned to that sector.

b. **SECTOR BOUNDARIES.** Sector boundaries are ordered by a group of four numerals. First two numerals indicate the true bearing of the left boundary in tens of degrees, second two numerals indicate the true bearing of the right boundary in tens of degrees. Use ANSWER to order an increment of 5°.

c. **SECTOR DEPTH.** Sector depth is ordered by a group of four numerals. First two numerals indicate inner and second two numerals indicate outer limit of sector in thousands of yards from the unit, reference point, or standard position indicated. Use ANSWER to order an increment of 500 yards.

d. **HELICOPTERS NOT SPECIFIED.** Sectors assigned to unspecified helicopters must be indicated by adding DESIG H after the sector assigned and in place of the call sign.

*Examples: SCREEN K—ZZ—0307—0510 Dp1p6 . . . Form sector screen. Screen center is the center of the force. Destroyer 16 take sector between 030° and 070° true and between 5,000 and 10,000 yards from screen center.*

*SCREEN K—QQ—20 ANS 33 ANS—02 ANS 07 DESIG H . . . Form sector screen. Screen center is 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.*

*AA6—2529 . . . Threat is from sector between 250° and 290° true.*

Examples:

SECTOR	DESIGNATOR AS SIGNALLED	SECTOR BOUNDARIES	SECTOR LIMITS FROM ZZ
1	0307-0510	030° - 070°	5,000 - 10,000 yd
2	0810-0811	080° - 100°	8,000 - 11,000 yd
3	11 ANS 15 ANS-0510	115° - 155°	5,000 - 10,000 yd
4	20 ANS 33 ANS- 02 ANS 07	205° - 335°	2,500 - 7,000 yd

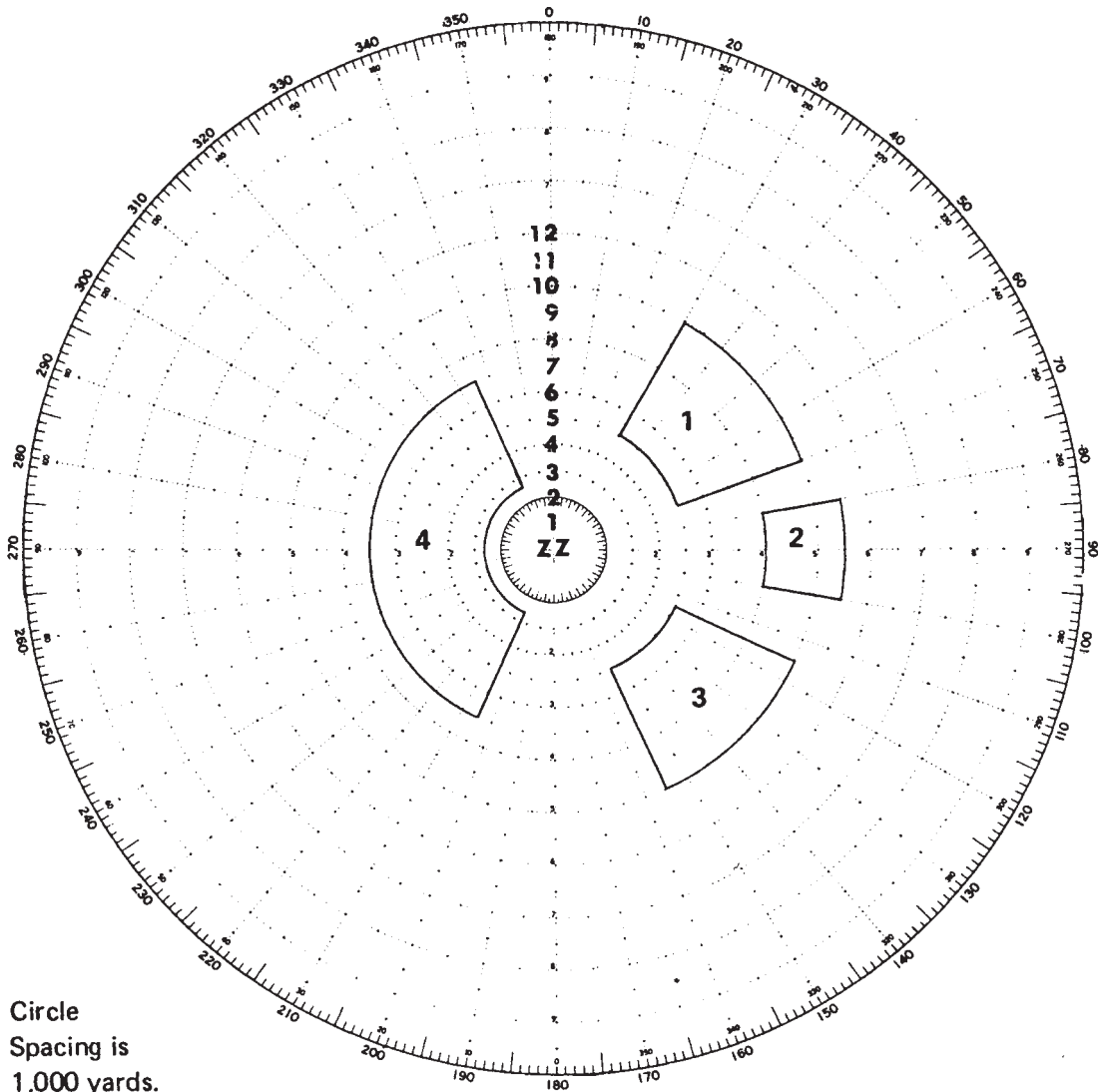


Figure 1-17. Sector Method



**SINGLE  
FLAG/  
PENNANT**

SINGLE  
FLAG/  
PENNANT

CHAPTER 2

**SINGLE FLAGS AND PENNANTS**

- 200 Instructions**
- 201 Single Alphabetical Flag Table**
- 202 Single Numerical Flag Table**
- 203 Single Special Flag/Pennant Table**
- 204 Absentee Indicator Table (In Port)**

**200 INSTRUCTIONS**

Single flag and pennant signals not marked REPEATED BY ADDRESSEES or ANSWERED BY ADDRESSEES are flown for information and are not to be answered or repeated. Such signals need not be preceded by SECOND SUBSTITUTE. If no ambiguity will result, two or more single flag or pennant signals, separated by TACK, may be displayed simultaneously from the same point of hoist. Similarly, appropriate single flag and pennant signals may be used in conjunction with other signal groups. Single flag and pennant signals contained in this chapter are never preceded by EMERGENCY, because different meanings are assigned to single flags or pennants that are preceded by EMERGENCY. See Chapter 3 concerning the use of EMERGENCY.

**201 SINGLE ALPHABETICAL FLAG TABLE**

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.

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<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 completed.
		BY TARGET SHIP: Where best seen.	CLOSE UP: Target ready: range is clear. HAULED DOWN: Firing completed or range is foul.
	FUELING OR TRANSFERRING EXPLOSIVES OR INFLAMMABLE MATERIAL	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 MATERIAL	BY BOATS: In bow or where best seen.	WHILE FLYING: I am transporting explosives, fuel, or inflammable material.
<b>C</b>	AFFIRMATIVE	Where best seen.	a. In reply to a signal: YES or PERMISSION GRANTED. b. Preceding 4 or 6 numerals: With reference to message indicated, YES or PERMISSION GRANTED. c. C TACK – – – (signal): YES or PERMISSION GRANTED to carry out the meaning of the signal.
<b>D</b>	DEGAUSSING	BY RANGE HUT: At signal yard.	WHILE FLYING: Range is in operation.
		BY SHIP UNDERWAY: At yardarm.	WHILE FLYING: I am making degaussing runs.
<b>E</b>	NO RF DANGER	Where best seen.	Rotating antenna without radiating RF energy.

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<b>F</b>	FLIGHT OPERATIONS (Flag hoist only)	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>NOTE: When operating both fixed-wing aircraft and helicopters concurrently, Flag H need not be used.</p>
<b>G</b>	GUIDE FLAG (See Article 2604 for optical guidance).	Where best seen.	<p>a. WHILE FLYING: This ship is GUIDE.</p> <p>b. G TACK Call Sign: Ship indicated is to be Guide (REPEATED BY ADDRESSEES).</p> <p>c. Call sign G TACK Call Sign: Guide of unit addressed is to be ship indicated (REPEATED BY ADDRESSEES).</p>
<b>H</b>	HELICOPTER OPERATIONS (For helicopter transfer/vertical replenishment signals, see Article 3102.)	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> <p>See NOTE under Flag F.</p>
<b>I</b>	GOING ALONG-SIDE (in port or at anchor)	<p>BY RECEIVING SHIP: At yardarm on side rigged.</p>	<p>AT DIP: I am preparing to receive you alongside.</p> <p>CLOSE UP: I am ready to receive you alongside.</p> <p>HAULED DOWN: First line is secured.</p>
		<p>BY SHIP GOING ALONGSIDE: At yardarm on side rigged.</p>	<p>AT DIP: I am preparing to come alongside you.</p> <p>CLOSE UP: I am ready to come alongside you.</p> <p>HAULED DOWN: First line is secured.</p>

R

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<b>J</b>	SEMAPHORE MESSAGE	Where best seen. ANSWERED BY ADDRESSEES	CLOSE UP: I have a semaphore message to transmit. a. J DESIG indicates priority message. b. J. DESIG --- (Z or O) indicates appropriate other precedence. HAULED DOWN: Transmission completed.
<b>K</b>	PERSONNEL WORKING ALOFT AND/OR OVER THE 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.
<b>O</b>	MAN OVERBOARD	Where best seen.	WHILE FLYING: Man overboard.
<b>P</b>	GENERAL RECALL	Where best seen (in port).	WHILE FLYING: All personnel belonging to this ship return to ship immediately.
	POSITION INDICATOR	Where best seen.	See Article 165.

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<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. For use in submarine exercises, see Article 1306b.
<b>R</b>	REPLENISHING OR TRANSFERRING ABEAM METHOD (See Article 3103 for use at night.)	BY UNDERWAY REPLENISHMENT GUIDE: 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 APPROACH 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 (See Article 3103 for use at night.)	BY UNDERWAY REPLENISHMENT GUIDE: 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 APPROACH 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.
	READY DUTY SHIP	Where best seen.	WHILE FLYING: I am ready duty ship.
	MCM OPERATIONS	Where best seen	See ATP 24.
<b>S</b>	DRILL SIGNAL	Where best seen.	WHILE FLYING: Signal flying is for flaghoist drill only.
<b>T</b>	TIME INDICATOR		See Article 164c.

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<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 middled. HAULED DOWN: Chain cable secured.
	WEIGHING		AT DIP: I am heaving in. When unmooring. 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>	INFORMATION ADDRESSEE	At yardarm.	Information addressees follow: (See ACP 130 series).
<b>X</b>	EXERCISE	At fore yardarm. REPEATED BY ADDRESSEES	Evolution or exercise completed.
		Where best seen. REPEATED BY ADDRESSEES	X TACK --- (signal): Carry out for exercise the meaning of the signal following.
		At yardarm.	X TACK --- (signal inferior to second substitute): I am carrying out for exercise the meaning of the signal following.
<b>Y</b>	ACKNOWLEDGE	At yardarm. REPEATED BY ADDRESSEES	--- (signal) TACK Y: A separate acknowledgment required. Y TACK --- (signal): Signal following is acknowledged.
<b>Z</b>	COMMUNICATION GUARD	Where best seen (not underway)	WHILE FLYING: I have communication guard duty.



202 SINGLE NUMERICAL FLAG TABLE

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
<b>1</b>	(Identifying flag for ASW Action Table — See Article 1311.)		
<b>2</b>	(Identifying flag for Surface Action Table — General — See Article 3208A.)		
<b>3</b>	(Identifying flag for Surface Action Table — Over-the-Horizon (OTH) Engagement — See Article 3208B.)		
<b>4</b>	(Identifying flag for Surface Action Table — To-the-Horizon Range Engagement — See Article 3208C.) (For use in Submarine and Antisubmarine Exercises — See Article 1306(B).)		
<b>5</b>	BREAKDOWN	Where best seen.	WHILE FLYING: I have a breakdown or I am not under control. ("Not under command" signals, except the night signals in wartime, are to be displayed in addition.
<b>6</b>	TOWING OPERATIONS	Where best seen.	Identifying flag for towing operations — See Article 3007.
<b>7</b>	(Identifying flag for AAW Action Table — See Article 1001.)		
<b>8</b>	BOAT SIGNAL	Where best seen.	a. WHILE FLYING: Steer straight away from ship. b. 8 PORT: Steer left (or to port). When hauled down, cease turn and steady on present course. c. 8 STBD: Steer right (or to starboard). When hauled down, cease turn and steady on present course. d. 8 SCREEN: Steer straight TOWARD ship. For special use, see AXP 2.
<b>9</b>	(Identifying flag for Torpedo Action Table — See Article 3205.)		
<b>0</b>	MILITARY GUARD	Where best seen (not underway).	WHILE FLYING: I have military guard duty.

203 SINGLE SPECIAL FLAG/PENNANT TABLE

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. DIV INS, SQUAD ANS, etc., may be used by the appropriate commanders to obtain routine reports.
	FRACTIONS		In text of signals: Decimal point or one-half.
<b>CODE</b>	USE INTERNATIONAL CODE OF SIGNALS (see Article 117)	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		See Article 115.
	PROCEEDING TO STATION	At yardarm or where best seen.	WHILE FLYING. DESIG – – – (letter(s) and/or numeral(s): I am proceeding to station or berth indicated. HAULED DOWN: I am in station or berth.
	ACKNOWLEDGING DAY LIGHT SIGNALING LANTERN	At yardarm.	See ACP 130 series.
<b>EMERG</b>	SIGNAL(S) FLYING ARE TO BE OBEYED AS SOON AS UNDERSTOOD		See Chapter 3.

FLAG OR PENNANT	INDICATION	NORMALLY DISPLAYED	MEANING
<b>FORM</b>	REFUSE BOAT IS REQUIRED	At yardarm or where best seen (not underway).	WHILE FLYING: Refuse boat is required.
<b>INT</b>	SIGNAL NOT UNDERSTOOD	Where best seen. REPEATED BY ADDRESSEES.	Signal now flying not understood. INT 1 . . . Signal now flying not distinguishable. INT 2 . . . You are repeating signal incorrectly. INT preceding a signal: See Article 111.
<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 111.
	EXEMPTED ADDRESSEE FOLLOWS		In heading: See ACP 130 series.
<b>PREP</b>	REPLENISHING (Receiving ship only) (See Article 3103 for use at night.)	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 Article 111.

FLAG OR PENNANT	INDICATION	NORMALLY DISPLAYED	MEANING
<b>PORT</b>	INDEFINITE TURN TO PORT	At yardarm (underway). REPEATED BY ADDRESSEES.	Turn of unspecified amount. See paragraph 603.
	OUT OF ROUTINE	At yardarm (not underway).	Ship out of routine. No honors should be expected.
<b>SCREEN</b>			
<b>SPEED</b>			
<b>STBD</b>	INDEFINITE TURN TO STARBOARD	At yardarm (underway). REPEATED BY ADDRESSEES.	Turn of unspecified amount. See paragraph 603.
	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>			

FLAG OR PENNANT	INDICATION	NORMALLY DISPLAYED	MEANING
<b>1st</b>	ORIGINATOR	Where best seen.	Over call sign: The originator of this signal is as indicated. Intervening ship(s) relay to addressee, or to the OTC if there is no addressee.
<b>2nd</b>	GENERAL INFORMATION	Where best seen.	In place of addressee: For general information; no specific address; no answer required.
<b>3rd</b>	GENERAL INFORMATION AND ACTION	Where best seen.	Preceding the address: This signal, in addition to being addressed to certain ships for action, is for general information and is to be relayed and answered as an "All ships signal."
<b>4th</b>	SIGNAL(S) FROM ATP 2, VOL. II	Where best seen.	Accompanying signal(s) is (are) taken from ATP 2, Vol. II.

204 ABSENTEE INDICATOR TABLE (IN PORT)

FLAG OR PENNANT	INDICATION	NORMALLY DISPLAYED	MEANING
<b>1st</b>	ABSENCE OF OFFICIAL from this ship for a period of 72 hours or less. Use in port only.	Starboard main yard-arm 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. Its use immediately shifts to the executive officer when the captain departs for a known period of absence in excess of 72 hours.)
<b>4th</b>	Same as 1st substitute	Starboard main yard-arm inboard.	Absence of civil or military official whose flag is flying on this ship.
<p style="text-align: center;"><b>NOTES</b></p> <p>1. Absentee indicators are displayed in port from sunrise to sunset.</p> <p>2. In the case of the absence of a commanding officer who is acting as a temporary unit commander, both absentee pennants shall be displayed.</p>			

**EMERG**

**EMERG**



CHAPTER 3

EMERGENCY

<b>300</b>	<b>Instructions</b>
<b>301</b>	<b>Emergency Execute Signal</b>
<b>302</b>	<b>Emergency Alarm Signals</b>
<b>303</b>	<b>Emergency Action Signals</b>

**300 INSTRUCTIONS**

- a. ACTION. Any signal preceded by EMERGENCY is to be acted upon as soon as understood. If the emergency poses an immediate threat requiring visual/aural attention to be drawn to the originator, the originator is to make six short blasts on the whistles. (Signals from the single flag and pennant tables are not to be preceded by EMERGENCY.) When EMERGENCY is used with several signal groups, it will govern all groups when either separated from the group by TACK or hoisted singly on another halyard. If EMERGENCY is required to govern only one of the several groups, it must immediately precede the group to be governed.
- b. RELAY. Emergency signals made by flags are to be repeated by all ships. Ships having relay responsibilities will not repeat close up until all ships for which they are responsible have answered or repeated close up.
- c. INTERNATIONAL CODE OF SIGNALS. Naval vessels should also be ready at any time to utilize signals from the International Code of Signals, particularly if there is any merchant shipping in the vicinity.

**301 EMERGENCY EXECUTE SIGNAL**

EMERG . . . EXECUTE all signals flying under a similar call when they are understood.  
(EMERG without a call executes all signals flying without a call.)

**302 EMERGENCY ALARM SIGNALS**

EMERGENCY alarm flag signals are to be repeated by all ships, with the call sign of the originator, if other than the OTC, below FIRST SUBSTITUTE hoisted on an adjacent inboard halyard.

EMERG (000 to 359) . . . . ATTENTION is called to DANGER or EMERGENCY on **true** bearing \_\_\_\_ 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 from this ship or ship indicated.

EMERG A . . . AIRCRAFT to be PRESUMED HOSTILE SIGHTED or DETECTED bearing \_\_\_\_ (distance \_\_\_\_ miles).

EMERG B . . . UNIDENTIFIED AIRCRAFT DETECTED or SIGHTED bearing \_\_\_\_ (distance \_\_\_\_ miles).

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

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

EMERG E . . . ENEMY (or \_\_\_\_ ) SURFACE CRAFT SIGHTED bearing \_\_\_\_ from this ship (or unit or position indicated) (distance \_\_\_\_ miles).  
1. Unidentified

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

EMERG G . . . ENEMY MISSILE DETECTED or SIGHTED bearing \_\_\_\_ (distance \_\_\_\_ miles).

EMERG H . . . HELICOPTER EMERGENCY. I have helicopter landing in an emergency.

EMERG I . . . SUSPICIOUS ELECTRONIC EMISSIONS (from \_\_\_\_\_ ) or from DESIG \_\_\_\_\_ NATO nickname if known), indicating an IMMEDIATE THREAT\* to the force have been intercepted bearing \_\_\_\_\_ .

1. Air
2. Surface
3. Subsurface
4. Missile-launching site/platform

*\*Appropriate groups from Chapter 20 are to be used when the intercepts do not constitute an immediate threat.*

EMERG J . . . SURFACE CRAFT DETECTED bearing \_\_\_\_\_ (distance \_\_\_\_\_ miles).

EMERG K . . . ENEMY underwater demolition personnel (or \_\_\_\_\_ ) have been detected by this ship or ship indicated.

1. Small battle units
2. Saboteurs
3. High-speed surface craft
4. Miniature submarines

EMERG L . . . CHEMICAL ALARM.

EMERG M . . . MINE SIGHTED or DETECTED AHEAD (or bearing \_\_\_\_\_ from this ship or unit indicated) (range \_\_\_\_\_ hundred yards) (or in position indicated).

EMERG N . . . FALLOUT DETECTED (or nuclear explosion of \_\_\_\_\_ type sighted or detected) (bearing \_\_\_\_\_ from this ship or unit indicated) (distance \_\_\_\_\_ miles) (or in position indicated).

1. Air burst
2. Surface burst
3. Subsurface burst
4. Unknown

EMERG O . . . NUCLEAR ATTACK IS POSSIBLE.

EMERG P . . . FIRE. 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 . . . INVESTIGATING UNCLASSIFIED CONTACT. I am investigating a sonar contact (or \_\_\_\_ contact) still unclassified, which might be a submarine, bearing \_\_\_\_ (range \_\_\_\_ hundred yards).

1. Visual
2. Radar
3. Sonobuoy

EMERG R . . . SUBMARINE CONTACT. I have submarine contact classified \_\_\_\_ bearing (range \_\_\_\_ hundred yards).

1. PROBSUB
2. POSSUB, confidence high (numeral 3 or 4 may be added following DESIG)
3. POSSUB, confidence low (numeral 1 or 2 may be added following DESIG)

EMERG S . . . SUBMARINE (or snort or periscope) SIGHTED bearing \_\_\_\_ (range \_\_\_\_ hundred yards).

EMERG T . . . TORPEDO DETECTED or SIGHTED bearing \_\_\_\_ (range \_\_\_\_ hundred yards).

EMERG U . . . DANGER. You are standing into danger.

EMERG V (PORT or STBD) . . . . . FRIENDLY AIRCRAFT CRASHED (close aboard to PORT or STBD as indicated) (or bearing \_\_\_\_ (distance \_\_\_\_ miles)).

EMERG W . . . DISAPPEARING RADAR CONTACT DETECTED bearing \_\_\_\_ (distance \_\_\_\_ miles).

EMERG X . . .

EMERG Y . . .

EMERG Z . . . FRIENDLY SUBMARINE bearing \_\_\_\_ (distance \_\_\_\_ miles).

**303 EMERGENCY ACTION SIGNALS**

EMERG 1 . . . AVOIDING ACTION. 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 . . .

EMERG 6 . . . CLEAR ALL SIDES, using emergency breakaway procedure. (For use in emergency during replenishment or other abeam operations.)

EMERG 7

EMERG 8 . . . SCREEN SHIPS CLOSE to a distance of 1,500 yards (or \_\_\_\_ hundred yards) from closest ship of main body.

EMERG 9 . . .

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.

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**FORM**

**FORM**



## CHAPTER 4

## FORM

400	Instructions
401	Line Formations
402	Forming Operational Formations and Dispositions
403	Forming on a Line of Bearing
404	Forming in the Quickest Sequence
405	Loose Line of Column, Diamond Formation, Column Open Order, and Reversing the Order of Ships in Column
406	Line Guides Forming on a Bearing
407	Miscellaneous Form Signals
408	Information Signals

**400 INSTRUCTIONS. (See Chapter 1.)**

a. GENERAL. Each ship moves independently to the new station unless ships are already formed and the new formation signal can be complied with by the movement of a line (or division or subdivision) as a whole; in which case, the line (or division or subdivision) commander maneuvers his unit by signal into the new station. Whether the Guide is the OTC's ship or an indicated ship, ships and lines invariably form on the Guide.

b. FORMING IN ORDER OF SEQUENCE NUMBERS. Ships form in numerical order of sequence numbers. Lines form in numerical sequence of divisions (subdivisions) from van to rear if formed astern, from port to starboard if formed to starboard, or from starboard to port if formed to port.

c. VARYING LINE FORMATIONS. Formations can be varied by using the appropriate basic formation signal, supplemented by signal(s) for the maneuvers listed below. When varying the formation, instructions in paragraphs a and b will apply, except when the supplementary signal specifically amends any portion of the instructions.

1. Ships in line form in the sequence in which their call signs are made, or in the order in which their sequence numbers are indicated.
2. Lines form in the sequence in which the call signs of divisions (subdivisions) are made.
3. Ships in line form in reverse order of sequence numbers.
4. Ships in line form on a specified true or relative line of bearing from their line guide.
5. Line guides form on a specified true or relative line of bearing from the Guide.

**401 LINE FORMATIONS**

Formation numbers 1 through 19 are allocated for line formations. When forming from an unformed state, ships form at standard distance or distance indicated. If a line has already been formed, ships remain at their present distance apart.

FORM 1 . . . . Form COLUMN IN ORDER of sequence numbers (or call signs following).

FORM 2 . . . . Form COLUMN IN REVERSE ORDER of sequence numbers.

FORM 3 . . . . Form LINE ABREAST TO STBD in order of sequence numbers (or call signs following).

FORM 4 . . . . Form LINE ABREAST TO PORT in order of sequence numbers (or call signs following).

FORM 5 . . . . Form DIVISIONS IN COLUMN TO STBD, division guides bearing abeam.

FORM 6 . . . . Form DIVISIONS IN COLUMN TO PORT, division guides bearing abeam.

FORM 7 . . . . Form SUBDIVISIONS IN COLUMN TO STBD, subdivision guides bearing abeam.

FORM 8 . . . . Form SUBDIVISIONS IN COLUMN TO PORT, subdivision guides bearing abeam.

FORM 9 . . . . Form DIVISIONS IN LINE ABREAST TO STBD, division guides bearing astern.

FORM 10. . . . Form DIVISIONS IN LINE ABREAST TO PORT, division guides bearing astern.

FORM 11. . . . Form SUBDIVISIONS IN LINE ABREAST TO STBD, subdivision guides bearing astern.

FORM 12. . . . Form SUBDIVISIONS IN LINE ABREAST TO PORT, subdivision guides bearing astern.

FORM 13. . . .

- FORM 14. . . .
- FORM 15. . . .
- FORM 16. . . .
- FORM 17. . . .
- FORM 18. . . .
- FORM 19. . . .

**402 FORMING OPERATIONAL FORMATIONS AND DISPOSITIONS**

a. FORMATIONS are allocated numbers from 20 to 99, with formations designed for similar operational purposes allocated numbers from the same block. The purpose of a formation is indicated by appending the appropriate purpose identification letter(s) in Vol. I to the formation number. Numbers not allocated in Vol. I may be used in operational orders as desired by appropriate authority. The following blocks of signals are allocated for operational purpose formations.

- FORM 20 to 29 . . . . . Form DESTROYER TYPE formation indicated.
- FORM 30 to 39 . . . . . Form LARGE COMBATANT SHIP formation indicated.
- FORM 40 to 49 . . . . .
- FORM 50 to 59 . . . . . Form TRANSPORT/LOGISTIC formation indicated.
- FORM 60 to 69 . . . . . Form REPLENISHMENT formation indicated.
- FORM 70 to 79 . . . . . Form AMPHIBIOUS formation indicated.
- FORM 80 to 89 . . . . . Form SURFACE ACTION formation indicated.
- FORM 90 to 99 . . . . . Form MISCELLANEOUS formation indicated.

An operational formation is signaled by using the FORM pennant, formation number and purpose letter(s), followed by course, axis (if other than course), and speed (if required) indicated by numeral groups separated by a tack. The purpose letter(s) simplifies the procedure when reforming because of the rule that in shifting from a basic ready formation to an antiair warfare or nuclear defense formation, there is usually no change in the Guide, speed, or axis.

b. ADDITIONAL TYPE formations may be specified by type commanders for use by ship types not included in the blocks of signals above. These are indicated by prefixing ship type indicator letters from ACP 130 to the number of the formation assigned by the type commander. The number used in this way is in no way related to the blocks of signals above. FORM N is used to signal a type formation.

*Example: FORM N-M7 . . . . Form minesweeper formation number 7.*

c. DISPOSITIONS are assigned number-letter designations based on the number of the disposition and the purpose identification letter suffix(es). A type indicator letter may be inserted between the number and the purpose letter if desired. FORM M is used to signal a disposition.

*Examples: FORM M 2J . . . . Form approach disposition 2.*

*FORM M 2RC . . . . Form carrier cruising disposition 2.*

**403 FORMING ON A LINE OF BEARING**

Ships form on the line guide or ship indicated on the bearing (true or relative) indicated or its reciprocal.

a. UNFORMED STATE. When forming from an unformed state on the present or ordered course, ships form in the quickest sequence, or in order of sequence numbers or call signs following from PORT to STBD.

b. DISTANCE. When forming from an unformed state, ships form at standard distance or distance indicated; however, if already formed, ships form at their present distance apart.

c. FORMED STATE. If altering a line of bearing, ships form in their present sequence. If altering from column to line abreast, or vice versa, with the Guide not an end ship, ships ahead of the Guide (if in column) or to port of the Guide (if in line abreast) form on the bearing indicated, the remainder on the reciprocal. If the Guide is not an end ship and ships are not altering from column to line abreast or vice versa, an alteration of the line of bearing of exactly 90° must be carried out in two separate increments. (See Article 140.)

FORM [000 to 359] . . . . SHIPS ARE TO FORM ON TRUE BEARING indicated from their guide or ship indicated on the present course or course indicated.

FORM [PORT or STBD] [0 to 18] . . . . SHIPS ARE TO FORM ON RELATIVE BEARING indicated in tens of degrees from their guide or ship indicated on the present course or course indicated.

**404 FORMING IN THE QUICKEST SEQUENCE**

The quickest sequence depends on each ship's present position relative to the line guide or ship indicated, and not on the numerical order of sequence numbers.

FORM A . . . . FORM COLUMN 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 her in the quickest sequence, according to their positions relative to her. If the ship to be formed on is indicated, ships are to form ahead or astern of her in the quickest sequence.*

FORM B . . . . FORM SINGLE LINE ABREAST IN 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 her course or to the course indicated, in the quickest sequence according to their positions relative to her.*

**405 LOOSE LINE OF COLUMN, DIAMOND FORMATION, COLUMN OPEN ORDER, AND REVERSING THE ORDER OF SHIPS IN COLUMN**

FORM C PORT/STBD . . . . FORM LOOSE LINE OF COLUMN TO PORT OR STBD as indicated.

*A loose line of column can only be formed when ships are in column. The leading ship is automatically to become the Guide. Ships are to take station on the indicated quarters of the Guide on an approximate line of bearing within 15° of column. Distance may be increased to reduce yawing.*

FORM D . . . . FORM DIAMOND.

*RESTRICTION—When ships are in diamond formation, a wheel is not to exceed 30°.*

*FORMING—A diamond formation can only be formed when ships are in column. 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, and the fourth ship in the wake. 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:*

- 1. Ships are to use their present ordered distance as D in Figure 1-6.*
- 2. When the column is formed of large and small ships, ships use the distance for the large ship as D throughout the formation.*
- 3. When the formation is terminated, ships use their D distance as their present ordered distance when proceeding to new stations.*

FORM E . . . . FORM COLUMN OPEN ORDER.

*In forming column open order, 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/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 seven 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 which was previously next astern to her. All ships will maintain speed after taking station in the new column until the OTC reduces speed by 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.*

**406 LINE GUIDES FORMING ON A BEARING**

a. If altering the line of bearing of line guides, line commanders move their lines by signal into their new stations. Line guides form on the bearing (true or relative) indicated from the Guide or ship indicated. If the Guide is not in an end line, lines are to form on the bearing (true or relative) indicated or its reciprocal, whichever is the nearer.

b. If altering from line guides ahead and astern to line guides abeam, lines ahead form on the bearing, remaining lines on the reciprocal. If altering from line guides abeam to line guides ahead and astern, lines to port form on the bearing, the remainder on the reciprocal.

c. If the Guide is not in an end line and line guides are neither ahead and astern nor abeam, alterations of the line of bearing of exactly 90° must be carried out in two separate increments.

FORM G

[SUBDIV DIV SQUAD FLOT/GROUP]

[000 to 359]. . . . . LINE GUIDES (or guides of units indicated) are to form on the TRUE BEARING indicated from the Guide or ship indicated at their present interval apart and in their present sequence.

FORM G

[SUBDIV DIV SQUAD FLOT/GROUP]

[PORT or STBD] [0 to 18] . . . . . LINE GUIDES (or guides of units indicated) are to form on the RELATIVE BEARING indicated in tens of degrees from the Guide or ship indicated at their present interval apart and in their present sequence.

**407 MISCELLANEOUS FORM SIGNALS**

FORM H [PORT or STBD] . . . . . FORM preliminary MCM formation \_\_\_\_ (formation letter from ATP 24 following DESIG). Use of PORT/STBD is optional.

FORM I . . . . .

FORM J . . . . .

FORM K . . . . . FORM CARTWHEEL/DISPOSITION as indicated (see ATP 1, Vol. I, Chapter 3). Formation/disposition center (unit in station Zero/ZZ if allocated). Sector identification letter — sector boundaries in true bearing in tens of degrees — boundary ranges in kiloyards) — unit(s) allocated to sector.

Unless otherwise ordered, CARTWHEEL sectors are as follows:

- SECTOR ALFA — 000 to 120 — 6 to 20 kiloyards
- SECTOR BRAVO — 120 to 240 — 6 to 20 kiloyards
- SECTOR CHARLIE — 240 to 359 — 6 to 20 kiloyards
- SECTOR DELTA — 000 to 359 — 0 to 6 kiloyards

*Example: FORM K — ZZ c/s PO — Alfa c/s 1A c/s YZ — Bravo c/s AB c/s EJ — Charlie c/s JK — Delta c/s PO c/s LD — Echo 1420 — 2226 (Helo) c/s 1RO — Foxtrot 2733 — 2226 (Helos) c/s 3PM.*

FORM L . . . . . RESCUE DESTROYER (RESDES) form astern of carrier by quickest means

- \_\_\_\_\_. 1. Regardless of distance
- 2. At not less than standard distance (carrier altering course to PORT/STBD as indicated) (speed \_\_\_\_)

*Example: FORM L2 STBD 25 . . . . . Rescue destroyer (RESDES) form astern of carrier by quickest means at not less than standard distance. Carrier altering course to STBD; speed is 25 kt.*

FORM M . . . . . FORM DISPOSITION number \_\_\_\_\_. (See Article 402c.)

FORM N . . . . . FORM TYPE FORMATION number \_\_\_\_\_. (See Article 402b.)

FORM O . . . . . FORM LOOSE LINE OF BEARING on bearing \_\_\_\_ IN THE QUICKEST SEQUENCE on the Guide or ship indicated (course \_\_\_\_ ) at present distance (or distance \_\_\_\_ hundred yards). See Figure 1-5A.

*RESTRICTION—Wheels and search turns are not permitted when in this formation.*

*FORMING—Ships are to form at present distance or as indicated, on the Guide or ship indicated, within 15° of the bearing or its reciprocal, in the quickest sequence according to their positions relative to her.*

FORM P . . . . ROTATE \_\_\_\_\_ AXIS to bearing indicated.

1. Antiair warfare
2. Disposition
3. Formation
4. Picket
5. Search

FORM Q . . . .

FORM R . . . . FORM PRE-ORDERED FORMATION. Form pre-ordered formation number/  
codeword \_\_\_\_\_.

FORM S . . . .

FORM T . . . .

FORM U . . . . SHIPS RESUME previous relative bearings and distances from their guides.  
Ships move independently.

FORM V . . . . LINE GUIDES RESUME previous relative bearings and distances from the  
Guide. Commanders of lines 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 relative  
bearings and distances from the line guides. Line commanders direct  
movements.

FORM X . . . .

FORM Y [Port or STBD] . . FORM LOOSE LINE ABREAST IN THE QUICKEST SEQUENCE  
on the Guide or ship indicated (course \_\_\_\_\_) at present distance  
(distance \_\_\_\_\_ hundred yards). Use of PORT/STBD is optional.  
See Figure 1-5A.

*Ships are to form at present distance or as indicated, within 15° of  
the nearest beam of the Guide or ship indicated, relative to her  
course or the course indicated, in the quickest sequence accord-  
ing to their positions relative to her.*

FORM Z . . . . REMAIN IN PRESENT FORMATION (or disposition) (until \_\_\_\_\_).



**408 INFORMATION SIGNALS**

A FORM . . . . FORCE is in DISPOSITION number \_\_\_\_\_ (I am occupying station \_\_\_\_\_).

B FORM . . . . FORCE is in FORMATION number \_\_\_\_\_ (this unit or unit(s) indicated is (are) occupying station(s) indicated).

C FORM . . . .

D FORM . . . .

E FORM . . . .

F FORM . . . .

G FORM . . . . GUIDE of \_\_\_\_\_ is \_\_\_\_\_ (in station \_\_\_\_\_ or bearing \_\_\_\_\_ from this unit or unit indicated distance \_\_\_\_\_ miles).

- 1. Disposition
- 2. Formation
- 3. This unit or unit indicated

H FORM [PORT or STBD] . . . . . MCM angle \_\_\_\_\_ (letter designator from ATP 24 following DESIG) is degrees to PORT or STBD as indicated.

*Example: H FORM PORT DESIG E 5 . . . . . MCM angle E is 5° to PORT.*

I FORM. . . . .

J FORM . . . . .

K FORM . . . . FORMATION CENTER bears \_\_\_\_\_ from the Guide or ship indicated distance \_\_\_\_\_ hundred yards.

L FORM . . . . .

M FORM [PORT or STBD] . . . . . MCM FORMATION. After the turn, take up MCM formation \_\_\_\_\_ (formation number from ATP 24 following DESIG) to PORT or STBD as indicated.

N FORM . . . .

O FORM . . . .

P FORM . . . . DIRECTION OF \_\_\_\_\_ AXIS is bearing indicated.

- 1. Anti-air warfare
- 2. Disposition
- 3. Formation
- 4. Picket
- 5. Search

Q FORM . . . .

R FORM . . . .

S FORM . . . . SEQUENCE NUMBERS are in order of call signs following.

T FORM . . . .

U FORM . . . .

V FORM . . . .

W FORM . . . .

X FORM . . . .

Y FORM . . . . MAIN BODY is formed as indicated.

- (a) Formation number
- (b) Formation course
- (c) Formation speed
- (d) Formation axis (if other than course)
- (e) Guide or guide's station
- (f) Assigned stations

Z FORM . . . . MAIN BODY is formed by sector method.

**STATION**

**STATION**

**CHAPTER 5**

**STATION**

<b>500</b>	<b>Instructions</b>
<b>501</b>	<b>Action Signals</b>
<b>502</b>	<b>Information Signals</b>

**500 INSTRUCTIONS** (See Chapter 1.)

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 OTC 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.

a. **MAINTAINING TRUE BEARING.**

(1) **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.

(2) **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.

(3) **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.

b. **MANEUVERING REQUIREMENTS.**

(1) **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.

(2) **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 mile of a single ship unit.

c. TACTICAL REQUIREMENTS

(1) WHEN A UNIT CONSISTING OF MORE THAN ONE SHIP TAKES STATION, including one stationed by the circular method, the unit commander is to place his unit in a formation appropriate to the tactical situation, with the unit guide occupying the indicated station.

(2) WHEN THE OTC SIGNALS A SPECIFIC DUTY, such as “aircraft warning picket,” to amplify the stationing signal, the performance of the assigned specific duty takes precedence over accurate station keeping.

d. EXCHANGING AND CHANGING STATION. When two ships in a formation are ordered to exchange stations, the rules given under STATION J will apply. When a change in the formation is ordered that requires only one ship to move to a new station, she is to proceed to her new station by the shortest route which will not interfere with other ships. When a change in formation is ordered that requires two or more ships to move to a new station, they are to comply with the rules for exchanging station.

**501 ACTION SIGNALS**

STATION. . . . TAKE proper or 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 from the Guide or unit indicated at standard distance (or at a distance of \_\_\_\_ miles).

STATION (000 to 359) . . . TAKE station on TRUE bearing indicated from the Guide or unit indicated at standard distance (or at a distance of \_\_\_\_ miles).

*Example: STATION 045—Cp1p0—5 . . . Take station on true bearing 045° from Cruiser 10 at distance 5 miles.*

STATION (4, 5, or 6 numerals) . . . . TAKE station on CIRCLE indicated by first numeral(s) on the bearing, clockwise from formation axis, indicated by last three numerals.

- STATION (1 or 2 numerals) or (DESIG letter(s) and/or numeral(s). . . . . Take station indicated.  
*When ordered, ships while proceeding to station will hoist station letter(s) and/or numeral(s) following DESIG.*
- STATION A . . . AHEAD. Take station from the Guide or unit indicated ahead at standard distance (or at a distance of \_\_\_\_ miles).
- STATION B . . . ASTERN. Take station from the Guide or unit indicated astern at standard distance (or at a distance of \_\_\_\_ miles).
- STATION C . . . VAN. Take station in the van (at distance approximately \_\_\_\_ miles).
- STATION D . . . REAR. Take station in the rear (at distance approximately \_\_\_\_ miles).
- STATION E . . . RESUME station.
- STATION F . . . SEQUENCE. \_\_\_\_ .  
1. Assume sequence number \_\_\_\_ .  
2. Assume sequence number \_\_\_\_ and take station accordingly.
- STATION G . . . SHIP indicated is to TAKE station \_\_\_\_ and when in station is to become GUIDE.
- STATION H . . . SHIP indicated is to take GOALKEEPING station on \_\_\_\_ unit indicated. (Control ship is \_\_\_\_ .)  
*The goalkeeper ship shall normally be control ship and have responsibility for maneuvering the protected unit. In exceptional circumstances a unit other than the goalkeeper may be the control ship; if so "Control ship is \_\_\_\_ " shall be added to the signal.*
- STATION I . . . ADJUST station \_\_\_\_ .  
1. To admit ship or unit indicated  
2. To close gap in the screen  
3. To facilitate signaling with this unit or unit indicated

STATION J. . . EXCHANGE. Ships indicated exchange stations.

**RULES FOR EXCHANGING STATION**

1. **BOTH SHIPS IN SAME COLUMN.** 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.** When in line abreast, the ship to port, or when in line of bearing, 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, 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.
6. **LARGE AND SMALL SHIPS.** Exchanging station between ships of different size (large/small) should be avoided if possible because of the difference in future and previous distances between these and other units. If required to exchange station between ships of different sizes, the OTC must first order a distance of 1,000 yards for all units. Once this distance has been achieved, the maneuver can take place. On completion the OTC orders ships to resume standard distance or previously ordered distance.

STATION K . . . MAIN BODY stationing is to be by SECTOR METHOD. Ships indicated take station in sectors indicated.

STATION L. . . TAKE \_\_\_\_ station on ship assigned or indicated for REPLENISHMENT or TRANSFER. PORT or STBD may follow.

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

STATION M . . .



STATION N . . OPEN. MCM ships are to open from the Guide (or \_\_\_\_ ) and take up station.  
 1. Subdivision guides

STATION O . . MAINTAIN minesweeping station ASTERN of the float of the next ahead (at range \_\_\_\_ ).

STATION P . . SHIPS MAINTAIN STATION within \_\_\_\_ tens of degrees of ordered bearing and within \_\_\_\_ hundred yards of ordered distance from the Guide.

STATION Q . .

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

STATION S . . STATION ASSIGNMENTS. In formation/disposition 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: STATION S 40—S1— c/s 4AH—A— c/s 2PT—B— C/s 3ZH ... In formation 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 T . . PICKET STATION. Take ( \_\_\_\_ ) picket station on bearing \_\_\_\_ from screen center or unit indicated distance \_\_\_\_ miles.  
 1. AAW  
 2. ASW  
 3. SW

STATION U . . REMAIN in your present station.

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

STATION W . . TAKE LOOSE STATION on carrier (or unit indicated) on Circle 4 (or circle indicated) on approximate bearing \_\_\_\_ , for air defense.  
*Ship should conform loosely to the carrier's movements, adjusting her bearing as necessary to avoid excessive use of high speed, and with full freedom of maneuver to provide the best missile defense in the event of an air attack.*

STATION X . . . PURPOSE. Take station(s) for purpose indicated. When multiple station assignments are used to amplify the meaning of any of the following suffixes, the station assignments must be listed in the same sequence as the call signs of the ships addressed. Sectors may be indicated if desired.

*Example: Dp5—Dp8 STATION X 13—1—2Rp2 ... Destroyer 5 take rescue destroyer station 1 and destroyer 8 take rescue destroyer station 2 on carrier whose call sign is R2.*

- |   |  |
|---|--|
| 1. Antiair warfare protection   | 11. Picket (station number ____ )  |
| 2. Anchoring in formation in accordance with berthing plan. Ships are to take station on the guide. | 12. Previous instructions  |
| 3. Nuclear attack defense   | 13. Rescue destroyer (station number ____ ) (unit on which to take station may be indicated) |
| 4. Attack   | 14. Screening this or unit indicated   |
| 5. Communication linking ship   | 15. Small boat defense   |
| 6. Electronic countermeasures   | 16. Smokelaying  |
| 7. Exercise   | 17. Submarine defense  |
| 8. Gain information of the enemy  | 18. Support of this or unit indicated  |
| 9. Guided missile defense   | 19. Torpedo firing   |
| 10. Lifeguard   | 20. Duty ____ (from Table D).  |

STATION Y . . . AREA. Outer limit of area (indicated by letter following suffix) in \_\_\_\_ group of approach disposition is to be \_\_\_\_ thousand yards.

1. Right flank
2. Left flank
3. Center

*Example: STATION Y2C—20 . . . Outer limit of area C in left flank group is to be 20,000 yards.*

STATION Z . . . AREA. Take station in approach disposition area (indicated by letter following suffix) in \_\_\_\_ group. Disposition is to be \_\_\_\_ thousand yards.

1. Right flank
2. Left Flank
3. Center

*Example: STATION Z1E8 . . . Take station in approach disposition area E in right flank group. Disposition is to be 8,000 yards.*

**502 INFORMATION SIGNALS**

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

B STATION . . . UNABLE TO KEEP 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

C STATION . . .

D STATION . . .

E STATION . . .

F STATION. . .

G STATION . . .

H STATION . . .

I STATION . . . SEQUENCE of units from left to right is (or is to be) \_\_\_\_\_ .

J STATION. . . SEQUENCE of units clockwise from station 1 is (or is to be) \_\_\_\_\_ .

K STATION . . .

L STATION. . .

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

N STATION . . .

O STATION . . .

P STATION . . .

Q STATION . . .

R STATION . . .

S STATION . . .

T STATION. . . UNASSIGNED station number(s) are \_\_\_\_ .

U STATION . . . RADIUS of station \_\_\_\_ is to be \_\_\_\_ miles.

V STATION . . . MAIN BODY is stationed by SECTOR METHOD.

W STATION . . .

X STATION . . .

Y STATION . . .

Z STATION. . .

**TURN**

**TURN**

CHAPTER 6

TURN

600	General Instructions
601	Turn of Specified Amount
602	Stopping Turn Short of Signaled Amount
603	Turn of Unspecified Amount
604	Miscellaneous Turn Signals
605	Evasive Steering
606	Information Signals

**600 GENERAL INSTRUCTIONS**

a. REDUCED TACTICAL DIAMETER. Reduced tactical diameter will be used for turns of unspecified amount and for emergency turns. (The emergency turn signal is to be acted upon as soon as it is understood.)

b. RESTRICTIONS

1. At night or in low visibility (except in emergencies), formation turns in excess of 90° should normally be executed in two or more increments by the delayed executive method.
2. Normally it is inadvisable to exceed 90° when ships having dissimilar turning characteristics are involved.

**601 TURN OF SPECIFIED AMOUNT**

The direction of the turn must always be indicated. The side to which the turn is to be made is indicated with the use of the PORT flag or STBD pennant immediately after TURN. The amount of the turn is indicated in one of two ways:

1. By three numerals, giving the *true* course to which the ships are to turn.
2. By one or two numerals, giving in tens of degrees the turn *relative* to the present course. The ANSWER pennant may be used to indicate a turn to within 5°.

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 numerals.

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.

*Example: TURN PORT 3 ANS . . . Ships are to turn together to port 35°.  
TURN STBD 125 . . . Ships are to turn together to starboard to course 125°.*

**602 STOPPING TURN SHORT OF SIGNALLED AMOUNT**

**By Flags**

CORPEN (Singly) . . . . . STOP the turn and STEADY on a course which is 20 degrees beyond the direction in which the ship is heading at the moment the signal is understood. (The OTC should then confirm the course to steer by signal CORPEN A.)

**By Radio or Flashing Light**

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

**603 TURN OF UNSPECIFIED AMOUNT**

The PORT flag or STBD pennant, following the TURN pennant, orders ships addressed to turn together an unspecified amount in the direction indicated, using a reduced tactical diameter. If the direction of the turn has not been decided, TURN STBD and TURN PORT may be hoisted simultaneously on adjacent hal-yards. When the direction has been decided, the signal no longer required should be negated. The OTC may direct, as standard practice in his force, that the TURN pennant is to be omitted.



**By Flags**

**TURN STBD**

- Hoisted close up . . . . . STAND BY TO TURN TOGETHER to starboard using reduced tactical diameter.
- Dipped . . . . . TURN TOGETHER to starboard.
- Rehoisted close up . . . . . STAND BY to stop turning.
- Hauled down. . . . . STOP the turn. Steady on course 20 degrees beyond that on which the ship is heading when the signal is hauled down. (The OTC should then confirm the course on which to steady by signal CORPEN A.)

**TURN PORT**

- Hoisted close up . . . . . STAND BY TO TURN TOGETHER to port using reduced tactical diameter.
- Dipped . . . . . TURN TOGETHER to port.
- Rehoisted close up . . . . . STAND BY to stop turning.
- Hauled down. . . . . STOP the turn. Steady on course 20 degrees beyond that on which the ship is heading when the signal is hauled down. (The OTC should then confirm the course on which to steady by signal CORPEN A.)

**By Radio or Flashing Light**

- TURN STBD . . . . . STAND BY TO TURN TOGETHER to starboard using reduced tactical diameter.  
Executive Signal . . . . . TURN TOGETHER to starboard.
- TURN PORT . . . . . STAND BY TO TURN TOGETHER to port using reduced tactical diameter.  
Executive Signal . . . . . TURN TOGETHER to port.
- CORPEN C . . . . . STOP THE TURN. Steady on course \_\_\_\_ .

**Whistle Signals**

Required whistle signals for starting and stopping turns are shown below.

STARTING A TURN	Each ship is to sound one short blast on starting a turn to starboard, two short blasts when starting a turn to port.
STOPPING A TURN	Each ship is to sound one prolonged blast when reversing her rudder to stop a turn.

**604 MISCELLANEOUS TURN SIGNALS**

TURN A . . . . FLIGHT OPERATIONS (OUT-OF-WIND) (course \_\_\_\_ ) (speed \_\_\_\_ ). Turn to course for out-of-wind operation of fixed-wing aircraft. The Guide is, at the same time as altering course, to proceed at the speed required for out-of-wind flying operations. Direction of turn may be indicated.

TURN B . . . .

TURN C . . . . ALTER COURSE TOGETHER as necessary to carry out maneuver as previously ordered.

TURN D . . . . RESUME PREVIOUS COURSE together.

TURN E . . . . RESUME BASE COURSE (or course \_\_\_\_ ) together.

TURN F . . . . FLIGHT OPERATIONS. Turn to the course for flight operations. The Guide is, at the same time as altering course, to proceed at the speed required for flying operations. Direction of turn may be indicated.

**605 EVASIVE STEERING**

TURN G . . . .

TURN H . . . . SCREEN SHIPS carry out an INDEPENDENT ZIGZAG (base course \_\_\_\_ ).

TURN I . . . .

TURN J . . . . Main body is to alter to the promulgated ASMD course (or \_\_\_\_ ) (by the quickest route unless otherwise indicated) and to deploy decoys as appropriate.

Where the course differs from the promulgated ASMD course (i.e., TURN J 020), the in force ASMD course as promulgated by the signal group A CORPEN does not automatically change.

TURN K . . . . MAIN BODY is to ALTER COURSE to \_\_\_\_ (by the quickest route unless otherwise indicated) to optimize for employment of chaff for confusion.

TURN L . . . . MAIN BODY is to ALTER COURSE \_\_\_\_ (by the quickest route unless otherwise indicated) to optimize for employment of chaff for distraction and hard kill.

TURN M . . . . MAIN BODY is to ALTER COURSE \_\_\_\_ (by the quickest route unless otherwise indicated) to optimize for employment of chaff for seduction and hard kill.

TURN N . . . .

TURN O . . . .

TURN P . . . .

TURN Q . . . .

TURN R . . . . RESUME PREVIOUS ZIGZAG. Base course is \_\_\_\_ .

TURN S . . . . CEASE ZIGZAGGING and REMAIN ON COURSE being steered when this signal is executed.

TURN T . . . .

TURN U . . . .

TURN V . . . . RESUME BASE COURSE, SIGNALLED SPEED, and ZIGZAG TOGETHER after aircraft operations. The Guide is, at the time of altering course, to proceed at the speed in force before flying operations commenced.

*If a zigzag was in force before flying operations commenced, the same zigzag is to be resumed 10 minutes after the execution of the signal.*

TURN W . . . . WEAVE. Carry out a \_\_\_\_ . (Base course is \_\_\_\_ .)

1. Narrow weave so as to remain within \_\_\_\_ hundred yards of station.
2. Broad weave so as to remain within 2,000 yards of station.

*Weaving will not be used while a short-leg zigzag is in effect, or when the screen ship's speed necessary to maintain station will exceed maximum effective sonar speed. For use in conjunction with a zigzag. See ATP 3.*

TURN X . . . . CEASE ZIGZAGGING and RESUME BASE COURSE (or course \_\_\_\_). (Resume zigzagging in \_\_\_\_ minutes.)

TURN Y . . . .

TURN Z . . . . ZIGZAG in accordance with plan number/letter \_\_\_\_ (if a lettered plan, DESIG is to be used). Base course is \_\_\_\_ . (Execution time is \_\_\_\_ .)

*On receipt of the execution signal to start zigzagging, or at the time when the zigzag is due to start or be resumed, ships are to turn together to the course shown on the diagram for that particular time.*

606 INFORMATION SIGNALS

A TURN . . . .

B TURN . . . .

C TURN . . . .

D TURN . . . .

E TURN . . . .

F TURN . . . .

G TURN . . . .

H TURN . . . .

I TURN . . . .

J TURN. . . . JOINING INFORMATION is as indicated.  
(a) Base course  
(b) Speed  
(c) Zigzag plan in force  
(d) Zero time of zigzag  
(e) Next alternation of base course is likely to be \_\_\_\_ at \_\_\_\_

K TURN . . . . ASMD course for confusion will be \_\_\_\_ .

L TURN . . . . ASMD course for distraction will be \_\_\_\_ .

M TURN . . . . ASMD course for seduction will be \_\_\_\_ .

N TURN . . . . .

O TURN . . . . .

P TURN . . . . .

Q TURN . . . . .

R TURN . . . . .

S TURN . . . . .

T TURN . . . . .

U TURN . . . . .

V TURN . . . . .

W TURN . . . . .

X TURN [PORT or STBD] . . . . . MY RUDDER is left/right as indicated.

Y TURN . . . . CONVOY is carrying out convoy zigzag plan \_\_\_\_ . Zero time is \_\_\_\_ ZULU.  
(Base course is \_\_\_\_ .)

Z TURN . . . . FORCE is carrying out zigzag plan \_\_\_\_ . Zero time is \_\_\_\_ . (Base course is  
\_\_\_\_ .)

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**CORPEN**

**CORPEN**



CHAPTER 7

CORPEN

700	Instructions
701	Ordering a Wheel
702	Action Signals
703	Information Signals

**700 INSTRUCTIONS**

See Chapter 1.

a. SINGLE LINE FORMATIONS

(1) WHEELING IN SINGLE COLUMN. The leading ship is to alter to the new course and become the Guide. Remaining ships are to follow round in her wake. When the leading ship of a column is the Guide and alters course without signaling the alteration to her column, the remaining ships of the column are to follow in the wake of the leading ship, unless the leading ship has signaled breakdown, man overboard, or to disregard her movements. When the leading ship is not the Guide and alters course without signaling, all other ships in formation should disregard this movement and remain in formation. In such cases, caution should always be exercised as prescribed by Rule 2b of the International Regulations for Preventing Collisions at Sea.

(2) IN COLUMN OPEN ORDER. Upon execution of the signal ordering the wheel, ships are first to form column at once, without further signal, then carry out the wheel in accordance with paragraph (1). They are automatically to resume column open order after all ships have completed the wheel.

(3) IN LOOSE LINE OF COLUMN. Upon execution of the signal ordering the wheel, ships in the line are to turn toward the leading ship of the line and follow her wake to complete the maneuver. On completion, a loose line of column does not reform automatically unless circumstances make it necessary.

(4) **WHEELING IN SINGLE LINE ABREAST.** The pivot ship is to alter to the new course and become the Guide. Remaining ships are to: increase speed as necessary up to stationing speed to complete the maneuver expeditiously; alter course independently to regain by the most direct route their previous relative bearings and distances from the pivot ship; and adjust their course and speed to that of the pivot ship.

(5) **DIAMOND FORMATION.** If a wheel is executed when in diamond formation, the leading ship is to turn to the new course and become the Guide. Remaining ships are to adjust course and speed to regain previous relative bearings from the "Guide" expeditiously.

**b. MULTIPLE LINE FORMATIONS**

(1) **SHIPS IN COLUMN WITH LINE GUIDES BEARING ABEAM.** The leading ship of the pivot column is to turn to the new course and become the Guide. Leading ships of the remaining columns are to alter course independently to resume their previous relative bearings and distances from the Guide by the most direct route. The speed of the remaining columns is to be increased by signal from each column commander to one knot less than stationing speed. Remaining ships are to follow the leading ship of their column. The subsequent reduction of speed of each column to that of the pivot column is to be ordered by signal by each column commander.

(2) **SHIPS IN LINE ABREAST WITH LINE GUIDES BEARING ASTERN.** The Guide changes to the pivot ship on execution of the signal. The leading line is to alter course as described in paragraph a(4). Each succeeding line is to alter course in a similar manner, in the same water as that in which the leading line wheeled. At the appropriate moment each line commander will order his line to wheel.

(3) **ADJUSTING SPEED OF PIVOT.** At the same time that the OTC orders the wheel, he may reduce the speed of the pivot ship or pivot column, to expedite the completion of the maneuver. This reduction is effected by ordering a new signaled speed, which remains in force until otherwise ordered. If the speed is reduced when in column with line guides bearing abeam, all ships of the pivot column are to proceed at the new signaled speed at the same time as the Guide. In line abreast with line guides bearing astern, all lines except the leading line are to proceed at the new signaled speed at the same time as the Guide.

**701 ORDERING A WHEEL**

The direction of the wheel must always be indicated. The side to which the wheel is to be made is indicated with the use of the PORT flag or STBD pennant immediately after CORPEN. The amount of the wheel is indicated in one of two ways:

1. By three numerals, giving the *true* course to which the wheel is to be made.
2. By one or two numerals, giving the number of tens of degrees ships are to wheel *relative* to the present course. The ANSWER pennant can be used to indicate a wheel to within 5°.

a. RESTRICTIONS. Wheels are not to be carried out when ships are in a circular formation or formed on a line of bearing, or when the line guides are neither astern nor abeam of one another, except that each line may be ordered to wheel simultaneously. A wheel is limited for certain formations:

1. WHEN SHIPS ARE IN SINGLE COLUMN, the wheel is not to exceed 180°.
2. WHEN SHIPS ARE IN SINGLE LINE ABREAST OR IN MULTIPLE LINE FORMATION, the wheel is not to exceed 90° and is to be limited so that units do not become unduly close during the maneuver.
3. WHEN SHIPS ARE IN DIAMOND FORMATION, the wheel is not to exceed 30°.

b. CAUTION. A ship turning outside the wake should not swing beyond the new course, but should remain steadied parallel to the line on the new course. She should then wait until the ship next astern has completed the wheel, before gradually regaining station. A ship turning inside the wake may ease her rudder as soon as the mistake becomes apparent, but it must be realized that a reduction in speed will probably be necessary to avoid coming dangerously close to the ship next ahead.

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

*Example: CORPEN PORT 9 . . . Alter course by wheeling to port 90°.*

*CORPEN STBD 130 . . . Alter course by wheeling to starboard to course 130°.*

**702 ACTION SIGNALS**

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

CORPEN. . . . STOP the turn and STEADY on a course which is 20 degrees beyond the direction in which the ship is heading at the moment the signal is understood. (The OTC should then confirm the course on which to steady by signal CORPEN A.)

When a simple turn-together or wheel does not meet the requirements of the OTC, a special method is signaled by the CORPEN pennant followed by an alphabetical flag and three numerals as set out below. When carrying out the meaning of these signals, course is to be altered the shortest way. If it is necessary to specify the direction of the alteration, the STBD pennant or PORT flag is to follow the three numerals.

CORPEN A. . . STEER COURSE \_\_\_\_ .

CORPEN B. . . BASE COURSE. Adjust base course to \_\_\_\_ .  
*Not to be used with adjustments over 10°. Change of course is absorbed and relative stations regained without stopping evasive steering.*

CORPEN C . . . STOP THE TURN. Steady on course \_\_\_\_ .

CORPEN D . . . WHEEL SIMULTANEOUSLY. Each line (or unit indicated) wheel simultaneously to course \_\_\_\_ .  
*Each line or unit designated is to wheel simultaneously to the new course. On completion of the maneuver, ships in each line will be in their former relative positions, and line guides will have maintained their true bearings and intervals from the Guide. If line guides are at less than maneuvering interval apart, wheels in this manner are to be limited so that lines do not become unduly close during the maneuver. The restrictions on wheeling (Article 701a) apply to each line separately.*

CORPEN E. . . STEER SAFETY COURSE ( \_\_\_\_ ).

CORPEN F. . . ALTER COURSE to \_\_\_\_ (at \_\_\_\_ ). Units are to maintain true bearings and distances from the Guide (or \_\_\_\_ ).  
*At the time ordered, single ship units are to turn individually to the new course. Remaining units are to turn to the new course as directed by their unit commanders, who have discretion as to the method of altering the course of their units and their resulting formation.*

When ships in circular formation are to alter course with units maintaining relative bearings, the course is altered to the new course and the formation axis rotated the same number of degrees in the same direction. Altering course and rotating the axis may be done successively or simultaneously. If done successively, course may be altered by a turn-together or by CORPEN F; the axis should then be rotated to conform with the maximum of 60° in one step. If done simultaneously, course may be altered with the rotation of the formation axis the same number of degrees in the same direction by CORPEN G, or to the same true direction by CORPEN H.

CORPEN G . . . ALTER COURSE to \_\_\_\_ (at \_\_\_\_ ) and ROTATE the formation axis the SAME NUMBER OF DEGREES and in the same direction as the alteration of course.

*Note: See instructions under CORPEN H.*

CORPEN H . . . ALTER COURSE to \_\_\_\_ (at \_\_\_\_ ) and ROTATE the formation axis to the SAME TRUE DIRECTION.

*The Guide is to turn to the new course. Single ship units are to alter course and speed individually; remaining units are to proceed by order of their unit commanders. All units regain:*

- 1. Their previous relative bearings and distances from the Guide on the new course, if the axis is rotated the same number of degrees in the same direction (CORPEN G).*
- 2. Their stations relative to the new formation axis on the new course, if the axis is rotated to the same true direction (CORPEN H).*

*Alteration of course and axis simultaneously is not to exceed 60° in one step. Simultaneous alteration of course and formation axis should not be carried out at night or in low visibility.*

CORPEN I . . .

CORPEN J . . . ALTER COURSE to \_\_\_\_ (at \_\_\_\_ ). Units are to maintain relative bearings and distances from the Guide.

*At the time ordered, the Guide is to turn to the new course; remaining units are to regain their relative bearings and distances from the Guide. Single ship units are to proceed independently; remaining units by order of their unit commanders. This method may be used when ships are not in a circular formation.*

CORPEN K. . . ALTER COURSE. The Guide is to alter course to \_\_\_\_ (at \_\_\_\_ ) (on arrival in position \_\_\_\_ ). Remaining units are to conform.

*Units with stations on the Guide's line of advance, either ahead or astern, are to alter course on passing through the position where the Guide alters course. Units not on the Guide's line of advance, on arrival abeam of the point where the Guide alters course, are to proceed to their stations relative to the new course. Single ship units are to proceed independently, remaining units by order of their unit commanders. This method is not to be used when in a circular formation. If evasive steering is being carried out, the OTC should order the formation to stop evasive steering and resume the base course before the most advanced unit is due to alter course.*

CORPEN L [PORT or STBD]. . . . . ALTER COURSE in the direction indicated to \_\_\_\_ in accordance with Standard Track Turn Method number \_\_\_\_ (from ATP 24 preceded by DESIG).

CORPEN M . . COURSE AND SPEED through the WATER (CSW). Make course \_\_\_\_ (and speed \_\_\_\_ ) good through the water.

CORPEN N . . REPLENISHMENT UNITS alter course when ordered by their control ship(s) to \_\_\_\_ degrees PORT/STBD as indicated in \_\_\_\_ steps. Use ANSWER for 5° steps, ONE for 10° steps, ONE ANSWER for 15° steps, or TWO for 20° steps.

*Ships not in replenishment units are to preserve true bearings and distances from the formation guide. Ships in replenishment units alter course as directed by their control ship(s) so as to preserve relative bearings and distances from their replenishment unit guide. Replenishment unit guide will not change during the course alteration(s).*

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

**Procedure**

WHEN ORDERED OR REQUIRED TO ALTER COURSE, THE CONTROL SHIP EXECUTES THE ALTERATION USING THE FOLLOWING PROCEDURE.

1. The control ship orders a CORPEN N to the replenishment unit, as described above.
2. On receipt of the signal CORPEN N, ships replenishing alongside and/or astern report BF to the control ship when ready to commence the alteration. (BF is also required from the replenishment unit guide if he is not the control ship.) When the ships replenishing have reported READY, the control ship will alter the course of its replenishment unit by using Method A, B, or C, as in the example following.
3. Ships in waiting/lifeguard station will not report BF but will follow in order to preserve relative bearings and distances from the replenishment unit guide.
4. As applicable, on reaching the new course the control ship reports completion of alteration to the OTC.

EXAMPLES FOR SIGNAL CORPEN N

<b>Method ALFA (Bridge-Bridge Telephone) or Method BRAVO (Voice Radio)</b>		
<b>Control Ship(s)</b>	<b>Ships Replenishing</b>	<b>Replenishment Unit Guide(s)</b>
Immediate Execute CORPEN STBD/PORT ANS/1/1 ANS/2, I Say Again . . . Standby, Execute, Over	Roger, Out	Roger, Out Sound appropriate turning blast(s)
	BF	BF (When not control ship)
Immediate Execute CORPEN STBD/PORT ANS/1/1 ANS/2 I Say Again . . . Standby, Execute, Over	Roger, Out	Roger, Out Sound appropriate turning blast(s)
	BF	BF (When not control ship)
<b>Method CHARLIE (V/S — Flags by Day)</b>		
CORPEN STBD/PORT ANS/1/1 ANS/2 Close Up	ANS Close Up (when ready)	ANS Close up (when ready)
CORPEN STBD/PORT ANS/1/1 ANS/2 Dipped (Execu- tive Signal)	ANS Dipped	ANS Dipped Sound appropriate turning blast(s)
CORPEN STBD/PORT ANS/1/1 ANS/2 Close Up	ANS Close Up (when ready)	ANS Close Up (when ready)
CORPEN STBD/PORT ANS/1/1 ANS/2 Hauled Down (Executive Signal for Final Al- teration)	ANS Hauled Down	ANS Hauled Down Sound appropriate turning blast(s)
<b>Method CHARLIE (V/S — Light by Night)</b>		
$\overline{IX} \overline{BT}$ CORPEN STBD/PORT ANS/1/1 ANS/2 $\overline{IMI} \dots$ $\overline{BT} \overline{IX} \overline{IX} \text{ ___ } 5 \text{ second dash}$	$\overline{IX} \overline{IX} \text{ ___ } 5 \text{ second dash}$	$\overline{IX} \overline{IX} \text{ ___ } 5 \text{ second dash}$ Sound appropriate turning blast(s)
	BF	BF
$\overline{IX} \overline{BT}$ CORPEN STBD/PORT ANS/1/1 ANS/2 $\overline{IMI} \dots$ $\overline{BT} \overline{IX} \overline{IX} \text{ ___ } 5 \text{ second dash}$	$\overline{IX} \overline{IX} \text{ ___ } 5 \text{ second dash}$	$\overline{IX} \overline{IX} \text{ ___ } 5 \text{ second dash}$ Sound appropriate turning blast(s)
	BF	BF

CORPEN O . . DELAY EXECUTION OF WHEEL ordered by higher authority and execute on my executive signal.

CORPEN P . . GUIDE steer course \_\_\_\_ .

CORPEN Q . . DISPOSITION COURSE. Disposition is to steer course \_\_\_\_ .

CORPEN R . .

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 OTC 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 T . .

CORPEN U . . MAINTAIN PRESENT COURSE (or course \_\_\_\_ ) (until \_\_\_\_).

CORPEN V . . ALTER COURSE by wheeling to \_\_\_\_ (at \_\_\_\_ ) without further signal and resume zigzag. The base course is automatically changed to the new course. Screen units stationed by the skeleton screen method maintain their relative bearings and distances from the main body or convoy.

*The main body is to wheel to the course ordered at the time ordered. If zigzagging, all ships are to turn together to the original base course 5 minutes before the time of alteration, and the same zigzag is to be resumed 10 minutes after the time of execution of the signal.*

CORPEN W . .

CORPEN X . . ALTER course to \_\_\_\_ (at \_\_\_\_). Screen units stationed by the sector method continue to patrol their sectors. Screen units stationed by the skeleton screen method maintain their relative bearings and distances from the main body or convoy.

CORPEN Y . .

CORPEN Z . .



**703 INFORMATION SIGNALS**

A CORPEN. . . Force ASMD COURSE is \_\_\_\_ .

B CORPEN. . . BASE COURSE is \_\_\_\_ .

C CORPEN . . .

D CORPEN . . . AIRCRAFT. Estimated course for out-of-wind operation of fixed-wing aircraft is \_\_\_\_ (speed \_\_\_\_ ).

E CORPEN. . . SAFETY COURSE is \_\_\_\_ .

F CORPEN. . . AIRCRAFT. Estimated flight operations course for impending aircraft operation is \_\_\_\_ (speed \_\_\_\_ ).

G CORPEN . . . GUIDE'S COURSE is \_\_\_\_ (or is altering to \_\_\_\_ ) (Guide's speed is \_\_\_\_ ).

H CORPEN . . . INTEND ALTERING COURSE to \_\_\_\_ (at \_\_\_\_ ).

I CORPEN . . .

J CORPEN . . . BASE COURSE will be \_\_\_\_ (when the Guide passes the point indicated).

K CORPEN. . . COURSE is \_\_\_\_ .

L CORPEN. . . TRACK COURSE is \_\_\_\_ .

M CORPEN . . . MY (or unit indicated) COURSE is \_\_\_\_ (my speed is \_\_\_\_ ).

N CORPEN . . .

O CORPEN . . .

P CORPEN. . . I AM ADJUSTING MY COURSE to \_\_\_\_ (speed to \_\_\_\_ ).

Q CORPEN . . .

R CORPEN . . . REPLENISHMENT COURSE is \_\_\_\_ (speed is \_\_\_\_ ).

S CORPEN. . .

T CORPEN. . . THROW OFF COURSE is \_\_\_\_ .

U CORPEN . . .

V CORPEN. . .

W CORPEN . . . MANEUVER ordered to be carried out at \_\_\_\_ is to be executed at that time without further signaling. Unit commanders are to issue necessary instructions in advance.

X CORPEN [PORT or STBD]. . . . . I AM ABOUT TO ALTER COURSE to PORT or STBD as indicated ( \_\_\_\_ tens of degrees) (or to course \_\_\_\_ ).

*Note: If course change does not occur, signal must be negated.*

Y CORPEN. . .

Z CORPEN. . . CONVOY COURSE is \_\_\_\_ (speed \_\_\_\_ ).

**SPEED**

**SPEED**

CHAPTER 8

SPEED

800	Action Signals
801	Information Signals
802	Speed Flag Indicators

800 ACTION SIGNALS

INT SPEED . . . WHAT is your speed?

SPEED . . . . . GUIDE PROCEED at speed \_\_\_\_ ; other ships proceed as necessary to maintain station.

SPEED 0 . . . . . GUIDE is to STOP engines; other ships proceed as necessary to maintain station.

SPEED A . . . . . STOP ship by REVERSING engines.

SPEED B . . . . . PROCEED at BEST SPEED. Units addressed proceed at the highest suitable speed in the current circumstances or conditions. (Speed is at the discretion of the commanding officer of addressed unit.)

SPEED C . . . . . CAVITATION speed. Proceed at \_\_\_\_ cavitation speed.  
 1. Above  
 2. Below

SPEED D . . . . . DECREASE speed by \_\_\_\_ knots.

SPEED E . . . . . ZIGZAG speed. Carry out speed changes between \_\_\_\_ and \_\_\_\_ .  
*Two numeral groups separated by TACK indicate:*  
*First group . . . Low speed*  
*Second group . . . High speed*

SPEED F . . . . . SPEED CHANGES. Carry out frequent speed changes between \_\_\_\_ knots and optimum sonar speed.

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

SPEED H. . . . PROCEED at speed \_\_\_\_ .

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

SPEED J. . . . .

SPEED K. . . . FLAGS. Show speed flags.

SPEED L. . . . REPLENISHMENT UNITS alter speed when ordered by control ships to \_\_\_\_ knots in \_\_\_\_ steps. Use ANSWER for 0.5-knot steps or ONE for 1-knot steps, etc.

*Ships not in replenishment units are to alter speed similarly, preserving true bearings and distances from the formation guide. Ships in replenishment unit(s) preserve relative bearings and distances from unit guide.*

**Procedure**

When ordered or required to alter speed, the control ship executes the alteration using the following procedure:

1. The control ship orders a speed L to the replenishment unit, as described above.
2. On receipt of the signal speed L, ships replenishing alongside and/or astern report BF to the control ship when ready to commence the alteration. (BF is also required from the replenishment unit guide if he is not the control ship.) When the ships replenishing have reported ready, the control ship will alter speed of its replenishment unit by using method A, B, or C, as in the example following.
3. Ships in waiting/lifeguard station will not report BF but will follow in order to preserve relative bearings and distances from the replenishment unit guide.
4. As applicable, on reaching the new speed the control ship reports completion of the alteration to the OTC.

EXAMPLE FOR THE EXECUTIVE SIGNAL SPEED L		
Method Alfa (Telephone/Loudhailer) or Method Bravo (Voice/Radio)		
Control Ship	Ships Replenishing	Guide of Replenishment Unit
Immediate Execute Speed 15, I say again . . . Speed 15, Stand by . . . Execute, Over	Roger out	Roger out
	BF	BF (When not control ship)
Immediate Execute Speed 16, I say again . . . Speed 16, Stand by . . . Execute, Over	Roger out	Roger out
	BF	BF (When not control ship)
Method Charlie (V/S — Flags by Day)		
Speed INDIA/DELTA ANS/1 Close up	ANS Close up (When ready)	ANS Close up (When ready)
Speed INDIA/DELTA ANS/1 Dipped (Executive signal)	ANS Dipped	ANS Dipped (Increase or decrease speed 1/2 or 1 knot)
Speed INDIA/DELTA ANS/1 Close up	ANS Close up (When ready)	ANS Close up (When ready)
Speed INDIA/DELTA ANS/1 Hauled down (Executive signal for final speed alteration)	ANS Hauled down	ANS Hauled down (Final increase or decrease of speed 1/2 or 1 knot)
Method Charlie (V/S — Light by Night)		
IX BT SPEED 15 IMI SPEED 15, IXIX followed by 5 seconds dash	IXIX followed by 5 seconds dash	IXIX followed by 5 seconds dash
	BF	BF
IX BT SPEED 16 IMI SPEED 16, IXIX followed by 5 seconds dash	IXIX followed by 5 seconds dash	IXIX followed by 5 seconds dash
	BF	BF

- SPEED M . . . MAXIMUM speed. Proceed at maximum speed (or \_\_\_\_ ).
  - 1. With present engineering configuration.
- SPEED N. . . . NORMAL speed. Proceed at normal speed (or \_\_\_\_ ).
  - 1. One-third normal speed
  - 2. Two-thirds normal speed
- SPEED O . . . ECONOMICAL speed. Proceed at economical speed for your unit.
- SPEED P. . . . SONAR speed. Proceed at \_\_\_\_ sonar speed.
  - 1. Maximum
  - 2. Optimum
- SPEED Q . . . DISPOSITION speed. Disposition is to proceed at speed \_\_\_\_ .
- SPEED R. . . . REDUCE speed \_\_\_\_ (to \_\_\_\_ knots).
  - 1. To avoid damage
  - 2. To stream/recover astern fueling rig
- SPEED S. . . . STOP ENGINES.
- SPEED T. . . . MASKING. Use turn count masking or differentiate propeller revolutions.
- SPEED U. . . . SAFE speed. Follow at safe speed.
- SPEED V. . . . STEERAGEWAY speed. Proceed at steerageway speed.
- SPEED W . . . STATIONING speed. Proceed at stationing speed.
- SPEED X. . . . OPERATIONAL speed. Proceed at operational speed.
- SPEED Y. . . . STREAMING speed. Proceed at streaming speed and stream sweep required (or equipment taken from Table Y).
- SPEED Z. . . .



**801 INFORMATION SIGNALS**

A SPEED. . . . SCREEN speed is \_\_\_\_ .

*Two numeral groups separated by TACK indicate:  
First group . . . Lower limits of speeds to be used  
Second group . . . Upper limits of speeds to be used*

B SPEED. . . . BASE speed is \_\_\_\_ .

C SPEED. . . . MAXIMUM speed (or \_\_\_\_ ) which can be maintained by this unit or unit indicated is \_\_\_\_ .

1. Without cavitation

D SPEED. . . . CHANGING speed. I am \_\_\_\_ speed (to \_\_\_\_ knots).

1. Decreasing
2. Increasing

E SPEED. . . . ENEMY speed is \_\_\_\_ .

*Two numeral groups separated by TACK indicate limits between which enemy is expected to proceed.*

F SPEED. . . . LAUNCHING or RECOVERY 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

I SPEED . . . . OPERATIONAL speed will be required at \_\_\_\_ .

J SPEED . . . . FUEL at present speed (or \_\_\_\_ ) will last \_\_\_\_ hours.

K SPEED. . . . ZIGZAG speed is \_\_\_\_ .

*Two numeral groups separated by TACK indicate:  
First group . . . Low speed  
Second group . . . High speed*

L SPEED. . . . LOGSPEED. My (or unit indicated) LOGSPEED is \_\_\_\_ .

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

N SPEED. . . . NORMAL speed is \_\_\_\_ .

O SPEED . . . SEARCH speed is \_\_\_\_ .

*Two numeral groups separated by TACK indicate:*

*First group . . . Speed down the convoy*

*Second group . . . Speed up the convoy*

P SPEED. . . . SONAR 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)

Q SPEED . . . SAFE MCM speed. Safe minimum (or \_\_\_\_ ) speed over the ground is \_\_\_\_ .

1. Maximum

R SPEED. . . . REPLENISHMENT speed is \_\_\_\_ .

S SPEED. . . . STATIONING speed is \_\_\_\_ .

T SPEED. . . . MAXIMUM speed of \_\_\_\_ can be maintained on present course (or on course \_\_\_\_ ) without risk of damage.

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

V SPEED. . . . MAXIMUM (or \_\_\_\_ ) speed of this or indicated ship is \_\_\_\_ .

1. Economical

W SPEED . . . . Speed which can be maintained with present engineering configuration is \_\_\_\_ .

1. Maximum
2. Minimum

X SPEED. . . . OPERATIONAL speed is \_\_\_\_ .

Y SPEED. . . . STREAMING (or \_\_\_\_ ) speed is \_\_\_\_ .

1. Recovering
2. Sweeping
3. Turning

Z SPEED. . . . CONVOY speed is \_\_\_\_ .

802 SPEED FLAG INDICATORS

Flag	Indication	Normally Displayed	Meaning
0	SHIP SPEED IN KNOTS	AT DIP, on signal hal-yard	Ship is stopped.
01, 02, etc., to 09			Ship is proceeding at 1, 2, etc., to 9 knots as indicated.
10, 11, etc.			Ship is proceeding at 10, 11, etc. knots.
<p style="text-align: center;"><b>Note</b></p> <p>Speed at which the ship is proceeding may also be indicated by small numeral flags displayed from the navigation bridge. In this case speeds from 1 to 9 knots may be indicated by single flags.</p>			

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SCREEN

SCREEN

**CHAPTER 9**

**SCREEN**

<b>900</b>	<b>Instructions</b>
<b>901</b>	<b>Action Signals</b>
<b>902</b>	<b>Information Signals</b>

**900 INSTRUCTIONS**

- a. SCREEN CENTER. The point on which screen units are stationed, normally QQ or ZZ, unless otherwise signaled.
- b. TYPES OF SCREEN.
  - 1. Sector screen.
  - 2. Skeleton screen.
  - 3. Grid departure/entry screen.
  - 4. Helicopter windline screen.
  - 5. Screen for damaged ships.
- c. HELICOPTERS IN THE SCREEN. When sectors, stations, or patrol lines are assigned to unspecified helicopters, DESIG H shall be signaled in place of the call sign.

**901 ACTION SIGNALS**

SCREEN A . . . RESUME PREVIOUS SECTOR.

SCREEN B . . .

SCREEN C . . .

SCREEN D . . . FORM \_\_\_\_\_ DEPARTURE SCREEN (at \_\_\_\_\_).

1. SECTOR. Screen center is at bearing \_\_\_\_\_ from harbor reference point indicated following DESIG, distance \_\_\_\_\_ miles.
2. GRID. Grid reference position is prominent landmark or geographic position indicated following DESIG and is in grid quadrant \_\_\_\_\_ at grid position \_\_\_\_\_. Harbor reference point indicated following DESIG is at grid position \_\_\_\_\_. Grid position is signaled by two groups of three numerals each separated by TACK.

*Examples: SCREEN D1-260 DESIG X 2-18 ANS . . . . Form sector screen at 1830. Screen center is at 260° from point X, distance 2 miles.*

*SCREEN D2 DESIG Lighthouse WHITE 200-200 DESIG X 202-215 . . . . Form grid departure screen. Grid reference position is lighthouse at WHITE 200 TACK 200. Point X is at 202 TACK 215.*

SCREEN E . . . FORM \_\_\_\_\_ ENTRY SCREEN (at \_\_\_\_\_).

1. SECTOR. Screen center is at bearing \_\_\_\_\_ from harbor reference point indicated following DESIG, distance \_\_\_\_\_ miles.
2. GRID. Grid reference position is prominent landmark or geographic position indicated following DESIG and is in grid quadrant \_\_\_\_\_ at grid position \_\_\_\_\_. Harbor reference point indicated following DESIG is at grid position \_\_\_\_\_. Grid position is signaled by two groups of three numerals each separated by TACK.

SCREEN F . . .



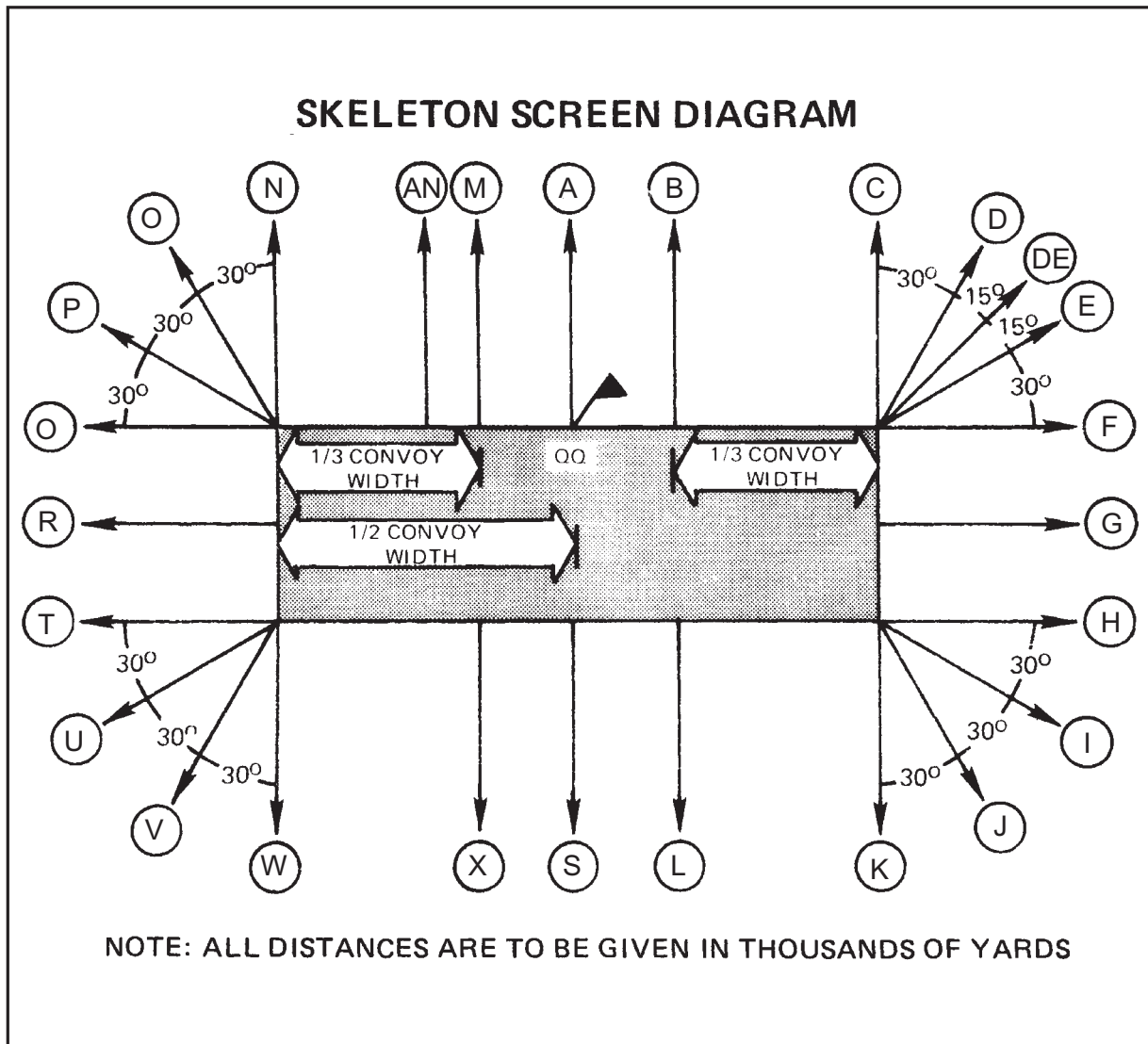
SCREEN G. . . FORM SKELETON SCREEN using skeleton screen diagram. Ship or helicopter indicated take station or patrol line indicated.

STATIONS — A station is assigned by signaling one or two letters from the diagram, followed by a numeral to indicate the nearest distance from the convoy in thousands of yards. The use of two letters to allocate a station indicates a middle line between two single letters from the diagram.

PATROL LINES A patrol line is assigned by signaling two stations from the diagram as above.

*Examples: SCREEN G-DE7 ANS c/s 6PG . . . Form skeleton screen using skeleton screen diagram. Ship whose call sign is 6PG take station 45° on starboard bow of convoy at 7,500 yards.*

*SCREEN G-D4E4 c/s 4RT . . . Form skeleton screen using skeleton screen diagram. Helicopter whose call sign is 4RT patrol line between 30° and 60° on starboard bow of convoy at 4,000 yards.*



SCREEN H . . . FORM \_\_\_\_ SCREEN (screen center \_\_\_\_ ) (base course \_\_\_\_ ) (base speed \_\_\_\_ ).

1. Sector
2. Skeleton
3. Helicopter windline
4. Integrated

SCREEN I . . . SCREEN THIS UNIT or unit indicated (against \_\_\_\_ attack). Type of attacking unit may be indicated from Table F or V.

1. Aircraft
2. Missile
3. Submarine
4. Surface vessel
5. Torpedo

SCREEN J . . . ADJUST STATION \_\_\_\_ .

1. To admit unit indicated
2. To close the gap in the screen

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 degrees.

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 DESIG H . . . 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.*

SCREEN L . . . TAKE SCREEN STATION \_\_\_\_ while this unit or unit indicated is absent.

SCREEN M . . . TAKE STATION within your sector as indicated:

1. Center of sector
2. Bearing \_\_\_\_ range \_\_\_\_ from the Guide
3. Clockwise half of sector
4. Counterclockwise half of sector
5. Outer half of sector
6. Inner half of sector

SCREEN N . . . SCREEN AHEAD of main body or convoy or unit indicated (on MLA \_\_\_\_ ).

SCREEN O . . . TAKE SCREEN SECTOR, AREA, STATION, or PATROL LINE indicated.

*Examples: SCREEN O – 0307 – 0515 c/s 3TP . . . . Ship whose call sign is 3TP take screen sector between 030° and 070° true and between 5,000 and 15,000 yards from screen center.*

*SCREEN O DESIG BLUE – 012 – 096 – 53 c/s 3TP . . . . Ship whose call sign is 3TP take screen area with southwest corner in grid position BLUE 012 – 096, size 5 miles easting, 3 miles northing.*

*SCREEN O – A4 c/s 3TP . . . . Ship whose call sign is 3TP take station 4,000 yards ahead of the center of the front of the convoy.*

*SCREEN O – D4E4 c/s 3TP . . . . Ship whose call sign is 3TP take patrol line between 30° and 60° on starboard bow of convoy at 4,000 yards.*

SCREEN P . . . SHIFT \_\_\_\_ (List A) BOUNDARIES of sector assigned, \_\_\_\_ tens of degrees, \_\_\_\_ (List B).

*RESTRICTION: Shifting of sector boundaries is not to exceed 90 degrees in one step when both boundaries are changed.*

*List A*

*List B*

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Left</li> <li>2. Right</li> <li>3. Both</li> </ol> | <ol style="list-style-type: none"> <li>A. Clockwise</li> <li>B. Counterclockwise</li> </ol> |
|--|---|

*Examples: SCREEN P3 – 3A . . . . Shift both boundaries of sector assigned 30° clockwise.*

*SCREEN P1 – 2B . . . . Shift left boundary of sector assigned 20° counterclockwise.*

SCREEN Q . . . CHANGE \_\_\_\_ (List A) LIMITS of sector assigned \_\_\_\_ (List B) screen center \_\_\_\_ thousand yards.

*RESTRICTION: Changes in sector limits are to be at least 1,000 yards.*

*List A*

*List B*

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Inner</li> <li>2. Outer</li> <li>3. Inner and Outer</li> </ol> | <ol style="list-style-type: none"> <li>A. Away from</li> <li>B. Towards</li> </ol> |
|--|--|

*Example: SCREEN Q1 – B2 . . . . Change inner limit of sector assigned towards screen center 2,000 yards.*

SCREEN R . . . FORM PRE-ORDERED SCREEN. Form pre-ordered screen number/code-word \_\_\_\_ .

SCREEN S . . . SCREENING HELICOPTERS are to \_\_\_\_ .  
1. Proceed directly to new station  
2. Remain in present station until ordered to a new station

SCREEN T . . . PICKETS ( \_\_\_\_ ) are to be stationed on bearing \_\_\_\_ from screen center or unit indicated distance \_\_\_\_ miles. Number of pickets may be indicated by numeral following DESIG.  
1. AAW  
2. ASW  
3. SW

SCREEN U . . . CEASE PATROLLING.

SCREEN V . . . RESUME PATROLLING.

SCREEN W . . . BULGE THE SCREEN.

SCREEN X . . . REFORM THE PRESENT TYPE OF SCREEN in sector indicated.  
*Example: SCREEN X-0310-0515 . . . . Reform the present type of screen between 030° and 100° true at a distance between 5,000 and 15,000 yards from screen center.*

SCREEN Y . . .

SCREEN Z . . . PATROL YOUR STATIONS.

**902 INFORMATION SIGNALS**

A SCREEN . . .

B SCREEN . . . SCREENED SECTOR. Main body or convoy or unit indicated is screened in sector indicated (on MLA \_\_\_\_).

C SCREEN . . .

D SCREEN . . . DEPARTURE SCREEN is the screen formed.

E SCREEN . . . ENTRY SCREEN is the screen formed.

F SCREEN . . .

G SCREEN . . .

H SCREEN . . . SCREEN FORMED is \_\_\_\_ screen.

1. Sector
2. Skeleton
3. Helicopter windline
4. Integrated

I SCREEN . . . SCREENED UNIT. This unit or unit indicated is screened (against \_\_\_\_ attack). Type of attacking unit may be indicated from Table F or V.

1. Aircraft
2. Missile
3. Submarine
4. Surface vessel
5. Torpedo

J SCREEN . . . SEQUENCE OF SCREEN UNITS clockwise from MLA is as indicated.

K SCREEN . . . SECTOR SCREEN is formed. Screen center is \_\_\_\_ . Ship or helicopter indicated is in sector indicated.

L SCREEN . . . SCREEN CENTER is \_\_\_\_ .

1. ZZ
2. QQ
3. Unit indicated
4. Harbor reference point indicated following DESIG
5. Bearing \_\_\_\_ from harbor reference point indicated following DESIG, distance \_\_\_\_ miles
6. Grid position indicated following DESIG
7. Geographic position indicated following DESIG
8. Bearing \_\_\_\_ from center of the force or unit indicated, range \_\_\_\_ hundred yards

M SCREEN . . . SCREEN UNITS. The number of ships assigned to the screen is \_\_\_\_ and the number of helicopters (suffixed by H) is \_\_\_\_ .

N SCREEN . . . SCREEN STATIONS. The number of assigned screen sectors, stations, or patrol lines is \_\_\_\_ .

O SCREEN. . .

P SCREEN. . .

Q SCREEN. . .

R SCREEN. . .

S SCREEN. . .

T SCREEN . . . PICKETS ( \_\_\_\_ ) are stationed on bearing \_\_\_\_ from screen center or unit indicated distance \_\_\_\_ miles. Number of pickets may be indicated by numeral following DESIG.  
1. AAW  
2. ASW  
3. SW

U SCREEN. . .

V SCREEN. . .

W SCREEN . . . SCREEN IS BULGED

X SCREEN. . .

Y SCREEN. . .

Z SCREEN. . .



AAW  
AA



CHAPTER 10

ANTIAIR WARFARE

1000 AAW Signals  
 1001 AAW ACTION TABLE

1000 AAW SIGNALS

AA1 . . . . . ENGAGING. I am engaging (with \_\_\_\_ ) (DESIG followed by track identity).

1. Fighter-launched weapons
2. Long-range SAMs
3. Medium-range SAMs
4. Short-range SAMs
5. Guns
6. Jammers

AA2 . . . . . FRIENDLY AIRCRAFT detected bearing \_\_\_\_ (distance \_\_\_\_ miles).

AA3 . . . . . IDENTIFICATION SAFETY RANGE (ISR) is standard (or \_\_\_\_ miles).

AA4 . . . . . SAFETY SECTOR. Safety sector(s) for friendly aircraft is (are) as indicated:

- (a) Number designator
- (b) Origin
- (c) Limiting range in miles
- (d) Center bearing
- (e) Width of sector in miles (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 miles, center bearing 120°, width 20°, limiting altitude 5,000 feet, and is activated from 0800 to 2000.*

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

1. Air-launched missiles
2. ASM-carrying aircraft
3. Free-fall bombs
4. Missile-armed FPBs
5. Nuclear
6. Non-nuclear
7. Reconnaissance aircraft
8. Rocket-firing aircraft
9. Ship-launched missiles
10. Submarine-launched missiles
11. Torpedo bombers

AA6 . . . . . THREAT SECTOR. Threat is ( \_\_\_\_ ) from sector \_\_\_\_ .

1. High
2. Medium
3. Low
4. Very low

*Example: AA6—1—2529 . . . Threat is high from sector between 250° and 290° true.*

AA7 . . . . . WEAPON COORDINATION method in force is \_\_\_\_ coordination.

1. Area
2. Zone

AA8 . . . . .

AA9 . . . . .

AA10 . . . . .





1001 AAW ACTION TABLE

The numerical flag indicator for the table (flag 7) may be left flying in a superior position when successive signals from the same table are being made.

7A . . . . .

7B . . . . .

7C . . . . . CEASE fire.

7D . . . . .

7E . . . . . ENGAGE. 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                     |
|                                  | F. Jammers                  |

*Example: 7E2C . . . . . Engage left-hand missile/aircraft with medium-range SAMs.*

7F . . . . . WEAPONS FREE (on/in \_\_\_\_ ).

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

7G . . . . .

7H . . . . . HOLD FIRE (on/in \_\_\_\_ ).

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

7I . . . . .

7J . . . . .

7K . . . . .

7L . . . . . FIRE CHAFF (as indicated) (bearing \_\_\_\_ ) (range \_\_\_\_ ).  
 1. ALFA (air-dispensed)  
 2. BRAVO (barrier)  
 3. CHARLIE (confusion)  
 4. DELTA (distraction)  
 5. FOXTROT (funnel-dispensed)  
 6. HOTEL (helicopter-dispensed)  
 7. SIERRA (seduction)  
 8. As previously directed

7M. . . . .

7N. . . . . DECOYS. Release/fire \_\_\_\_ decoys (*List A*) ( \_\_\_\_ (*List B*)).  
*List A* *List B*  
 1. Infrared A. Bearing \_\_\_\_ (range \_\_\_\_ thousand yards)  
 2. Radar B. In accordance with plan previously ordered

7O. . . . . OPEN FIRE (on bearing \_\_\_\_ or in sector \_\_\_\_ ).

7P . . . . .

7Q. . . . .

7R. . . . .

7S . . . . . MISSILE/AIRCRAFT SPLASHED (SHOT DOWN).

7T . . . . . WEAPONS TIGHT (on/in \_\_\_\_ ).  
 1. Bearing \_\_\_\_  
 2. Sector \_\_\_\_  
 3. Track number or position \_\_\_\_  
 4. Until time \_\_\_\_

7U . . . . .

7V . . . . .

7W . . . . .

7X . . . . .

7Y . . . . .

7Z . . . . .



ADMIN  
AD



CHAPTER 11

ADMINISTRATION

<b>1100</b>	<b>Boats</b>
<b>1101</b>	<b>Ceremonial</b>
<b>1102</b>	<b>Medical</b>
<b>1103</b>	<b>Miscellaneous</b>
<b>1104</b>	<b>Orders/Publications</b>
<b>1105</b>	<b>Report</b>

**1100 BOATS**

AD1 . . . . . ASSIST BOAT apparently in trouble on bearing \_\_\_\_\_ from this ship, or unit or reference point indicated (range \_\_\_\_\_ hundred yards).

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

AD3 . . . . .

AD4 . . . . . BOAT(S). \_\_\_\_\_ (*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. Main (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. Small boats

AD7 . . . . .

AD8 . . . . .

**1101 CEREMONIAL**

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

AD10 . . . . . CEREMONY. \_\_\_\_ 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  
 12. Proper marks of respect to be paid.

AD11 . . . . . COLORS. \_\_\_\_ 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 . . . . . COLOURS. 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 . . . . . DRESS SHIP. Full dress ship (or \_\_\_\_ ).  
 1. Dress ships with ensigns at the masthead.  
 2. Haul taut dressing lines.

AD14 . . . . .

AD15 . . . . .

AD16 . . . . .

**1102 MEDICAL**

AD17 . . . . CASUALTY. 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                          |                     |

AD18 . . . . MEDICAL OFFICER. Send medical officer as soon as possible (or at \_\_\_\_ ) (to \_\_\_\_ ).

AD19 . . . .

AD20 . . . .

**1103 MISCELLANEOUS**

AD21 . . . .

AD22 . . . . AWNINGS. Spread all awnings (or awnings indicated). Inferior to NEGAT: "Furl awnings or do not spread awnings (or awnings indicated)."

1. Forecastle
2. Waist
3. Quarterdeck
4. Side screen

AD23 . . . . LEAVE and LIBERTY. Usual leave and liberty may be granted (or from \_\_\_\_ to \_\_\_\_ ).

AD24 . . . . MEALBREAK (while flying). Flag and commanding officers will have time for the next meal.

AD25 . . . . NAME. Name of \_\_\_\_ (from Table P) is \_\_\_\_ .

AD26 . . . . REFUSE DISPOSAL. Disposal of refuse is at your discretion (or \_\_\_\_ ).

1. Dispose of refuse during hours of darkness.
2. Dispose of refuse prior to entry into harbor.
3. Dispose of refuse when clear of harbor.
4. Dispose of refuse when well clear of formation (or convoy).
5. Dump sinkable trash and garbage only.
6. Dump trash and garbage.
7. Pump bilges.
8. Use lighter and/or sludge ring for disposal of waste.

AD27 . . . . RECALL \_\_\_\_\_ PERSONNEL (*List A*) due to \_\_\_\_\_ (*List B*).

- |                          |                               |
|--------------------------|-------------------------------|
| <i>List A</i>            | <i>List B</i>                 |
| 1. All                   | A. Civil disturbance/disaster |
| 2. Beach guard           | B. Emergency sortie           |
| 3. Beach liaison officer | C. Heavy weather              |
| 4. Motor pool            | D. Other (preceded by DESIG)  |
| 5. Naval                 |                               |
| 6. Officers              |                               |
| 7. Other (from Table P). |                               |

AD28 . . . . SPLICE THE MAINBRACE.

AD29 . . . . UNIFORM is \_\_\_\_\_ (*List A*) (for \_\_\_\_\_ (*List B*)). DESIG with national uniform numbers may be used instead of the suffixes.

- |               |                            |
|---------------|----------------------------|
| <i>List A</i> | <i>List B</i>              |
| 1. Battle     | A. Dress                   |
| 2. Blue       | B. Inspection              |
| 3. Dungarees  | C. Shore leave and liberty |
| 4. Khaki      | D. Undress                 |
| 5. Mess       | E. Uniform of the day      |
| 6. Overcoats  | F. Working                 |
| 7. Raincoats  |                            |
| 8. White      |                            |

AD30 . . . .

**1104 ORDERS/PUBLICATIONS**

AD31 . . . .

AD32 . . . . ATTENTION is called to \_\_\_\_\_ . (Paragraph number may be added.)

1. Publication \_\_\_\_\_ (title).
2. Plan \_\_\_\_\_ (title).
3. OPCODE \_\_\_\_\_ (title).
4. Message \_\_\_\_\_ (DTG).

AD33 . . . . DISTRIBUTED. 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 . . . . RECEIVED. Orders, envelopes, or hand messages (lettered or numbered as indicated) have been received.

AD35 . . . .

AD36 . . . .

AD37 . . . .

**1105 REPORT**

AD38 . . . . ABSENTEES. 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 from appropriate supplementary table or in plain language following DESIG.

AD40 . . . . REPORT ON BOARD. Officer (from Table P) or his representative is requested to report on board this ship or unit indicated.

AD41 . . . . REPORTING FOR DUTY.

AD42 . . . .

AD43 . . . .

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**AMPHIB  
AM**

AMPHIB  
AM



CHAPTER 12

AMPHIBIOUS

1200 Beaches  
1201 Signals

1200 BEACHES

Unless otherwise indicated, beaches referred to in the following signals are identified by numeral(s) from the BEACH TABLE (Table Z).

1201 SIGNALS

AM1 . . . . BEACH. Landing beach is \_\_\_\_ beach.

AM2 . . . . COMMENCE \_\_\_\_ at (\_\_\_\_) beach (of unit \_\_\_\_ following DESIG).

1. General unloading
2. Re-embarkation
3. Selective unloading
4. Selective re-embarkation

AM3 . . . . CONDITIONS for beaching are suitable (or \_\_\_\_).

- |   |   |
|---|---|
| 1. Deteriorating  | 5. Hazardous due to biological agents                             |
| 2. Hazardous  | 6. Hazardous due to chemical agents                               |
| 3. Hazardous due to weather<br>or sea conditions              | 7. Hazardous due to radioactivity<br>(of ____ roentgens per hour) |
| 4. Hazardous due to proximity<br>of enemy conventional forces | 8. Improving  |

AM4 . . . . CAUSEWAYS. \_\_\_\_ (at \_\_\_\_ beach) (number of sections/boats may be indicated by numeral(s) following DESIG).

1. Beach causeways
2. Break marriage from causeways
3. Conduct barge ferry operations
4. Embark causeways
5. Emplace causeways
6. Marriage to causeways
7. Proceed to causeways
8. Re-embark causeways
9. Retract causeways
10. Splash causeways
11. Dispatch causeway tender boat to this unit or unit indicated
12. Launch/recover causeway tender boat
13. Causeway tender boat required by this unit or unit indicated

AM5 . . . . SOUNDING indicates depth of water at \_\_\_\_ is \_\_\_\_ feet.

1. Bow
2. Amidships
3. Stern

AM6 . . . . HOIST/RECOVER all landing craft ( \_\_\_\_ ) (at time \_\_\_\_ ).

1. Except LCAC
2. Except ACV
3. Except DUKW
4. Except LARC
5. Except LCM
6. Except LCPL
7. Except LCU
8. Except LCVP
9. Except LVT

AM7 . . . . HOUR indicated by letter(s) following DESIG is \_\_\_\_

1. Confirmed
2. Able to be met on schedule (or at \_\_\_\_ )
3. At time indicated
4. Delayed by \_\_\_\_ hours
5. Advanced by \_\_\_\_ hours
6. Delayed by \_\_\_\_ minutes
7. Advanced by \_\_\_\_ minutes

AM8 . . . .

AM9 . . . . LAND the ( \_\_\_\_ ) landing force.

1. Airborne
2. Heloborne
3. Waterborne

AM10 . . . . LANDING SUCCESSFUL.

AM11 . . . . OPERATE in \_\_\_\_ area.

1. Fire support (FSA number may be added following DESIG)
2. Helicopter transport
3. Landing ship
4. LPH/LHA OPAREA (OPAREA letter/number may be added following DESIG)
5. LVT launching
6. Sea echelon
7. Transport
8. Transport, inner
9. Transport, outer
10. Boat Lanes
11. Transit Lanes
12. Breach Lanes

AM12 . . . . OPERATIONS. Facilitate landing operations by \_\_\_\_ .

1. Moving in to \_\_\_\_ thousand yards off ( \_\_\_\_ ) beach.
2. Taking station bearing \_\_\_\_ from center of ( \_\_\_\_ ) beach distance \_\_\_\_ miles.

AM13 . . . . RE-EMBARKING TROOPS are \_\_\_\_ (*List A*) contaminated by \_\_\_\_ agent (*List B*).

- List A*
1. Heavily
  2. Lightly
  3. Moderately

- List B*
- A. Biological
  - B. Blister
  - C. Nerve
  - D. Radioactive
  - E. Unidentified

AM14 . . . . REINFORCEMENTS needed at ( \_\_\_\_ ) beach.

AM15 . . . . SCHEDULE. Landing schedule is \_\_\_\_ ( \_\_\_\_ number of minutes).

1. Advanced
2. Retarded

AM16 . . . . TRANSFERS. Pre-H-Hour (or hour following DESIG) transfers are \_\_\_\_ .

1. Completed (except serial \_\_\_\_ )
2. Dispatched (except serial \_\_\_\_ )
3. Received (except serial \_\_\_\_ )
4. Delayed by \_\_\_\_ hours
5. Advanced by \_\_\_\_ hours
6. Delayed by \_\_\_\_ minutes
7. Advanced by \_\_\_\_ minutes

AM17 . . . . CONDUCT EVACUATION OF \_\_\_\_ .

1. Civilian personnel
2. Landing force
3. Military personnel
4. Other following DESIG

AM18 . . . . WITHDRAW ( \_\_\_\_ ) (or unit indicated).

1. Control groups
2. Fire support groups
3. Landing force
4. Transports

AM19 . . . . WITHDRAWAL. Cover withdrawal (by \_\_\_\_ ) (or unit indicated).

1. Aircraft
2. Close support fire
3. Counter battery fire
4. Rocket fire
5. Smoke

AM20 . . . . SURFACE WAVE. \_\_\_\_ (Wave number) is \_\_\_\_ (from *List A*) at \_\_\_\_ (from *List B*) on beach \_\_\_\_ (from Table Z).

- List A*
1. On time
  2. Late (number of minutes following DESIG)
  3. Early (number of minutes following DESIG)

- List B*
- A. Line of departure (LOD)
  - B. Touchdown

ASW  
AS

ASW  
AS

CHAPTER 13

ANTISUBMARINE WARFARE

1300	Attack
1301	Command
1302	Conditions
1303	Contact
1304	Countermeasures
1305	Equipment
1306	Exercise
1307	Intelligence
1308	Search
1309	ASW Searches
1310	Defense in Harbor
1311	ASW ACTION TABLE

**1300 ATTACK**

AS1 . . . . . ATTACK. Make \_\_\_\_ attack (with ASW weapon from Table A).  
 1. Deliberate  
 2. Urgent  
 3. Vector aircraft

AS2 . . . . . ATTACK METHOD. Use attack method\* indicated following DESIG.  
*\*The suffix H to the attack method designator indicates that helicopters are taking part.*

**NOT RELEASABLE**

14AS . . . . . CORDON ( \_\_\_\_ sector assignments followed by call signs) ( \_\_\_\_ radius of attack zone if different from 3,000 yards)

*Example: AS2 DESIG 14AS . . . Use attack method 14AS (CORDON).*

AS3 . . . . . HOLD DOWN enemy submarine(s) following this force.

AS4 . . . . . NUCLEAR ATTACK. Stand by for nuclear depth charge or bomb attack in \_\_\_\_ minutes (detonation expected bearing \_\_\_\_ from this unit or unit indicated, range \_\_\_\_ thousand yards).

AS5 . . . . .

AS6 . . . . . RESULT of attack is \_\_\_\_ .  
 1. Known sunk  
 2. Known damaged  
 3. Negative  
 4. Nonsubmarine  
 5. No damage  
 6. Oil  
 7. Possible damaged  
 8. Probable nonsubmarine  
 9. Underwater explosion  
 10. Unknown  
 11. Wreckage

AS7 . . . . . TORPEDO DEPTH. Set torpedoes to \_\_\_\_ (feet) floor, \_\_\_\_ (feet) ceiling, \_\_\_\_ (feet) initial search depth.

AS8 . . . . . WEAPON DEPTH. Set \_\_\_\_ (ASW weapon from Table A) to a depth of \_\_\_\_ feet.

AS9 . . . . . WEAPONS TIGHT. ASW weapons are tight in all sectors (or \_\_\_\_ ) (ASW weapon from Table A).  
 1. Between bearings \_\_\_\_ and \_\_\_\_ from formation center  
 2. In sector(s) indicated

AS10 . . . . . WEAPON SAFETY RANGE. ASW weapon safety range is \_\_\_\_ .

AS11 . . . . . WEAPONS FREE. ASW weapons are free in all sectors (or \_\_\_\_ ) (ASW weapon from Table A.)  
 1. Between bearings \_\_\_\_ and \_\_\_\_ from formation center  
 2. In sector(s) indicated

AS12 . . . . . TORPEDO MISFIRE bearing \_\_\_\_ .  
*Note: When breech is safe, NEGAT superior is to be signaled (i.e., NEGAT AS12 bearing \_\_\_\_).*

AS13 . . . . .



1301 COMMAND

AS14 . . . . DISPATCH SAU. Designate and dispatch \_\_\_\_ SAU (consisting of \_\_\_\_ number of units, figure followed by H indicates number of helicopters) to investigate contact or datum designation indicated following DESIG (bearing \_\_\_\_ , distance \_\_\_\_ , 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—IH 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° true, distance 10 miles from this unit. Maximum speed is 15 knots.*

AS15 . . . . INVESTIGATE. Leave present assignment to investigate \_\_\_\_ ( \_\_\_\_ bearing), ( \_\_\_\_ range).

1. Active sonar contact
2. Goblin (following DESIG)
3. Passive sonar contact
4. Persicope/snort

AS16 . . . . INVESTIGATE. Leave present assignment to investigate datum designation or track number indicated following DESIG in position \_\_\_\_ (position established at time \_\_\_\_ ).

AS17 . . . . SAU DURATION. Terminate SAU ( \_\_\_\_ (List A)) ( \_\_\_\_ (List B)).

- |                      |   |
|----------------------|---|
| <i>List A</i>        | <i>List B</i>                                 |
| 1. If not in contact | A. After ____ minutes                         |
|                      | B. After a search to ____ miles from QQ or ZZ |

AS18 . . . . SAU COMMANDER. Assume command as SAU commander (or \_\_\_\_ ).

1. SAU commander is \_\_\_\_

AS19 . . . . FORM SAU and investigate \_\_\_\_ (bearing \_\_\_\_ from this unit or unit indicated distance \_\_\_\_ ).

1. Bottomed contact (in position \_\_\_\_ ) of unit indicated
2. Contact
3. Datum (following DESIG)
4. Goblin (following DESIG)
5. Racket (following DESIG)
6. Spook (following DESIG)

AS20 . . . . SCENE OF ACTION COMMANDER. Assume command as 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 \_\_\_\_, distance \_\_\_\_, from this unit or unit indicated. Avoid cavitation and maintain passive search.

AS22 . . . . CEASE PASSIVE SEARCH and commence active search. (Search bearings \_\_\_\_ to \_\_\_\_), (range from \_\_\_\_ to \_\_\_\_ thousand yards).

**1302 CONDITIONS**

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 less than 100 feet/10 meters, the first of the five digits of each group will be zero. To report depths greater than 990 feet/ 99 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/100 to 199 meters, 2,000 to 2,990 feet/200 to 299 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 inferior to the signal indicates depths are in meters and temperatures are in degrees Celsius.*

*Example: AS25—00602—09602—45565—99901—00543—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—99903—25078—2145 DESIG C . . . The sea is negative 1.3 °C at the surface; negative 0.9 °C at 3 meters; 3.8 °C at 13 meters; and 7.8 °C at 325 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 type of target indicated following DESIG).

1. Minimum and maximum at periscope depth (1)
2. Minimum and maximum at maximum target depth of \_\_\_\_ meters (2)
3. Minimum and maximum at best evasion/antidetection target depth of \_\_\_\_ meters (3)
4. Minimum and maximum at target optimum listening depth of \_\_\_\_ meters (4)
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—90—150—2—155— 230—3—30—50—80—4—155—230—200—5—260—300 DESIG SSK . . . Predicted sonar ranges for all the sonar of this unit are: between 9,000 and 15,000 yards on a submarine at periscope depth; between 15,500 and 23,000 yards on a submarine at maximum operative depth of 300 meters; between 3,000 and 5,000 yards on a submarine at best depth evasion/antidetection depth of 80 meters; between 15,500 and 23,000 yards on a submarine at optimum listening depth of 200 meters; convergence zone spreads from 26,000 to 30,000 yards; sonar range predictions are for a target type SSK.*

**Notes:**

- (1) *Min/Max ranges refer to Min TS - Max Sonar Speed/Max TS - Optimum Sonar Speed respectively (if not differently ordered)*
- (2) *Ranges are chosen between the best performing sensors (HMS or VDS) for each depth*
- (3) *Best evasion/antidetection target depth refers to the depth at which the minimum sonar ranges toward the submarine occur*
- (4) *Optimum listening depth refers to the depth at which the submarine has maximum detection range toward surface units*

AS28 . . . . TACTICAL SONAR RANGE for this unit or unit(s) indicated (or \_\_\_\_ ) is \_\_\_\_ hundred yards.

1. Helicopters
2. Ships

AS29 . . . . SONAR RANGE PREDICTION. Unit(s) indicated is (are) to make their sonar range prediction (for a target indicated following DESIG) employing the following values:

1. Unit(s) speed (in knots)
2. Minimum target strength of \_\_\_\_ dB
3. Maximum target strength of \_\_\_\_ dB
4. Target maximum depth (in meters)

*Example: AS29—1—16—2—3—3—15—4—300 DESIG SSK . . . Units indicated are to make sonar range prediction based on a unit speed of 16 knots, minimum target strength of 3 dB, maximum target strength of 15 dB, and a maximum target depth of 300 meters. Target is SSK.*

AS30 . . . . LAYER DEPTH is \_\_\_\_ feet.

**1303 CONTACT**

AS31 . . . . AIRCRAFT CONTACT. Aircraft has indicated by \_\_\_\_ contact with a submarine (bearing \_\_\_\_ from this unit or unit indicated, distance \_\_\_\_ miles) (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               |
| 2. ESM                | B. Passive (broadband)  |
| 3. MAD                | C. Passive (narrowband) |
| 4. Radar              |                         |
| 5. Sonar              |                         |
| 6. Sonobuoy           |                         |
| 7. Towed array        |                         |
| 8. Visual             |                         |
- (e) Classification
    1. CERTSUB
    2. PROBSUB
    3. POSSUB \_\_\_\_ (confidence level)

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

AS34 . . . . AIRCRAFT HOLDS CONTACT on \_\_\_\_ (bearing \_\_\_\_ from this unit or unit indicated, range \_\_\_\_ thousand yards).

1. Active sonobuoys
2. Active sonar
3. ESM
4. Infrared detection system
5. Lofar buoys
6. MAD gear
7. Passive sonar
8. Radar
9. Visual

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

**TOWED ARRAYS/HYDROPHONES  
or SONOBUOYS**

1. Fast propellor noise
2. Slow propellor 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

**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. . . . .

**RADAR**

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

**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 enemy
36. Preliminary call (or dying out signals) heard
37. . . . .
38. . . . .
39. . . . .
40. . . . .

**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

AS36 . . . . MOVEMENT OF SUBMARINE is \_\_\_\_ .

1. Accelerating
2. Ascending
3. Backing down
4. Closing this unit or unit indicated
5. Diving
6. In hard turn (direction indicated by PORT/STBD)
7. Opening this unit or unit indicated
8. Slowing
9. Stopped
10. Surfacing

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

- |                          |                       |                    |
|--------------------------|-----------------------|--------------------|
| <i>List A</i>            |                       | <i>List B</i>      |
| 1. Bistatics             | 11. Sighting          | A. Helicopter      |
| 2. Cross-fixing, passive | 12. Sonar, active     | B. Patrol aircraft |
| 3. Direction finding     | 13. Sonar, passive    | C. Shore           |
| 4. ESM bearing           | 14. Sonobuoy, active  | D. Surface ship    |
| 5. JEZEBEL               | 15. Sonobuoy, passive | E. Submarine       |
| 6. JEZEBEL analysis      | directional           | F. Unknown         |
| by other forces          | 16. Torpedo attack    | G. Other (type     |
| 7. JULIE                 | 17. Towed array       | following DESIG)   |
| 8. MAD                   | 18. Unknown           |                    |
| 9. Missile attack        | 19. Other (type       |                    |
| 10. Radar                | following DESIG)      |                    |

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 . . . .

AS41 . . . .

**1304 COUNTERMEASURES**

AS42 . . . . STREAM/LAUNCH protective devices (or/at \_\_\_\_ ). Inferior to NEGAT means: "Recover device already streamed."

1. Noisemakers
2. Torpedo decoys
3. Long stay
4. Short stay
5. \_\_\_\_ feet

AS43 . . . . TORPEDO COUNTERMEASURES. Take torpedo countermeasures 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 . . . . TORPEDO. Suspect that submarine has fired torpedo (in position \_\_\_\_ ). Keep clear of this area for 15 minutes and take appropriate countermeasures. Three numerals may be added to indicate estimated initial course of torpedo.

AS45 . . . . NOISE REDUCTON. Operate ship's self-generated noise-reduction equipment (masking devices).

AS46 . . . .

AS47 . . . .

**1305 EQUIPMENT**

AS48 . . . . CONDITION of \_\_\_\_ (*List A*) is \_\_\_\_ (*List B*) (until \_\_\_\_).  
*List A* *List B*

- |                          |  |
|--------------------------|--|
| 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 micro-Pascal. For frequencies less than 1000 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— 100062—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 . . . . LIGHTS. Use ASW lights (or \_\_\_\_).

1. Use all around red masthead lights
2. Use special ASW lights

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

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

AS55 . . . . SONAR OPERATION is as indicated:

1. Operation of sonar emission equipment is authorized in accordance with standard instructions.
2. Operation of sonar emission equipment is authorized 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 . . . . SONAR WATCH. 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 from Table E.)

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 ARRAYS. \_\_\_\_ towed acoustic arrays or other devices.

1. Stream
2. Recover

AS60 . . . . SONAR MODE OF OPERATION is \_\_\_\_ .

1. Convergence zone
2. Bottom bounce

AS61 . . . .



1306 EXERCISES

a. SIGNALS

AS62 . . . . CARRY OUT ASW PRACTICE NUMBER \_\_\_\_ (for \_\_\_\_ minutes).

AS63 . . . . EXPLOSIVE CHARGES. 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 . . . . VDS CABLE LENGTH. For submarine safety reasons, length of VDS cable is not to exceed \_\_\_\_ feet.

AS67 . . . . SUBMARINE SAFETY COURSE is \_\_\_\_ .

AS68 . . . . SUBMARINE SIGNAL. Have sighted \_\_\_\_ .

1. Recognition flare, red
2. Submarine grenade, black
3. Submarine grenade, green
4. Submarine grenade, red
5. Submarine grenade, yellow
6. Submarine markers
7. Torpedo tracks
8. Water shot
9. White smoke candle
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 in accordance with AXP-1/MXP-1.

AS72 . . . . TAKE SUBMARINE SURFACING STATION in accordance with AXP-1/MXP-1.

AS73 . . . . SUBMARINE DIVING COURSE. My diving course or submarine diving course is \_\_\_\_ .

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

AS75 . . . . DIVE FOR SERIAL \_\_\_\_ . Report when ready to start the exercise.

AS76 . . . . COMEX/FINEX TIME. \_\_\_\_ is \_\_\_\_ .  
 1. COMEX  
 2. FINEX

b. FLAG SIGNALS FOR SUBMARINE AND ANTISUBMARINE EXERCISES

(1) 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.

(2) 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 submarines. Torpedoes may be fired in accordance with orders for the exercise.
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 (See AXP-1/MXP-1 for details of use)

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.
<i>NOTE: If an unexpected signal, other than a GREEN signal, is sighted by ASW units, they are to anticipate an emergency surfacing.</i>	

**1307 INTELLIGENCE**

AS77 . . . . ENEMY SUBMARINES are believed to be in this vicinity (or in position \_\_\_\_ ).

AS78 . . . . FRIENDLY SUBMARINE bearing \_\_\_\_ (distance \_\_\_\_ ).

AS79 . . . . .

AS80 . . . . .

AS81 . . . . .

**1308 SEARCH**

AS82 . . . . . APPROACH TO DATUM. Intend \_\_\_\_ approach to datum.

1. Direct
2. Intercept
3. Offset

AS83 . . . . . APPROACH TO DATUM/CONTACT INFORMATION. \_\_\_\_ .

1. Datum identity \_\_\_\_
2. Scene of action commander is \_\_\_\_
3. ETA at datum/contact is \_\_\_\_
4. ETA at torpedo danger area is \_\_\_\_

AS84 . . . . . CONTINUE THE SEARCH.

AS85 . . . . . DATUM (or \_\_\_\_ ) bears \_\_\_\_ from this unit or unit indicated distance \_\_\_\_ miles at \_\_\_\_ .

1. Contact

AS86 . . . . . DATUM is as indicated.

- (a) Designation
- (b) Position
- (c) Datum error
- (d) Last known course and speed
- (e) Datum time
- (f) Source of information is \_\_\_\_ contact (*List A*) ( \_\_\_\_ (*List B*))
 

<i>List A</i>	<i>List B</i>
1. Disappearing radar	A. Active
2. ESM	B. Passive (broadband)
3. MAD	C. Passive (narrowband)
4. Radar	
5. Sonar	
6. Sonobuoy	
7. Towed array	
8. Visual	
- (g) Classification of contact

AS87 . . . . HELICOPTERS RANDOM DIP. Helicopters (indicated) are to random dip \_\_\_\_ .  
 1. In sector between true bearings \_\_\_\_ and \_\_\_\_ and between distances \_\_\_\_  
 and \_\_\_\_ miles from unit or position indicated.  
 2. Within areas

AS88 . . . . INTENTIONS. SAU commander's or SAC's intentions are as indicated.  
 1. PLAN RED. Attack method, carry out plan \_\_\_\_, (support method, carry out plan \_\_\_\_ )  
 2. PLAN BLACK. Lost contact action, carry out plan(s) \_\_\_\_ )

*Example: AS88—1—14AH . . . PLAN RED. Attack and support method, carry out plan 14AH  
 (CORDON).*

AS89 . . . . MARKER. Drop marker ( \_\_\_\_ ).  
 1. At datum  
 2. In position indicated

AS90 . . . . SONOBUOY PATTERN. A sonobuoy pattern (consisting of \_\_\_\_ type buoys)  
 bears \_\_\_\_ from this unit or unit indicated at range \_\_\_\_ .  
 1. Active  
 2. Passive

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

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

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

AS94 . . . . SUBMARINE'S LIMITING COURSES and SPEEDS are as indicated.  
 1. Limiting courses are \_\_\_\_ to \_\_\_\_  
 2. Limiting speeds are \_\_\_\_ to \_\_\_\_

*Example: AS94—1—270—300—2—12— 18 . . . Submarine's limiting courses and speeds are  
 270° to 300° and 12 to 18 knots.*

AS95 . . . .

**1309 ASW SEARCHES**

AS96 . . . . AIRCRAFT SEARCH. Carry out Air Plan number \_\_\_\_\_. Details of plan may be given by numeral groups following in the order given in the plan. Indicate numeral and/or letter groups omitted by substituting NEGAT.

AS97 . . . . **NOT RELEASABLE**

AS98 . . . . **NOT RELEASABLE**

AS99 . . . . INTERCEPTING SEARCH. 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. . . . OAKTREE. Carry out ASW search plan OAKTREE for \_\_\_\_ search .  
 1. Area  
 2. Bottom  
 3. Intercept  
 4. Lost contact

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

AS102. . . . SEARCH CENTER is \_\_\_\_ at zero time \_\_\_\_ ( \_\_\_\_ ). Search center must be located by reference points in accordance with Article 166a.  
 1. And is marked with a smoke marker

When signaling the details of ASW searches by flaghoist the basic group must be hoisted and left flying in a superior position while the successive data hoists are displayed to signal the details. The execution of the basic group commences the search.

AS103. . . . SEARCH DETAILS. Carry out ASW search plan\* \_\_\_\_\_. Details of search plan are \_\_\_\_\_.

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

- 1S. . . . . OAKTREE
  - (a) Origin of search bearing \_\_\_\_ at \_\_\_\_ hundred yards from ship making the signal
  - (b) Direction of search
- 2S. . . . . **NOT RELEASABLE**

- 14AS . . . . CORDON ( \_\_\_\_ sector assignments followed by call signs ( \_\_\_\_ radius of attack zone if different from 3,000 yards)
- 52S . . . . . **NOT RELEASABLE**

AS104. . . . **NOT RELEASABLE**

AS105. . . . SUPPORT METHOD. Carry out support method\* \_\_\_\_ .

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

11A . . . . **NOT RELEASABLE**

14AS . . . . CORDON ( \_\_\_\_ sector assignments followed by call signs ( \_\_\_\_ radius of attack zone if different from 3,000 yards)

*Example: AS105—14AS . . . Carry out support method 14AS (CORDON).*

AS106. . . . CARRY OUT TOWED ARRAY BARRIER defined as follows:

1. Origin of barrier and initial point of patrol, in latitude and longitude
2. Direction of patrol line (three digits)
3. Length of the barrier in nautical miles (two digits)
4. Patrolling speed (two digits)
5. Start time (date-time group)

*Example: AS106—1—3320N8—01120W4—2— 045—3—20—4—12—5—031230A9 . . .  
Carry out towed array barrier. Initial point in position 33°20'N 11°20'W.  
Direction of barrier is 045°. Length is 20 nautical miles. Speed is 12 knots.  
Starting time will be 031230A.*

AS107. . . .

AS108. . . .

**1310 DEFENSE IN HARBOR**

AS109. . . . **NOT RELEASABLE**

AS110. . . . DETECTION ( \_\_\_\_ type) has been obtained, which may be due to a submarine or small battle unit approaching harbor.

1. Active sonar
2. ESM
3. Loop crossing
4. Passive sonar
5. Radar
6. Sighting
7. Sonobuoy

AS111. . . .

AS112. . . .



**FLAG 1  
ACTION  
TABLE**

**FLAG 1  
ACTION  
TABLE**

1311 ASW ACTION TABLE

The numeral flag indicator for the table (Flag 1) may be left flying in a superior position when successive signals from the same table are being made.

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 . . . . . LOST CONTACT. In event of lost contact, units are to carry out search plan \_\_\_\_ .

1. OAKTREE
2. ACORN
3. PINEAPPLE
4. CORDON

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

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

1E . . . . . CONDUCT attack (with ASW weapon from Table A).

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

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

1. Convergence zone
2. Bottom bounce

1H . . . . . RADAR CONTACT. I am holding radar contact bearing \_\_\_\_ from this unit or position indicated at range \_\_\_\_ hundred yards (believed to be \_\_\_\_ (*List A*) \_\_\_\_ (*List B*)).

- |                         |                 |
|-------------------------|-----------------|
| <i>List A</i>           | <i>List B</i>   |
| 1. Snorkel or periscope | A. Enemy        |
| 2. Submarine            | B. Friendly     |
|                         | C. Unidentified |

1L . . . . . 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
3. Decoy/jammer
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 . . . . . ACTIVE SONAR CONTACT. I am holding an active sonar contact (bearing \_\_\_\_ ) from this unit (range \_\_\_\_ hundred yards) (or in position indicated).

1M . . . . .

1N . . . . . COMMUNICATIONS. 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      | D. Covered RATTIACS |
| 5. Intermittent | E. IACS             |
| 6. No           |                     |

1O. . . . . KEEP CLEAR of this unit or unit indicated or position indicated (or \_\_\_\_ ).

1. Contact (bearing \_\_\_\_ from me, range \_\_\_\_ hundred yards)
2. Operational stand-off range
3. Emergency stand-off range
4. Sonobuoy field (bearing \_\_\_\_ 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. . . . . CONTACT. I have a \_\_\_\_ (*List A*) sonar contact (on \_\_\_\_ (*List B*)).

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. CERTSUB</li> <li>2. PROBSUB</li> <li>3. POSSUB, confidence HIGH (numeral 3 or 4 may be added following DESIG)</li> <li>4. POSSUB, confidence LOW (numeral 1 or 2 may be added following DESIG)</li> <li>5. NONSUB</li> <li>6. Bottomed submarine</li> <li>7. Decoy</li> <li>8. Marine life</li> <li>9. Mine-like</li> <li>10. Sea bottom</li> <li>11. Sonar jammer</li> <li>12. Surface vessel</li> <li>13. Torpedo</li> <li>14. Wake</li> <li>15. Wreck</li> </ol> | <ol style="list-style-type: none"> <li>A. Active</li> <li>B. Passive (broadband)</li> <li>C. Passive (narrowband)</li> </ol> |
|---|--|

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

1. CERTSUB
2. PROBSUB
3. POSSUB, confidence HIGH (numeral 3 or 4 may be added following DESIG)
4. POSSUB, confidence LOW (numeral 1 or 2 may be added following DESIG)
5. NONSUB
6. Bottomed submarine
7. Decoy
8. Marine life
9. Mine-like
10. Sea bottom
11. Sonar jammer
12. Surface vessel
13. Torpedo
14. Wake
15. Wreck

- 1T . . . . . TAKE STATION \_\_\_\_\_.
  - 1. (Bearing \_\_\_\_ ) 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 . . . . . DECOY. 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 . . . . . LOST CONTACT. I have lost contact (contact last held bearing \_\_\_\_ 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.

AIRCRAFT  
AV

AIRCRAFT  
AV



CHAPTER 14

AIRCRAFT

1400	Command/Control
1401	Emergency
1402	Operating
1403	Readiness
1404	Scouting
1405	Over-The-Horizon Targeting

1400 COMMAND/CONTROL

AV1 . . . . . ASSUME ( \_\_\_\_\_ ) control of aircraft (type from Table V).  
 1. Positive  
 2. Advisory

AV2 . . . . . ASSUME tactical direction of aircraft (or type from Table V).

AV3 . . . . .

AV4 . . . . .

AV5 . . . . .

EMERGENCY LANDING SIGNALS FROM AIRCRAFT	
<i>Signal</i>	<i>Meaning</i>
Series of SHORT flashes . . . . .	Require IMMEDIATE emergency landing.
Series of LONG flashes . . . . .	Require emergency landing but can accept short delay.

**1401 EMERGENCY**

AV6 . . . . .

AV7 . . . . . DISTRESS. 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

AV8 . . . . . EMERGENCY PROCEDURES. Make a slick for emergency landing (and/or \_\_\_\_).

- 1. Recover aircraft in distress
- 2. Rescue personnel—Abandon aircraft
- 3. Rescue personnel—Recover aircraft

AV9 . . . . .

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

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

AV11 . . . . . SCRAMBLE HELICOPTER. Scramble weapon-carrying helicopter.

AV12 . . . . .

AV13 . . . . .

AV14 . . . . .

**1402 OPERATING**

AV15 . . . . .

AV16 . . . . . FLIGHT OPERATIONS. Carry out flight operations (or/and/using \_\_\_\_).

1. Coordinate flight operations with this unit or unit indicated
2. Delay flight operations for \_\_\_\_ minutes
3. Independently to launch or recover aircraft
4. Method ALFA
5. Method BRAVO
6. Method CHARLIE
7. Postpone flight operations until \_\_\_\_
8. Resume flight operations

AV17 . . . . . HELICOPTER OPERATIONS. Intend to conduct helicopter operations for \_\_\_\_ .  
Time signal should be used to indicate commencement of operations.

1. Beanbag delivery
2. HIFR (Helicopter In-Flight Refueling)
3. Mail transfer (in sequence of units)
4. Personnel transfer
5. VERTREP
6. RRR (Rotors Running Refueling)
7. RRRR (Rotors Running Refueling and Rearming)
8. Training

AV18 . . . . .

AV19 . . . . .

AV20 . . . . .

AV21 . . . . .

AV22 . . . . .

AV23 . . . . .

AV24 . . . . LIGHTING MEASURES. Use lighting measure \_\_\_\_\_. Additions to the basic lighting measure are indicated by DESIG followed by appropriate letters from Vol. I, Table 6-5; exceptions are indicated by NEGAT followed by appropriate letters from the table.

1. White
2. Green
3. Blue
4. Green plus bright side lights

*Example: AV24-3 DESIG O NEGAT A . . . . Use lighting measures BLUE plus red truck lights on other ships; do not turn on carrier red truck lights.*

AV25 . . . .

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 . . . . I have 6 fixed-wing aircraft to launch.*

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

*AV26-5-0-6 . . . . I have 6 fixed-wing aircraft to recover.*

*\*When using flags, flags F and H are to be used in preference to AV26 when appropriate. (See Article 3002 for helicopter/VERTREP signals.)*

AV27 . . . . HELICOPTER STATUS is \_\_\_\_ .  
 1. Alert ( \_\_\_\_ minutes)  
 2. Airborne  
 3. Down for routine maintenance  
 4. Down for repair

AV28 . . . . TAKE ACTION. \_\_\_\_ (*List A*) ( \_\_\_\_ aircraft (*List B* or *Table V*)). Number of aircraft may be indicated.

- | <i>List A</i>                               | <i>List B</i>                 |
|---|-------------------------------|
| 1. Cancel (sortie number preceded by DESIG) | A. ASW patrol                 |
| 2. Delay launching (until ____ )            | B. CAP                        |
| 3. Delay launching until further orders     | C. Direct air support         |
| 4. Delay launching until weather improves   | D. Exercise                   |
| 5. Keep a ready deck                        | E. Helicopter                 |
| 6. Launch                                   | F. Radar calibration          |
| 7. Pick up                                  | G. Relief                     |
| 8. Provide                                  | H. Rescue                     |
| 9. Recall                                   | I. Search                     |
| 10. Recover                                 | J. Spotting                   |
| 11. Station                                 | K. Strike                     |
|   | L. Shadower                   |
|   | M. Weapon-carrying helicopter |
|   | N. Attack                     |
|   | P. Marker                     |

*Examples: AV28-6-D2 . . . . Launch 2 exercise aircraft.*

*AV28-6-64V . . . . Launch observation aircraft.*

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

AV30 . . . . UNABLE TO OPERATE. 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. Decontamination in progress
3. Foul deck
4. Lack of wind
5. Maintenance
6. Motion of ship
7. Weather

AV31 . . . .

AV32 . . . . .

AV33 . . . . .

AV34 . . . . .

**1403 READINESS**

AV35 . . . . . ALERT STATE. Take action as indicated. Number of aircraft and aircraft type from Table V may be indicated. Call sign may be indicated.

1. Airborne alert
2. Deck alert—time \_\_\_\_ minutes to be airborne
3. Stand down/release (until \_\_\_\_).

*Example: AV35-2-10-25V-0F . . . . . To ship whose call sign is 0F: deck alert, 10 minutes to be airborne, for ASW weapon-carrying helicopter.*

AV36 . . . . .

AV37 . . . . .

AV38 . . . . .

**1404 SCOUTING**

AV39 . . . . . AREA for aircraft scouting is a circle or ring identified by the following numeral groups, separated by TACK:

- (a) 1. Fixed origin
2. Moving origin
- (b) Outer radius, in miles
- (c) Inner radius, in miles

AV40 . . . . . CENTER OF AREA. Center of aircraft scouting area is \_\_\_\_ and is this unit or unit indicated or in position indicated.

1. Fixed
2. Moving (course \_\_\_\_ speed \_\_\_\_)

AV41 . . . . PATROLS. Establish and maintain aircraft \_\_\_\_ patrols. Two groups of numerals following and separated by TACK may be used to indicate number of aircraft in each patrol and number of watches or patrols per day.

1. Antisubmarine
2. Barrier
3. Combat air
4. Dawn and dusk
5. Low
6. Night
7. Radar picket
8. Rescue
9. Target
10. Target dawn and dusk
11. Target night

AV42 . . . . PROVIDE scouting aircraft (for \_\_\_\_ ).

1. Communication link with separated forces
2. Reconnaissance of enemy battle line
3. Reconnaissance of enemy carrier
4. Reconnaissance of enemy convoy
5. Reconnaissance of enemy detached forces
6. Reconnaissance of enemy main force
7. Special duty
8. Special link

**1405 OVER-THE-HORIZON TARGETING**

AV43 . . . . OVER-THE-HORIZON TARGETING. Utilize aircraft for over-the-horizon targeting. Number of aircraft and aircraft type from Table V may be indicated. Call sign may be indicated.

AV44 . . . .

AV45 . . . .

INTENTIONALLY BLANK



**GOVERN  
GROUPS  
BA-BZ**

**GOVERN  
GROUPS  
BA-BZ**

CHAPTER 15

GOVERNING GROUPS

1500 TABLE OF MEANINGS

BA . . .	Action is being carried out (or I am)
BB . . .	Action is completed (or I have)
BC . . .	I recommend
BD . . .	Report time when 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
BM . . .	Enemy/opponent is or I am being ____
BN . . .	When able
BT . . .	For use, see Articles 164e and 164g
BU . . .	Unable to ____
BV . . .	Take action or information as indicated from appropriate supplementary table (see Chapter 34)
BX . . .	Indicates end of series of groups governed by governing group
BY . . .	Report when action completed
BZ . . .	Well done

INTENTIONALLY BLANK

COMMUNI-  
CATIONS  
CM

COMMUNI-  
CATIONS  
CM

CHAPTER 16

COMMUNICATIONS

1600	Establishing/Maintaining/Closing Down
1601	Miscellaneous
1602	Propagation/Interference/RADHAZ (HERO)
1603	Relay/Repeat
1604	Security/Call Signs

1600 ESTABLISHING/MAINTAINING/CLOSING DOWN

CM1. . . . . CLOSE DOWN down radio watch (on \_\_\_\_ MHz or circuit designation following DESIG).

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

1. Check your transmitter
2. Check your receiver
3. Check for steady key
4. Check your keymat
5. \_\_\_\_ (Operating signal from ACP 131)

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 \_\_\_\_ MHz or on circuit or channel designation following DESIG).

1. Data link (type from Table E)
2. Morse A1A/A2A
3. Morse J2A
4. Voice A3E
5. Voice A2E
6. Voice F3E
7. Voice J3E
8. RATT J2B/F1B
9. RATT A2B
10. Other type of emission indicated by designation following DESIG

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

1. Facsimile
2. Flaghoist
3. Flashing light
4. Link 11
5. Link 14
6. Link 16
7. Link 22
8. Loudhailer
9. Nancy
10. Nancy point of train (POT) light
11. Radiotelegraphy
12. Radiotelephony
13. Radioteletype
14. Semaphore
15. Single sideband (SSB)
16. Sonar
17. Underwater telephone
18. VHF bridge-to-bridge (channel \_\_\_\_ )
19. VML (voice modulated light)
20. Battle force e-mail
21. E-mail

CM7 . . . . MAINTAIN RADIO \_\_\_\_ WATCH (on \_\_\_\_ MHz or circuit designation following DESIG).

1. Copy
2. Cover
3. Guard
4. Listening watch

CM8 . . . . SHIFT FREQUENCY on this or circuit indicated to \_\_\_\_ .

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

CM9 . . . . COMMUNICATION PLAN IN FORCE (at \_\_\_\_ ) is as indicated \_\_\_\_ . (Frequency column letter/identifier of communication plan is \_\_\_\_ (specified if necessary)).

1. NAMARCOMPLAN
2. NORBALCOMPLAN
3. SORMARCOMPLAN
4. \_\_\_\_ (following DESIG)

**1601 MISCELLANEOUS**

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

CM11 . . . . EXPEDITE signal(s) (by \_\_\_\_ ).

1. Acknowledging more promptly
2. Answering more promptly
3. Clearing the hoist
4. Making hoist on both sides
5. Making hoist on other side
6. Relaying more promptly



CM12 . . . . FREQUENCY in \_\_\_\_ Hertz is \_\_\_\_ .  
 1. Kilo  
 2. Mega  
 3. Giga

CM13 . . . . GROUPS from \_\_\_\_ have been used for the following (number \_\_\_\_ of) groups.  
 1. Allied Guide to Masters (ATP 2, Vol. II)  
 2. International Code of Signals (INTERCO)  
 3. Naval and maritime air tactical code

CM14 . . . . NANCY traffic lists will be broadcast (or \_\_\_\_ ) hourly on the hour (or at \_\_\_\_ ).  
 1. Call periods will be established

CM15 . . . . SIGNALS. Following signals have been taken from publication indicated by its short title following DESIG.

CM16 . . . . ANSWERING. Answer in proper alpha/numeric sequence.

**1602 PROPAGATION/INTERFERENCE/RADHAZ (HERO)**

CM17 . . . . INTERFERENCE. Transmissions from this unit or unit indicated are interfering with communications or type of equipment indicated from Table E. Circuit designation following DESIG or frequency band from Table E may be indicated.

CM18 . . . . INTERFERENCE. An electromagnetic pulse (EMP) may cause communication and electronic equipment interference or damage.

CM19 . . . . PROPAGATION CONDITIONS for \_\_\_\_ (*List A*) are \_\_\_\_ (*List B*).

- |                                |   |
|--------------------------------|---|
| <i>List A</i>                  | <i>List B</i>                           |
| 1. Below 3 MHz                 | A. Above average                        |
| 2. 3 to 30 MHz                 | B. Average                              |
| 3. 100 to 156 MHz              | C. Below average                        |
| 4. 225 to 400 MHz              | D. Very poor                            |
| 5. Frequency band from Table E | E. Super-refraction conditions exist    |
|                                | F. Sporadic refraction conditions exist |
|                                | G. Non-ionospheric propagation exists   |

CM20 . . . . RADIATION HAZARD (RADHAZ (HERO)) PRECAUTIONS. This unit has taken precautions to preclude, or warn of, RADHAZ (HERO) dangers on own equipment (or on own \_\_\_\_ ).

1. Aircraft
2. Personnel
3. Receivers
4. Transmitters

CM21 . . . . RADIO HAZARD (RADHAZ (HERO)) WARNING. This unit or unit indicated is operating high-power equipment in frequency band indicated from Table E (bearing \_\_\_\_ ).

CM22 . . . . RADIO HAZARD (RADHAZ (HERO)) EXISTS. Cease transmission on \_\_\_\_ .

1. HF over 500 watts
2. Frequency band from Table E

CM23 . . . . LASER EMISSION HAZARD WARNING. This unit or unit indicated is operating laser.

CM24 . . . . LASER EMISSION HAZARD PRECAUTIONS. This unit or unit indicated has taken safety precautions to preclude, or warn of, laser emission dangers on own personnel.

CM25 . . . . LASER EMISSION HAZARD EXISTS. Cease laser emission.

**1603 RELAY/REPEAT**

CM26 . . . . RELAY SHIP. Act as \_\_\_\_ relay ship (on circuit indicated) (for unit(s) indicated).  
 1. Nancy  
 2. Radio  
 3. Sonar  
 4. Visual

CM27 . . . . REPEAT all visual signals by radio (using \_\_\_\_ ).  
 1. VHF radiotelephone  
 2. UHF radiotelephone  
 3. UHF radioteletype  
 4. \_\_\_\_ MHz or circuit designation following DESIG)

CM28 . . . .

CM29 . . . .

**1604 SECURITY/CALL SIGNS**

CM30 . . . .

CM31 . . . .

CM32 . . . . YOUR CIRCUIT DISCIPLINE is poor. Increased attention to COMSEC is required. (Circuit designation following DESIG.)

CM33 . . . .

CM34 . . . . CRYPTO RESTART. Take this circuit (or circuits following DESIG) for crypto re-start at this time \_\_\_\_ ).

CM35 . . . . DAILY CHANGING CALL SIGNS. Activate daily changing call signs (for day \_\_\_\_ ) at this time (or at \_\_\_\_ time).

CM36 . . . . AUTHENTICATION POLICY. Assume authentication policy \_\_\_\_ (*List A*) on \_\_\_\_ uncovered voice and CW circuits (*List B*).

- |               |               |
|---------------|---------------|
| <i>List A</i> | <i>List B</i> |
| 1. ALFA       | A. All        |
| 2. BRAVO      | B. MF/HF      |
|               | C. VHF/UHF    |

CM37 . . . . SECURITY AND PROCEDURE. You are, or unit indicated is, \_\_\_\_\_ (on \_\_\_\_\_ MHz or circuit designation following DESIG).

1. To answer only properly authenticated transmissions

CM38 . . . . CALL SIGN. \_\_\_\_\_ (*List A*) your \_\_\_\_\_ (*List B*) call sign.  
*List A* *List B*

- |          |                  |
|----------|------------------|
| 1. Hoist | A. Visual        |
| 2. Sound | B. International |

CM39 . . . . VISUAL SIGNALING RESTRICTIONS are as indicated.

1. No restrictions on signaling
2. Use only directional flashing light
3. Use only nondirectional flashing light
4. Use only coloured filters
5. Use only from sunrise to sunset
6. Use only from sunset to sunrise
7. Use only signals from International Code of Signals
8. Use only signals from ATP-1, Vol. II/MTP-1, Vol. II
9. Others following DESIG

CM40 . . . .



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COMMAND  
CO

COMMAND  
CO

CHAPTER 17

COMMAND

1700 General Signals

1700 GENERAL SIGNALS

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

CO2 . . . . . ASSUME COMMAND (as \_\_\_\_ ).

1. Antiair warfare commander (AAWC)
2. Antisubmarine warfare commander (ASWC)
3. Antisurface warfare commander (ASUWC)
4. Composite warfare commander (CWC)
5. Helicopter attack group commander (HAGC)
6. Officer conducting exercise (OCE)
7. Officer conducting the serial (OCS)
8. Officer in tactical command (OTC)
9. Scene of action commander (SAC)
10. Screen commander (SC)
11. Search attack unit commander (SAUC)
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 \_\_\_\_ ).

CO5 . . . . DELEGATION OF OTC's FUNCTION(S). Responsibilities from Table \_\_\_\_ of ATP 1, Vol. I, Chapter 1, indicated by numerals following DESIG, are delegated to unit indicated.

*Example: CO5—2 DESIG 207 c/s 4AH . . . Responsibilities from Table 2 of ATP 1, Vol. I, Chapter 1, indicated by numerals following DESIG, are delegated to unit whose call sign is 4AH.*

CO6 . . . . FORM \_\_\_\_ unit (from Table F).

CO7 . . . . AUTHORITY TO DISPATCH \_\_\_\_ is delegated to screen commander. (Limiting distances for ships and helicopters may be ordred separately.)

1. SAG
2. SAU

CO8 . . . . OFFICER. \_\_\_\_ (from Table P) is to take charge.

CO9 . . . . .

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

1. Task
2. Type

CO11 . . . . ORGANIZATION. Assume following type organization \_\_\_\_ .

1. Sequence numbers in order of call signs following
2. Composition of divisions and subdivisions (sequence numbers following unit indicators)
3. Division commanders are to be \_\_\_\_ (sequence numbers)
4. Subdivision commanders are to be \_\_\_\_ (sequence numbers)

*Example: CO11—1 c/s 4AH 6RT 3PT 2XE 4MX 1SZ 3FO 3QR—2 Div 1—1 2 3 4—  
Div 2—5 6 7 8—Subdiv 1—1 2—Subdiv 2—3 4—Subdiv 3—5 6—  
Subdiv 4—7 8—3—1 5—4—1 3 5 7*

CO12 . . . . PLAN/ORDER. Execute (or \_\_\_\_ ) plan/order from Table C (phase \_\_\_\_ ).

1. Use

CO13 . . . . SUPPORT this unit or unit indicated (by using support situation \_\_\_\_ ).

1. A
2. B
3. C



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

- 1. I am assuming
- 2. I have resumed

CO15 . . . . TACTICAL CONTROL. 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

CO17 . . . . RULES OF ENGAGEMENT (ROE). The following NATO (or \_\_\_\_ (List A) ROE, indicated by numerals following DESIG, are in force (or \_\_\_\_ (List B)).

- |               |                                     |
|---------------|-------------------------------------|
| <i>List A</i> | <i>List B</i>                       |
| 1. National   | A. Cancelled<br>B. Newly authorized |

CO18 . . . .

CO19 . . . .

CO20 . . . .

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ENTRY/  
DEPART  
ED

ENTRY/  
DEPART  
ED

CHAPTER 18

ENTRY AND DEPARTURE

<b>1800</b>	<b>Anchor(ing)/Weighing</b>
<b>1801</b>	<b>Berth(ing)</b>
<b>1802</b>	<b>Channel/Swept Channel</b>
<b>1803</b>	<b>Getting Underway</b>
<b>1804</b>	<b>Miscellaneous</b>

**1800 ANCHOR(ING)/WEIGHING**

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
2. In accordance with previous instructions
3. In any unoccupied berth
4. In berth \_\_\_\_\_
5. In berths previously assigned
6. In berths previously occupied
7. In formation (number \_\_\_\_\_) (See Article 401.)
8. In present position (or in position indicated)
9. In present sequence
10. In succession from the rear
11. Let go another anchor
12. On account of fog
13. On bearing \_\_\_\_\_ from ship indicated (distance \_\_\_\_\_ miles)
14. On line of bearing \_\_\_\_\_ (range between ships \_\_\_\_\_ hundred yards)

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 . . . . . ANCHOR WATCH. Set anchor watch.

ED5 . . . . . BOTTOM is \_\_\_\_ .  
1. Clay  
2. Coral  
3. Covered in weed  
4. Hard  
5. Mud  
6. Pebbles  
7. Rock, rocky  
8. Sand  
9. Shells  
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 . . . . . FOUL HAWSE. Have foul hawse. A time signal indicates time at which it is expected hawse will be cleared.

ED9 . . . . . KEDGE. 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  
2. In accordance with previous instructions  
3. In any unoccupied berth  
4. In berth \_\_\_\_  
5. In berths previously assigned  
6. In berths previously occupied  
7. In present position (or position indicated)

ED11 . . . . .

ED12 . . . . . SHIP'S HEAD (or \_\_\_\_\_ ) is \_\_\_\_\_ .  
 1. Line of direction between anchors

ED13 . . . . . SHORT STAY. Shorten in to short stay (or \_\_\_\_\_ ).  
 1. To \_\_\_\_\_ fathoms  
 2. To \_\_\_\_\_ shackles

ED14 . . . . . UNMOOR (at \_\_\_\_\_ ).

ED15 . . . . .

ED16 . . . . . VEER CHAIN ( \_\_\_\_\_ ).  
 1. To \_\_\_\_\_ fathoms  
 2. To \_\_\_\_\_ shackles

ED17 . . . . .

ED18 . . . . . WEIGH ANCHOR (or \_\_\_\_\_ ). PORT or STBD may be used to indicate which anchor.  
 1. Weight second anchor  
 2. Secure anchors

ED19 . . . . .

ED20 . . . . .

**1801 BERTH(ING)**

ED21 . . . . .

ED22 . . . . . BERTH ASSIGNMENT of this ship or unit indicated is \_\_\_\_\_ .

ED23 . . . . . BERTH ASSIGNMENT. Hoist your berth assignment.

ED24 . . . . . BERTH OCCUPIED. Berth assigned me is occupied.

ED25 . . . . .

ED26 . . . . . CLEAR BERTH for this unit or unit indicated.

ED27 . . . . .

ED28 . . . . . SECURE ALONGSIDE ( \_\_\_\_ (*List A*)) (as specified \_\_\_\_ (*List B*)).

- |                    |                             |
|--------------------|-----------------------------|
| <i>List A</i>      | <i>List B</i>               |
| 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 . . . . .

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

ED32 . . . . .

ED33 . . . . .

**1802 CHANNEL/SWEPT CHANNEL**

ED34 . . . . .

ED35 . . . . . CHANNEL. Lead down channel (or \_\_\_\_ ).

1. Use swept channel

ED36 . . . . . CHANNEL \_\_\_\_ .

1. Has been swept
2. Has depth of \_\_\_\_ fathoms
3. Is clear
4. Is closed by boom (nets or gate)
5. Is obstructed



ED37 CHANNEL. Remain in swept channel (or \_\_\_\_ ).  
 1. Do not enter unswept water

ED38 . . . . CHANNEL. Direction of channel is \_\_\_\_ .

ED39 . . . . DEPARTURE INTERVALS. Units are to pass Point A at a \_\_\_\_ . Order of units of types may be indicated.  
 1. Distance interval of \_\_\_\_ hundred yards  
 2. Time interval of \_\_\_\_ minutes

ED40 . . . . ENTRY INTERVALS. Units are to pass Point X at a \_\_\_\_ . Order of units or types may be indicated.  
 1. Distance interval of \_\_\_\_ hundred yards  
 2. Time interval of \_\_\_\_ minutes

ED41 . . . .

ED42 . . . . GUIDE this unit or unit indicated through swept channel.

ED43 . . . .

ED44 . . . . MOVEMENTS. Follow my movements (or of \_\_\_\_ ) in conforming to channel by adjusting course and speed as necessary to pass over the same ground.  
 1. Column leader or unit indicated

ED45 . . . . OBSTRUCTION. Alter course as necessary to clear obstruction in channel (in position \_\_\_\_ ).

ED46 . . . .

**1803 GETTING UNDERWAY**

ED47 . . . .

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 . . . .

**1804 MISCELLANEOUS**

ED51 . . . . HANDS FALL \_\_\_\_ (at \_\_\_\_ ).

1. IN
2. OUT

ED52 . . . .

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 . . . .

ED56 . . . . OPEN. \_\_\_\_ 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 . . . .

ED58 . . . .

ED59 . . . .



ENEMY  
EN

CHAPTER 19

ENEMY

1900	Electronic Warfare
1901	Operations and Movements
1902	Reporting/Intelligence
1903	Warning

**1900 ELECTRONIC WARFARE**

EN1 . . . . .

EN2 . . . . .

EN3 . . . . .

EN4 . . . . .

EN5 . . . . .

**1901 OPERATIONS AND MOVEMENTS**

EN6 . . . . . COURSE. Enemy course is \_\_\_\_ (speed \_\_\_\_ .) Two courses separated by TACK indicate the limits within which the enemy is expected to steer.

EN7 . . . . . ENEMY MEAN LINE OF ADVANCE (MLA) is \_\_\_\_ degrees.

EN8 . . . . . MINES. Enemy ( \_\_\_\_ List A ) is (are) laying mines ( \_\_\_\_ List B).

- |                  |                                     |
|------------------|-------------------------------------|
| <i>List A</i>    | <i>List B</i>                       |
| 1. Aircraft      | A. Ahead of this or unit indicated  |
| 2. Submarines    | B. Astern of this or unit indicated |
| 3. Surface craft | C. In position indicated            |
|                  | D. On bearing ____                  |

EN9 . . . . .

EN10 . . . . . OPERATIONS. Enemy is \_\_\_\_ .

1. Approaching this unit or unit indicated
2. Approaching under cover of a smoke screen
3. Being reinforced
4. Drawing ahead
5. Dropping back
6. Endeavoring to escape
7. Gaining advantage
8. In disorder
9. Launching aircraft
10. Leaving harbor
11. Losing advantage
12. Organizing SSM attack
13. Organizing torpedo attack
14. Putting landing force ashore
15. Recovering aircraft
16. Retiring
17. Retreating
18. Scattered
19. Still in sight
20. Strongly supported
21. Superior
22. Threatening this unit or unit indicated
23. Trailing this unit or unit indicated
24. Using evasive steering
25. Well protected

EN11 . . . . .

EN12 . . . . . POSITION. Enemy position is ( \_\_\_\_ List A ) ( \_\_\_\_ List B ).

- |                                       |                                       |
|---------------------------------------|---------------------------------------|
| <i>List A</i>                         | <i>List B</i>                         |
| 1. Bearing ____ (distance ____ miles) | A. Departure                          |
| 2. Geographical, as indicated         | B. Destination                        |
|                                       | C. Estimated now (or at ____ )        |
|                                       | D. When last determined (or at ____ ) |

EN13 . . . . .

EN14 . . . . .

EN15 . . . . .

EN16 . . . . .

**1902 REPORTING/INTELLIGENCE**

EN17 . . . . .

EN18 . . . . . FORCES. Enemy \_\_\_\_ (from Table F) is/are operating in the vicinity.

EN19 . . . . .

EN20 . . . . . FORMATION. Enemy formation appears to be \_\_\_\_ .  
1. In ASW disposition around screened units(s)  
2. In AAW disposition around screened units(s)  
3. In ASW disposition with no screened units(s)  
4. In AAW disposition with no screened units(s)  
5. Surface action group

EN21 . . . . . FORMATION. Number of ships in enemy formation is \_\_\_\_ .

EN22 . . . . . MISSILE SITE. Enemy missile site or platform is located on bearing \_\_\_\_ from this unit or unit indicated distance \_\_\_\_ miles.

EN23 . . . . . REPORT. Make enemy (or \_\_\_\_ ) report.  
1. Amplifying

EN24 . . . . . REPORTING. Use \_\_\_\_ for enemy reporting. (See Article 165c.)  
1. TT  
2. XX  
3. YY  
4. QQ  
5. ZZ  
6. Position indicated

EN25 . . . . REPORTED. Enemy reconnaissance (or enemy \_\_\_\_ ) has reported this unit or unit indicated.  
1. Aircraft  
2. Submarine  
3. Surface unit

EN26 . . . . STATUS OF ENEMY. Enemy is\_\_\_\_\_.  
1. Destroyed  
2. Disabled  
3. Still engaged

EN27 . . . . SUNK. Enemy ships of type indicated have been sunk. Number may be indicated following DESIG.

EN28 . . . .

EN29 . . . . SHADOWING. Enemy (or enemy \_\_\_\_ ) (bearing \_\_\_\_ ) is shadowing this unit or unit indicated.  
1. Aircraft  
2. Submarine  
3. Surface unit

EN30 . . . . MARKING. Enemy (or enemy \_\_\_\_ ) (bearing \_\_\_\_ ) is marking this unit or unit indicated.  
1. Aircraft  
2. Submarine  
3. Surface unit

EN31 . . . .

EN32 . . . .

EN33 . . . .



1903 THREAT WARNING

EN34 . . . . THREAT WARNING. \_\_\_\_ (type of threat from List A) warning \_\_\_\_ (severity from List B).

- |               |               |                    |               |
|---------------|---------------|--------------------|---------------|
| <i>List A</i> | <i>List A</i> | <i>List A</i>      | <i>List B</i> |
| A. Air        | F. Torpedo    | K. Acoustic        | 1. RED        |
| B. Surface    | G. Missile    | L. Electromagnetic | 2. YELLOW     |
| C. Submarine  | H. Bomb       | M. Chemical        | 3. WHITE      |
| D. Space      | I. Mine       | N. Nuclear         |               |
| E. Shore      | J. Laser      | O. Biological      |               |
|               |               | P. Physical        |               |

*Example: EN34—A1 . . . Air warning RED.*  
*EN34—AC1 . . . Air and submarine warning RED.*  
*EN34—AC1—B2 . . . Air and submarine warning RED, surface warning YELLOW.*  
*EN34—CF1—AG2—M3 . . . Submarine and torpedo warning RED, air and missile warning YELLOW, chemical warning WHITE.*

EN35 . . . .

EN36 . . . .

EN37 . . . .

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CHAPTER 20

ELECTRONIC WARFARE

- 2000 Emission Control
- 2001 Enemy Countermeasures
- 2002 Electronic Support Measures
- 2003 Electronic Countermeasures

2000 EMISSION CONTROL

EW1. . . . . BREAK SILENCE/TRANSMIT on \_\_\_\_\_.  
 1. This circuit or circuit indicated  
 2. Frequency of \_\_\_\_\_ MHz  
 3. \_\_\_\_\_ (from Table E)

**NOT RELEASABLE**

EW2. . . . . SILENCE LIFTED (on \_\_\_\_\_ emissions).  
 1. Acoustic  
 2. Electronic

EW3. . . . . EMCON PLAN LINE. Unit indicated is to use line \_\_\_\_\_ in EMCON plan in force (or in EMCON plan \_\_\_\_\_).

EW4. . . . .

EW5. . . . . FREQUENCY SWITCH PLAN. Use frequency switch plan \_\_\_\_\_ (at \_\_\_\_\_).

EW6. . . . .

EW7. . . . . MAINTAIN SILENCE. Maintain complete and continuous silence on \_\_\_\_\_ (*List A/B*) to avoid intelligence collection (from \_\_\_\_\_ (*List C*)).

- |                  |                             |                         |
|------------------|-----------------------------|-------------------------|
| <i>List A</i>    | <i>List B</i>               | <i>List C</i>           |
| 1. Acoustic      | A. A- to F-band radar       | 20. AGI ( _____ )       |
| 2. Communication | B. HF                       | 21. Aircraft            |
| 3. Data link     | C. Helicopter dipping sonar | 22. Combatant ( _____ ) |
| 4. Decoys        | D. Medium/long-range radar  | 23. HF/DF network       |
| 5. FC/NC radars  | E. Nonsecure                | 24. Merchant            |
| 6. Jammers       | F. Other radar              | 25. Satellite           |
| 7. Radars        | G. Short-range radar        |                         |
|                  | H. VDS                      |                         |
|                  | I. VHF/UHF                  |                         |

EW8. . . . .

EW9. . . . RADAR EMISSION INSTRUCTIONS \_\_\_\_.

*Use of this group with EW11, EW12, and EW 13 should be avoided.*

1. Make \_\_\_\_ sweeps on radar (type or frequency band from Table E)
2. Radar (type or frequency band from Table E) may be used for \_\_\_\_ sweeps every \_\_\_\_ minutes, commencing at \_\_\_\_
3. Radar (type or frequency band from Table E) may be operated in random intervals, commencing at \_\_\_\_, limiting each period of operation to \_\_\_\_ sweeps with a maximum of \_\_\_\_ periods of operation per hour.

*Example: EW9—3—119E—1230—5—6 . . . I-band radar may be operated in random intervals, commencing at 1230, limiting each period of operation to 5 sweeps with a maximum of 6 periods of operation per hour.*

EW10 . . . EMISSION DIAGRAM. Use emission diagram number \_\_\_\_ following DESIG (column number \_\_\_\_).

*OTC may promulgate own emission diagrams if required and should number them so that this signal may be used for promulgation.*

EW11 . . . EMCON PLAN \_\_\_\_ (identity following DESIG) now in force (or when indicated from Table W) in accordance with fleet or force orders. (See ATP 1, Vol. I, Chapter 5.)

*Example: EW11 DESIG B—84W . . . EMCON PLAN B in force when directed.*

EW12 . . . EMCON PLAN PROMULGATION. EMCON plan is established as follows. The established plan is called \_\_\_\_ (identity following DESIG)\*. Use index letters (call signs, if required, for additional or specific units) and index numbers from the basic EMCON plan format in ATP 1, Vol. I, Chapter 5, followed by radiation status indicators (RSIs) (to be repeated if required).

*\*EMCON plans are to be brought into force by group EW 11.*

*Example: EW 12—A10E—c/s 9AW—10U—B15U—L15U DESIG B . . . EMCON plan BRAVO is established. It allows aircraft carriers essential use of all radars, unit with call sign 9AW unrestricted use of all radars, cruisers and pickets unrestricted use of I-band search/height-finding radar.*

EW13 . . . EMCON PLAN MODIFICATION. EMCON plan \_\_\_\_ (identity following DESIG) is to be modified as indicated. The modified plan is called \_\_\_\_ (identity following DESIG)\*.

*\*EMCON plans are to be brought into force by group EW 11.*

*Example: EW13 DESIG B—B15E DESIG B1 . . . EMCON PLAN BRAVO is modified to allow cruisers essential use of I-band search/height-finding radars. The modified plan is called BRAVO ONE.*

EW14 . . . .

EW15 . . . .

EW16 . . . .

**2001 ENEMY COUNTERMEASURES**

EW17 . . . .

EW18 . . . . COMMUNICATIONS DECEPTION. Enemy is \_\_\_\_ on circuit \_\_\_\_ .  
1. Suspected of sending false (deceptive) traffic  
2. Using our authentication system  
3. Using our call signs

EW19 . . . . COUNTERMEASURES DETECTED. Enemy use of \_\_\_\_ countermeasures has been detected by this unit or unit indicated (on circuit/line \_\_\_\_ preceded by DE-SIG or frequency/band from Table E).  
1. Break-lock  
2. Chaff  
3. Communications deception  
4. Communications jamming  
5. Decoy (mechanical reflectors)  
6. Radar deception  
7. Radar jamming  
8. Unidentified

EW20 . . . . EFFECTIVENESS of enemy countermeasures is as indicated:  
1. Can track intermittently  
2. Jamming only affects equipment type or frequency band indicated from Table E  
3. No difficulty in tracking targets  
4. Unable to lock on targets  
5. Unable to track targets

EW21 . . . .

EW22 . . . .

**2002 ELECTRONIC SUPPORT MEASURES**

EW23\* . . . BEARING (or position) of Racket No. \_\_\_\_ by D/F is \_\_\_\_ .  
*\*EMERG I is to be used for an interception constituting an immediate threat.*

EW24 . . . .

EW25 . . . .

EW26 . . . . INTERCEPT CLASSIFIED FRIENDLY. Racket No. \_\_\_\_ now classified friendly.

EW27 . . . . INTERCEPT OF UNAUTHORIZED EMISSION. This unit or unit indicated has intercepted friendly \_\_\_\_ emissions (from unit indicated) which are violating silence conditions in force.

1. Communications
2. Homing beacon
3. IFF
4. Jamming
5. Other equipment from Table E
6. Radar
7. Sonar

EW28 . . . . INTERCEPTED. This unit or unit indicated has intercepted enemy \_\_\_\_ emissions on bearing \_\_\_\_ on frequency of \_\_\_\_ MHz, indicated by numerals following DESIG, or by frequency band from Table E. (Type of emission is \_\_\_\_ from Table E.) (Emission is designated Racket No. \_\_\_\_ .)

1. Communications
2. Guided missile
3. Infrared
4. Jamming
5. Navigational aid
6. Proximity fuze
7. Radar, airborne source
8. Radar, shipborne source
9. Radar, submarine source
10. Radar, unknown source

*Example: EW28—8—047 DESIG 9350—30E—3462 . . . This unit has intercepted enemy shipborne source radar emissions on bearing 047° on frequency of 9350 MHz. Type of emission is fire control radar and is designated Racket No. 3462.*

EW29 . . . .

EW30 . . . .

EW31 . . . . SET ESM WATCH. Set \_\_\_\_ (from *List A*) watch for enemy emissions on \_\_\_\_ (from *List B*). (Enemy call sign is \_\_\_\_ .)

- |               |                                |
|---------------|--------------------------------|
| <i>List A</i> | <i>List B</i>                  |
| 1. D/F        | A. Frequency band from Table E |
| 2. Intercept  | B. Frequency in kHz            |
|               | C. Frequency in MHz            |
|               | D. Spot No. ____               |

EW32 . . . .

EW33 . . . .

EW34 . . . .



**2003 ELECTRONIC COUNTERMEASURES**

EW35 . . . . AIRCRAFT DISPENSED CHAFF. Use aircraft dispensed chaff (type from Table E) to protect own unit or unit indicated.

EW36 . . . . ELECTRONIC COUNTERMEASURES. Use \_\_\_\_ electronic countermeasures against radar/communications ( \_\_\_\_ from Table E).  
 1. Deception (spoof)  
 2. Disruption (jam)

EW37 . . . . DECOYS. Use decoys to simulate \_\_\_\_ (at \_\_\_\_).  
 1. Aircraft, few  
 2. Aircraft, many  
 3. Ship, large  
 4. Ship, small  
 5. Submarine snort  
 6. Task group

EW38 . . . . INFRARED DECOYS. Use infrared decoys to protect own unit.

EW39 . . . . DECEPTION REPEATER. Use deception repeater (type from Table E) to protect own unit or unit indicated (against Racket No. \_\_\_\_).

EW40 . . . .

EW41 . . . . FIRE CHAFF as indicated (bearing \_\_\_\_ ) (range \_\_\_\_ ).  
 1. ALFA (air dispensed)  
 2. BRAVO (barrier)  
 3. CHARLIE (confusion)  
 4. DELTA (distraction)  
 5. FOXTROT (funnel dispersed)  
 6. HOTEL (helicopter dispensed)  
 7. SIERRA (seduction)  
 8. As previously directed

EW42 . . . . SHELL CHAFF. Fire shell chaff (type from Table E) to protect own unit or unit indicated (on bearing \_\_\_\_ ) (at range \_\_\_\_ ).

EW43 . . . .

EW44 . . . .

EW45 . . . . EMISSION PRECAUTIONS. Take precautionary measures in accordance with national instructions to deny interception of classified information on own electromagnetic and acoustic emissions by Potential Intelligence Collector (PIC) in the area.

EW46 . . . . SIMULATE UNDERWATER TELEPHONE (UWT) COMMUNICATIONS with friendly submarine (or \_\_\_\_ ) using "Do not answer" procedures.  
 1. Detach and simulate SSN-link procedure using "Do not answer" procedures.

EW47 . . . .

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EXERCISE  
EX

## CHAPTER 21

## EXERCISES

## 2100 General Signals

## 2100 GENERAL SIGNALS

EX1 . . . . . COMMENCE RUN ( \_\_\_\_ ) (type of run following DESIG).

1. From ahead
2. From astern
3. From port
4. From starboard
5. Overhead
6. To port
7. To starboard

EX2 . . . . . EXERCISE AT \_\_\_\_ (from Table X) (ship indicated or officer from Table P to conduct the exercise).

EX3 . . . . . EXERCISE or EVENT is \_\_\_\_ (type of exercise from Table X or letter and/or numerals following DESIG).

1. Abandoned
2. Being conducted
3. Cancelled
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 \_\_\_\_ )

EX4 . . . . . EXERCISE INDEPENDENTLY, (remain within \_\_\_\_ range of this unit or unit indicated).

1. Radar
2. UHF
3. VHF
4. Visual signaling
5. \_\_\_\_ miles

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

EX6 . . . . . OPERATE IN AREA \_\_\_\_ (type of training or exercise from Table X to be conducted).

EX7 . . . . .

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 . . . . . TARGET. Take target in tow (or \_\_\_\_ ) (distance \_\_\_\_ hundred yards target is to be 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 . . . . . TRIALS. Carry out trials or tests of \_\_\_\_ equipment (at \_\_\_\_ ).  
1. Antiaircraft battery  
2. Close-range weapons  
3. Guided missile battery  
4. Main battery  
5. Primary steering  
6. Searchlights  
7. Secondary battery  
8. Secondary steering  
9. Sirens/whistles  
10. Smoke-making  
11. Steering by main engines  
12. Other equipment (from Table E, U, or Y)

EX12 . . . . .

GUN/  
MISSILE  
GM

GUN/  
MISSILE  
GM



CHAPTER 22

GUNNERY AND MISSILES

2200	Ballistic Signals
2201	General Signals
2202	Naval Gunfire Support

2200 BALLISTIC SIGNALS

GM1. . . . .

GM2. . . . .

GM3. . . . . BALLISTIC WIND. 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. . . . .

GM6. . . . .

**2201 GENERAL SIGNALS**

GM7. . . . RANGE FOULED (by \_\_\_\_ from Supplementary Tables).

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 below and are intended for transmission by Morse or voice. 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.*

<b>RAKE CODE</b>	
AM . . . Hit	
S . . . . More than 1,000 yards short of target	
O . . . . More than 1,000 yards beyond target	
A . . . Over 50 yards	M . . . Short 50 yards
B . . . Over 100	N . . . Short 100
C . . . Over 150	P . . . Short 150
D . . . Over 200	Q . . . Short 200
E . . . Over 300	R . . . Short 300
F . . . Over 400	T . . . Short 400
G . . . Over 500	U . . . Short 500
H . . . Over 600	V . . . Short 600
I . . . Over 700	W . . . Short 700
J . . . Over 800	X . . . Short 800
K . . . Over 900	Y . . . Short 900
L . . . Over 1,000	Z . . . Short 1,000

- GM14 . . . . TARGET \_\_\_\_ .
- 1. Range is \_\_\_\_ thousand yards
  - 2. Identified — Ready to observe
  - 3. Identified — I am able to spot for you and will pass reports on circuit or frequency indicated
  - 4. Obscured
  - 5. Destroyed

GM15 . . . .

GM16 . . . .

- GM17 . . . . AMMUNITION. \_\_\_\_ (List A) \_\_\_\_ (List B) fuzes.
- |                |               |                |               |
|----------------|---------------|----------------|---------------|
| 1. Change to   | <i>List A</i> | A. Impact/time | <i>List B</i> |
| 2. Reload with |               | B. Proximity   |               |
| 3. Select      |               |                |               |

**2202 NAVAL GUNFIRE SUPPORT**

GM18 . . . .

GM19 . . . .

GM20 . . . . FIRE into grid area \_\_\_\_ .

GM21 . . . . GRID REFERENCE for gunfire support is \_\_\_\_ .

GM22 . . . . GUNFIRE SUPPORT. Commence the scheduled gunfire support for landing beach \_\_\_\_ from Table Z).

GM23 . . . . SPOTTER. Call spotter on frequency allocated (or frequency \_\_\_\_ ) and carry out naval gunfire support task allocated.

- GM24 . . . . TARGET for gunfire support is \_\_\_\_ .
- 1. Buildings
  - 2. Gun emplacements
  - 3. Rail/locomotive
  - 4. Road/bridge
  - 5. Soft-skinned vehicles
  - 6. Tanks in open ground
  - 7. Troop concentration

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HARASS-  
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CHAPTER 23

HARASSMENT

2300 Shadowing, Marking, and Countermarking

2301 Harassing and Hampering

2300 SHADOWING, MARKING, AND COUNTERMARKING

HA1 . . . . . SHADOW, MARK, OR COUNTERMARK (as indicated List A) OPPONENT (bearing \_\_\_\_ ) (as indicated List B).

List A

- 1. Shadow
- 2. Mark
- 3. Countermark

List B

- A. At close range
- B. At distant range
- C. At optimum range
- D. Covertly
- E. Overtly

HA2 . . . . .

2301 HARASSING AND HAMPERING

HA3 . . . . . HARASS OPPONENT (bearing \_\_\_\_ (distance \_\_\_\_ ) by maneuvering in accordance with the Rules of Engagement or OTC's policy and acting strictly in accordance with the Regulations for Prevention of Collisions at Sea, unless otherwise ordered.

- 1. Maneuver to obtain right of way, applying international Rules of the Road.
- 2. Close opponent with varying speeds. Avoid 'in extremis' situation.
- 3. Approach at high speed and make close passes in order to disturb operations on deck or alongside.
- 4. Join with opponent's main force without hampering maneuvers (minimum range \_\_\_\_ ).
- 5. Join with opponent's main force and conform to maneuvers.
- 6. Disregard Regulations for Prevention of Collisions at Sea.
- 7. Ram opponent (bearing \_\_\_\_ ) (with unit indicated).

HA4 . . . . . HARASS OPPONENT (bearing \_\_\_\_\_) (distance \_\_\_\_\_) by use of weapons \_\_\_\_\_ (List A) and sensors \_\_\_\_\_ (List B) as indicated.

*List A*

*List B*

- |                               |   |
|-------------------------------|---|
| 1. Crew at battle stations    | A. Turret/launcher aimed  |
| 2. SSM                        | B. Turret/launcher not aimed  |
| 3. SAM                        | C. Associated control radar   |
| 4. Main battery               | C. aimed but not activated  |
| 5. Secondary battery          | D. Associated control radar aimed and activated in tracking mode    |
| 6. Other _____ (from Table A) | E. Associated control radar aimed and activated in acquisition mode |

HA5 . . . . . HARASS OPPONENT (bearing \_\_\_\_\_) (distance \_\_\_\_\_) by use of aircraft.

1. Overfly target at low level (minimum height \_\_\_\_\_).
2. Overfly target with bomb doors open.
3. Close target flying missile launch pattern. Radar activated in tracking or acquisition mode.
4. Jam \_\_\_\_\_ (from Table E) band radars.
5. Jam \_\_\_\_\_ (from Table E) communications.

HA6 . . . . . HARASS SUBSURFACE CONTACT by \_\_\_\_\_ (List A) (using \_\_\_\_\_ (List B)).

*List A*

*List B*

- |   |                  |
|---|------------------|
| 1. Make sudden and significant course alterations in direction of contact.      | A. Noisemaker    |
| 2. Make every effort short of attack to induce the submarine to surface.        | B. Torpedo decoy |
| 3. Throw explosive charges close to contact (but not closer than _____ yards).  | C. UWT           |
| 4. Change sonar transmission interval and carry out sonar in-contact procedure. |                  |
| 5. Activate equipment _____ (from List B or Table U).                           |                  |



HA7 . . . . . HAMPER OPPONENT's OPERATIONS or MOVEMENTS (by \_\_\_\_ (List A)) (using \_\_\_\_ (List B)).

*List A*

1. Maneuvering
2. Taking station on designated opponent's aircraft approach or glidepath
3. Laying smoke screen
4. Using cables or nets to foul propellers
5. Simulate exercise \_\_\_\_ (from Table X) on opponent's MLA
6. Imaginative use of \_\_\_\_ (from List B or Table U)

*List B*

- A. Explosive signal charges
- B. Pyrotechnics
- C. Searchlights
- D. UWT
- E. Use International Code of Signals
- F. Do not use International Code of Signals

HA8 . . . . .

HA9 . . . . .

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**INTER-  
DICTION  
IN**

**INTER-  
DICTION  
IN**

CHAPTER 24

INTERDICTION AND EMBARGO OPERATIONS

2400 GENERAL SIGNALS

2400 GENERAL SIGNALS

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 ( \_\_\_\_ ) (from List A) via ( \_\_\_\_ ) (from List B).

- |                |                   |
|----------------|-------------------|
| <i>List A</i>  | <i>List B</i>     |
| 1. In progress | A. VHF            |
| 2. Completed   | B. Flashing light |

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

1. Onboard my vessel
2. Enroute to conduct boarding
3. Onboard potential violator
4. Returning from potential violator
5. In distress

IN5 . . . . . Vessel (name/track number) is ( \_\_\_\_ ) (from List A) ( \_\_\_\_ ) (from List B).

- |                           |                      |
|---------------------------|----------------------|
| <i>List A</i>             | <i>List B</i>        |
| 1. Cooperating (with)     | A. My boarding       |
| 2. Not cooperating (with) | B. My boarding party |
| 3. Opposing               |                      |
| 4. Obstructing            |                      |

IN6 . . . . . Boarding is \_\_\_\_ .  
1. ( \_\_\_\_ ) percent completed  
2. Not possible  
3. Other \_\_\_\_ .

IN7 . . . . . Vessel's (name/track number) cargo is \_\_\_\_ .  
1. Arms/weapons  
2. Asylum seekers  
3. Chemicals  
4. Crude oil  
5. Foodstuffs  
6. General cargo  
7. Illegal drugs  
8. In ballast  
9. Liquified gas  
10. Livestock  
11. Medical supplies  
12. People  
13. Petroleum  
14. Radioactive material  
15. Toxic material  
16. Vehicles  
17. Other \_\_\_\_

IN8 . . . . . Assume tracking/boarding responsibility for contact (name/track number).

IN9 . . . . . Vessel (name/track number) is \_\_\_\_ .  
1. Cleared to proceed  
2. Diverted  
3. Under my control  
4. Arrested  
5. Other \_\_\_\_

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

IN11. . . . .

IN12. . . . . My method of boarding will be \_\_\_\_ .  
1. Boat  
2. Helicopter  
3. Other

IN13. . . . . Preferred method of boarding is \_\_\_\_ .  
1. Boat  
2. Helicopter  
3. Other

**METEOR-  
OLOGY  
ME**

METEOR-  
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ME



## CHAPTER 25

## METEOROLOGY

## 2500 General Signals

## 2500 GENERAL SIGNALS

ME1 . . . . . CEILING is \_\_\_\_ hundred feet.

ME2 . . . . . CLOUD COVER is \_\_\_\_ eighths (at \_\_\_\_ hundred feet).

ME3 . . . . . FOG. \_\_\_\_ from the OTC (or from \_\_\_\_ ).  
1. Fog in sight bearing \_\_\_\_ (or between bearings \_\_\_\_ and \_\_\_\_ ) distance \_\_\_\_ miles  
2. Depth of fog in direction \_\_\_\_ (or between bearings \_\_\_\_ and \_\_\_\_ ) is \_\_\_\_ miles

ME4 . . . . . SEA STATE is \_\_\_\_ .  
1. Calm  
2. Choppy  
3. Moderate swell  
4. Heavy swell  
5. Rough  
6. Very rough

ME5 . . . . .

ME6 . . . . . STORM WARNING. Storm or line squall of \_\_\_\_ severity may be expected within \_\_\_\_ hours.  
1. Intense  
2. Moderate  
3. Violent

ME7 . . . . . VISIBILITY is \_\_\_\_ miles.

ME8 . . . . . VISIBILITY is \_\_\_\_ (on bearing \_\_\_\_ ) from OTC or unit indicated.  
1. Deteriorating  
2. Improving  
3. Not changing

ME9 . . . . . WEATHER REPORT. Make weather report ( \_\_\_\_ ).  
1. Encrypted  
2. Forecast  
3. In international code (FM \_\_\_\_ )  
4. In plain language  
5. Of surface wind observation  
6. Of upper wind at \_\_\_\_ thousand feet

ME10 . . . . . WIND SPEED AND DIRECTION. Wind speed is \_\_\_\_ knots from direction \_\_\_\_ .

ME11 . . . . ENVIRONMENTAL DATA obtained by radiosonde launched in position \_\_\_\_ (in latitude and longitude) at \_\_\_\_ (date-time group). Radiosonde launch height above MSL is \_\_\_\_ feet. Wind speed is \_\_\_\_ knots. Evaporation duct height is \_\_\_\_ feet. The radiosonde data are entered in groups at each significant level sequentially as level, height, pressure, temperature, and relative humidity, beginning with the first level above launch height. The first two figures in the group indicate the level, the following five figures indicate the level height in feet, the following five figures indicate the pressure in millibars (mb) with one decimal, and the following three figures indicate temperature in degrees Celcius with one decimal. For temperatures below zero, the group will have four figures and the first will be zero. The last three figures indicate relative humidity with one decimal.

*Example: ME11—3215N—2030W—231230MAR—27 —50—13—01 00050 10090 256 772—02 00150 10000 252 443—03 00300 09860 264 320 . . . Radiosonde data obtained from a Meteo balloon launched in position 32°15'N 20°30'W at 231230 March from 27 feet above mean sea level, where wind speed is 15 knots and an evaporation duct of 50 feet is present, are as follows:*

Level	Height (FT)	Pressure (MB)	Temperature (°C)	Relative Humidity (%)
01	50	1009.0	25.6	77.2
02	150	1000.0	25.2	44.3
03	300	986.0	26.4	32.0

ME12 . . . .

ME13 . . . .

ME14 . . . .

**MINE  
WARFARE  
MW**

**MINE  
WARFARE  
MW**

CHAPTER 26

MINE WARFARE

2600	Safety Measures
2601	Mines/Minefields
2602	Minelaying
2603	Cleared Channel/Area
2604	Leadthrough Signals
2605	Track Policy
2606	Dan Laying/Dan Running
2607	Minesweeping
2608	Minehunting/Mine Disposal
2609	Tasking and Reporting

**2600 SAFETY MEASURES**

MW 1 . . . .

MW 2 . . . . DECK. All men are to remain on deck.

MW 3 . . . . DEGAUSSING. Use degaussing equipment.

MW 4 . . . .

MW 5 . . . . WATCH. Set mine watch.

**2601 MINES/MINEFIELDS**

MW 6 . . . . AIRCRAFT MINES. Object \_\_\_\_ was dropped by aircraft in position indicated.  
1. Identified as a parachute mine  
2. Believed to be a mine

MW 7 . . . . CUT. I have cut a mine (type \_\_\_\_ Table M) adrift (in position indicated).

MW 8 . . . . DANGEROUS AREA. Area is dangerous on account of mines (type \_\_\_\_ from Table M) and enclosed in a circle of \_\_\_\_ miles radius with center in position indicated.

MW 9 . . . ENEMY MINEFIELD POSITION. Enemy minefield is bounded by lines joining positions indicated.

MW 10 . . .

MW 11 . . . MINE is \_\_\_\_\_ (in position indicated).  
 1. Drifting  
 2. Exploded  
 3. Just awash  
 4. Neutralized  
 5. Of type \_\_\_\_\_ from Table M  
 6. Sinking slowly

MW 12 . . . MINES (type \_\_\_\_\_ from Table M) have been \_\_\_\_\_ in position indicated (number of mines \_\_\_\_\_).  
 1. Found  
 2. Reported

MW 13 . . .

MW 14 . . . MINEFIELD FIRING. Controlled minefield number \_\_\_\_\_ is about to be fired (or was fired at \_\_\_\_\_).

MW 15 . . . MINEFIELD SETTING. All controlled minefields are set to \_\_\_\_\_.  
 1. Active  
 2. Automatic, and are dangerous to friendly ships  
 3. Safe

MW 16 . . .

MW 17 . . .

MW 18 . . . OWN MINEFIELD'S POSITION. This unit or unit indicated established a minefield. \_\_\_\_\_.  
 1. Line number \_\_\_\_\_ is between positions indicated.  
 2. Corners of the area mined are at positions indicated.

MW 19 . . .

MW 20 . . .

2602 MINELAYING

MW 21 . . .

MW 22 . . . LAY MINES as previously ordered (or \_\_\_\_ ) on arrival at position where laying is to commence (or in position indicated).

1. Employing the spread line method.
2. In a continuous line. A single line is to be laid unless otherwise ordered.
3. In groups ( \_\_\_\_ number per group, each group \_\_\_\_ hundred yards apart). A single line is to be laid unless otherwise ordered.
4. In parallel lines ( \_\_\_\_ number per line), lines \_\_\_\_ yards apart.
5. Irregularly, some single, some in groups (line length is \_\_\_\_ hundreds of yards in direction \_\_\_\_ ). A single line is to be laid unless otherwise ordered.
6. By ships in column, laying from the rear ships.
7. By ships in single line abreast.

MW 23 . . . LEFT TO LAY. There are \_\_\_\_ mines left to lay.

MW 24 . . . MINELAYING \_\_\_\_ .

1. Arming delays are to be set at \_\_\_\_ (date-time group).
2. Commence mining; plan may be indicated.
3. All mine rails (or \_\_\_\_ number) are jammed.
4. Jettison all mines. (Mines are to be made \_\_\_\_ .)
  - A. Active
  - B. Safe
5. Lay mines (type \_\_\_\_ from Table M) (from position or in area indicated). (Plan number may be added.)
6. Unit indicated launched first mine in the line \_\_\_\_ seconds after time zero.
7. You are assigned to line number \_\_\_\_ (DESIG \_\_\_\_ unit indicated in tactical sequence).
8. Line of mines bears \_\_\_\_ length \_\_\_\_ hundred yards from position indicated.
9. Use mine launching interval of \_\_\_\_ seconds (in line number \_\_\_\_ ).
10. Number of mines (and obstructor if applicable) in each line (or line number \_\_\_\_ ) is \_\_\_\_ .
11. Fit mines.
12. Setting of mine depth (or \_\_\_\_ ) is to be \_\_\_\_ feet.
  - A. Plummet
  - B. Obstructor
13. Lay mines \_\_\_\_ hundred yards apart in each line (or in line number \_\_\_\_ ).
14. Spacing of lines is to be \_\_\_\_ hundred yards (between line number \_\_\_\_ and line number \_\_\_\_ ).
15. Cease mining (at \_\_\_\_ ).

MW 25 . . . MINELAYING REPORT \_\_\_\_ .

1. OPTASK mining number.
2. Number of mines correctly laid \_\_\_\_ .
3. Number of mines jettisoned \_\_\_\_ .
4. LRNs \_\_\_\_ of jettisoned mines (and depths \_\_\_\_ ).
5. LRNs \_\_\_\_ of unlaidd mines.
6. LRNs \_\_\_\_ of incorrectly laid mines (and depths \_\_\_\_ ).
7. Limits of minefield \_\_\_\_ .
8. Limits of jettisoned area \_\_\_\_ .
9. Time of completion \_\_\_\_ .
10. Position of first mine in mine line and LRN (air laid).
11. Position of last mine in mine line and LRN (air laid).

MW 26 . . .

MW 27 . . .

MW 28 . . .

MW 29 . . .

**2603 CLEARED CHANNEL/AREA**

MW 30 . . . AREA. The area to be swept/hunted is \_\_\_\_ (or \_\_\_\_ ).

1. An area of width \_\_\_\_ hundred yards, the centerline of which lies between positions indicated
2. Area/channel number/letter \_\_\_\_
3. Extend area to be swept in direction \_\_\_\_ from position \_\_\_\_ (for \_\_\_\_ miles)

MW 31 . . .

MW 32 . . . BUOY \_\_\_\_.

1. Position of mine
2. Safe channel
3. Swept/hunted channel

MW 33 . . .

MW 34 . . . CHANNEL/AREA is clear of mines (or \_\_\_\_ ). NEGAT preceding means "Channel/ area is not clear of mines."

1. Has been searched
2. Is swept/hunted

MW 35 . . .

MW 36 . . .

MW 37 . . . SWEPT CHANNEL. MCM vessels are approaching entrance (or \_\_\_\_ ) of swept channel.

1. End

MW 38 . . .

MW 39 . . .



**2604 LEADTHROUGH SIGNALS**

- a. This article provides the special signals used by lead ship and shore establishments in a leadthrough operation. When using flashing light, guidance signals are to be flashed continuously until RRRR is received. When a numeral group follows any letters, the whole group (e.g., XET270) will be flashed repetitively until RRRR is received. Leadthrough signals are normally only signaled between the guiding vessel and the leading vessel of the group being guided.
- b. These signal groups are UNCLASSIFIED and are listed in ATP 2, Vol. II, Naval Control of Shipping Manual, Guide to Masters.

XAR \_\_\_\_ Make \_\_\_\_ anchor(s) ready for letting go.  
 1. One  
 2. Both

XAS \_\_\_\_ (TACK \_\_\_\_ ) (TACK \_\_\_\_ ) Anchor \_\_\_\_ .  
 1. As previously directed  
 2. In position \_\_\_\_ (at \_\_\_\_ )  
 3. Be ready to weigh anchor (at \_\_\_\_ )  
 4. Shorten cable in to short stay (by \_\_\_\_ )  
 5. Use both bower anchors  
 6. Drop second anchor under foot  
 7. As convenient

XAV Let go anchor.

XAW ( \_\_\_\_ ) Weigh anchor (at \_\_\_\_ ).

XAX \_\_\_\_ My anchor is \_\_\_\_ .  
 1. Aweigh  
 2. Foul  
 3. Clear

XCK Form single column.

XDY	Maintain radio silence (including handheld systems).
XEA ____	Maintain silence on all electronic emitters. (This includes external and internal radio systems, radars, echo sounders, doppler logs, etc.) <ol style="list-style-type: none"> <li>1. Total</li> <li>2. Exempt convoy ops/admin VHF</li> </ol>
XEC ____ TACK ____ ( ____ )	Set watch on ____ . <ol style="list-style-type: none"> <li>1. VHF channel ____ (at ____ )</li> <li>2. Frequency ____ (at ____ )</li> </ol>
XED	Use visual signals only.
XEQ	Unable to communicate by flashing light.
XES ____	Base course is ____ .
XET ____	Adjust base course to ____ . (May only be used for adjustments up to 10°.)
XEW ____	Adjust course so that I bear ____ (degrees true to you).
XEX ____ (TACK ____ )	Prepare to alter course by wheeling to ____ (at ____ ).
XHA	Energize degaussing equipment.
XHB	Switch off degaussing equipment.
XHG ____	Ships are to be ____ hundred yards apart.
XHD ____	Distance between first unit to be led and lead-through vessel (LTV) is to be ____ hundred yards.
XHZ ____	Submarine transit will take place ____ . <ol style="list-style-type: none"> <li>1. On the surface</li> <li>2. At periscope depth</li> <li>3. Dived at ____ meters depth</li> </ol>

XIA \_\_\_ (TACK \_\_\_ )

Exercise is \_\_\_ .  
 1. To commence (at \_\_\_ )  
 2. Completed  
 3. Cancelled.

XIX

I have ceased to lead you.

XIY

I am approaching the end of the channel.

XIZ \_\_\_ TACK \_\_\_

I am \_\_\_ yards off the centerline to the \_\_\_ .  
 1. Right  
 2. Left

XJA \_\_\_ TACK \_\_\_

You are \_\_\_ yards off the centerline to the \_\_\_ .  
 1. Right  
 2. Left

XJB \_\_\_ TACK \_\_\_

You are \_\_\_ yards off the centerline to the \_\_\_ .  
 1. North  
 2. South  
 3. East  
 4. West

XJC \_\_\_ (TACK \_\_\_ ) (TACK \_\_\_ )

Resume lead through at \_\_\_ (position)  
 \_\_\_ (latitude/longitude) at \_\_\_ (time).  
**NOT RELEASABLE**

XJD \_\_\_ (TACK \_\_\_ ) (TACK \_\_\_ )

Discontinue lead through at \_\_\_ (position)  
 \_\_\_ (latitude/longitude) at \_\_\_ (time).  
**NOT RELEASABLE**

XJE

I am on the centerline.

XJF

Follow your column leader.

XJG

Follow mine countermeasures vessel (MCMV).

XJH ( ___ [c/s] )	Follow me (or ___ [call sign] ).
XJI	Follow in the wake of the next ahead.
XJJ	Follow in the wake of mine countermeasures vessel (MCMV).
XJK ( ___ [c/s] )	Follow in my wake (or ___ [call sign] ).
XJL	You have left the channel.
XJM	Follow next ahead, adjusting your course to pass over the same ground.
XJN	Follow mine countermeasures vessel (MCMV), adjusting your course to pass over the same ground.
XJO ( ___ [c/s] )	Follow me (or ___ [call sign]), adjusting your course to pass over the same ground.
XJP	Follow your column leader, adjusting your course to pass over the same ground.
XJQ	Follow in the wake of your column leader.
XJR	Request lead through.
XJS	I am ready to be led through.
XJT ( ___ )	I will lead you (or units indicated) through the channel.
XJU	I cannot/can no longer lead you through the channel.
XJV ___	Number of units to be led through is ___ . (Maximum of three per leadthrough vessel (LTV) and optimum of one).

XJW	I am approaching entrance to the channel.
XJX ___ (TACK ___ ) (TACK ___ )	I will be at ___ (position) ___ (latitude/longitude) at ___ (time). <b>NOT RELEASABLE</b>
XJY ___ (TACK ___ ) (TACK ___ )	You (or ship indicated) are to be at ___ (position) ___ (latitude/longitude) at ___ (time). <b>NOT RELEASABLE</b>
XJZ ___ (TACK ___ ) (c/s)	Report time of entering and leaving channel of ____ . 1. Your ship 2. First ship in column 2. Last ship in column 4. Call sign
XKM	I am resuming station.
XMH	Indicate your call sign.
XMI ___	Your call sign is ____ .
XMJ ___	My call sign is ____ .
XMK	I cannot see you.
XML	I can see you. You are identified.
XMP	Indicate your position by flashing light/searchlight.
XMQ	First unit of column to be led is to show three white lights displaced vertically at the bow.
XMR	Leadthrough vessel (LTV) is showing white light over red.

XMS	Switch off lead through identification lights.
XNU	Disregard my movements.
XNV	Your movements are not understood.
XQE ___ (TACK ___ )	I am passing position ___ (at ___ ).
XQJ	You are clear of the minefield, Proceed as previously directed.
XRF ( ___ )	Maintain radar silence (on ___ ). <ol style="list-style-type: none"> <li>1. 3 cm (I)</li> <li>2. 10 cm (E/F)</li> </ol>
XSA ( ___ [c/s] )	I am (or ___ [call sign] is) entering the channel.
XSB ( ___ [c/s] )	You have (or ___ [call sign] has) entered the channel.
XSC ___	You are ___ the centerline. <ol style="list-style-type: none"> <li>1. Right of</li> <li>2. Left of</li> <li>3. On</li> </ol>
XSD ___	You have a tendency toward ___ of the centerline. <ol style="list-style-type: none"> <li>1. Right</li> <li>2. Left</li> </ol>
XWD ___	My speed is ___ knots.
XWI	What is your minimum speed under present conditions?
XWF ___	My minimum speed is ___ knots.
XWL	Stop your ship. Remain in the channel.
XWM ___	Speed during the lead through will be ___ knots.
Pennant 3 (TACK ___ ) (TACK ___ )	Mine sighted (bearing ___ ) (range ___ yards).

c. When either the tactical situation or COMSEC policy precludes the overt use of ships names or international call signs on uncovered VHF/UHF voice circuits, then the following brevity code words should be used:

<i>UNIT</i>	<i>CALL SIGN</i>	<i>REMARKS</i>
LTV	GUIDEDOG	If more than one LTV is operating in the same area, suffix ALFA/BRAVO/CHARLIE, etc., should be used.
VTM	SHEEP	If more than one LTV is operating in the same area, then a suffix ALFA/BRAVO/CHARLIE, etc., should be added to the call sign to match the Guidedog suffix.  If more than one vessel is being led through, then a suffix ONE/TWO/THREE, etc., should be added to match the respective Guidedog suffix.

d. There is no special NEGAT flag in the International Code of Flags. If visual INTERCO signals have to be used then FLAG N followed by Tack is to be used for the purpose of expressing the converse meaning of a signal. However, if using voice INTERCO procedure, the word Tack must not be used: FLAG N will be substituted by the proword NEGAT.

*Example: N - XJS - Meaning I am not ready to be lead through.*

**2605 TRACK POLICY**

MW 40 . . . PORT/STBD . . . ADJUST SWEEP. (Or \_\_\_\_.) (PORT/STBD may be used to indicate sides.)

1. Leave sweep fully veered and unchanged
2. Recover sweep
3. Recover sweep and stream opposite side
4. Recover wire sweep and stream influence sweep
5. Shorten in as required
6. Stream and veer sweep
7. Veer sweep to full length or length indicated (meters)

MW 41 . . .

MW 42 . . .

MW 43 . . . RUN COMMENCED. Entered track \_\_\_\_ (at \_\_\_\_).

MW 44 . . . RUN COMPLETED. Effective (or \_\_\_\_ ) run has been completed in track \_\_\_\_ (at \_\_\_\_).

1. Partially effective
2. Completely ineffective

MW 45 . . . RUN NUMBER. Present run is last of this task (or \_\_\_\_).

1. Run just completed by this unit or unit indicated in track \_\_\_\_ is allocated run number.
2. Number of runs in track will be \_\_\_\_.

MW 46 . . . LEAVING CHANNEL. \_\_\_\_ channel.

1. Report when leaving
2. I have left

MW 47 . . . TRACK. \_\_\_\_.

1. My next track is \_\_\_\_
2. My present track is \_\_\_\_
3. Report when entering track
4. Report when leaving track
5. Request next track assignment
6. Resweep this track
7. Take track \_\_\_\_
8. Upon leaving present track, clear area and repair defects
9. Upon leaving present track, proceed as indicated in signal following
10. What is your present track
11. Your next track is \_\_\_\_

MW 48 . . . TRACK SEQUENCE/SEPARATION. Tracks are to be swept in succession at 2,000 yards interval (or using \_\_\_\_ ) in following sequence \_\_\_\_ (track designators separated by TACK) by all ships of this unit (or ship indicated). Ships are to navigate independently.

1. Lateral separation \_\_\_\_ yards
2. Longitudinal separation \_\_\_\_ yards

MW 49 . . .



2606 DAN LAYING/DAN RUNNING

MW 50 . . . DANBUOY (number \_\_\_\_ following DESIG) is/has \_\_\_\_ .

- |                         |                               |
|-------------------------|-------------------------------|
| 1. Adrift               | 12. Sunk                      |
| 2. Broken stave         | 13. The first                 |
| 3. Cut                  | 14. The last                  |
| 4. Datum dan            | 15. To be cut                 |
| 5. Deep danbuoy         | 16. To be lifted              |
| 6. In my sweep          | 17. To be passed ____ yards   |
| 7. Lifted               | 18. To be pointed             |
| 8. Lying flat           | 19. To be recovered           |
| 9. Not watching         | 20. To be repaired            |
| 10. Out of position     | 21. Unlit                     |
| 11. Scope of ____ yards | 22. Without ____ from Table Y |

MW 51 . . . DANBUOY (number \_\_\_\_ following DESIG) is to be laid with \_\_\_\_ (*List A*) (positioned with reference to \_\_\_\_ (*List B*)).

- |                           |                     |                              |
|---------------------------|---------------------|------------------------------|
| <i>List A</i>             |                     | <i>List B</i>                |
| 1. Blue light             | 9. Lamp             | A. Danbuoy indicated         |
| 2. Bright                 | 10. Medium          | B. Decca chain indicated     |
| 3. Constant tension gear  | 11. Radar reflector | C. Geographic position       |
| 4. Dim                    | 12. Red light       | D. Reference point indicated |
| 5. Double                 | 13. Single          | E. Route buoy indicated      |
| 6. Flag (to be indicated) | 14. Transponder     |                              |
| 7. Flashing light         | 15. White light     |                              |
| 8. Green light            |                     |                              |

MW 52 . . . DANBUOY. Let go danbuoy (or \_\_\_\_ ).

1. Short scope buoy

MW 53 . . . DANBUOY POSITION INDICATION. \_\_\_\_ .

1. Bearing of danbuoy (number \_\_\_\_ following DESIG) is \_\_\_\_ degrees from this unit, unit indicated, or danbuoy (number \_\_\_\_ following DESIG). (Distance \_\_\_\_ yards.)
2. Check position of danbuoy (number \_\_\_\_ following DESIG).
3. Danbuoy (number \_\_\_\_ following DESIG) is \_\_\_\_ degrees \_\_\_\_ yards from correct position.
4. Danbuoy (number \_\_\_\_ following DESIG) is within 25 yards of my bow.

MW 54 . . .

MW 55 . . . DANLINE. \_\_\_\_ .

1. Danbuoy (number \_\_\_\_ following DESIG) is \_\_\_\_ yards further from the center of the channel than the mean danline.
2. Danbuoy (number \_\_\_\_ following DESIG) is \_\_\_\_ yards nearer to the center of the channel than the mean danline.
3. Following danbuoy (numbers \_\_\_\_ following DESIG) are on the mean danline.
4. Leave line indicated down.
5. Line is \_\_\_\_ yards from channel center.
6. Straighten the line.
7. Straighten the line next track.

MW 56 . . . DAN RANGE. Range on passing danbuoy number \_\_\_\_ following DESIG is \_\_\_\_ yards.

MW 57 . . . DAN RANGE. Report is to be made by ship indicated of range to danbuoy (number \_\_\_\_ following DESIG) on passing.

MW 58 . . . DAN RUNNING. Take up dan running duties \_\_\_\_ .

1. Keeping abreast of ship indicated
2. Keeping astern of ship indicated and be prepared to lay danbuoys if mines are cut
3. Passing \_\_\_\_ yards from the line of buoys off the edge of the channel
4. Passing \_\_\_\_ yards from the line of buoys off the opposite edge of the channel

MW 59 . . .

MW 60 . . .

MW 61 . . . LAY DANBUOYS. Ship indicated lay \_\_\_\_ .

1. Danbuoys \_\_\_\_
  - (a) Number of dans
  - (b) Bearing from datum danbuoy
  - (c) Interval between dans \_\_\_\_ miles
2. Datum dan (in position \_\_\_\_)
3. Line of dans \_\_\_\_
  - (a) Number of dans
  - (b) Distance from center of channel \_\_\_\_ hundred yards
  - (c) First dan abreast channel point \_\_\_\_
  - (d) Interval between dans \_\_\_\_ miles from dan \_\_\_\_ to dan \_\_\_\_
  - (e) Direction of line from dan \_\_\_\_ to dan \_\_\_\_
  - (f) Position of line relative to channel (N, S, E, W)

MW 62 . . .

MW 63 . . .

MW 64 . . .

2607 MINESWEEPING

MW 65 . . . ACOUSTIC GEAR OPERATION. Operate \_\_\_\_ (List A) gear in \_\_\_\_ (List B) mode with standard settings (or with settings \_\_\_\_ (List C)).

- | <i>List A</i>                                     | <i>List B</i> | <i>List C</i>  |
|---|---------------|--|
| 1. Audio frequency hammer                         | A. Continuous | 31. Build up ____ seconds  |
| 2. Cavitating                                     | B. Modulated  | 32. Build up to ____ percent of maximum output   |
| 3. Combination acoustic                           | C. Pulsed     | 33. Cycle time ____ seconds  |
| 4. Explosive                                      | D. Warbled    | 34. Decay and low ____ seconds   |
| 5. Low frequency (displacer with long eccentric)  |               | 35. High frequency ____, low frequency ____  |
| 6. Low frequency (displacer with short eccentric) |               | 36. High ____ seconds  |
| 7. Oscillator                                     |               | 37. Interval between individual charges ____ seconds, interval between initial charges of each complete set ____ seconds |
| 8. Pipe noisemaker                                |               | 38. Modulated cycle build up ____ high ____ low ____ (seconds)   |
| 9. Very low frequency                             |               | 39. ON ____ seconds, OFF ____ seconds  |
| 10. ____ from Table Y                             |               |  |

*Example: MW 65—1—B—38—6—4—20... Operate audio frequency hammer gear in modulated mode with settings modulated cycle build up 6 seconds, high 4 seconds, low 20 seconds.*

MW 66 . . . ARMING. Sweeps are to be armed with \_\_\_\_ (List A) cutters as indicated (List B).

- | <i>List A</i>                | <i>List B</i>             |
|------------------------------|---------------------------|
| 1. Anti-obstructor           | A. As previously directed |
| 2. Explosive                 | B. Heavy arming           |
| 3. Mark ____ following DESIG | C. Light arming           |
| 4. Static                    | D. Medium arming          |
|                              | E. To a total of ____     |

MW 67 . . . CALIBRATE. Proceed to calibrate \_\_\_\_.

1. Kite/depressor
2. Otters for deep sweeping
3. Otters for normal sweeping

MW 68 . . . CHANGE GEAR (US timer equipment). Use cam number \_\_\_\_ following DESIG.

MW 69 . . . CUT/SLIP. Cut sweep (or \_\_\_\_).

1. Cut sweep and mark position with danbuoy
2. Slip my sweep
3. Slip your sweep

MW 70 . . . DIAPHRAGM. Use diaphragm of \_\_\_\_ inches of diameter.

MW 71 . . . DEPRESSOR/KITE/OTTER. Adjust to same depth as in previous track (or \_\_\_\_ ). (PORT/STBD may be added to indicate side of sweep.)

1. Adjust gear to give swept depth of \_\_\_\_ meters for speed \_\_\_\_ through the water.
2. Adjust gear to give swept depth of \_\_\_\_ meters for normal sweeping speed.
3. Raise depressor/kite.

MW72 . . . DEPRESSOR/KITE/OTTER. \_\_\_\_ . (PORT/STBD may be added to indicate side of sweep.)

1. Your depressor/kite is surfacing
2. Your otter is surfacing
3. Spread of your sweep is \_\_\_\_ yards

MW 73 . . . DUTY ASSIGNMENT. Take duty as \_\_\_\_ .

1. Center ship (when there is more than one center ship, call signs are to be used to indicate sequence from left to right)
2. Mine disposal ship
3. Mine recovery ship
4. Slip ship
5. Winch ship

MW 74 . . . ENERGIZE (or \_\_\_\_ ) sweeps.

1. De-energize

*Note: Red and black flags are to be used as directed in ATP 24.*

MW 75 . . . EXPLOSIVE SWEEP. Fire explosive sweep salvoes at intervals of \_\_\_\_ .

1. \_\_\_\_ minutes
2. \_\_\_\_ hundred yards

MW 76 . . .

MW 77 . . .

MW 78 . . . FLOAT/DIVERTER is to carry light.

MW 79 . . . MAGNETIC GEAR OPERATION. Operate \_\_\_\_ (List A) gear, with \_\_\_\_ (List B) pulse sequence, and \_\_\_\_ (List C) wave form; ON \_\_\_\_ seconds, OFF \_\_\_\_ seconds, cycle time \_\_\_\_ seconds, at \_\_\_\_ hundred amperes sweep current.

- | <i>List A</i>                      | <i>List B</i>                                     | <i>List C</i>             |
|------------------------------------|---|---------------------------|
| 1. Asymmetrical closed loop        | A. All forward                                    | 31. Continuous            |
| 2. Asymmetrical diverted electrode | B. All reverse                                    | 32. Sawtooth              |
| 3. Solenoid (towed)                | C. Forward-Forward-Reverse-Reverse                | 33. Sine                  |
| 4. Straight electrode              | D. Forward-Reverse                                | 34. Square                |
| 5. Symmetrical close loop          | E. Standard pulsing sequence                      | 35. Trapezoidal wave form |
| 6. Symmetrical diverted electrode  | F. Synchronized, opposite polarity on first pulse |                           |
| 7. ____ from Table Y               | G. Synchronized, same polarity on first pulse     |                           |

*Example: MW 79—1—C—34—4—6—40—15 . . . Operate asymmetrical closed loop gear, with forward-forward-reverse-reverse pulse sequence and square wave form: ON 4 seconds, OFF 6 seconds, cycle time 40 seconds, at 1,500 AMP sweep current.*

- MW 80 . . . MECHANICAL SWEEP ORDER. Stream mechanical sweep in accordance with task order (or use \_\_\_\_ ). (PORT or STBD to be added if only one side is to be streamed or if the sweeps are veered to a different length.) (Type of sweep to be indicated from Table Y.)
1. \_\_\_\_ meters of float wire.
  2. \_\_\_\_ meters of kite wire.
  3. \_\_\_\_ meters of sweep wire.
  4. Float pendants and depressor tow wire lengths to sweep to a depth of \_\_\_\_ meters at a speed of \_\_\_\_ through the water.
- MW 81 . . .
- MW 82 . . . OBSTRUCTION. Strain indicates obstruction being dragged in sweep (or \_\_\_\_ ).
1. Haul out of formation and clear sweep.
- MW 83 . . . OVERLAP. \_\_\_\_ .
1. Maintain overlap of \_\_\_\_ tens of yards.
  2. Maintain true overlap of \_\_\_\_ tens of yards.
  3. You are maintaining an overlap that is \_\_\_\_ tens of yards less than ordered overlap.
  4. You are maintaining an overlap that is \_\_\_\_ tens of yards more than ordered overlap.
- MW 84 . . . PASSING IN THE TRACK. Ships are to de-energize sweeps when within \_\_\_\_ hundred yards of each other.
- MW 85 . . . PULSING. Carry out static pulsing at \_\_\_\_ minute intervals.
- MW 86 . . .
- MW 87 . . .
- MW 88 . . . SIGHT SWEEPS (and/or \_\_\_\_ ).
1. Slip
  2. Close in on guide to turning distance and slip
  3. On completion of present track, sight sweeps and slip independently
- MW 89 . . . SWEEP with ship indicated (or \_\_\_\_ ).
1. Over position where sweep parted (or position indicated)
  2. Round buoy number \_\_\_\_ (to radius of \_\_\_\_ yards)
- MW 90 . . . SWEEP DEPTH. Sweep running depth is to be set/adjusted to \_\_\_\_ meters for sweep indicated (Table Y) (at speed \_\_\_\_ ).
- MW 91 . . . SWEEP PARAMETERS. Characteristic actuation width for \_\_\_\_ sweep is \_\_\_\_ tens of yards and characteristic actuation probability is \_\_\_\_ percent.
1. Acoustic
  2. Combination acoustic-magnetic.
  3. Magnetic

MW 92 . . . SWEPT PATH of formation is estimated to be \_\_\_\_ hundred yards.

MW 93 . . . TURNED. I am being turned by sweep wire ("DOGGO").

MW 94 . . .

MW 95 . . .

MW 96 . . .

MW 97 . . .

MW 98 . . .

MW 99 . . .

**2608 MINEHUNTING**

MW 100 . . . BOTTOM CONDITIONS in this area for minehunting are \_\_\_\_ .

- 1. Average
- 2. Good
- 3. Poor

MW 101 . . . GROUND MINE (in position \_\_\_\_ ) (or bearing \_\_\_\_ range \_\_\_\_ yards from this ship or ship indicated) will be countermined at \_\_\_\_ .

MW 102 . . . LINE OF MINES is \_\_\_\_ bearing \_\_\_\_ from this ship or ship indicated (or from position \_\_\_\_ ) (number of mines in line is \_\_\_\_ ).

- 1. Detected
- 2. Revealed
- 3. Suspected

MW 103 . . . MARK mines cut with floating dan.

MW 104 . . .

MW 105 . . . MINE CONTACT (in position indicated) is to be \_\_\_\_ .

- 1. Allocated MRN following DESIG
- 2. Classified as possible mine (or \_\_\_\_ from Table M)
- 3. Destroyed
- 4. Identified as \_\_\_\_ from Table M
- 5. Investigated by divers (or ROV following DESIG)
- 6. Investigated by trained Marine Mammals
- 7. Left for subsequent recovery and/or investigation
- 8. Located
- 9. Marked by \_\_\_\_ from Table Y
- 10. Neutralized
- 11. Recovered
- 12. Removed from channel
- 13. Reported

MW 106 . . . MINE DANGER. Mines in area are dangerous to divers. No diving is to take place. (Mine disposal weapons and markers are NOT to be dropped closer than \_\_\_\_ yards from minelike contacts.)

MW 107 . . . MINEHUNTER PROTECTION. Ships conduct continuous acoustic sweep with \_\_\_\_ (from Table Y) while hunting.

MW 108 . . .

MW 109 . . . MINEHUNTING. Underway minehunting is not possible due to \_\_\_\_ .  
 1. Bottom conditions  
 2. Weather

MW 110 . . . MINEHUNTING TASK ALLOCATION. Ship indicated is to search \_\_\_\_.  
 1. Between channel points \_\_\_\_ and \_\_\_\_ following DESIG (or position indicated).  
 2. For mine type \_\_\_\_ from Table M (reported in position \_\_\_\_ ) (or allocated MRN \_\_\_\_ ).  
 3. In area indicated.  
 4. Round buoy number \_\_\_\_ (or position \_\_\_\_ ) to radius of \_\_\_\_ yards.

MW 111 MINEHUNTING TASK SITUATION REPORT. State of task is \_\_\_\_ .  
 1. \_\_\_\_ percent complete.  
 2. Channel is clear of mines from \_\_\_\_ to \_\_\_\_ (or position indicated)  
 3. Channel is mined from \_\_\_\_ to \_\_\_\_ (or position indicated)  
 4. Channel is mined (position of MRN is \_\_\_\_ ).

MW 112 . . .

MW 113 . . .

MW 114 . . . MINEHUNTING TRACKS. Conduct minehunting on track designator \_\_\_\_ following DESIG (or use \_\_\_\_ tracks to cover the channel). (Track spacing is \_\_\_\_ yards.)

MW 115 . . . MINE REFERENCE NUMBER (MRN) following DESIG is allocated to \_\_\_\_ .  
 1. Last mine report  
 2. Last mine swept/hunted (by ships indicated)

MW 116 . . . MINE SWEEP/HUNTED (or \_\_\_\_ ) (bearing \_\_\_\_ range \_\_\_\_ yards from this or unit indicated) (or in position \_\_\_\_ ) (bearing \_\_\_\_ from reference point \_\_\_\_ range \_\_\_\_ yards.)  
 1. Sighted

MW 117 . . . OBSTRUCTOR is/has been \_\_\_\_ .  
 1. Bouquet  
 2. Chain mooring  
 3. Cut in position \_\_\_\_  
 4. Explosive cutter  
 5. Grapnel  
 6. Static cutter

MW 118 . . .

MW 119 . . .

MW 120 . . . RECOVER MCM equipment (or \_\_\_\_ from Table Y) (or personnel \_\_\_\_ from Table P).

MW 121 . . . SONAR MCM SEARCH PROCEDURE. Conduct sonar search by \_\_\_\_ method in channel or area coordinates \_\_\_\_ (or codename following DESIG).  
 1. Attrition  
 2. Breakthrough  
 3. Clearing  
 4. Exploratory

MW 122 . . .

MW 123 . . .

MW 124 . . . MCM OPERATIONS DIRECTIONS. MCMOPDIR number \_\_\_\_ .  
 A. 1. Time to commence task (stop time may be added).  
 2. MCM units or elements detailed for the operation. (Optional if these units/elements are action addressees.)  
 3. Covering force  
 4. Units detailed for logistic support.  
 B. 1. Area, routes or parts of routes where MCMOPS are to be carried out.  
 2. Priorities (anchorage, deployment areas, routes, etc.)  
 C. 1. MCM directive in force  
 2. Type of MCM operation  
 D. Intelligence (estimate of threat)  
 E. Shipping management (e.g., convoy schedule and leadthrough policy)  
 F. 1. Estimate of the situation  
 2. Intentions  
 G. Report to be sent and when. Additional information required.  
 H. Movements on completion  
 I. Effort required:  
 1. Exploratory operations: confidence level (CL) and maximum acceptable number of mines (t).  
 2. Clearance hunting/mechanical sweeping: percentage clearance  
 3. Attrition influence/short-term operations: (plain text)  
 X. Miscellaneous  
 Y. References  
 Z. Acknowledge



**2609 TASKING AND REPORTING**

MW 125 . . . TASK ORDER. Task order number \_\_\_\_ . Carry out elements of tasks ordered below:

- A. Units (not necessary when addressed unit is to perform task)
  - 1. Discretion of CTU
  - 2. Call sign of unit(s) to carry out task
  - 3. \_\_\_\_ number of units to be on task
- B. Time to commence
  - 1. Immediately
  - 2. Upon completion of present task
  - 3. Upon completion of off-task period
  - 4. \_\_\_\_ (DTG)
  - 5. Complete prior to passage of convoy
  - 6. Upon completion of repairs
  - 7. To be signaled
  - 8. As soon as weather permits
  - 9. DESIG \_\_\_\_
- C. Area or channel
  - 1. Route number \_\_\_\_
  - 2. Channel number \_\_\_\_
  - 3. Anchorage name \_\_\_\_
  - 4. Between points \_\_\_\_
  - 5. Position within 3 miles of position \_\_\_\_
  - 6. Within 3 miles of junction on Q-routes
  - 7. Harbor name \_\_\_\_
  - 8. DESIG \_\_\_\_
- D. Type of MCM operations
  - 1. \_\_\_\_ (use ATP-24 standard letter suffix/two-digit stage number)
  - 2. Digit code group from appropriate OPORD
  - 3. Danlaying
  - 4. Mine recovery
  - 5. DESIG \_\_\_\_
- E. Mine types that may be encountered
  - 1. \_\_\_\_ (from ATP 24 mine index)
  - 2. As indicated in OPORD
  - 3. No intelligence available
  - 4. DESIG \_\_\_\_
- F. Convoy information — Leadthrough order
  - 1. Convoy title, name(s) of independent(s) or task organization number.
  - 2. Arrival position \_\_\_\_ .
  - 3. ETA (Zulu time) \_\_\_\_ .
  - 4. \_\_\_\_ Lead ship (number of convoy ships \_\_\_\_ ).
  - 5. Leadthrough channel.
  - 6. Stop convoy or independent unit until required clearance is obtained (two figures indicate required percentage where different from standard).
  - 7. Do not lead through but pass required formations for transit of channel.
  - 8. A. Call sign Convoy Commodore/OTC naval force \_\_\_\_ on board \_\_\_\_ (name/call sign of ship).  
 B. Call signal convoy vice commodore/designated substitute of OTC \_\_\_\_ on board \_\_\_\_ (name/call sign of ship)
  - 9. Ship data
    - A. Name \_\_\_\_ type \_\_\_\_ IRCS \_\_\_\_ maneuvering/navigation limitations \_\_\_\_ .
    - B. Name \_\_\_\_ type \_\_\_\_ IRCS \_\_\_\_ maneuvering/navigation limitations \_\_\_\_ .
    - C. Etc.
  - 10. Establish contact on \_\_\_\_ (name HF/UHF/VHF communications) at \_\_\_\_ (DTG).
  - 11. DESIG \_\_\_\_ .

SIGNAL MW 125 CONTINUES ON NEXT PAGE

G. Communication instructions for MCM forces \_\_\_\_ (*List A*) and for unit(s) to be guided \_\_\_\_ (*List B*).

*List A*

*List B*

- |                            |                            |
|----------------------------|----------------------------|
| 1. As indicated in COMPLAN | 1. As indicated in COMPLAN |
| 2. Line ____               | 2. Line ____               |
| 3. UHF ____                | 3. UHF ____                |
| 4. VHF ____                | 4. VHF ____                |
| 5. HF ____                 | 5. HF ____                 |
| 6. DESIG ____              | 6. DESIG ____              |

H. MCM reports

1. MINEREP — report each mine swept/hunted
2. MCMSITREP — daily by time indicated \_\_\_\_
3. Start/stop time \_\_\_\_
4. Obstacle report
5. DESIG \_\_\_\_

I. Movements upon completion

1. Return to port
2. Return to support ship
3. Anchor (in position \_\_\_\_ )
4. Commence off-task period (at \_\_\_\_ )
5. New task to follow
6. If mine is swept/hunted, commence clearance operations
7. Stop present task at \_\_\_\_
8. Commence task number \_\_\_\_ (or DTG)
9. DESIG \_\_\_\_

J. Effort requested

1. \_\_\_\_ runs per track
2. \_\_\_\_ runs on track
3. AMRAP (as many runs as possible)
4. \_\_\_\_ percentage coverage
5. \_\_\_\_ percentage clearance
6. \_\_\_\_ number of units on task continuously
7. \_\_\_\_ number of tracks
8. Track spacing \_\_\_\_ tens of yards
9. DESIG \_\_\_\_

K. Coordination orders

1. Coordinating authority
2. Keep clear of convoy
3. Hunters keep clear of sweepers
4. Sweepers keep clear of hunters
5. Sweepers keep clear of hunters having divers in the water
6. In accordance with ATP 24
7. DESIG \_\_\_\_

N. Danlaying — lay danbuoys

1. Number of danbuoys
2. Position \_\_\_\_ (or first dan abreast channel point \_\_\_\_ )
3. Offset \_\_\_\_ tens of yards \_\_\_\_ (A plus, B minus)
4. Interval between dans \_\_\_\_ hundreds of yards
5. Direction between the dans and lettered
6. Lift danbuoy(s) in position ( \_\_\_\_ )
7. Are laid
8. From Table Y
9. Discretion of call sign

SIGNAL MW 125 CONTINUES ON NEXT PAGE

- U. Mechanical
  - 1. Single oropesa
  - 2. Double oropesa
  - 3. \_\_\_\_\_ meters depth setting
  - 4. Not be armed
  - 5. To be armed \_\_\_\_\_ (*List A*) with \_\_\_\_\_ cutters (*List B*)
 

<i>List A</i>	<i>List B</i>
1. Light	A. Explosive
2. Medium	B. Static
3. Heavy	C. Type
  - 6. Length of sweep wire \_\_\_\_\_ meters
- V. Acoustic
  - 1. Low-frequency sweep
  - 2. Audio-frequency sweep
  - 3. \_\_\_\_\_ inch diaphragm
  - 4. \_\_\_\_\_ inch crankshaft
  - 5. Continuous running
  - 6. Modulating — build up \_\_\_\_\_ maximum \_\_\_\_\_ minimum \_\_\_\_\_ seconds
  - 7. Alternating ships LF/AF
  - 8. As indicated in OPORD
- W. Magnetic
  - (a) Wave Form
    - 1. Square
    - 2. One-half sinusoidal
    - 3. Sinusoidal
    - 4. One and one-half sinusoidal
    - 5. One-half triangular
    - 6. Triangular
    - 7. One and one-half triangular
    - 8. Trapezoidal
  - (b) Change gear
    - 1. 4 seconds
    - 2. 8 seconds
    - 3. 12 seconds
    - 4. 16 seconds
    - 5. 20 seconds
    - 6. 24 seconds
    - 7. ZOS
  - (c) \_\_\_\_\_ seconds on \_\_\_\_\_ seconds off
  - (d) Pulsing sequence  $\overline{\text{F}}$  or  $\overline{\text{R}}$      $\overline{\text{F}}$  or  $\overline{\text{R}}$      $\overline{\text{F}}$  or  $\overline{\text{R}}$      $\overline{\text{F}}$  or  $\overline{\text{R}}$
  - (e) Amperage
    - 1. Maximum
    - 2. \_\_\_\_\_ AMPS
    - 3. Safe current against mine of \_\_\_\_\_ nT
- X. Miscellaneous information following DESIG
- Y. References following DESIG
- Z. Acknowledge (if required)

MW 126 . . . BUOY REPORT (MCMR 1, 2, 3). Ship indicated has laid/checked/discovered/

- \_\_\_\_\_ .
1. In accordance with task order number \_\_\_\_\_ (or DTG)
  2. Number of danbuoys
  3. Position \_\_\_\_\_ (or first buoy abreast channel point \_\_\_\_\_ )
  4. Offset \_\_\_\_\_ tens of yards \_\_\_\_\_ (A plus, B minus)
  5. Interval between buoys \_\_\_\_\_ hundreds of yards
  6. Direction between buoys and lettered
  7. Distinguished by flag DESIG \_\_\_\_\_
  8. From Table Y
  9. Missing or malfunctioning or \_\_\_\_\_
    - A. Not watching
    - B. Dragged direction \_\_\_\_\_ distance \_\_\_\_\_ yards
    - C. Unlighted
    - D. Adrift
    - E. From Table Y

MW 127 . . . START/STOP TIME (MCMR 10). Task order number \_\_\_\_\_ has \_\_\_\_\_ (*List A*) due to \_\_\_\_\_ (*List B*) at \_\_\_\_\_ .

- |                               |  |
|-------------------------------|--|
| <i>List A</i>                 | <i>List B</i>  |
| 1. Will start at (DTG)        | A. Sea state   |
| 2. Has started (DTG)          | B. Visibility  |
| 3. Has stopped (DTG)          | C. Breakdown of _____                                    |
| 4. Has been suspended (DTG)   | D. In accordance with task order number ( _____ ) or DTG |
| 5. Has resumed (DTG)          | E. Off task period                                       |
| 6. Will resume at (DTG)       | F. Other mission (reference)                             |
| 7. Will be completed at (DTG) | G. DESIG _____   |

MW 128 . . . MINE DETECTION/EXPLOSION REPORT

1. Mine \_\_\_\_\_, MRN \_\_\_\_\_
  - A. Swept
  - B. Hunted
  - C. Visual observed
  - D. Exploded
2. DTG (of the event) \_\_\_\_\_
3. Mine type (from ATP 24 mine index \_\_\_\_\_ )
4. Position \_\_\_\_\_ (geographic)
5. Location relative bearing \_\_\_\_\_ and range \_\_\_\_\_ to ship/helicopter \_\_\_\_\_
6. Course and speed of \_\_\_\_\_ name/number of ship/helicopter \_\_\_\_\_
7. LRN \_\_\_\_\_
8. Status
  - A. Located \_\_\_\_\_ (confidence 1 to 5)
  - B. Married to sinker
  - C. Identified by divers
  - D. Identified by ROV/underwater vehicle
  - E. Disposed of by
    1. Neutralization
    2. Render safe
    3. Countermining
    4. Recovery
    5. Removal
  - F. Sinker removed
  - G. Sinker in position \_\_\_\_\_
  - H. Sinker at depth \_\_\_\_\_ (meters)
  - J. Mine case at depth \_\_\_\_\_ (meters)
  - K. Destroyed by sweep (Table Y)
  - L. Destroyed by gunfire and exploded
  - M. Destroyed by gunfire and sunk in position
  - N. Destroyed and exploded with charge by divers
9. DESIG \_\_\_\_\_

MW 129 . . . MCM OPDEF (MCM OPERATIONAL DEFECTS) (MCMR 13A, 13B, 42)

1. Call sign(s) of unit(s) concerned
2. Position \_\_\_\_\_
3. ETA support ship/base \_\_\_\_\_
4. Defective equipment \_\_\_\_\_ (from Table E, P, U or Y)
5. Repairs can be effected by ship's crew
6. Non-operational
7. Equipment \_\_\_\_\_ (from Table E, P, U or Y) operating at reduced efficiency
8. Request divers on arrival
9. Request replacement on arrival of damaged/defective equipment \_\_\_\_\_ (from Table E, P, U, or Y)
10. Request replacement on arrival of lost \_\_\_\_\_ (from Table Y)
11. Request base assistance on arrival
12. Estimated time of back on task is \_\_\_\_\_
13. Rectified time of back on task is \_\_\_\_\_
14. Remarks following DESIG

MW 130 . . . MCM SITREP. Task order number/sequence number \_\_\_\_\_

A. Channel by channel, area by area, route by route, port by port MCMSITREP.

*Note: Paragraph A to be repeated for each channel, area, route, or port or part of channel, area, route, or port.*

1. Channel, area, route, or port (or part of channel, area, route, or port)
  - a. Type(s) and time(s) of task(s) completed \_\_\_\_\_
  - b. Type(s) and time(s) of commencement of task(s) in operation \_\_\_\_\_
  - c. Percentage of clearance achieved \_\_\_\_\_
  - d. Percentage coverage achieved \_\_\_\_\_
  - e. Total number of runs achieved \_\_\_\_\_
  - f. Intentions about type(s) of task(s) and times to commence \_\_\_\_\_
  - g. Estimated time(s) of completion of task(s) \_\_\_\_\_
2. Mines/obstacles swept, hunted, or identified since last MCMSITREP. *Read in columns: MRN/type (from Mine Index in ATP 24)/DTG/status/position*
  - a. DESIG \_\_\_\_\_
3. Contact marker
  - a. Position of the marker(s) \_\_\_\_\_
  - b. Direction(s) and distance(s) in meters of the contact(s) from the marker(s)
  - c. DTG(s) of marker(s) placed \_\_\_\_\_
  - d. Description of markers
  - e. DESIG \_\_\_\_\_
4. Buoyage
  - a. Position of buoy(s)
  - b. Description of buoy(s)
  - c. DESIG \_\_\_\_\_
5. Expected mine risk (high, medium, low, DESIG \_\_\_\_\_)
  - a. At time of MCMSITREP
  - b. After next 12 hours
  - c. After next 24 hours
  - d. At \_\_\_\_\_ (DTG)
  - e. DESIG \_\_\_\_\_
6. Minehunting conditions
  - a. Position related to data below \_\_\_\_\_
  - b. DTG of observation \_\_\_\_\_
  - c. Bottom type (mine hunters use Table 5-1 of ATP 24, clearance diving team use plain language) \_\_\_\_\_
  - d. Bottom composition
  - e. Clutter density \_\_\_\_\_
  - f. NOMBO density \_\_\_\_\_ (NOMBOs per square mile)
  - g. MILEC density \_\_\_\_\_ (MILECs per square mile)
  - h. Underwater visibility (meters) (1 or 2/horizontal/vertical) where 1 stands for human eye and 2 for ROV
  - j. Current direction \_\_\_\_\_ speed \_\_\_\_\_ (knots)
  - k. Reverberation level (high, medium, low)
  - l. Area suitable for minehunting (yes, partly (percent of surface), no)
  - m. Estimated diving time per 24 hours \_\_\_\_\_
  - n. DESIG

SIGNAL MW 130 CONTINUES ON NEXT PAGE

7. Additional information for risk evaluation
  - a. Number of sweepers operating in the channel, area, route, or port \_\_\_\_
  - b. Task cycle of sweepers
  - c. Aggregate actuated width against mine types to be countered \_\_\_\_
  - d. Actual navigation error/standard deviation error/CEP of sweepers \_\_\_\_
  - e. Sweeping speed \_\_\_\_
  - f. Track distance (D) of sweepers \_\_\_\_ number of tracks (N) \_\_\_\_
  - g. Runs per track (J) achieved \_\_\_\_
  - h. Number of hunters operating in the channel, area, route, or port \_\_\_\_
  - j. Task cycle of hunters
  - k. Actual navigation error/standard deviation navigation error/CEP of hunters \_\_\_\_
  - l. Effective hunting speed \_\_\_\_
  - m. Track distance (D) of hunters \_\_\_\_ number of tracks (N) \_\_\_\_
  - n. Estimated mine density (mines per square mile) \_\_\_\_
  - p. DESIG \_\_\_\_
- B. Operational status of MCMV/support vessel
  1. Fully operational (FOP)
  2. Partly operational (POP) *Read in columns:*  
Name of unit/detect/estimate DTG becoming POP/FOP
  3. DESIG \_\_\_\_.
- C. Logistic situation
  1. Remaining provisions \_\_\_\_ (percent), fuel \_\_\_\_ (percent), water \_\_\_\_ (percent), ammunition \_\_\_\_ (percent), breathing gas \_\_\_\_ (percent), CO2 scrubber \_\_\_\_ (percent)
  2. Number of remaining mine disposal weapons/charges \_\_\_\_
  3. Logistic requirements
  4. DESIG \_\_\_\_
- D. Additional information (e.g., indication of new mine types, use of obstructors, casualties, etc.)

MW 131 . . . RELIEF REPORT

1. Task order number \_\_\_\_
2. Number of runs \_\_\_\_ on track \_\_\_\_ (A plus, B minus) \_\_\_\_ tens of yards
3. Track spacing \_\_\_\_ tens of yards
4. Number of mines disposed of \_\_\_\_, MRN \_\_\_\_, position \_\_\_\_
5. Number of mines identified but not disposed of \_\_\_\_, MRN \_\_\_\_, position \_\_\_\_
6. Minelike contact(s) identified as nonmine in position(s) \_\_\_\_
7. Minelike contact(s) located as possible mine and not identified in position(s) \_\_\_\_
8. Contact(s) classified as nonmine in position(s) \_\_\_\_ and identified as \_\_\_\_
  - A. Rock
  - B. Drum
  - C. Sinker
  - D. Wreck
9. Bottom conditions \_\_\_\_ (ATP 24)
10. Remarks following DESIG

MW 132 . . . TASK CYCLE to be used \_\_\_\_ .

1. At your discretion (or \_\_\_\_)
2. \_\_\_\_ on, \_\_\_\_ off
3. All units continuously on task
4. \_\_\_\_ percentage on task

MW 133 . . . ALL TASKS are \_\_\_\_ now (or at \_\_\_\_).

1. To cease
2. To be resumed

MW 134 . . . STOP PRESENT TASK and proceed as indicated.

1. To off-task period, resume present task at ( \_\_\_\_ ) or end of off-task period
2. To off-task period, commence task number \_\_\_\_ at end of off-task period
3. To off-task period, instructions or new task to follow
4. Commence as soon as possible task order number \_\_\_\_
5. To anchorage
6. To call sign \_\_\_\_
7. To port
8. As previously directed (or ordered by \_\_\_\_ )
9. DESIG \_\_\_\_

MW 135 . . . DIVING INCIDENT

1. Recompression required
2. PIM \_\_\_\_
3. ETA \_\_\_\_

MW 136 . . . ANTILANDING OBSTRUCTION. \_\_\_\_\_, located in position \_\_\_\_\_.

1. Tetrahedron
2. Hedgehog
3. Japanese Scully
4. New Jersey Barrier
5. Wire
6. Concrete blocks
7. Desig \_\_\_\_

MW 137 . . .

MW 138 . . . Environment at position \_\_\_\_\_ and DTG \_\_\_\_\_ .

1. Wind direction/speed (knots) ( \_\_\_\_ / \_\_\_\_ )
2. Sea state ( \_\_\_\_ )
3. Direction/height (m) of swell ( \_\_\_\_ / \_\_\_\_ )
4. Current direction/speed (knots) ( \_\_\_\_ / \_\_\_\_ )
5. Water depth (m) ( \_\_\_\_ )
6. Burying conditions
  - a. Centimeters ( \_\_\_\_ )
  - b. Percentage ( \_\_\_\_ )
7. Visibility on the bottom (m) ( \_\_\_\_ )
8. Suspended matter – height (cm) above bottom ( \_\_\_\_ )
9. Soundspeed conditions
  - a. Negative
  - b. Positive
  - c. Isothermal
  - d. Layer exists (depth)
10. Bottom reverberation
  - a. High
  - b. Medium
  - c. Low
11. Bottom composition
  - a. Hard mud
  - b. Firm mud – thickness (cm) ( \_\_\_\_ )
  - c. Soft mud – thickness (cm) ( \_\_\_\_ )
  - d. Fine sand
  - e. Coarse sand
  - f. Gravel
  - g. Pebbles
  - h. Scattered rocks/stones
  - i. Rocky
  - j. Ridges – orientation/height (cm) ( \_\_\_\_ / \_\_\_\_ )
  - k. Seaweeds/kelp
  - l. Sea grasses
  - m. Shells/broken shells
  - n. Coral



- 12. Bottom clutter
  - a. Low
  - b. Medium
  - c. High
- 13. Remarks

*Note: The data contained in this signal are useful on the scene of action to conduct minehunting operations. They may later be processed in a database and utilized for operation planning purposes.*

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NAVIG-  
ATION  
NA

CHAPTER 27

NAVIGATION

2700	Charts/Compasses
2701	Conditions
2702	Lights
2703	Miscellaneous
2704	Position/PIM
2705	Time

2700 CHARTS/COMPASSES

NA1 . . . . .

NA2 . . . . .

NA3 . . . . . COMPASS CHECK. Check compasses with me or unit indicated by reciprocal bearing. Unit addressed report "BF" when ready to carry out compass check. When this signal is executed observation is to be made and each ship is to signal a bearing to indicate results of observations.

NA4 . . . . .

NA5 . . . . .

2701 CONDITIONS

NA6 . . . . . CURRENT. Direction and speed of current are as indicated.

NA7 . . . . .

NA8 . . . . . DEPTH of water is \_\_\_\_ meters.

NA9 . . . . .

NA10 . . . . . FOG. Take fog precautions indicated \_\_\_\_ .  
1. Sound fog signals  
2. Stream fog buoy (at \_\_\_\_ hundred yards astern)

NA11 . . . . .

NA12 . . . . .

**2702 LIGHTS**

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

- |  |  |
|--|--|
| 1. Anchor aft  | A. Correct   |
| 2. Anchor forward  | B. Not showing/cannot be seen  |
| 3. Man overboard   | C. To be dimmed  |
| 4. Masthead  | D. To be taken at full brilliance  |
| 5. Minesweeping (Green)  | E. To be turned on   |
| 6. Minesweeping station keeping                                      | F. To be turned out  |
| 7. Navigation/running  | G. Too bright  |
| 8. Out-of-command/breakdown  | H. Too dim   |
| 9. Range   | I. To comply with _____ (publication/article following DESIG)                  |
| 10. Red mast/obstruction/red truck                                   | J. To be verified for correct showing (feature to be verified following DESIG) |
| 11. Shaded/blue stern  |  |
| 12. Side (PORT or STBD may be added) to be verified following DESIG) |  |
| 13. Towing   |  |
| 14. Other (following DESIG)  |  |

NA14 . . . . TURN ON NAVIGATION LIGHTS (or \_\_\_\_\_ lights (List A)) ( \_\_\_\_\_ (List B)).  
*List A* *List B*

- |                                 |                          |
|---------------------------------|--------------------------|
| 1. Anchor                       | A. At full brilliance    |
| 2. Minesweeping (Green)         | B. Using dimming feature |
| 3. Minesweeping station keeping | C. Shaded/blue           |
| 4. Overtaking/stern             |                          |
| 5. Red mast/obstruction         |                          |
| 6. Side                         |                          |
| 7. Other (following DESIG)      |                          |

NA15 . . . .

**2703 MISCELLANEOUS**

NA16 . . . . HEIGHT. My (or unit indicated) \_\_\_\_\_ is \_\_\_\_\_ meters above waterline.  
*Height may be reported in feet. This must be specified by adding DESIG FEET.*

1. Mainmast
2. Foremast
3. Funnel (forward funnel if more than one)
4. Antenna platform (of largest antenna if more than one)
5. Stern/quarterdeck
6. Upper masthead steaming light
7. Lower steaming light
8. Side light
9. Red masthead obstruction light
10. Horizon bar

NA17 . . . . PILOT FLAG. Hoist Pilot Flag ( \_\_\_\_\_ ) as required.

1. Starboard Yardarm
2. Port Yardarm

**2704 POSITION/PIM**

NA18 . . . . DATA LINK REFERENCE POINT is located at \_\_\_\_ latitude and \_\_\_\_ longitude.

NA19 . . . . GRID ORIGIN. The grid origin is centered on \_\_\_\_ .  
 1. Position( \_\_\_\_ ) latitude and ( \_\_\_\_ ) longitude  
 2. Unit indicated  
 3. Datum \_\_\_\_ (inferior to DESIG)

NA20 . . . . GRID POSITION. My (or unit indicated) \_\_\_\_ grid position is \_\_\_\_ (and my refer-  
 ence position is \_\_\_\_ ) (at time \_\_\_\_ ).  
 1. CCG (XY grid)  
 2. GEOREF  
 3. UTM

NA21 . . . . INITIAL POSITION for scheduled exercise or exercise event indicated from Table  
 X is \_\_\_\_ .

NA22 . . . . MY POSITION (or \_\_\_\_ ) is as indicated by accompanying position signal. Time  
 may be indicated by time signal.  
 1. Point of origin  
 2. Reference point indicated by numeral(s) or letter(s) following DESIG  
 3. Reference position of OTC or unit indicated  
 4. Rendezvous  
 5. Your position  
 6. Position of unit indicated  
 7. Position of formation center  
 8. Position of disposition center  
 9. Post-action rendezvous  
 10. Start position for serial/exercise  
 11. End position for serial/exercise

NA23 . . . . CONTROL POINT. Position of control point is at \_\_\_\_ position indicated.  
 1. Grid  
 2. Geographic

NA24 . . . . PIM. 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 as shown in  
 example below.*

*Example: NA24—110 KK 5—08—135—10—2—110—12—1 . . . Reference position at 0800 is  
 110°, 5 miles from point KK. Intended movements are: (1) course 135°,  
 speed 10 knots for 2 hours; (2) course 110°, speed 12 knots for 1 hour.*

NA25 . . . . PIM. Extend duration of course and speed now steaming until \_\_\_\_ .

NA26 . . . .

NA27 . . . . POSITION OBTAINED BY \_\_\_\_ .

1. Bearings
2. Consol
3. Dead reckoning
4. Decca
5. Direction Finder
6. Loran
7. Observation
8. Omega
9. Radar ranges and bearings
10. Satellite
11. Shoran
12. Sins
13. Soundings

NA28 . . . . POSITION SYSTEM. Accompanying position signal is based on \_\_\_\_ system.

1. CCG (XY grid)
2. GEOREF
3. Latitude and longitude
4. Military grid reference
5. UTM

NA29 . . . . POSITION XX for enemy reporting is established as \_\_\_\_ .

1. The reference position of the OTC now (or at \_\_\_\_ )
2. Geographic position indicated
3. Lettered position \_\_\_\_ , previously issued

NA30 . . . .

NA31 . . . . REFERENCE POINT. This unit or unit indicated will pass through reference position identified by letter and/or numeral following DESIG at \_\_\_\_ (course \_\_\_\_ and speed \_\_\_\_ ).

NA32 . . . . NAVTRACK. Responsibility for maintaining NAVTRACK lies with this unit or unit indicated.

NA33 . . . . FOLLOW NAVTRACK.

1. So as to pass Points \_\_\_\_ at times indicated
2. Rejoining along NAVTRACK, or at Point \_\_\_\_ along NAVTRACK
3. Follow NAVTRACK at \_\_\_\_ knots over the ground
4. Keep within \_\_\_\_ miles of the NAVTRACK

**2705 TIME**

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
8. Time on target (TOT)



NA35 . . . . SYNCHRONIZE \_\_\_\_\_. Plan time may be indicated.

*If a zigzag diagram is in force, this signal is to be executed at the time a turn is due to be made.*

1. Watches
2. Zigzag clock

NA36 . . . . ZERO TIME. Zero time will be indicated by the execution of this signal or by numerals following.

NA37 . . . . ZONE TIME. Use zone time indicated by letter following DESIG (at \_\_\_\_).

NA38 . . . .

NA39 . . . .

NA40 . . . .

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**NBC**  
**NB**

CHAPTER 28

N.B.C.

<b>2800</b>	<b>Nuclear</b>
<b>2801</b>	<b>Chemical</b>
<b>2802</b>	<b>Biological</b>

**2800 NUCLEAR**

NB1 . . . . . CONTAMINATED AREA. Area (enclosed by positions indicated) or sector (between bearings \_\_\_\_ and \_\_\_\_ to a distance \_\_\_\_ from position indicated) has undergone nuclear attack recently (or at \_\_\_\_). Contamination by radioactivity probably exists.

NB2 . . . . . CONTAMINATED SHIP. This ship or unit indicated is contaminated by radioactivity. Degree of necessity for evacuation of present crew is \_\_\_\_ .

1. Crew members have become casualties and cannot operate ship.
2. Personnel heavily exposed; can operate ship but will soon become casualties and should evacuate as soon as possible.
3. Crew should be evacuated by time indicated by accompanying time signal.
4. Some casualties should be transferred but general evacuation is not required.
5. No necessity for evacuation.

NB3 . . . . . CONTAMINATED WATER. Water of anchorage and its vicinity is radiologically contaminated. (Do not \_\_\_\_ .)

1. Eat fresh fish caught in the area
2. Retrieve any floating objects
3. Run any evaporators
4. Swim in the area
5. Wash down decks with salt water
6. Do any of the above items

NB4 . . . . .

NB5 . . . . . CUMULATIVE DOSE received by \_\_\_\_ is \_\_\_\_ roentgens.

1. Exposed personnel (weapons, flight deck crews)
2. Protected personnel (control spaces, communications, magazines, shelter stations)
3. Machinery space crews
4. Monitoring and decontamination crews

NB6 . . . . . DOSE RATE at weather deck level in this area or area indicated is \_\_\_\_ roentgens per hour.

NB7 . . . . .

NB8 . . . . . FALLOUT. Forecast EDW (effective downwind) is from direction \_\_\_\_ at speed \_\_\_\_ . Duration of forecast may be indicated by time signal.

NB9 . . . . .

NB10 . . . . .

NB11 . . . . .

NB12 . . . . . PROBABLE YIELD in \_\_\_\_ tons is \_\_\_\_ .  
 1. Kilo  
 2. Mega

NB13 . . . . .

NB14 . . . . . GROUND ZERO bears \_\_\_\_ from guide or unit indicated distance \_\_\_\_ .

NB15 . . . . .

NB16 . . . . .

NB17 . . . . .

**2801 CHEMICAL**

NB18 . . . . . CHEMICAL WARFARE ATTACK is \_\_\_\_ (List A) (expected method of delivery is \_\_\_\_ (List B)).

- List A*  
 1. Possible  
 2. Probable  
 3. Imminent

- List B*  
 A. Low-level aircraft spray  
 B. Guided missile  
 C. Airburst bomb  
 D. Chemically filled shell

NB19 . . . . . CHEMICAL AGENT. This ship or unit indicated has been attacked with chemical agent ( \_\_\_\_ (List A)) (and is \_\_\_\_ contaminated (List B)) (which has been identified as \_\_\_\_ agent (List C)).

- List A*  
 1. Liquids  
 2. Aerosol  
 3. Vapor

- List B*  
 A. Heavily  
 B. Moderately  
 C. Lightly  
 D. Not

- List C*  
 31. Nerve  
 32. Blister  
 33. Harassing  
 34. Unidentified

NB20 . . . . . CHEMICAL ATTACK CEASED.

NB21 . . . . .

NB22 . . . . .

NB23 . . . . .

**2802 BIOLOGICAL**

NB24 . . . . . BIOLOGICAL ATTACK. Attack by biological agent is probable.

NB25 . . . . .

NB26 . . . . .

NB27 . . . . .



RADAR  
RA



CHAPTER 29

RADAR

2900 General Signals

2900 GENERAL SIGNALS

RA1 . . . . . RADAR GUARD DUTY. Assume radar guard duty (as \_\_\_\_ ).

1. Air search (between \_\_\_\_ and \_\_\_\_ miles)
2. Air search (between \_\_\_\_ and \_\_\_\_ degrees)
3. Surface search (between \_\_\_\_ and \_\_\_\_ miles )
4. Surface search (between \_\_\_\_ and \_\_\_\_ degrees)
5. Scan in elevation (between \_\_\_\_ and \_\_\_\_ degrees)
6. Recognition guard
7. In current EMCON plan

RA2 . . . . . CALIBRATION. Carry out radar calibration (run number \_\_\_\_ ).

RA3 . . . . .

RA4 . . . . . CONTACT. Have radar contact (believed to be \_\_\_\_ (List A) \_\_\_\_ (List B)).

- |                       |                 |
|-----------------------|-----------------|
| <i>List A</i>         | <i>List B</i>   |
| 1. Aircraft           | A. Enemy        |
| 2. Land               | B. Friendly     |
| 3. Radar beacon       | C. Unidentified |
| 4. Snort or periscope |                 |
| 5. Submarine          |                 |
| 6. Surface craft      |                 |

RA5 . . . . .

RA6 . . . . . IFF/SIF. Operate IFF/SIF ( \_\_\_\_ ) (in sector \_\_\_\_ ).

1. Airborne
2. At discretion
3. Shipborne
4. To challenge and identify target
5. Using mode \_\_\_\_ (and code \_\_\_\_ )

RA7 . . . . .

RA8 . . . . .

RA9 . . . . .

INTENTIONALLY BLANK



READY  
RE

CHAPTER 30

READINESS

3000	Casualties
3001	Damage
3002	Degrees of Readiness
3003	Equipment Readiness
3004	Fuel State
3005	Miscellaneous
3006	Readiness for Sea/Steaming
3007	Towing Signal Table

3000 CASUALTIES

RE1 . . . . . OFFICER DISABLED. Officer \_\_\_\_ (from Table P) is disabled.

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 ( \_\_\_\_ from Table P).

RE4 . . . . .

RE5 . . . . .

**3001 DAMAGE**

RE6 . . . . . DAMCAT. This unit (or unit indicated) has sustained \_\_\_\_ (*List A*) category damage, including ( \_\_\_\_ (*List B*)); assessment of damage to indicated unit (by \_\_\_\_ (*List C*) (DESIG \_\_\_\_ number of percentage damaged)).

- | <i>List A</i>      | <i>List B</i>                                 | <i>List C</i>                     |
|--------------------|---|-----------------------------------|
| A. Sunk            | 1. AAW capability                             | A. Acoustic assessment            |
| B. Imminent loss   | 2. Amphibious or logistics support capability | B. ESM assessment                 |
| C. Inoperable      | 3. ASUW capability                            | C. Independent observer           |
| D. Mission aborted | 4. ASW capability                             | D. Post-action visual observation |
| E. Immobilized     | 5. Communications and navigation impaired     | E. Radar assessment               |
| F. Major damage    | 6. Flight operations capability               | F. Visual observation             |
| G. Medium damage   | 7. Loss of sensors                            | G. Infrared assessment            |
| H. Minor damage    | 8. Major fire                                 |                                   |
| J. No damage       | 9. Major flooding                             |                                   |
|                    | 10. Major propulsion damage                   |                                   |
|                    | 11. Mine warfare capability                   |                                   |
|                    | 12. Minor fire                                |                                   |
|                    | 13. Minor flooding                            |                                   |
|                    | 14. Onboard repairs                           |                                   |
|                    | 15. Personnel                                 |                                   |
|                    | 16. Speed reduced                             |                                   |
|                    | 17. Underwater penetration                    |                                   |

RE7 . . . . . ASSISTANCE. Require ( \_\_\_\_ ) assistance.

1. Decontamination party
2. Explosive ordnance disposal (EOD) team
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 . . . . . ANTINUCLEAR EFFECT PRECAUTIONS. Activate \_\_\_\_ system.

1. Prewetting
2. Washdown

RE9 . . . . . CONTAMINATED. This ship or unit indicated is being contaminated by fallout. (Results are as indicated \_\_\_\_.) Inferior to NEGAT means: "Fallout has ceased."

1. Cannot complete an immediate operation
2. Can complete an immediate operation
3. Can complete current mission
4. Can undertake a subsequent operation without delay

RE10 . . . . . ABLE TO CONTINUE. This unit or unit indicated is able to continue on assigned mission.

RE11 . . . . DAMAGED. 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.)

- | <i>List A</i>                                 | <i>List B</i>              |
|---|----------------------------|
| A. Bombs                                      | 1. No restriction          |
| B. Collision                                  | 2. Reduced AAW capability  |
| C. Fire                                       | 3. Reduced ASUW capability |
| D. Grounding                                  | 4. Reduced ASW capability  |
| E. Guns                                       | 5. Reduced mobility        |
| F. Heavy leakage                              | 6. Sinking                 |
| G. Mines                                      | 7. Withdrawing             |
| H. Missiles                                   |                            |
| I. Storm                                      |                            |
| J. Torpedo (PORT or STBD<br>may be indicated) |                            |
| K. Underwater explosion                       |                            |

RE12 . . . . FIRE ON BOARD. 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 \_\_\_\_ ) (call sign \_\_\_\_ ).

RE15 . . . . FLIGHT DECK DAMAGE. Flight deck has been damaged (and \_\_\_\_ ).

1. Aircraft can land
2. Aircraft can take off
3. Aircraft can take off and land with difficulty
4. Is beyond repair by this ship
5. Repairs can be effected by time indicated

RE16 . . . . REPORT DAMAGE or what is wrong with you.

RE17 . . . . SEND RESCUE AND ASSISTANCE DETAIL/TEAM to this unit or unit indicated.

RE18 . . . . FLOODING. 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. Progressive from frame \_\_\_\_ forward
5. Progressive from frame \_\_\_\_ aft
6. From frame \_\_\_\_ to frame \_\_\_\_
7. Out of control
8. Under control

**3002 DEGREES OF READINESS**

RE19 . . . .

RE20 . . . . DEGREE OF READINESS. Assume \_\_\_\_ (from *List A*) \_\_\_\_ (from *List B*) degree of readiness (at \_\_\_\_).

- List A*
1. First
  2. Second
  3. Third
  4. Fourth
  5. Fifth

- List B*
- A. General
  - B. AAW
  - C. ASW
  - D. ASUW
  - E. NBCD
  - F. Engineering
  - G. MW self-protective

*Example: RE20—3A—1B . . . Assume third general degree of readiness and first AAW degree of readiness.*

RE21 . . . .

RE22 . . . . WEAPON ALERT STATE. Weapon(s) indicated from Table A \_\_\_\_ .

1. Can be brought into action in \_\_\_\_ minutes
2. Is (are) ready

RE23 . . . . HEAVY WEATHER. Prepare for heavy weather (about \_\_\_\_).

RE24 . . . .

RE25 . . . . MISSILE ATTACK. Prepare for attack by self-propelled or guided missile.

RE26 . . . . SECURITY ALERT STATE. Assume security alert state as indicated \_\_\_\_ .

- A. Alpha
- B. Bravo
- C. Charlie
- D. Delta

RE27 . . . .

**3003 EQUIPMENT READINESS**

RE28 . . . .

RE29 . . . . AMMUNITION. \_\_\_\_ . Use types from Table A.

1. Amount of \_\_\_\_ ammunition remaining is \_\_\_\_ percent
2. Conserve ( \_\_\_\_ ) ammunition
3. Have ( \_\_\_\_ ) ammunition ready for immediate use
4. Number of rounds or units of \_\_\_\_ ammunition remaining or onboard is \_\_\_\_

RE30 . . . . EFFICIENCY REDUCED. Equipment indicated is operating at reduced efficiency.



RE31 . . . . INOPERATIVE. Equipment indicated is inoperative (for \_\_\_\_). (A time signal indicates estimated time at which repairs will be completed.)  
 1. Routine maintenance  
 2. Urgent corrective maintenance

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  
 5. With repair ship help  
 6. On receipt of spare parts

RE34 . . . . REPAIRS COMPLETED. Repairs have been completed on equipment indicated.

RE35 . . . . MCM EQUIPMENT REMAINING. Number of usable items of MCM equipment (type from Table Y) is \_\_\_\_ .

RE36 . . . . UNRELIABLE. Equipment indicated is unreliable.

RE37 . . . . EQUIPMENT LIFE. Total number of running hours on equipment indicated is \_\_\_\_ . (Estimated life remaining is \_\_\_\_ hours.)

RE38 . . . .

**3004 FUEL STATE**

RE39 . . . .

RE40 . . . . PERCENTAGE REMAINING. Percentage of \_\_\_\_ remaining on board is \_\_\_\_ percent at noon (or \_\_\_\_ ).  
 1. AVCAT  
 2. Aviation gasoline  
 3. Burnable oil  
 4. F-75  
 5. F-76  
 6. F-77  
 7. F-44 (JP-5)  
 8. Marine gas oil  
 9. Diesel oil  
 10. Distillate fuel/DFM  
 11. Gasoline  
 12. Lubricating oil  
 13. Feed water  
 14. Potable water  
 15. DESIG \_\_\_\_ type of liquid (NATO symbol if one exists)

*Example: RE40—4—75 . . . 75 percent of diesel oil remains on board at noon.*

RE41 . . . .

**3005 MISCELLANEOUS**

RE42 . . . . READINESS (or condition) of this ship or unit indicated is \_\_\_\_ .  
(a) Antiaircraft guns usable  
(b) List in degrees (PORT or STBD may be added)  
(c) Main battery guns usable  
(d) Missile battery usable  
(e) Maximum draft in feet  
(f) Maximum speed possible

RE43 . . . . Tow. \_\_\_\_ .  
1. Require tug to tow this ship or unit indicated  
2. Take this ship or unit indicated in tow  
3. This ship or unit indicated will take you in tow  
4. Tow has parted  
5. Tow this ship or unit indicated into shallow water  
6. Transfer tow to this ship or unit indicated

RE44 . . . .

RE45 . . . .

**3006 READINESS FOR SEA/STEAMING**

RE46 . . . . LIGHT SUPERHEATERS.

RE47 . . . . SHAFT POWER. Have shaft power available for \_\_\_\_ (at \_\_\_\_ hours notice).  
1. Ensuring safety  
2. Flying operations  
3. Maximum fuel economy (single boiler/trail shaft operation permitted)  
4. Maximum speed  
5. Speed in knots indicated by numeral group following TACK  
6. Working anchors/cables

RE48 . . . . DELAY getting underway ( \_\_\_\_ ).  
1. Remain at \_\_\_\_ hours notice  
2. Remain at \_\_\_\_ minutes notice  
3. Until \_\_\_\_  
4. Until further notice

RE49 . . . . NOTICE. Come to or revert to \_\_\_\_ hours notice for getting underway (at \_\_\_\_ knots).

RE50 . . . . ESTIMATED TIME of \_\_\_\_ is \_\_\_\_ .  
1. Readiness for sea  
2. Steam (being at new notice for)

RE51 . . . .

RE52 . . . .





**3007 TOWING SIGNAL TABLE**

The numerical flag indicator for the table (Flag 6) may be left flying in a superior position when successive signals from the same table are being made.

- 6A . . . . . TOW me (or unit indicated). (Gear provided by \_\_\_\_ .)
  - 1. Ship being towed
  - 2. Ship towed
  
- 6B . . . . . DRIFT SPEED AND DIRECTION is \_\_\_\_ knots to \_\_\_\_ .
  
- 6C . . . . . SHIP'S HEAD is \_\_\_\_ . (PORT or STBD may be added to indicate direction paying off.)
  
- 6D . . . . . WIND SPEED AND DIRECTION is \_\_\_\_ knots from \_\_\_\_ .
  
- 6E . . . . . TOWING PLAN. Will take you under tow with my stern to your bow (or \_\_\_\_ ).
  - 1. With my stern to your stern
  - 2. With my (or designated unit's) bow to your stern to act as rudder
  
- 6F . . . . . TOW APPROACH. Will close your (or close my) (PORT or STBD) side (or \_\_\_\_ ).
  - 1. Bow
  - 2. Stern
  
- 6G . . . . . READY. I am ready (or \_\_\_\_ ).
  - 1. Not ready (until \_\_\_\_ )
  - 2. Do not agree
  
- 6H . . . . . COMMENCING APPROACH. I am commencing (or commence) approach (or \_\_\_\_ ).
  - 1. I am making (or make) another approach
  
- 6I . . . . . STOP YOUR ENGINES.
  
- 6J . . . . . MY ENGINES are \_\_\_\_ .
  - 1. Stopped
  - 2. Turning ahead
  - 3. Turning astern

6K . . . . . DISTANCE. \_\_\_\_\_ .

1. Move out (or I am moving out) ( \_\_\_\_\_ feet)
2. Move closer (or I am moving closer) ( \_\_\_\_\_ feet)
3. Move ahead (or I am moving ahead) ( \_\_\_\_\_ feet)
4. Move astern (or I am moving astern) ( \_\_\_\_\_ feet)
5. You are (or I am) in position

6L . . . . . STOP. The way is off my ship.

6M. . . . .

6N . . . . . BOLO/GUNLINE. Pass bolo/gunline (or \_\_\_\_\_ ).

1. I will pass bolo/gunline
2. Bolo/gunline parted/missed; try again

6O . . . . . LIGHT MESSENGER (is \_\_\_\_\_ (List A)). ( \_\_\_\_\_ (List B)).

- |               |                 |
|---------------|-----------------|
| <i>List A</i> | <i>List B</i>   |
| 1. Outboard   | A. Avast        |
| 2. Inboard    | B. Heave around |
| 3. Foul       | C. Slack off    |
| 4. Parted     | D. Let go       |

6P . . . . . HEAVY MESSENGER (is \_\_\_\_\_ (List A)). ( \_\_\_\_\_ (List B)).

- |               |                 |
|---------------|-----------------|
| <i>List A</i> | <i>List B</i>   |
| 1. Outboard   | A. Avast        |
| 2. Inboard    | B. Heave around |
| 3. Foul       | C. Slack off    |
| 4. Parted     |                 |

6Q . . . . . TOWING HAWSER (is \_\_\_\_\_ (List A)). ( \_\_\_\_\_ (List B)).

- |                          |                                       |
|--------------------------|---------------------------------------|
| <i>List A</i>            | <i>List B</i>                         |
| 1. Outboard              | A. Avast                              |
| 2. Inboard               | B. Heave around                       |
| 3. Foul                  | C. Slack off                          |
| 4. Parted                | D. Pay out (or I am paying out)       |
| 5. Secure                | E. Shorten in (or I am shortening in) |
| 6. Connected             | F. Cast off/trip slip (or I have      |
| 7. Disconnected          | cast off/tripped slip)                |
| 8. Riding well           |                                       |
| 9. In need of freshening |                                       |

6R . . . . . CHAIN (is \_\_\_\_ (List A)). ( \_\_\_\_ (List B)).

- List A*
1. Outboard
  2. Inboard
  3. Foul
  4. Parted
  5. Secure
  6. Connected
  7. Disconnected
  8. Riding well
  9. In need of freshening

- List B*
- A. Avast
  - B. Shorten in (or I am shortening in)  
(to \_\_\_\_ feet of chain)
  - C. Veer (or I am veering)  
(to \_\_\_\_ feet of chain)
  - D. Recover (or I am recovering)

6S . . . . . TOW. I am \_\_\_\_ .

1. Ready to commence tow
2. Commencing tow

6T . . . . .

6U . . . . . SPEED THROUGH THE WATER. \_\_\_\_ .

1. I am increasing (or increase) speed (to \_\_\_\_ )
2. I am decreasing (or decrease) speed (to \_\_\_\_ )
3. My engines have (or make) turns for \_\_\_\_ knots
4. My speed is \_\_\_\_ (or make your speed \_\_\_\_ )

6V . . . . . PORT or STBD . . . COURSE. I am adjusting (or adjust) course PORT or STBD (to \_\_\_\_ ).

6W . . . . . CONDITIONS. \_\_\_\_ .

1. Conditions are fine
2. All gear is recovered and inboard
3. I am encountering difficulties

6X . . . . .

6Y . . . . . AFFIRMATIVE.

6Z . . . . . NEGATIVE.

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RAS  
RS

CHAPTER 31

REPLENISHMENT/TRANSFER

- 3100 Replenishment Signals
- 3101 Signals Relating to Replenishment
- 3102 Helicopter Transfer/Vertical Replenishment Signals
- 3103 Night Replenishment

3100 REPLENISHMENT SIGNALS

RS1 . . . . . CLOSE FOR TRANSFER. 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 . . . . . MAIL/LIGHT MATERIAL. 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 . . . . . POL/WATER REQUIRED. I require \_\_\_\_ (*List A*), quantity \_\_\_\_ units \_\_\_\_ (*List B*) by \_\_\_\_ (*List C*).

- |   |   |   |
|---|---|---|
| <p><i>List A</i></p> <ol style="list-style-type: none"> <li>1. AVCAT</li> <li>2. Aviation gasoline</li> <li>3. Burnable oil</li> <li>4. Diesel oil</li> <li>5. Distillate fuel/DFM</li> <li>6. Gasoline</li> <li>7. JP-5</li> <li>8. Lubricating oil</li> <li>9. Feed water</li> <li>10. Potable water</li> <li>11. DESIG type of liquid (NATO symbol if one exists)</li> </ol> | <p><i>List B</i></p> <ol style="list-style-type: none"> <li>A. Tons</li> <li>B. Liters</li> <li>C. Cubic meters</li> <li>D. US gallons</li> <li>E. Imperial gallons</li> <li>F. US barrels</li> </ol> | <p><i>List C</i></p> <ol style="list-style-type: none"> <li>21. Probe coupling</li> <li>22. NATO B-end</li> <li>23. Admiralty screwed connection (ASC)</li> <li>24. Quick-release coupling (QRC)</li> </ol> |
|---|---|---|

RS5 . . . . . POL/WATER RECEIVED/SUPPLIED. I received/supplied \_\_\_\_ (*List A*), quantity \_\_\_\_ units \_\_\_\_ (*List B*).

- |   |   |
|---|---|
| <p><i>List A</i></p> <ol style="list-style-type: none"> <li>1. AVCAT</li> <li>2. Aviation gasoline</li> <li>3. Burnable oil</li> <li>4. Diesel oil</li> <li>5. Distillate fuel/DFM</li> <li>6. Gasoline</li> <li>7. JP-5</li> <li>8. Lubricating oil</li> <li>9. Feed water</li> <li>10. Potable water</li> <li>11. DESIG type of liquid (NATO symbol if one exists)</li> </ol> | <p><i>List B</i></p> <ol style="list-style-type: none"> <li>A. Tons</li> <li>B. Liters</li> <li>C. Cubic meters</li> <li>D. US gallons</li> <li>E. Imperial gallons</li> <li>F. US barrels</li> </ol> |
|---|---|

RS6 . . . . . PROVISION OF TRANSFER RIG. \_\_\_\_ rig for transfer.

1. I will provide
2. You provide

RS7 . . . . . REPLENISH (\_\_\_\_ (*List A*)) (\_\_\_\_ call sign of receiving ship) (\_\_\_\_ position designation from RAS planning sheet) (\_\_\_\_ time ZULU).

- List A*
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/DFM                                  | 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. Lube 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<br>(NATO symbol if one exists) | T. Spanwire                  |                      |
|   | W. Wire highline             |                      |

*Example: PREP RS8—13P—31 PORT . . . Prepare to receive movies by light line at forward PORT transfer station.*

*RS8—3S—34—3 . . . Replenish burnable oil by probe coupling at transfer station 3.*

RS9 . . . . . REPLENISHMENT. 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, ONE for 10° steps, ONE ANSWER for 15° steps, or TWO for 20° steps. *To be used when zigzagging.*)

*Note: See CORPEN chapter for control method procedures.*

**Method:**

- |         |                                       |
|---------|---------------------------------------|
| ALFA    | Telephone/loud hailer                 |
| BRAVO   | Voice radio                           |
| CHARLIE | Visual (flags by day, light by night) |

RS10 . . . . . REPLENISHMENT SEQUENCE. 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)

*Example: RS10 c/s 9TP—1 c/s 4VX c/s 6XR—2 c/s 4AH c/s 1MR . . . Sequence of replenishment from ship holding call sign 9TP is to be: STBD side, ship holding call sign 4VX, then ship holding call sign 6XR; PORT side, ship holding call sign 4AH, then ship holding call sign 1MR.*

RS11 . . . . ASTERN FUELING RIG. \_\_\_\_\_ astern fueling rig.  
1. Stream (PORT or STBD may be indicated)  
2. Recover  
3. Veer marker float \_\_\_\_\_ metres.  
4. Heave in marker float \_\_\_\_\_ metres.

RS12 . . . . REPLENISHMENT TIME. Estimated \_\_\_\_\_ .  
1. Duration of RAS is \_\_\_\_\_ minutes  
2. Time of commencement of RAS is \_\_\_\_\_  
3. Time of completion of RAS is \_\_\_\_\_

RS13 . . . .

RS14 . . . .

RS15 . . . . DISPLACEMENT. Estimated displacement is \_\_\_\_\_ .  
1. Deep laden  
2. Medium  
3. Light

**3101 SIGNALS RELATING TO REPLENISHMENT**

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                           |

R CORPEN . . . REPLENISHMENT COURSE is \_\_\_\_ (speed is \_\_\_\_).

R SPEED. . . . REPLENISHMENT SPEED is \_\_\_\_.

CORPEN N . . . REPLENISHMENT UNITS alter course when ordered by their control ship(s) to \_\_\_\_ degrees PORT/STBD as indicated in \_\_\_\_ steps. Use ANSWER for 5° steps, ONE for 10° steps, ONE ANSWER for 15° steps, or TWO for 20° steps.

*Ships not in replenishment units are to preserve true bearings and distances from the formation guide. Ships in replenishment units alter course as directed by their control ship(s) so as to preserve relative bearings and distances from their replenishment unit guide. Replenishment unit guide will not change during the course alteration(s).*

SPEED L . . . . REPLENISHMENT UNITS alter speed when ordered by control ships to \_\_\_\_ knots in \_\_\_\_ steps. Use ANSWER for 0.5-knot steps or ONE for 1-knot steps, etc.

*Ships not in replenishment units are to alter speed similarly, preserving true bearings and distances from the formation guide. Ships in replenishment unit(s) preserve relative bearings and distances from unit guide.*

SPEED R2 . . . REDUCE SPEED to stream/recover astern fueling rig (to \_\_\_\_ knots).

**CORPEN N and SPEED L Procedure**

WHEN ORDERED OR REQUIRED TO ALTER COURSE OR SPEED, THE CONTROL SHIP EXECUTES THE ALTERATION USING THE FOLLOWING PROCEDURE.

1. The control ship orders a CORPEN N or a SPEED L to the replenishment unit, as described above.
2. On receipt of the signal CORPEN N or SPEED L, ships replenishing alongside and/or astern report BF to the control ship when ready to commence the alteration. (BF is also required from the replenishment unit guide if he is not the control ship.) When the ships replenishing have reported READY, the control ship will alter the course or the speed of its replenishment unit by using Method A, B, or C.
3. Ships in waiting/lifeguard station will not report BF but will follow in order to preserve relative bearings and distances from the replenishment unit guide.
4. As applicable, on reaching the new course or the new speed the control ship reports completion of alteration to the OTC.

3102 HELICOPTER TRANSFER/VERTICAL REPLENISHMENT SIGNALS

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING		
H1	VERTREP	BY CUSTOMER/ SUPPLYING SHIP:	AT DIP	CLOSE UP	HAULED DOWN
		Where best seen.	I am preparing to re- ceive/ commence VER- TREP.	Helicopter may close now/ commencing VERTREP.  HELICOPTER AC- TION: Position for transfer.	Transfer completed.
H1 TACK T	VERTREP	BY CUSTOMER SHIP:  Where best seen.	WHILE FLYING: Desire transfer.  HELICOPTER ACTION: Orbit ship.		
H1 TACK B plus numerals	TORPEDO TRANSFER	Where best seen.	WHILE FLYING: Indicates number of units for transfer.		
H1 TACK D plus numerals	DELAY IN TRANSFER.	Where best seen.	WHILE FLYING: Delay in transfer. Numerals indicate minutes of delay.		
H1 TACK K plus numerals	MAIL/CARGO FOR TRANSFER	Where best seen.	WHILE FLYING: Indicates weight of mail/cargo in increments of 10 kilograms.		
H1 TACK M plus numerals	MAIL/CARGO FOR TRANSFER	Where best seen.	WHILE FLYING: Indicates weight of mail/cargo in increments of 10 pounds.		
H1 TACK P plus numerals	PASSEN- GERS FOR TRANSFER	Where best seen.	WHILE FLYING: Indicates number of passengers for transfer.		
H1 TACK Q plus numerals	PATIENTS FOR TRANSFER	Where best seen.	WHILE FLYING: Indicates number of patients for transfer.		
BEANBAG* DELIVERY			HELICOPTER ACTION: Approach ship with helicopter flood-lights ON.		
EMERGENCY BREAKAWAY			SHIP ACTION: Use standard wave-off.  HELICOPTER ACTION: Turn ON hover lights.		
*A small canvas (weighted) bag used to transfer small objects from ship to helicopter or helicopter to ship.					



**3103 NIGHT REPLENISHMENT**

By night the morse equivalents of ROMEO and PREP may be flashed four times without call or ending during replenishment operations, using the following colored lights, as appropriate:

WHITE Light	Signal at the DIP
RED Light	Signal CLOSE UP

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CHAPTER 32

ANTISURFACE WARFARE

3200 Attack  
 3201 Command  
 3202 Gunnery and Missile  
 3203 Plan  
 3204 Torpedo  
 3205 TORPEDO ACTION TABLE  
 3206 Special Night Torpedo Firing Signals  
 3207 Special Day Torpedo Firing Signal  
 3208 SURFACE ACTION TABLES  
 3209 Special FPB Maneuvering Signals  
 3210 SAG Signal Table

**3200 ATTACK**

SU1 . . . . . ACTION. \_\_\_\_\_ (until/when conditions exist as indicated from Table W).

1. Avoid action
2. Commence action
3. Chase enemy (type or force may be indicated from Table F)
4. Do not commence surface fire until identity is established

SU2 . . . . . ACTION. Aim of action is \_\_\_\_\_ of enemy surface forces.

1. Containment
2. Destruction
3. Diversion
4. Repelling

SU3 . . . . . ATTACK. \_\_\_\_\_ (until/when conditions exist as indicated from Table W).

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 on enemy from bearing \_\_\_\_\_ (bearing is to be taken from center of enemy)
5. Close and attack
6. Attack completed

SU4 . . . . . CLOSE RANGE ( \_\_\_\_\_ ).

1. As rapidly as possible
2. Consistent with keeping all guns bearing
3. To effective missile range
4. To effective torpedo range
5. To maximum effective gun range
6. To maximum gun range
7. To maximum missile range
8. To maximum torpedo range
9. To \_\_\_\_\_ thousand yards

SU5 . . . . . COORDINATED ATTACK. Attack is to be coordinated at time indicated.

- SU6 . . . . . CONCENTRATE \_\_\_\_ .
1. At time indicated
  2. In position \_\_\_\_
  3. On enemy as indicated (from Table F)
  4. On enemy bearing \_\_\_\_
  5. On unit indicated

- SU7 . . . . . OPEN RANGE ( \_\_\_\_ ).
1. As rapidly as possible
  2. Beyond effective gun range of enemy
  3. Beyond maximum gun range of enemy
  4. Beyond maximum missile range of enemy
  5. Consistent with keeping all guns bearing
  6. To maximum gun range
  7. To maximum missile range
  8. To maximum torpedo range
  9. To \_\_\_\_ thousand yards

SU8 . . . . . WARNING FIRE. Fire warning shot across contact's bow.

- SU9 . . . . . I AM MANEUVERING TO UNMASK ( \_\_\_\_ ).
1. Guns
  2. Missile launcher
  3. Rocket-assisted ASW weapon
  4. Torpedo tubes

- SU10 . . . . . SAG COMMANDER. Assume command as SAG commander (or)
1. SAG commander is \_\_\_\_

**3201 COMMAND**

- SU11 . . . . . FORM SAG and clear the force in direction \_\_\_\_ (*List A*) (or on bearing \_\_\_\_ ) to investigate \_\_\_\_ (*List B*).

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. North</li> <li>2. East</li> <li>3. South</li> <li>4. West</li> </ol> | <ol style="list-style-type: none"> <li>A. Skunk indicated</li> <li>B. Racket indicated</li> <li>C. Visual sighting</li> </ol> |
|--|---|

SU12 . . . . . INVESTIGATE. Investigate track identity \_\_\_\_ , be prepared to illuminate and engage.

- SU13 . . . . . FORM HAG and clear the force in direction \_\_\_\_ (*List A*) (or on bearing \_\_\_\_ ) to investigate \_\_\_\_ (*List B*).

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. North</li> <li>2. East</li> <li>3. South</li> <li>4. West</li> </ol> | <ol style="list-style-type: none"> <li>A. Skunk indicated</li> <li>B. Racket indicated</li> <li>C. Visual sighting</li> </ol> |
|--|---|

**3202 GUNNERY AND MISSILE**

SU14 . . . . CLEAR LINE OF FIRE from this unit or unit indicated (on bearing \_\_\_\_ ).

SU15 . . . .

SU16 . . . . TARGET RANGE is \_\_\_\_ thousand yards.

SU17 . . . .

SU18 . . . .

**3203 PLAN**

SU19 . . . . ACTION. Fight a \_\_\_\_ action.

1. Delaying
2. Harassing
3. Pursuit
4. Retiring
5. Surface, detaching SAG
6. Surface, using all forces
7. Withdrawing

SU20 . . . .

SU21 . . . .

SU22 . . . .

SU23 . . . . POSITION. 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 . . . .

SU25 . . . .

**3204 TORPEDO**

SU26 . . . .

SU27 . . . . ATTACK SECTOR. 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.

1. Northward
2. Southward
3. Eastward
4. Westward

*Example: SU27—3 . . . Your sector of attack will be from the eastward of the target with the target as the reference point.*

*SU27—0508 ANS . . . 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 . . . .

SU29 . . . . FIRED. Torpedoes have just been fired (or were fired at time indicated) by ships of my unit (on torpedo course \_\_\_\_).

SU30 . . . . PROCEED TO POSITION. Proceed to most advantageous position for torpedo attack and \_\_\_\_.

1. Attack with torpedoes
2. Do not attack until ordered

SU31 . . . . PROCEED TO SECTOR. 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 . . . .

SU33 . . . . RECOVERED. All torpedoes (or \_\_\_\_ number) have been recovered. Ships to whom they belong may be indicated.

SU34 . . . .

SU35 . . . . TORPEDOES. Chase and recover torpedoes (or torpedoes \_\_\_\_).

1. Are in sight bearing \_\_\_\_
2. Are to be recovered
3. Have sunk

SU36 . . . .

SU37 . . . .



**FLAG 9  
ACTION  
TABLE**

**FLAG 9  
ACTION  
TABLE**

3205 TORPEDO ACTION TABLE

The numerical flag indicator for the table (Flag 9) may be left flying in a superior position when successive signals from the same table are being made.

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
- 2. Using coordinated attack plan
- 3. Using individual target plan
- 4. Using mutual target plan
- 5. As soon as enemy is sighted
- 6. At maximum torpedo range
- 7. At range of \_\_\_\_ hundred yards
- 8. For exercise
- 9. From as close as possible
- 10. Outside visibility range; firing by radar

9B . . . . .

9C . . . . . ATTACK with torpedoes (in sector \_\_\_\_ ).

9D . . . . . TIME OF FIRING will be as indicated.

9E . . . . . PLAN. Use torpedo attack plan indicated.

9F . . . . . PROCEED to attack sectors (or sector \_\_\_\_ ). (Remain outside \_\_\_\_ thousand yards from nearest enemy unit.)

9G . . . . . SECTOR. Attack with torpedoes in sector \_\_\_\_ .

9H . . . . . METHOD of attack will be \_\_\_\_ .

- 1. Formation attack in close formation
- 2. Formation attack in open formation
- 3. Independent
- 4. Sector
- 5. Spread

9I . . . . . CONTINUE TO CLOSE ENEMY after the attack to disguise moment of firing torpedoes.

9J . . . . . POINT OF AIM. Enemy ship to be used as point of aim for torpedo firing bears \_\_\_\_ from this unit or unit indicated range \_\_\_\_ thousand yards.

9K . . . . .

9L . . . . . COURSE. Base torpedo course is as indicated (torpedo speed is as indicated by suffix below following TACK).

- 1. High
- 2. Intermediate
- 3. Low

9M . . . . . COURSE. Mean torpedo course for this unit or unit indicated is \_\_\_\_ .

- 9N . . . . . SHOT ANGLE. Use \_\_\_\_ shot angle to PORT or STBD as indicated.
  - 1. Bow
  - 2. Beam
  - 3. Quarter
- 9O . . . . . DEPTH. Set torpedoes to run at depth of \_\_\_\_ feet.
- 9P . . . . . TORPEDO SPEED. 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 . . . . . SETTINGS. 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 . . . . . TARGET. Torpedoes will strike target at \_\_\_\_ .
- 9V . . . . . TURN AS REQUIRED (to PORT or STBD) and fire torpedoes, returning to original course (or course \_\_\_\_ ) after firing.
- 9W . . . . . TURN IN SUCCESSION (to PORT or STBD) and fire torpedoes, returning to original course (or course \_\_\_\_ ) after firing.
- 9X . . . . . TURN TOGETHER (to PORT or STBD) and fire torpedoes, returning to original course (or course \_\_\_\_ ) after firing.
- 9Y . . . . . RETIRE on approximate course \_\_\_\_ after firing.
- 9Z . . . . . STEADY BEARING. Close target by steady bearings (present bearings).

**3206 SPECIAL NIGHT TORPEDO FIRING SIGNALS**

These signals may be used independently or in conjunction with torpedo action signals. The OTC 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 with the enemy on the PORT side.
Long GREEN flashes	Contact has been made with the enemy 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 that is the reciprocal of the bearing of the enemy on firing, unless otherwise ordered.
Short GREEN flashes	Turn as required and fire torpedoes to starboard. OTC intends to steady on a course that is the reciprocal of the bearing of the enemy on firing, unless otherwise ordered.
GREEN Very Star	Exercise signal to indicate that torpedoes have been fired.

**3207 SPECIAL DAY TORPEDO FIRING SIGNAL**

GREEN or BLACK Smoke Grenade	Exercise signal to indicate that torpedoes have been fired.
---------------------------------	---

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**FLAG 2  
ACTION  
TABLE**

**FLAG 2  
ACTION  
TABLE**



3208 SURFACE ACTION TABLES

A. Flag 2 Surface Action Table — General

The numerical flag indicator for the table (Flag 2) may be left flying in a superior position when successive signals from the same table are being made.

2A . . . . . REFERENCE POINT. 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. DLRP (data link reference position)
7. \_\_\_\_\_

2B . . . . . REFERENCE POINT POSITION. 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</li> <li>6. DLRP</li> <li>7. _____</li> </ol> | <p style="text-align: center;"><i>List A</i></p> <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. Cartesian coordinate (xy) grid _____</li> </ol> |
|---|---|

2C . . . . . CONTACT DESIGNATION. Designations for contacts held by this unit are \_\_\_\_\_ .

1. Force track numbers \_\_\_\_\_
2. Local track designations \_\_\_\_\_
3. Other track numbers \_\_\_\_\_

2D . . . . . CONTACT REDESIGNATION. Redesignate your contact or contact indicated as \_\_\_\_\_ .

1. Force track number \_\_\_\_\_
2. Local track designation \_\_\_\_\_
3. Other track number \_\_\_\_\_

2E . . . . . CONTACT DATA. All contact data following this signal pertains to \_\_\_\_\_ .

1. Force track number \_\_\_\_\_
2. Local track designation \_\_\_\_\_
3. Other track number \_\_\_\_\_

2F . . . . . CONTACT IDENTITY. Designated contact is unknown or \_\_\_\_\_ (from *List A*) \_\_\_\_\_ (from *List B*) (and is further identified as \_\_\_\_\_ (from *List C*)).

- |               |               |                        |
|---------------|---------------|------------------------|
| <i>List A</i> | <i>List B</i> | <i>List C</i>          |
| 1. Certain    | A. Hostile    | 31. Carrier            |
| 2. Probable   | B. Friendly   | 32. Large combatant    |
| 3. Possible   | C. Neutral    | 33. Small combatant    |
|               |               | 34. Patrol             |
|               |               | 35. Surfaced submarine |
|               |               | 36. AGI                |
|               |               | 37. Naval auxiliary    |
|               |               | 38. Amphibious         |
|               |               | 39. Merchant           |
|               |               | 40. Unknown            |
|               |               | 41. PIF/SIF _____      |

2G . . . . . CONTACT LOCATION. Contact \_\_\_\_\_ (designation) is located on bearing \_\_\_\_\_ (degrees true) from this unit or unit/reference point indicated, distance \_\_\_\_\_ (nm), at \_\_\_\_\_ (time). Position is estimated to be accurate within a distance of \_\_\_\_\_ (nm).

2H . . . . . LOST CONTACT. Have lost \_\_\_\_\_ contact with target or target indicated (last bearing \_\_\_\_\_) (last distance \_\_\_\_\_) (time \_\_\_\_\_).

1. ESM
2. Sonar
3. Radar
4. FLIR
5. Visual
6. All sensors

2I . . . . . CONTACT BEARING AND BEARING ACCURACY. Bearing of designated contact from this unit or unit indicated is \_\_\_\_\_ (degrees true) by \_\_\_\_\_ (from *List A*) with accuracy within \_\_\_\_\_ (degrees true) based on \_\_\_\_\_ (from *List B*).

- |                        |                                 |
|------------------------|---------------------------------|
| <i>List A</i>          | <i>List B</i>                   |
| 1. ESM                 | A. Measured system error        |
| 2. Sonar               | B. Estimated system error       |
| 3. RDF                 | C. Target motion analysis (TMA) |
| 4. Radar jamming spike |                                 |
| 5. FLIR                |                                 |
| 6. Visual              |                                 |

2J . . . . . COURSE AND SPEED. Contact course is \_\_\_\_\_ (degrees true) 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.*

2K . . . . . SENSOR. Contact \_\_\_\_\_ (designation) is held by this unit or unit indicated on \_\_\_\_\_ .

1. ESM
2. Active sonar
3. Passive sonar
4. RDF
5. Radar (airborne)
6. Radar (air search)
7. Radar (surface search)
8. Intelligence
9. IR/EO
10. Visual

2L . . . . . INVESTIGATE. 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. Maritime 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. . . . . IDENTIFICATION. Your contact or contact indicated is \_\_\_\_\_ .

1. Correctly identified
2. Incorrectly identified

2N . . . . . ENGAGE target (bearing \_\_\_\_\_ ) or target indicated \_\_\_\_\_ .

1. As soon as possible
2. When weapons bear
3. When ready
4. At maximum weapon range
5. At maximum effective range
6. When range closes to \_\_\_\_\_ thousand yards
7. When target is visible
8. If target is identified as hostile
9. If target commits a hostile act
10. If target demonstrates hostile intent
11. For harassment

2O . . . . . CONCENTRATE fire on target(s) or target(s) indicated.

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 . . . . . DECOY. Contact is using \_\_\_\_ decoys.  
1. Acoustic  
2. Chaff  
3. Electronic  
4. Infrared  
5. Mechanical

2S . . . . . CHAFF CONFUSION. Fire chaff for confusion (bearing \_\_\_\_ ) (range \_\_\_\_ thousand yards) (or \_\_\_\_ ).  
1. In accordance with plan previously ordered

2T . . . . . CHAFF. Fire chaff for \_\_\_\_ .  
1. Distraction  
2. Seduction

2U . . . . . DECOYS. Release/fire \_\_\_\_ decoys (from *List A*) ( \_\_\_\_ (from *List B*)).  
1. Infrared  
2. Radar  
A. Bearing \_\_\_\_ (range \_\_\_\_ thousand yards)  
B. In accordance with plan previously ordered

2V . . . . . DETECTED. This unit or unit indicated \_\_\_\_ been detected by the enemy.  
1. Has  
2. Has not  
3. May have

2W . . . . . DAMAGE. This unit (or indicated unit) has suffered damage and is \_\_\_\_ .  
1. Continuing action  
2. Withdrawing  
3. Neutralized

2X . . . . .

2Y . . . . .

2Z . . . . .

**FLAG 3  
ACTION  
TABLE**

**FLAG 3  
ACTION  
TABLE**

**B. Flag 3 Surface Action Table — Over-the-Horizon (OTH) Engagement**

The numerical flag indicator for the table (Flag 3) may be left flying in a superior position when successive signals from the same table are being made.

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. GREYHOUND                  |
| 2. Designated missile firing unit(s) using own sensors only                               | B. DESIG _____ (OPGEN serial) |
| 3. Designated missile firing unit(s) and forward observer(s) to control flight of missile | C. _____                      |

*Example: 3A—2134—1—DESIG c/s 1PD—DESIG c/s 3NF—A . . . Prepare to engage with OTH ASSM track 2134 with call sign 1PD as firing unit and call sign 3NF as target reporting unit in accordance with surface action plan GREYHOUND.*

3B . . . . . ATTACK. 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. GREYHOUND                  | 31. OTC                              |
| 2. Launch time _____                  | B. DESIG _____ (OPGEN serial) | 32. SWC                              |
| 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—A—37—DESIG c/s ZIA . . . Conduct OTH attack when ready against track 2134 using surface action plan GREYHOUND as coordinated by unit with call sign ZIA.*

3C . . . . . ATTACK. 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>                          |
| A. GREYHOUND                  | A. Designated target reporting unit(s) | 10. Immediately                        |
| B. DESIG _____ (OPGEN serial) | B. Own sensors only                    | 11. Launch time _____                  |
| C. _____                      | C. Designated forward observer(s)      | 12. When ready                         |
|                               |  | 13. To achieve time on target of _____ |
|                               |  | 14. As previously directed             |

3D . . . . . SSM 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 of missiles allocated for this fire mission)  
 6. Repeat (repeat fire mission with same number of missiles at the same target)

3E . . . . . SSM FIRE. 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 . . . . . SALVOS. When ordered to engage, unit(s) indicated attack target or target indicated with \_\_\_\_ missile(s). Number may be indicated by numeral following DESIG.  
 1. Exocet  
 2. Gabriel  
 3. Harpoon  
 4. Penguin  
 5. Sea Dart (SASS mode)  
 6. Sea Killer  
 7. Standard (SASS mode)  
 8. Terrier (SASS mode)  
 9. Teseo  
 10. Tomahawk  
 11. \_\_\_\_

3G . . . . . FIRING UNIT POSITION. Designated firing unit's position is \_\_\_\_ .

3H . . . . . TARGET REPORTING STATION. 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 ____ (degrees true) and range ____ (thousand yards) from ____ (from <i>List B</i> ) | C. Indicated unit     |

3I . . . . . TARGET REPORTING STATION. 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 ____ (degrees true) and range ____ (thousand yards) from ____ (from <i>List B</i> ) | C. Indicated unit     |

3J . . . . . LINE OF FIRE. Intended long-range ASSM line of fire is \_\_\_\_ (degrees true).

3K . . . . . LINE OF FIRE. Request intended long-range ASSM line of fire \_\_\_\_ (degrees true).



3L . . . . . NOT RELEASABLE

3M. . . . . NOT RELEASABLE

3N . . . . . FREQUENT TARGET REPORTING. Using 'Mark' procedures, target or target indicated is on bearing \_\_\_\_ (degrees true), range \_\_\_\_ (nm) from reference position (unit or point as indicated in previous 3L or 3M signal), course \_\_\_\_ (degrees), speed \_\_\_\_ (knots) (add any additional information).

*Example: 3N—2134—STANDBY—MARK—230— 75—120—20 . . . Using 'Mark' procedures, track 2134 is on bearing 230° true, range 75 nm, course 120°, speed 20 knots.*

3O . . . . . CEASE FREQUENT TARGET REPORTING. Unit designated is to cease frequent target reporting.

3P . . . . . REPORT ATTACK RESULTS. Unit designated is to report attack results.

3Q . . . . . ATTACK RESULTS. Estimate of results of attack on target by designated firing unit(s) is \_\_\_\_\_ .

1. Sunk
2. Sinking
3. Heavily damaged
4. Lightly damaged
5. Undamaged
6. Dead in the water
7. Underway but hit
8. Miss
9. Missile unobserved
10. Unable to assess

3R . . . . . SEEKER SETTINGS. Use \_\_\_\_\_ (from *List A*) terminal guidance with \_\_\_\_\_ (from *List B*) search pattern.

*List A*

*List B*

1. Active
2. Passive
3. Active/passive
4. Passive/active
5. \_\_\_\_\_

- 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 . . . . . SEEKER SETTINGS. I am using \_\_\_\_\_ (from *List A*) terminal guidance and \_\_\_\_\_ (from *List B*) search pattern.

*List A*

*List B*

1. Active
2. Passive
3. Active/passive
4. Passive/active
5. \_\_\_\_\_

- 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 . . . . . AREA OF PROBABILITY. 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—30—0 45—1215—NEGAT—NEGAT—90—DESIG 2164 . . .*

*The area of probability for track 2164 is 125° true from reference point A, distance 45 nm. The ellipse is 30 nm X 60 nm, oriented 045° true, at time 1215 ZULU. Target course and speed are unknown. Probability that the target is within the ellipse is 90 percent.*

3U . . . . . CLEAR RANGE. Range within 10 degrees of the line of fire is \_\_\_\_ (from *List A*) and within a 20-nm radius of the target is \_\_\_\_ (from *List B*).

- |   |   |
|---|---|
| <i>List A</i>                                       | <i>List B</i>                                       |
| 1. Clear  | A. Clear  |
| 2. Foul by ____ (number of ships or radar contacts) | B. Foul by ____ (number of ships or radar contacts) |
| 3. Unable to assess                                 | C. Unable to assess                                 |

3V . . . . . OBSERVE MISSILE STRIKE. \_\_\_\_ (number) of ASSM fired by designated firing unit(s) will be at target in \_\_\_\_ (seconds); prepare to observe.

3W . . . . . COORDINATED FIRE. Long-range ASSMs are to be fired on target or target indicated to achieve a time on target of \_\_\_\_ .

3X . . . . .

3Y . . . . . FORWARD OBSERVER. Unit designated is to take station on bearing \_\_\_\_ (degrees true) 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 . . . . .

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**FLAG 4  
ACTION  
TABLE**

**FLAG 4  
ACTION  
TABLE**

**C. Flag 4 Surface Action Table — To-the-Horizon Range Engagement**

The numerical flag indicator for the table (Flag 4) may be left flying in a superior position when successive signals from the same table are being made.

4A . . . . . ACTION PLAN. Carry out action plan \_\_\_\_ against target or target indicated.  
 1. GROUSE  
 2. SNIPE  
 3. DESIG \_\_\_\_ (OPGEN serial)  
 4. \_\_\_\_

4B . . . . . ENGAGE (with \_\_\_\_ ) on target indicated (or target bearing \_\_\_\_ from this unit or unit indicated) (range \_\_\_\_ thousand yards).  
 1. Short-range SSMs  
 2. Long-range SAMs  
 3. Medium-range SAMs  
 4. Short-range SAMs  
 5. Main gun battery  
 6. Secondary gun battery  
 7. Rockets  
 8. Close-range guns  
 9. Machineguns  
 10. Torpedoes  
 11. All weapons

4C . . . . . CEASE FIRE (with \_\_\_\_ ) on target indicated (or target bearing \_\_\_\_ from this unit or unit indicated) (range \_\_\_\_ thousand yards).  
 1. Short-range SSMs  
 2. Long-range SAMs  
 3. Medium-range SAMs  
 4. Short-range SAMs  
 5. Main gun battery  
 6. Secondary gun battery  
 7. Rockets  
 8. Close-range guns  
 9. Machineguns  
 10. Torpedoes  
 11. All weapons

4D . . . . . ENGAGING. I am engaging target or target indicated with \_\_\_\_ .  
 1. Short-range SSMs  
 2. Long-range SAMs  
 3. Medium-range SAMs  
 4. Short-range SAMs  
 5. Main gun battery  
 6. Secondary gun battery  
 7. Rockets  
 8. Close-range guns  
 9. Machineguns  
 10. Torpedoes  
 11. All weapons

4E . . . . . CEASED FIRING. I have ceased firing on target or target indicated with \_\_\_\_ .  
 1. Short-range SSMs  
 2. Long-range SAMs  
 3. Medium-range SAMs  
 4. Short-range SAMs  
 5. Main gun battery  
 6. Secondary gun battery  
 7. Rockets  
 8. Close-range guns  
 9. Machineguns  
 10. Torpedoes  
 11. All weapons

4F . . . . . ILLUMINATE target or sector \_\_\_\_ (with \_\_\_\_ ) (bearing \_\_\_\_ ) (range \_\_\_\_ thousand yards).

1. Starshells
2. Rockets
3. Searchlights
4. Flares
5. In accordance with fire plan (or plan \_\_\_\_ )

4G . . . . . ILLUMINATING. I am illuminating (with \_\_\_\_ ).

1. Starshells
2. Rockets
3. Searchlights
4. Flares
5. In accordance with fire plan (or plan \_\_\_\_ )

4H . . . . . SPREAD. Fire starshell search spread to \_\_\_\_ . Upon attaining satisfactory adjustment, maintain continuous illumination of target. Suspected range and bearing 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 (at \_\_\_\_ ).

1. Targets of opportunity
2. Nearest enemy
3. FPB targets

4L . . . . . SHIFT FIRE \_\_\_\_ .

1. To target bearing \_\_\_\_ 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 enemy formation
2. Leading ship of enemy formation
3. Left of enemy formation
4. Right of enemy formation
5. Ship number \_\_\_\_ in enemy line counting from left to right
6. Ship number \_\_\_\_ in enemy line counting from right to left
7. Nearest enemy
8. On track number \_\_\_\_
9. On target bearing \_\_\_\_ from reference point \_\_\_\_ at \_\_\_\_ thousand yards



- 4N . . . . . TARGET. Track target or target indicated and be prepared to engage.
- 4O . . . . . CALIBRATION. Fire pre-action calibration (bearing \_\_\_\_ ) (range \_\_\_\_ thousand yards).
- 4P . . . . . AMMUNITION. Use ammunition with \_\_\_\_ fuzes.
  - 1. Airburst
  - 2. Impact
  - 3. Mixed impact and airburst
  - 4. Proximity
  - 5. Proximity/time
- 4Q . . . . . GUNNERY RADAR. My gunnery control radar is being jammed. The effect is \_\_\_\_ .
  - 1. Negligible
  - 2. To prevent ranging
  - 3. To prevent auto follow
- 4R . . . . . FALL OF SHOT. Verify fall of shot using standard procedure.
- 4S . . . . . FALL OF SHOT is \_\_\_\_ .
  - 1. Over ( \_\_\_\_ hundred yards)
  - 2. Short ( \_\_\_\_ hundred yards)
  - 3. Right ( \_\_\_\_ tens of yards)
  - 4. Left ( \_\_\_\_ tens of yards)
  - 5. Far over
  - 6. Far short
  - 7. Far right
  - 8. Far left
  - 9. Unobserved
  - 10. Straddle
- 4T . . . . . COORDINATED FIRE. Short-range SSMs are to be fired on target or target indicated to achieve a time on target of \_\_\_\_ .
- 4U . . . . .
- 4V . . . . .
- 4W . . . . .
- 4X . . . . .
- 4Y . . . . .
- 4Z . . . . .

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**FPB  
SIGNAL  
TABLE**

**FPB  
SIGNAL  
TABLE**

3209 SPECIAL FPB MANEUVERING SIGNALS

LIGHT/ VOICE SIGNAL	ALTERNATE HAND AND ARM SIGNAL	MEANING
AAAA	Extend arm overhead, then point arm astern.	Form COLUMN in the QUICKEST SEQUENCE on the most advanced ship.
BBBB		Form SINGLE LINE ABREAST in the QUICKEST SEQUENCE on the guide.
CCCC	Face aft and cross extended arms above the head.	CUT engines, change engines.
DDDD	Extend arms in direction of new course.	WHEEL to STARBOARD.
GGGG		TURN TOGETHER 180 degrees to STARBOARD.
IIII	Move extended arm in a circle above the head.	INCREASE speed ONE STEP. (See Note 3.)
JJJJ		CLOSE ME for loudhailer conference.
KKKK		SPLIT as ordered or in next lower unit.
LLLL	Extend arms in direction of new course.	WHEEL to PORT.
MMMM		BREAKDOWN. Keep clear and continue operation.
NNNN		Form COLUMN in ORDER of sequence numbers.
OOOO		OPEN UP to 1,000 yards between ships.
PPPP	Extend arms vertically above head, then bring left arm down to horizontal.	Form PORT QUARTER LINE. (See Note 4.)
QQQQ	Extend arms vertically above head, then bring right arm down to horizontal.	Form STARBOARD QUARTER LINE. (See Note D.)

LIGHT/ VOICE SIGNAL	ALTERNATE HAND AND ARM SIGNAL	MEANING
RRRR	Extend arm with palm of hand down, move up and down at a right angle to the fore-and-aft line.	REDUCE speed ONE STEP. (See Note 3.)
SSSS	Face aft, hold arm vertically overhead, palm aft.	STOP ENGINES.
UUUU		TURN TOGETHER 45 degrees to PORT (or as ordered).
VVVV	Face aft, extend arms up to a 45-degree angle, then bring arms up and down to horizontal.	Form ARROWHEAD on squadron (division) leader, divisions (subdivisions) in QUARTER LINE, with even numbered division (subdivision) to PORT. (See Note 4.)
WWWW		TURN TOGETHER 180 degrees to PORT.
XXXX	Rotate both arms above the head.	Form DIAMOND formation.
ZZZZ		TURN TOGETHER 45 degees to STARBOARD (or as ordered).

NOTES:

1. Light/voice signals from this table are to be flashed/spoken without a preliminary call or ending. The end of the transmission indicates execution.
2. The range of the hand and arm signals can be increased by making them with hand flags.
3. Amount of knots in one step will vary depending on the FPB class.
4. When ordered to form quarter line, ships are to form in order of sequence numbers on a line of bearing that will keep them clear of the wash of the next ahead.

SAG  
SIGNAL  
TABLE

SAG  
SIGNAL  
TABLE



**3210 SAG SIGNAL TABLE****INSTRUCTIONS**

1. The SAG single-letter signals come into force and may be used between ships without further orders only when the signal, Form SAG (SU11), has been passed. SAG single-letter signals that order maneuvers are to be used only when the ordered distance apart of ships is 1,000 yards or more.
2. The single-letter meaning does not use (nor is it intended to use) the full range of meanings offered by the nearest equivalent normal flag signal.
3. Single letters will be flashed continuously until RRRR is received. When a numeral group follows the single letter, the whole group (e.g., G270) will be flashed repetitively until RRRR is received. The SAG commander will attempt to flash to all ships in the group; but when in line, intervening ships astern are to flash the signal along the line. Signal lamps are to be adjusted to the minimum required brilliance at night.
4. Use of single-letter signals does not preclude use of normal visual signaling procedures and signals as well, if the situation demands it.
5. Numerals are to be transmitted very deliberately as their Morse symbols. They are not to be spelled phonetically.
6. Ships should not acknowledge receipt until signals have been received at least twice.
7. All maneuvering signals are “for information” and are designed to aid ships in conforming to the movements of the Guide and remaining in their loose stations. They do not relieve individual ships of the responsibility for observing closely and conforming to the movements of the Guide. The SAG commander need not wait for the signal to be receipted before altering course or speed. The extent to which he uses this dispensation must depend upon the disposition at the time, amount of alternation, tactical urgency, and state of training of units concerned.
8. The SAG single-letter signals shall not be used by, and/or in cooperation with, fast patrol boats.

**SINGLE-LETTER MANEUVERING SIGNALS**

SIGNAL	MEANING
ALFA (followed by range in numerals)	Distance between ships in SAG is to be ____ thousand yards.
BRAVO	Guide (or I am) altering course to PORT.
CHARLIE (followed by course in numerals and speed in numerals if required)	Commence zigzag plan YANKEE on present course (or course indicated). Reduce to optimum speed (or speed indicated).
FOXTROT	Guide is (or I am) altering course to STBD.
GOLF (followed by course in numerals)	Guide's course is ____ or Guide is altering course to ____ .
KILO (followed by speed in numerals)	Guide's speed (or my speed) is ____ .
TANGO	By receiving ship(s) to transmitting ship: I am reading your light. (To be made as soon as light is noticed, to help transmitter train his light.) This does not negate the requirement for a ROGER.
UNIFORM (followed by bearing in numerals)	The threat bearing is ____ .
ZULU (followed by bearing in numerals)	Form loose line of bearing in quickest sequence initially on ____ . (Ships subsequently adjust automatically the line of bearing to be at right angles to the threat bearing (signaled by UNIFORM).)

**SINGLE-LETTER ACTION SIGNALS**

SIGNAL	MEANING
DELTA	Engage (with ____ ). 1. ASMs 2. Guns 3. Helicopters 4. Torpedoes
HOTEL	Assume EMCON plan for SAG action.
INDIA (followed by nickname of enemy radar followed by bearing in numerals)	Jam enemy radar indicated on bearing ____ .
JULIETT (followed by nickname of enemy radar followed by bearing in numerals)	ESM detection of enemy radar indicated on bearing ____ .
JULIETT (inferior to NEGAT)	ESM detection has ceased.

SINGLE-LETTER ACTION SIGNALS

SIGNAL	MEANING
LIMA	FIRE CHAFF ( ____ ) (bearing ____ ) (range ____ ). 1. Charlie (confusion) 2. Delta (distraction) 3. Foxtrot (funnel dispersed) 4. Hotel (helicopter dispersed) 5. Sierra (seduction) 6. As previously directed
MIKE	Close range on enemy.
NOVEMBER	Open range from enemy.
OSCAR	Fire pre-action calibration.
QUEBEC (followed by numeral)	1. Operate fire control radar. 2. Illuminate target (on bearing ____ from you).
SIERRA	Action ordered has been completed.
VICTOR	Follow movements of SAG commander in opening fire.
WHISKEY	Fire on ____ . 1. Center of enemy formation 2. Leading ship of enemy formation 3. Left of enemy formation 4. Right of enemy formation 5. The designated priority target (see SAGPOL) 6. Opposite numbers
X-RAY	Open fire as soon as possible, at maximum range.
YANKEE (followed by numeral)	1. Cease fire. Do not fire. 2. I have ceased firing.

INTENTIONALLY BLANK



TACTICAL  
TA

CHAPTER 33

TACTICAL

3300	Attack
3301	Bearing and Distance
3302	Intelligence/Data
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3304	Miscellaneous
3305	Mission/Task/Duty
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**3300 ATTACK**

TA1 . . . . .

TA2 . . . . . ATTACK ( \_\_\_\_\_ with weapon(s) or by using the method of attack indicated).  
Type of enemy unit(s) to be attacked may be indicated from Table F.

1. According to plan indicated following DESIG
2. Coordinated attack with this unit or unit indicated
3. Deliberate
4. In accordance with previous instructions
5. Independently
6. Repeated attacks
7. Simultaneous
8. Under smoke screen
9. Urgent
10. Weapon-carrying helicopter
11. Weapon(s) \_\_\_\_\_ from Table A

TA3 . . . . . ATTACKED. I am being attacked with \_\_\_\_\_. Type of enemy unit(s) attacking may be indicated from Table F.

1. Biological weapons
2. Bombs
3. Chemicals
4. Guided missiles
5. Naval gunfire
6. Nuclear weapons
7. Rockets
8. Shore batteries
9. Torpedoes

TA4 . . . . .

TA5 . . . . .

TA6 . . . . .

TA7 . . . . . SIMULATE ATTACK ( \_\_\_\_ with weapon(s) or by using the method of attack indicated from TA2 list).

TA8 . . . . .

TA9 . . . . .

TA10 . . . . .

**3301 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 distances are to be resumed

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

TA13 . . . . .

TA14 . . . . . DISTANCE/DIAMETER/INTERVAL. \_\_\_\_ is \_\_\_\_ hundred yards.  
 1. Circle spacing  
 2. Distances between guides of units  
 3. Distance between units  
 4. Extended maneuvering interval  
 5. Interval  
 6. Maneuvering interval  
 7. Reduced tactical diameter  
 8. Standard distance  
 9. Standard tactical diameter

TA15 . . . . . INTERVAL. Take \_\_\_\_ .  
 1. Extended maneuvering interval  
 2. Interval of \_\_\_\_ hundred yards  
 3. Interval of \_\_\_\_ hundred yards between service and waiting lines  
 4. Interval of \_\_\_\_ hundred yards between service lines  
 5. Interval of \_\_\_\_ thousand yards  
 6. Maneuvering interval  
 7. Proper interval



TA16 . . . . .

TA17 . . . . . YOU BEAR \_\_\_\_ from this unit or unit indicated or position indicated (distance \_\_\_\_ miles).

TA18 . . . . . YOUR RANGE or that of unit indicated is \_\_\_\_ hundred yards from this or unit indicated.

TA19 . . . . .

TA20 . . . . .

TA21 . . . . .

**3302 INTELLIGENCE/DATA**

TA22 . . . . . ATTACK EXPECTED. Attack by \_\_\_\_ may be expected now (or at \_\_\_\_). Type of attacking unit may be indicated from Table F or V.

1. Aircraft
2. Missiles
3. Submarine
4. Surface vessels
5. Torpedo

TA23 . . . . . ENEMY CONTACT. I have contact with enemy or unit indicated (by \_\_\_\_).

1. Radar
2. Sonar
3. Visual
4. ESM

TA24 . . . . . ENEMY CONTACT. Last reported contact with enemy or unit indicated is as indicated by time and position signals following.

TA25 . . . . .

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

TA27 . . . . .

TA28 . . . . . OBJECTIVE'S POSITION. Objective's last known position (or point of origin of search) is \_\_\_\_ (at \_\_\_\_).

TA29 . . . . . SHIPS IN COMPANY are \_\_\_\_.

TA30 . . . . SIGHTED \_\_\_\_\_ .

- |                         |  |
|-------------------------|--|
| 1. Antiaircraft fire    | 15. Rocket   |
| 2. Buoy                 | 16. Rocks  |
| 3. Colored water        | 17. Ships without lights                               |
| 4. Flashes of guns      | 18. Shoals   |
| 5. Flare                | 19. Small boat   |
| 6. Floating object      | 20. Smoke  |
| 7. Glare of searchlight | 21. Smoke bomb   |
| 8. Iceberg              | 22. Starshell  |
| 9. Land                 | 23. Star (Very's)                                      |
| 10. Lights              | 24. Submarine, unidentified                            |
| 11. Lighthouse          | 25. Survivors (number may be indicated following TACK) |
| 12. Lightship           | 26. Wreckage   |
| 13. Oil patch           |  |
| 14. Reefs               |  |

TA31 . . . . .

TA32 . . . . . UNIT BEARS. \_\_\_\_\_ unit or unit indicated bears \_\_\_\_\_ from this or unit indicated (distance \_\_\_\_\_ miles).

1. Enemy
2. Friendly
3. Neutral
4. Unidentified

TA33 . . . . .

TA34 . . . . .

TA35 . . . . .

**3303 LIGHTS**

TA36 . . . . . DARKEN SHIP. Show no light (or only \_\_\_\_\_ lights (*List A*)) ( \_\_\_\_\_ (*List B*)).

- |                              |                                |
|------------------------------|--------------------------------|
| <i>List A</i>                | <i>List B</i>                  |
| 1. Blue riding               | A. During night air operations |
| 2. Blue stern                | B. To indicate position        |
| 3. Dimmed navigation         |                                |
| 4. Dimmed riding             |                                |
| 5. Float                     |                                |
| 6. Minesweep station keeping |                                |
| 7. Modified darken ship      |                                |
| 8. Navigation                |                                |
| 9. Red truck                 |                                |
| 10. Riding                   |                                |
| 11. Shaded (screen stern)    |                                |
| 12. Side                     |                                |
| 13. Special                  |                                |
| 14. Task                     |                                |

TA37 . . . . LIGHT SHOWING. You or unit indicated have light showing \_\_\_\_ (PORT or STBD to indicate side).  
 1. Aft  
 2. Aloft  
 3. Amidships  
 4. Forward  
 5. Superstructure

TA38 . . . . TURN ON LIGHTS. Turn on \_\_\_\_ lights.  
 1. In-contact flasher  
 2. Search  
 3. Submarine identification  
 4. Task

TA39 . . . . RIG DECEPTIVE LIGHTING.

TA40 . . . .

TA41 . . . .

**3304 MISCELLANEOUS**

TA42 . . . . ATTENTION is called to bearing \_\_\_\_ .

TA43 . . . . BLOW TUBES ( \_\_\_\_ ).  
 1. Maneuver as necessary to blow tubes

TA44 . . . . EXPEDITE ( \_\_\_\_ ).  
 1. Action  
 2. Answer to signal  
 3. Maneuver  
 4. Operation

TA45 . . . . **NOT RELEASABLE**

TA46 . . . . MAN OVERBOARD has been \_\_\_\_ .  
 1. Given up for lost  
 2. Picked up  
 3. Sighted bearing \_\_\_\_ (range \_\_\_\_ )

TA47 . . . . OBJECT OF SEARCH is \_\_\_\_ .  
 1. Disabled ship  
 2. Downed aircraft  
 3. Man overboard  
 4. Raft  
 5. Small boat  
 6. Submarine  
 7. Survivors  
 8. Torpedo  
 9. Wreckage

TA48 . . . . SCUTTLE/DESTROY your ship or unit indicated.

TA49 . . . . EMPHASIZE ACTIONS by use of \_\_\_\_ .  
 1. Pyrotechnics  
 2. Searchlights  
 3. Siren

TA50 . . . .

TA51 . . . .

**3305 MISSION/TASK/DUTY**

TA52 . . . . ASSIST this unit or unit indicated

TA53 . . . . ASSIST DAMAGED SHIP or ships(s) indicated.

TA54 . . . . ASSUME DUTY of or act as \_\_\_\_ (from Table D) (sector \_\_\_\_ ).

TA55 . . . .

TA56 . . . .

TA57 . . . . DETAIL A SHIP or direct ship indicated to carry out the duty of/act as/or carry out the following signals \_\_\_\_ . Numeral(s) from Table D, or another signal, may be used to complete this signal.

*Example: TA57—60D—Dp4p7 . . . Detail/direct D47 to act as tactical picture coordinator air (TPC-A).*

TA58 . . . .

TA59 . . . . DUTY as \_\_\_\_ (from Table D) is held in this ship or unit indicated.

TA60 . . . . DUTY COMPLETED.

TA61 . . . . ESCORT STRAGGLERS. Drop astern and escort stragglers or ship indicated (or \_\_\_\_ ).  
 1. Round up stragglers

TA62 . . . . INVESTIGATE ( \_\_\_\_ ).

- |                       |                          |
|-----------------------|--------------------------|
| 1. Buoy               | 13. Reefs                |
| 2. Flare              | 14. Rocks                |
| 3. Floating object    | 15. Ships without lights |
| 4. Goblin             | 16. Shoals               |
| 5. Iceberg            | 17. Skunk                |
| 6. Land               | 18. Small boat           |
| 7. Lights             | 19. Smoke                |
| 8. Lightship          | 20. Sonar contact        |
| 9. Oil patch          | 21. Star (Very's)        |
| 10. Periscope (snort) | 22. Suspicious ship      |
| 11. Racket            | 23. Wreckage             |
| 12. Radar contact     |                          |

TA63 . . . . RESCUE CREW of ship or aircraft indicated, which has sunk (or is sinking).

TA64 . . . . SUPPORT this unit or unit indicated (against \_\_\_\_ attack). Type of attacking unit may be indicated from Table F or V.

1. Aircraft
2. Missile
3. Submarine
4. Surface vessel
5. Torpedo

TA65 . . . .

TA66 . . . . WITHDRAW PICKETS ( \_\_\_\_ ).

1. From station(s) \_\_\_\_
2. From sector(s) \_\_\_\_
3. Whose call sign(s) is (are) \_\_\_\_

TA67 . . . .

**3306 MOVEMENTS**

**a. General.**

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

TA69 . . . . CONCENTRATE. \_\_\_\_ . Numerals following indicate speed required.

1. Destroyers having expended torpedoes concentrate on this unit or unit indicated
2. Destroyers having torpedoes concentrate on this unit or unit indicated
3. Concentrate in position \_\_\_\_
4. Concentrate on enemy or enemy indicated
  - (a) Bearing from enemy
  - (b) Distance from enemy
  - (c) Speed required
5. Concentrate on unit indicated

TA70 . . . . CONFORM TO MOVEMENTS. Conform to general movements of this unit or unit indicated.

TA71 . . . . FORMATION RENDEZVOUS (POINT ROMEO). Formation rendezvous in event of nuclear attack will bear \_\_\_\_ from position ZZ distance \_\_\_\_ . Course of this rendezvous after bomb burst will be \_\_\_\_ speed \_\_\_\_ .

TA72 . . . . KEEP \_\_\_\_ on to sea.

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

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

1. Radar
2. Ultra high frequency
3. Underwater telephone
4. Very high frequency
5. Visual signaling
6. \_\_\_\_ miles

TA74 . . . .

TA75 . . . . NEAR YOUR POSITION. 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. Enemy-inflicted damage
2. To attack enemy

TA77 . . . . REGAIN POSITION ( \_\_\_\_ ).

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

TA78 . . . . REMAIN IN POSITION. Remain in your present position (or \_\_\_\_ ).

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

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

TA80 . . . .

TA81 . . . .

TA82 . . . .

TA83 . . . .

TA84 . . . .

**b. Joining/Leaving/Rejoining.**

TA85 . . . . CLEAR THE FORMATION or unit indicated (on course \_\_\_\_ 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)
2. As necessary to pass through formation or to reach position indicated (at \_\_\_\_ )
3. As previously directed
4. In accordance with operation order or serial number indicated
5. In company (with \_\_\_\_ )
6. Independently
7. Independently into port and take berth assigned
8. Independently to assigned station
9. On duty assigned
10. Out of port
11. To \_\_\_\_
12. To anchorage
13. To attack
14. To contact area
15. To FPB laying-up position
16. To FPB waiting position
17. To foul-weather anchorage
18. To port
19. To position ( \_\_\_\_ )
20. To recover man overboard (from \_\_\_\_ )
21. To regular station
22. To rendezvous
23. To side of screen indicated by PORT or STBD
24. With dispatch
25. Without regard to formation

TA89 . . . . YOU ARE DETACHED.

TA90 . . . .

TA91 . . . .

**c. Maneuvering.**

TA92 . . . . ACT INDEPENDENTLY ( \_\_\_\_ )

1. For meteorological tasks
2. To conduct helicopter operations
3. To launch/recover VDS/towed array
4. To pass clear of ship(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
8. For engine testing/clearing/calibration

TA93 . . . . AVOID. Maneuver independently to avoid ( \_\_\_\_ ) attack. Type of attacking unit may be indicated from Table F or V.

1. Aircraft
2. Missile
3. Submarine
4. Surface vessel
5. Torpedo

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

TA96 . . . .

TA97 . . . . DISENGAGE ( \_\_\_\_ ) (on course \_\_\_\_ ).  
 1. Ahead  
 2. Astern  
 3. To port  
 4. To starboard

TA98 . . . . FOLLOW MOVEMENTS of this or unit indicated (or of \_\_\_\_ ).  
 1. Column leader or unit indicated in conforming to channel, by adjusting course and speed as necessary to pass over the same ground  
 2. OTC  
 3. OTC, in altering course and speed

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 your unit(s) to avoid shipping.

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

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. . . . RUDDER. Use \_\_\_\_ rudder.
1. Degrees indicated for standard tactical rudder until further orders
  2. Emergency
  3. Full (5 degrees 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

TA106. . . .

TA107. . . .

TA108. . . .

**3307 OPERATIONS/INTENTIONS**

- TA109. . . . NIGHT INTENTIONS. 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. In present disposition
  6. On present base course
  7. On ordered Navtrack

- TA110. . . . OPERATIONS. Commence operations (or \_\_\_\_ ).
1. Cease operations
  2. Delay operations until further orders (or until \_\_\_\_ )
  3. Expedite operations
  4. Operations completed

- TA111. . . . OPERATIONS. Unable to carry out operations or operation indicated due to \_\_\_\_ .
1. Damage
  2. Decontamination in progress
  3. Lack of services
  4. Prior commitments
  5. Weather

TA112. . . .

TA113. . . .

TA114. . . .

**3308 IDENTIFICATION/RECOGNITION**

TA115. . . . IDENTIFY UNIT (bearing \_\_\_\_ ) (to level of identification \_\_\_\_ (*List A*)) (using \_\_\_\_ (*List B*)).

- |                     |               |
|---------------------|---------------|
| <i>List A</i>       | <i>List B</i> |
| 1. County of origin | A. Aircraft   |
| 2. Class            | B. ESM        |
| 3. Unit             | C. Visual     |

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

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

TA117. . . . IDENTITY of unit is \_\_\_\_ .

1. Enemy
2. Friendly
3. Neutral
4. Suspicious
5. Unknown

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

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

TA119. . . .

TA120. . . . ILLUMINATE (with \_\_\_\_ ) (bearing \_\_\_\_ ) (range \_\_\_\_ ).

1. Searchlight (directed at \_\_\_\_ (from Table L))
2. Starshell
3. Ship-launched pyrotechnic
4. Air-launched pyrotechnic

TA121. . . .

TA122. . . .

3309 SCOUTING/PATROL

TA123 . . . AREA is \_\_\_\_\_ .

1. Circle of radius \_\_\_\_\_ miles with center in present position (or at position \_\_\_\_\_)
2. Quadrilateral drawn between following four positions \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_
3. Sector included between \_\_\_\_\_ and \_\_\_\_\_ with radius of \_\_\_\_\_ miles from present position (or position \_\_\_\_\_)
4. Sector between \_\_\_\_\_ and \_\_\_\_\_ between \_\_\_\_\_ miles and \_\_\_\_\_ miles from position \_\_\_\_\_
5. Rectangle of width \_\_\_\_\_ miles and depth \_\_\_\_\_ miles centered on position \_\_\_\_\_

TA124 . . . ESTABLISH \_\_\_\_\_ SEARCH (*List A*) of \_\_\_\_\_ type (*List B*).

- |                |                                |
|----------------|--------------------------------|
| <i>List A</i>  | <i>List B</i>                  |
| 1. AAW         | A. Expanding square            |
| 2. ASW         | B. Intercepting                |
| 3. ASUW        | C. Intercepting from ahead     |
| 4. Multithreat | D. Intercepting from rear      |
|                | E. Intercepting from the flank |
|                | F. Rectangular                 |
|                | G. Sector                      |
|                | H. Random                      |

TA125 . . . DISTANCE between units on scouting line is \_\_\_\_\_ miles.

TA126 . . . ESTABLISH \_\_\_\_\_ PATROL (*List A*) of \_\_\_\_\_ type (*List B*).

- |                |                  |
|----------------|------------------|
| <i>List A</i>  | <i>List B</i>    |
| 1. AAW         | A. Area          |
| 2. ASW         | B. Cross-over    |
| 3. ASUW        | C. Linear        |
| 4. Multithreat | D. Fixed station |

TA127 . . . LINE OF BEARING of scouting line is \_\_\_\_\_ .

TA128 . . . ORDER OF UNITS in scouting line is as indicated by call signs or sequence numbers commencing from the left.

TA129 . . . PATROL ORDERS are as indicated. Information not being passed may be omitted.

1. Aim
2. Type
3. Limits of barrier line or location and dimensions of area
4. Sequence of ships and their initial position
5. Guide
6. Time to start and duration of patrol
7. Speed
8. Assumed enemy course and speed
9. Sweep width
10. Direction and length of first leg; when using a crossover barrier patrol, include direction and length of second (and fourth) leg and direction and length of third leg
11. EMCON plan
12. Reporting procedures
13. Action on gaining contact
14. Action on completing patrol

TA130 . . . . PATROL \_\_\_\_ (using plan \_\_\_\_ ).

1. Anchorage
2. Boom (nets or gates)
3. Channel
4. Harbor entrance

TA131 . . . . PATROL IN VICINITY of position \_\_\_\_ or between positions \_\_\_\_ and \_\_\_\_ .

TA132 . . . . PATROL LEG. Direction and length of leg number \_\_\_\_ is \_\_\_\_ degrees and \_\_\_\_ miles.

TA133 . . . . REMAIN ON PATROL (or \_\_\_\_ ).

1. Continue search or patrol (until \_\_\_\_ )
2. Rejoin your patrol
3. Resume patrol
4. Return to your station

TA134 . . . . SCOUTING LINE OF BEARING. Scout on a line of bearing \_\_\_\_ ( \_\_\_\_ departure time) ( \_\_\_\_ return time).

TA135 . . . . SCOUTING LINE. Form a scouting line on an arc in accordance with the following:

- (a) First true bearing from center of circle
- (b) Second true bearing (arc is drawn clockwise from first bearing)
- (c) Radius in miles
- (d) Number of ships on a scouting line.

*Center from which arc is struck is indicated by separate position signals.*

TA136 . . . . SCOUTING LINE. Change the direction of the line of bearing of the scouting line to \_\_\_\_ . Course and speed of guide may be indicated by two groups of numerals following.

TA137 . . . .

TA138 . . . . SEARCH ORDERS are as indicated. Information not being passed may be omitted.

1. Aim
2. Type
3. Assumed position of enemy at a stated time, or the geographic area to be searched.
4. Limiting enemy courses and speeds for intercepting search
5. Direction of search line
6. Order of ships if other than standard
7. Track spacing
8. Guide's position at start of search
9. Time to start and duration of search
10. Course and speed
11. EMCON plan
12. Reporting procedures
13. Action on gaining contact
14. Action on completing search

TA139. . . . SPREAD \_\_\_\_\_ .

1. As previously directed
2. On line of bearing
  - (a) Line of bearing to which ships are to spread
  - (b) Order of ships spreading from left to right if other than the present sequence
  - (c) Scouting axis
  - (d) Distance apart of ships when spread
  - (e) Guide while spreading, if other than Senior Officer
  - (f) Course and speed of the unit guide while spread
  - (g) Time by which the spread is to be completed

TA140. . . . SPREAD on an arc in the order indicated. Left-hand ship in the direction of advance while spreading is to steer \_\_\_\_\_ , right-hand ship is to steer \_\_\_\_\_ , speed \_\_\_\_\_ knots.

TA141. . . . SPREAD on an arc in the quickest sequence (or sequence ordered). Ships are to keep the same distance from the target as the guide.

- (a) Distance apart of ships when spread
- (b) Bearing and range of target
- (c) Guide of ships spreading if other than present guide
- (d) In ordered sequence of ships from left to right looking toward the target

TA142. . . . SWEEP WIDTH is \_\_\_\_\_ miles.

TA143. . . . TRACK SPACING is \_\_\_\_\_ miles.

TA144. . . .

TA145. . . .

TA146. . . .

**3310 SMOKE/MAKING SMOKE**

TA147. . . . DROP SMOKE FLOATS (on course \_\_\_\_\_ ) ( \_\_\_\_\_ hundred yards apart).

TA148. . . . MAKE SMOKE ( \_\_\_\_\_ ).

1. All types available except projectile
2. As little as possible
3. Chemical
4. For approximately \_\_\_\_\_ minutes
5. Funnel
6. Less smoke
7. More smoke
8. Oil fog
9. With smoke floats or pots

- TA149. . . . SMOKE PREVIOUSLY REPORTED is \_\_\_\_ .
1. Being investigated
  2. From a few vessels
  3. From enemy
  4. From enemy indicated
  5. From friendly force indicated
  6. From friendly ships
  7. From one vessel
  8. From own ships
  9. No longer visible

TA150. . . .

TA151. . . .

TA152. . . .

**3311 WEATHER/METEOROLOGY**

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

- TA154. . . . WEATHER IS SUITABLE (or is suitable for \_\_\_\_ ).
- |                            |                                   |
|----------------------------|-----------------------------------|
| 1. Air operations          | 12. Mechanical minesweeping       |
| 2. Boatwork                | 13. Mine hunting                  |
| 3. Chemical warfare attack | 14. Minelaying                    |
| 4. Dan laying              | 15. Mine recovery                 |
| 5. Diving                  | 16. Precision gunfire exercises   |
| 6. Entering port           | 17. Pressure mine countermeasures |
| 7. Fueling                 | 18. Recovery of torpedoes         |
| 8. Helicopter operations   | 19. Replenishment                 |
| 9. Highline transfer       | 20. Sonar operations              |
| 10. Influence minesweeping | 21. Towing                        |
| 11. Maneuvering            | 22. Transfer by small boat        |

TA155. . . .

TA156. . . .

**3312 HYDROGRAPHY**

- TA160. . . . OPERATIONS. I am conducting \_\_\_\_ (List A) \_\_\_\_ (List B) operations utilizing a \_\_\_\_ (List C) lowered/streamed to a depth/length of \_\_\_\_ meters.
- |                   |                             |                                  |
|-------------------|-----------------------------|----------------------------------|
| <i>List A</i>     | <i>List B</i>               | <i>List C</i>                    |
| 1. Hydrographic   | A. Beach Survey             | 1. Oceanographic Probe (lowered) |
| 2. Oceanographic  | B. Route Survey             | 2. Magnetometer (towed)          |
| 3. General Survey | C. Area Survey              | 3. Side Scan Sonar (towed)       |
| 4. Meteorology    | D. Wreck/Obstruction Survey | 4. Seabed Sampler                |

- TA161. . . . OPERATIONS. My survey craft is conducting \_\_\_\_ (List A) \_\_\_\_ (List B) operations utilizing a \_\_\_\_ (List C) lowered/streamed to a depth/length of \_\_\_\_ meters.
- |                   |                             |                                  |
|-------------------|-----------------------------|----------------------------------|
| <i>List A</i>     | <i>List B</i>               | <i>List C</i>                    |
| 1. Hydrographic   | A. Beach Survey             | 1. Oceanographic Probe (lowered) |
| 2. Oceanographic  | B. Route Survey             | 2. Side Scan Sonar (towed)       |
| 3. General Survey | C. Area Survey              |                                  |
|                   | D. Wreck/Obstruction Survey |                                  |







## CHAPTER 34

## SUPPLEMENTARY TABLES

3400	Table A — Ammunition and Weapons
3405	Table B — Battle
3410	Table C — Command Plans
3415	Table D — Duty
3420	Table E — Electronics
3425	Table F — Forces
3430	Table L — Compartment Locator
3435	Table M — Mines
3440	Table P — Personnel
3445	Table U — Equipment
3450	Table V — Aircraft
3455	Table W — When
3460	Table X — Exercises
3465	Table Y — MCM Equipment
3470	Table Z — Beach

## NOTE

1. The supplementary tables are primarily intended to expand the meaning of certain basic groups, but they may be used with any signal from this publication. When adding an item from the supplementary tables to the basic group as indicated in its meaning, the letter identifying the table must follow the item number. When a signal from the supplementary tables is used with a basic group which contains alphabetical letters in the suffix, or when alphabetical letters complete the basic group, the governing group, BV, must precede the supplementary table signal in cases where confusion could exist. When a signal from the supplementary tables is used by itself, the governing group, BV, must precede it.
2. In all tables, spare numbers or additional numbers may be used for local assignment.

**3400 TABLE A — AMMUNITION AND WEAPONS**

(See NOTE, page 34-1, for details of use.)

1 — 19. Not to be used; allocated for use in action tables and ASW attack and support methods.

**SURFACE TO AIR**

- 20. Missile, long-range (over 50 miles)
- 21. Missile, medium-range (10 to 50 miles)
- 22. Missile, short-range (under 10 miles)
- 23. Chaff, distraction
- 24. Chaff, confusion
- 25. Chaff, seduction
- 26. Infrared decoys
- 27. Antiaircraft
- 28. \_\_\_\_\_
- 29. \_\_\_\_\_

**SURFACE TO SURFACE**

- 30. Missile, over-the-horizon range or long-range (over 20 miles)
- 31. Missile, to-the-horizon range or short-range (below 20 miles)
- 32. Illuminant

- 33. Torpedo, antiship
- 34. High effect
- 35. Semi-armour piercing
- 36. Small arms
- 37. Direct action
- 38. Medium-caliber guns
- 39. Small-caliber guns

**SURFACE TO SUBSURFACE**

- 40. Torpedo, helicopter-launched
- 41. Torpedo, ship-launched
- 42. Torpedo, rocket-launched
- 43. Torpedo, fixed-wing aircraft-launched
- 44. Depth charge
- 45. Mine disposal charge
- 46. Mine disposal weapon
- 47. Mortar
- 48. Scare(ing) charge
- 49. Hedgehog
- 50. Nuclear depth bomb
- 51. Rocket-thrown depth charge

## 3405 TABLE B — BATTLE

(See NOTE, page 34-1, for details of use.)

- |   |  |
|---|--|
| 1 — 9. Not to be used.  | 31. Engage more closely  |
| 10. Assist units engaged in scouting                              | 32. Engage from widely different bearings                                    |
| 11. Attack  | 33. Investigate and board if necessary                                       |
| 12. Attack at once  | 34. Movements. Report movements of enemy                                     |
| 13. Attack independently  | 35. Night Attack. Deliver night attack on objective after contact            |
| 14. Attack. Make night attack                                     | 36. Offensively. Operate offensively   |
| 15. Attack or trail at discretion                                 | 37. Prevent enemy escaping   |
| 16. Attack when conditions are favorable                          | 38. Protectively. Operate protectively                                       |
| 17. Avoid action  | 39. Retire toward own main body or as planned                                |
| 18. Concentrate and attack  | 40. Screen. Penetrate screen   |
| 19. Contact and attack  | 41. Screen. Prevent enemy penetrating screen                                 |
| 20. Contact. Maintain contact and report                          | 42. Shadow objective   |
| 21. Contact. Orders will be given after contact is made           | 43. Shadow and make night attack if conditions are favorable                 |
| 22. Contact. Report contact                                       | 44. Shadow and report movement of enemy                                      |
| 23. Contact. Report contact only with designated objective        | 45. Support vessels being attacked   |
| 24. Contact. Report contact and await further orders              | 46. Support vessels indicated  |
| 25. Defensively. Operate defensively                              | 47. Supporting. Remain within supporting distance (of task force designated) |
| 26. Delay enemy   | 48. Track  |
| 27. Delaying. Employ delaying tactics in avoiding decisive action | 49. _____  |
| 28. Drive off enemy scouts  | 50. _____  |
| 29. Enemy. Keep enemy on present bearing (or on bearing _____ )   |  |
| 30. Engage enemy  |  |

**3410 TABLE C — COMMAND PLANS**

(See NOTE, page 34-1, for details of use.)

- |        |                               |     |                                 |
|--------|-------------------------------|-----|---------------------------------|
| 1 — 9. | Not to be used.               | 50. | Interference plan               |
| 10.    | AA coordination plan          | 51. | Landing force plan              |
| 11.    | AAW plan                      | 52. | Loading plan                    |
| 12.    | Administrative plan           | 53. | Logistics plan                  |
| 13.    | Air attack plan               | 54. | Medical plan                    |
| 14.    | Air cruising plan             | 55. | Mine countermeasures task order |
| 15.    | Air operations plan           | 56. | Mining/minelaying order         |
| 16.    | Air patrol plan               | 57. | (Not to be used)                |
| 17.    | Alternate plan                | 58. | (Not to be used)                |
| 18.    | Antiaircraft fire plan        | 59. | Movement plan                   |
| 19.    | Anti-small boat plan          | 60. | Naval gunfire support plan      |
| 20.    | Anti-suicide boat search plan | 61. | Observation plan                |
| 21.    | Approach plan                 | 62. | Operation order                 |
| 22.    | Area screening plan           | 63. | Operation plan                  |
| 23.    | Arming plan                   | 64. | Patrol order                    |
| 24.    | Assault plan                  | 65. | Patrol plan                     |
| 25.    | Attack plan                   | 66. | Planning memoranda              |
| 26.    | Base defense plan             | 67. | Protective plan                 |
| 27.    | Base occupation plan          | 68. | Pursuit plan                    |
| 28.    | Blockage plan                 | 69. | Radio search plan               |
| 29.    | Boat pool plan                | 70. | Relief aircraft spotting plan   |
| 30.    | Bombing plan                  | 71. | Replenishment plan              |
| 31.    | Communication plan            | 72. | Retirement plan                 |
| 32.    | Contact scouting plan         | 73. | Scouting order                  |
| 33.    | Counterattack plan            | 74. | Scouting plan                   |
| 34.    | Countermeasures plan          | 75. | Screen plan                     |
| 35.    | Cover plan                    | 76. | Search plan                     |
| 36.    | Deception plan                | 77. | Ship-to-shore plan              |
| 37.    | Defense plan                  | 78. | Shore bombardment plan          |
| 38.    | Demonstration plan            | 79. | Smoke plan                      |
| 39.    | Departure plan                | 80. | Smoke screen plan               |
| 40.    | Direction finder plan         | 81. | Smoking plan                    |
| 41.    | Dispersal plan                | 82. | Sneak attack plan               |
| 42.    | Embarkation plan              | 83. | Sortie plan                     |
| 43.    | Entrance order                | 84. | Spotting plan                   |
| 44.    | Entrance plan                 | 85. | Strategic plan                  |
| 45.    | Exercise plan                 | 86. | Surface action plan             |
| 46.    | Fueling plan                  | 87. | Tactical plan                   |
| 47.    | Heavy weather plan            | 88. | Torpedo plan                    |
| 48.    | Illumination plan             | 89. | Torpedo sector attack plan      |
| 49.    | Intelligence plan             | 90. | Withdrawal plan                 |

# 3415 TABLE D — DUTY

(See NOTE, page 34-1, for details of use.)

1 — 9. Not to be used.

## NOTE

For standby duties, use (S) when promulgating the duty list.

### COMMAND

- 10. Officer in tactical command (OTC)
- 11. Composite warfare commander (CWC)
- 12. Screen commander (SC)
- 13 — 19. Spare

### ANTIAIR WARFARE (AAW)

- 20. AAW commander (AAWC)
- 21. Sector AAW coordinator (SAAWC)
- 22. Local AAW coordinator (LAAWC)
- 23. AAW picket (WATCHDOG)
- 24. TOMCAT
- 25 — 29. Spare

### ANTISUBMARINE WARFARE (ASW)

- 30. ASW commander (ASWC)
- 31. Sector ASW commander (SASWC)
- 32. Local ASW commander (LASWC)
- 33. Search and attack unit commander (SAUC)
- 34. SSN link ship
- 35. Submarine element coordinator (SEC)
- 36 — 39. Spare

### ANTISURFACE WARFARE (ASUW)

- 40. ASUW commander (ASUWC)
- 41. Sector ASUW commander (SASUWC)
- 42. Surface action group commander (SAGC)
- 43. Helicopter attack group commander (HAGC)

- 44. Senior officer FPBs (SOFPB)
- 45. ASUW picket
- 46 — 49. Spare

### ELECTRONIC WARFARE (EW)

- 50. EW coordinator (EWC)
- 51. Chaff guard ship
- 52. COMSEC guard ship
- 53. EMCON guard ship
- 54. Duty fire control ship
- 55 — 59. Spare

### AMPHIBIOUS WARFARE

- 60. Supporting arms coordination center (SACC)
- 61. Tactical air coordination center (TACC)
- 62. Primary control ship (PCS) (specify beach color)
- 63. Secondary control ship (specify beach color)
- 64. Helicopter control ship (HCS)
- 65. Helicopter direction center (HDC)
- 66. Boat haven (specify beach color)
- 67. Primary casualty receiving and evacuation control ship (PCRS)
- 68. Secondary casualty receiving and evacuation control ship (SCRS)
- 69. Central control ship (CCS)
- 70. Direct support naval gunfire support ship (DSNGSS)
- 71. General support naval gunfire support ship (GSNGSS)
- 72 — 79. Spare

**DATA COMPILATION**

- 80. Force track coordinator (FTC-A)
- 81. Force track coordinator subsurface (FTC-SS)
- 82. Force track coordinator surface (FTC-S)
- 83. Grid reference unit (GRU)
- 84. Link 11 data net control station (L11 DNCS)
- 85. Link 11 broadcast unit (L11BU)
- 86. Link 4 control unit (L4CU)
- 87. Link 14 broadcast unit (L14BU)
- 88. DLRP transmit unit (DLRPTRU)
- 89. Link 11 to Link 11 gateway (L11GWAY)

**MULTILINK MANAGEMENT**

- 800. Multilink manager (MLM)
- 801. Track data coordinator (TDC)
- 802. Regional track data coordinator (RTDC)
- 803. Sector track data coordinator (STDC)
- 804. Interface control officer (ICO)
- 805. Joint interface control officer (JICO)
- 806. Regional interface control officer (RICO)
- 807. Combined interface control officer (CICO)
- 808. Sector interface control officer (SICO)
- 809. Change data order authority (CDOA)

**MIDS DUTIES**

- 810. MIDS network management station (JNETMAN)
- 811. MIDS sub network management station (JSUBNETMAN)
- 812. Net time reference unit (NTR)
- 813. MIDS relay unit (MRLYU)

- 814. MIDS net control station (MNCS)
- 815. Initial entry MIDS unit (IEJU)
- 816 — 819. Spare

**LINK 16 DUTIES**

- 820. Link 16 change data authority (L16CDA)
- 821. Link 16 navigation controller (NC)
- 822. Link 16 secondary navigation controller (SECNC)
- 823. Link 16 data forwarding unit Link 11 (FJUA)
- 824. Link 16 data forwarding unit Link 11B (FJUB)
- 825. Link 16 data forwarding unit Link 11A/B (FJUAB)
- 826. Link 16 position reference (L16PR)
- 827. Link 16 cryptonet manager (L16CRYPT)
- 828. \_\_\_\_\_
- 829. \_\_\_\_\_

**IJMS DUTIES**

- 830. IJMS change data authority (ICDA)
- 831 — 899. Spare

**LINK 22 DUTIES**

- 840. L22 super network manager (NSNMU)
- 841. L22 forwarding unit A to Link 11 and Link 16 (FNUAJ)
- 842. L22 forwarding unit B to Link 11 and Link 11B (FNUAB)
- 843. L22 net management unit (NNMU)
- 844. Relay nile unit (RLYNU)
- 845. L22 late net entry support unit (LNESU)
- 846 — 899. Spare

**MINE WARFARE**

- 90. Mine Warfare Coordinator
- 91 — 99. Spare

**AIR COORDINATION/CONTROL**

- 100. Air coordinator (AC)
- 101. Force marshaller (FM)
- 102. Air resource element coordinator (AREC)
- 103. Helicopter element coordinator (HEC)
- 104. Helicopter control unit (HCU)
- 105. ASW aircraft control unit (ASWACU)
- 106. AAW aircraft control unit (AAWACU)
- 107. Attack aircraft control unit (AACU)
- 108. AEW control unit (AEWCU)
- 109. Aircraft control unit (ACU)
- 110. Air safety cell (EAGLE)
- 111. Air safety contact cell (FALCON)
- 112 — 119. Spare

**SPECIAL DUTIES**

- 200. Airstrike safety ship (SAFETY CELL)
- 201. Ballistic wind-finding guard ship
- 202. Bathythermographic guard
- 203. Consort
- 204. Control ship
- 205. Deception group commander (DCGC)
- 206. Delivering ship
- 207. Disabled ship
- 208. Duty carrier
- 209. Emergency landing carrier
- 210. Firing ship
- 211. Flank marking or rake ship
- 212. Goalkeeper on HVU or unit indicated
- 213. Hose ship
- 214. IFF guard ship
- 215. Illuminating ship
- 216. Main body group commander (MBGC)
- 217. Man-overboard recovery ship
- 218. Medical guard
- 219. Meteorological guard
- 220. Military guard

- 221. Net control station (NCS) (circuit/line \_\_\_\_\_ )
- 222. Officer conducting exercise (OCE)
- 223. Officer conducting serial (OCS)
- 224. Physical barrier (between unit indicated and unit bearing \_\_\_\_\_ )
- 225. Radar guard ship
- 226. Radar picket
- 227. RADHAZ relay
- 228. Radio link (on circuit \_\_\_\_\_ )
- 229. Ready duty ship
- 230. Receiving ship
- 231. Recovery ship
- 232. Replenishment unit guide
- 233. Rescue destroyer (station number \_\_\_\_\_ ) (duration of duty \_\_\_\_\_ hours) (unit on which to take station may be indicated). Rescue destroyer is to take station when carrier indicates readiness to operate aircraft.
- 234. Scene of action commander (SAC)
- 235. Search and rescue (SAR) ship
- 236. Senior Officer Present Afloat (SOPA)
- 237. Tacan guard
- 238. Target ship
- 239. Tattletale
- 240. Towing ship
- 241. Underway replenishment group commander (URGC)
- 242. Unit responsible for surfacing the submarine
- 243. Visual communication duty ship for ship alongside (or for \_\_\_\_\_ )
- 244. Visual link between ships indicated
- 245. Weapon-carrying helicopter standby ship
- 246. Weather balloon tracking ship
- 247. \_\_\_\_\_
- 248. \_\_\_\_\_
- 249. \_\_\_\_\_
- 250. \_\_\_\_\_

**3420 TABLE E — ELECTRONICS**

(See NOTE, page 34-1, for details of use.)

1 — 9.	Not to be used	49.	Navigation, inertial
		50.	Navigational radar
	<b>TYPE OF EQUIPMENT</b>	51.	Power Supply
10.	Acoustic	52.	Radar
11.	Acoustic gram recorder	53.	Receiver
12.	Acoustic marker	54.	Satellite communications
13.	Acoustic range prediction table	55.	Satellite navigation
14.	Airborne communications	56.	Secure communications
15.	Airborne radar	57.	Secure voice communications
16.	Air warning radar	58.	Sonar, attack
17.	Antenna	59.	Sonar, depth-determining
18.	Approach radar	60.	Sonar, hull-mounted
19.	Command, control and information system (CCIS)	61.	Sonar, reflector
20.	Communications	62.	Sonar, search
21.	Computer	63.	Sonar, towed
22.	Computer, tactical data system	64.	Sonar, transponder
23.	D/F	65.	Sonar, variable depth
24.	ECM	66.	Sonobuoys
25.	Electro-optical	67.	Surface search radar
26.	EPM	68.	Tacan
27.	ESM	69.	Teletype/RATT
28.	ESM analyzer	70.	Towed array
29.	Facsimile	71.	Transceiver
30.	Fathometer	72.	Transmitter
31.	Fire control radar	73.	UHF communications
32.	Height-finding radar	74.	UHF homer
33.	HF communications	75.	Underwater communications
34.	IFF interrogator	76.	VHF communications
35.	IFF/SIF	77.	VHF homer
36.	IFF transponder	78.	VML (voice modulated light)
37.	LF communications	79.	_____
38.	LF homer	80.	_____
39.	Link 10	81.	_____
40.	Link 11		<b>ECM TECHNIQUES/DEVICES</b>
41.	Link 14	82.	Barrage jamming
42.	Message handling system	83.	Blip enhancer
43.	Meteorological	84.	Countdown
44.	MF communications	85.	Decoy
45.	Missile control radar	86.	Distraction
46.	Nancy	87.	False target generator
47.	Nancy point of train (POT) light	88.	Inverse gain
48.	Navigation	89.	Range gate pull-off



- 90. Seduction
- 91. Spot jamming
- 92. Swept audio
- 93. Swept jamming
- 94. Track breaker
- 95. Velocity gate pull-off
- 96. Chaff
- 97. Chaff Charlie
- 98. Chaff Delta
- 99. Chaff Sierra
- 100. Wobulation
- 101. \_\_\_\_\_

**POLARIZATION**

- 102. Circular
- 103. Horizontal
- 104. Random
- 105. Vertical
- 106. \_\_\_\_\_
- 107. Frequency band in kHz, whose lower and upper limits are \_\_\_\_\_ and \_\_\_\_\_.
- 108. Frequency band in MHz, whose lower and upper limits are \_\_\_\_\_ and \_\_\_\_\_.

- 109. Frequency band in GHz, whose lower and upper limits are \_\_\_\_\_ and \_\_\_\_\_.
- 110. Frequency of \_\_\_\_\_ kHz
- 111. Frequency of \_\_\_\_\_ MHz
- 112. Frequency of \_\_\_\_\_ GHz
- 113. A band (0-250 MHz)
- 114. B band (250-500 MHz)
- 115. C band (500-1000 MHz)
- 116. D band (1000-2000 MHz)
- 117. E band (2000-3000 MHz)
- 118. F band (3000-4000 MHz)
- 119. G band (4000-6000 MHz)
- 120. H band (6000-8000 MHz)
- 121. I band (8000-10,000 MHz)
- 122. J band (10,000-20,000 MHz)
- 123. K band (20,000-40,000 MHz)
- 124. L band (40,000-60,000 MHz)
- 125. M band (60,000-100,000 MHz)
- 126. Line number \_\_\_\_\_
- 127. \_\_\_\_\_
- 128. \_\_\_\_\_
- 129. \_\_\_\_\_
- 130. \_\_\_\_\_

## 3425 TABLE F — FORCES

(See NOTE, page 34-1, for details of use.)

- |        |   |     |  |
|--------|---|-----|--|
| 1 — 9. | Not to be used.   | 49. | Forces making or about to make torpedo attack              |
| 10.    | Antiair warfare force (group)                             | 50. | Forces repelling or about to repel torpedo attack          |
| 11.    | Air search attack unit (ASAU)                             | 51. | Formation  |
| 12.    | Aircraft  | 52. | Frigate(s)   |
| 13.    | Aircraft carrier(s)                                       | 53. | Fueling (replenishing) group                               |
| 14.    | Amphibious force (group)                                  | 54. | Goblin   |
| 15.    | Amphibious vehicle(s)                                     | 55. | Guide, disposition   |
| 16.    | Assault craft   | 56. | Guide, formation   |
| 17.    | Attack group (unit)                                       | 57. | Guide, unit  |
| 18.    | Auxiliaries   | 58. | Guided missile ship(s)                                     |
| 19.    | Barrier patrol  | 59. | Helicopter action group (HAG)                              |
| 20.    | Bogey   | 60. | Inshore patrol   |
| 21.    | Bombardment group(s)                                      | 61. | Investigating ship   |
| 22.    | Carrier task group(s)                                     | 62. | Landing craft  |
| 23.    | Center (forces in the center)                             | 63. | Leading ship of enemy column                               |
| 24.    | Center (of own disposition)                               | 64. | Light group(s)   |
| 25.    | Center (of enemy's disposition)                           | 65. | Main body  |
| 26.    | Close covering group                                      | 66. | Man-of-war   |
| 27.    | Communication linking ship (unit)                         | 67. | Marker   |
| 28.    | Consort for submarine(s)                                  | 68. | Merchant ship  |
| 29.    | Control vessel  | 69. | Mine countermeasures vessel (MCMV) group                   |
| 30.    | Convoy  | 70. | Minehunter   |
| 31.    | Convoy escort   | 71. | Minelayer  |
| 32.    | Cruiser(s)  | 72. | Minelayer group  |
| 33.    | Cruiser(s), AA  | 73. | Minesweeper  |
| 34.    | Cruiser(s), heavy   | 74. | Missile-firing fast patrol boats (FPBs)                    |
| 35.    | Cruiser(s), light   | 75. | Mobile inshore undersea warfare surveillance unit (MIUWSU) |
| 36.    | Demonstration group                                       | 76. | Naval beach group  |
| 37.    | Destroyer(s)  | 77. | Offshore patrol  |
| 38.    | Destroyer escort(s)                                       | 78. | Oiler(s)   |
| 39.    | Detached force (group)                                    | 79. | Patrol vessel(s)   |
| 40.    | Disabled ship   | 80. | Picket(s)  |
| 41.    | Disposition   | 81. | Picket line  |
| 42.    | Escort(s)   | 82. | Picket, radar  |
| 43.    | Explosive ordnance disposal (EOD) teams                   | 83. | Picket, tomcat   |
| 44.    | Farthest column   | 84. | Picket, watchdog   |
| 45.    | Fast patrol boats (FPBs)                                  | 85. | Protective group   |
| 46.    | Firing group  | 86. | Racket designation indicated                               |
| 47.    | Forces ahead/advance force                                | 87. | Raiding group  |
| 48.    | Forces engaging light forces (or interfering with attack) |     |  |

- |                                  |  |
|----------------------------------|--|
| 88. Rear (forces in the rear)    | 120. Ships engaged in ASW action             |
| 89. Reconnaissance group         | 121. Ships that have fallen behind           |
| 90. Rescue destroyer             | 122. Shore batteries                         |
| 91. Rescue force (group)         | 123. Skunk                                   |
| 92. Rescue ship                  | 124. Special rescue ship                     |
| 93. Rescue tug                   | 125. SSM-firing submarines                   |
| 94. Rocket-launching             | 126. SSM ships                               |
| 95. SAM ships                    | 127. Striking force (group)                  |
| 96. Scout(s)                     | 128. Submarine(s), diesel-electric           |
| 97. Scouting group               | 129. Submarine(s), nuclear                   |
| 98. Screen                       | 130. Support force (group) (ships)           |
| 99. Screen, AAW                  | 131. Surface action force                    |
| 100. Screen, advanced            | 132. Surface action group (SAG)              |
| 101. Screen, anti-destroyer      | 133. Surface groups                          |
| 102. Screen, anti-small craft    | 134. Suspicious ship(s)                      |
| 103. Screen, antisubmarine       | 135. Tactical deception unit(s)              |
| 104. Screen, departure           | 136. Target group(s) unit(s)                 |
| 105. Screen, entry               | 137. Torpedo-firing fast patrol boats (FPBs) |
| 106. Screen, helicopter windline | 138. Torpedo-firing submarines               |
| 107. Screen, inner               | 139. Towing ship(s)                          |
| 108. Screen, outer               | 140. Tracking group                          |
| 109. Screen, sector              | 141. Trailer                                 |
| 110. Screen, skeleton            | 142. Training group                          |
| 111. Screen unit(s)              | 143. Transport(s)                            |
| 112. Search and rescue group     | 144. Transport group                         |
| 113. Search attack unit (SAU)    | 145. Waiting line (1st)                      |
| 114. Searchers                   | 146. Waiting line (2nd)                      |
| 115. Sector patrol               | 147. Waiting line (3rd)                      |
| 116. Service group (unit)        | 148. _____                                   |
| 117. Service line (1st)          | 149. _____                                   |
| 118. Service line (2nd)          | 150. _____                                   |
| 119. Shadower                    |  |

# 3430 TABLE L — COMPARTMENT LOCATOR

(See NOTE, page 34-1, for details of use.)

- |        |                                 |     |                           |
|--------|---------------------------------|-----|---------------------------|
| 1 — 9. | Not to be used.                 | 27. | Laundry                   |
| 10.    | After deck                      | 28. | Machinery control room    |
| 11.    | Auxiliary machinery compartment | 29. | Magazine                  |
| 12.    | Boiler room                     | 30. | Mast structures           |
| 13.    | Bridge                          | 31. | Messdeck ____ (number)    |
| 14.    | Cafeteria                       | 32. | Operations room           |
| 15.    | Chart room                      | 33. | Radar room                |
| 16.    | CO's cabin                      | 34. | Radio room                |
| 17.    | Communications control room     | 35. | Sickbay                   |
| 18.    | Computer room                   | 36. | Steering gear compartment |
| 19.    | Deck spaces                     | 37. | Store rooms ____ (number) |
| 20.    | Engine room                     | 38. | Superstructure            |
| 21.    | EW control compartment          | 39. | Wardroom                  |
| 22.    | Flight deck                     | 40. | _____                     |
| 23.    | Fore deck                       | 41. | _____                     |
| 24.    | Gyro room                       | 42. | _____                     |
| 25.    | Hangar                          | 43. | _____                     |
| 26.    | Hull                            | 44. | _____                     |
|        |                                 | 45. | _____                     |

**3435 TABLE M — MINES**

(See NOTE, page 34-1, for details of use.)

- |        |                              |     |                    |
|--------|------------------------------|-----|--------------------|
| 1 — 9. | Not to be used.              | 28. | Ground             |
| 10.    | Acoustic (active)            | 29. | Homing             |
| 11.    | Acoustic (passive)           | 30. | Magnetic           |
| 12.    | Acoustic (subsonic)          | 31. | Magnetic induction |
| 13.    | Acoustic (sonic)             | 32. | Magnetic needle    |
| 14.    | Acoustic (suprasonic)        | 33. | Mine-like decoy    |
| 15.    | Antennae                     | 34. | Mobile             |
| 16.    | Bouquet                      | 35. | Moored             |
| 17.    | Combination                  | 36. | Obstructors        |
| 18.    | Contact                      | 37. | Oscillating        |
| 19.    | Controlled                   | 38. | Pressure           |
| 20.    | Deep-laid                    | 39. | Remoored           |
| 21.    | Drifting                     | 40. | Self-propelled     |
| 22.    | Drill                        | 41. | Snagline           |
| 23.    | Dummy                        | 42. | Thermal delay      |
| 24.    | Equipped with delayed arming | 43. | Unknown            |
| 25.    | Equipped with delayed rising | 44. | Anti-invasion      |
| 26.    | Equipped with ship counter   | 45. | Anti-landing       |
| 27.    | Exercises                    | 46. | _____              |
|        |                              | 47. | _____              |

## 3440 TABLE P — PERSONNEL

(See NOTE, page 34-1, for details of use.)

1 — 9. Not to be used.

### OFFICERS

- 10. AIC officer
- 11. Air force officer
- 12. Air officer
- 13. Air wing/general commander
- 14. Antiair warfare officer
- 15. Antisurface warfare officer
- 16. Army officer
- 17. ASW officer
- 18. Aviation officer (senior naval)
- 19. Chaplain
- 20. Chief of staff
- 21. CIC officer
- 22. Combat cargo officer
- 23. Command duty officer
- 24. Commanding officer
- 25. Communication officer
- 26. Countermeasures officer
- 27. Damage control officer
- 28. Dental officer
- 29. Disbursing (pay) officer
- 30. Diving officer
- 31. Electronics officer
- 32. Engineer officer
- 33. Executive officer
- 34. First lieutenant
- 35. Flag lieutenant
- 36. Flag officer
- 37. Guard officer
- 38. Gunnery officer
- 39. Logistics officer
- 40. Medical officer
- 41. Navigation officer
- 42. OCE
- 43. OCS
- 44. Officer commanding marines

- 45. Officer of the watch
- 46. Officer under training
- 47. Operations officer
- 48. OTC
- 49. Padre
- 50. Personnel officer
- 51. Radiological officer
- 52. Recreation-athletics officer
- 53. Shore patrol officer
- 54. Supply officer
- 55. Torpedo officer
- 56. Watch officer
- 57. Weapons officer
- 58. \_\_\_\_\_
- 59. \_\_\_\_\_

### RATINGS/ENLISTED MEN

- 60. Administrative personnel
- 61. ASW personnel
- 62. Aviation personnel
- 63. Communications personnel
- 64. Damage control personnel
- 65. Divers
- 66. Dutymen
- 67. Electronics personnel
- 68. Gunnery personnel
- 69. Junior ratings/rank
- 70. Libertymen
- 71. Marine personnel
- 72. Propulsion personnel
- 73. Radar plot personnel
- 74. Seamen
- 75. Senior ratings
- 76. Shore patrol
- 77. Sonar personnel
- 78. Supply and secretariat personnel
- 79. \_\_\_\_\_
- 80. \_\_\_\_\_

## 3445 TABLE U — EQUIPMENT

(See NOTE, page 34-1, for details of use.)

1 — 9.	Not to be used	39.	Generator, main
10.	Active rudder	40.	Helicopter hauldown
11.	Air compressor	41.	Log
12.	Anchor windlass/capstan	42.	Mount, gun, AA
13.	Assault craft	43.	Mount, gun, main
14.	Automatic pilot	44.	Mount, rocket, chaff
15.	Bathythermograph/bathycelerimeter	45.	Mount, rocket, illuminating
16.	Boat	46.	Noisemaker
17.	Boiler	47.	Optical
18.	Bow ejectors	48.	Pitch control
19.	Catapult	49.	Plotting table
20.	Compass, gyro	50.	Propeller
21.	Compass, gyro magnetic	51.	Pump
22.	Compass, magnetic	52.	Rudder
23.	Compression chamber	53.	SAM battery
24.	Compression chamber, multiplace	54.	Shaft, main propulsion
25.	Constant tension gear	55.	Shaft, port/starboard
26.	Davit/boom	56.	Ship's task lights
27.	Day shapes	57.	Signaling lights
28.	Degaussing	58.	SSM battery
29.	Derrick/crane	59.	Stabilization
30.	Director	60.	Station, replenishment
31.	Diving	61.	Steering, gear
32.	Elevator	62.	Switchboard, electrical
33.	Engine, cruise	63.	Torpedo tubes
34.	Engine, main	64.	Ventilation
35.	Evaporator	65.	Washdown equipment
36.	Gastight citadel	66.	Winch
37.	Gearing, main propulsion	67.	_____
38.	Generator, auxiliary	68.	_____
		69.	_____
		70.	_____

## 3450 TABLE V — AIRCRAFT

(See NOTE, page 34-1, for details of use.)

- |        |                                |     |                                   |
|--------|--------------------------------|-----|-----------------------------------|
| 1 — 9. | Not to be used.                | 51. | Illuminating helicopter           |
| 10.    | Aerial pickets                 | 52. | Inner air patrol                  |
| 11.    | AEW aircraft                   | 53. | Interceptor                       |
| 12.    | Air search attack unit (ASAU)  | 54. | Intermediate air patrol           |
| 13.    | Aircraft                       | 55. | Jet                               |
| 14.    | Aircraft carrier(s)            | 56. | Land-based                        |
| 15.    | Aircraft forced down           | 57. | Low air patrol                    |
| 16.    | Aircraft on board              | 58. | Man-overboard recovery helicopter |
| 17.    | Amphibious vehicle             | 59. | Maritime patrol                   |
| 18.    | Antisubmarine patrol           | 60. | Mine countermeasures helicopter   |
| 19.    | ASM-carrying helicopter        | 61. | Mine countermeasures hovercraft   |
| 20.    | Assault/transport helicopter   | 62. | Minelaying                        |
| 21.    | ASW aircraft                   | 63. | Night strike group                |
| 22.    | ASW aircraft, carrier-based    | 64. | Observation                       |
| 23.    | ASW aircraft, shore-based      | 65. | Outer air patrol                  |
| 24.    | ASW dunking helicopter         | 66. | Own aircraft                      |
| 25.    | ASW weapon-carrying helicopter | 67. | Patrol                            |
| 26.    | Attack                         | 68. | Photographic                      |
| 27.    | Attacking                      | 69. | Pickets                           |
| 28.    | Automatic relay                | 70. | Pilotless                         |
| 29.    | Bombing                        | 71. | Pluto                             |
| 30.    | Camera observation             | 72. | Probe                             |
| 31.    | Carrier-based                  | 73. | Radar picket                      |
| 32.    | Combat air patrol (CAP)        | 74. | Reconnaissance                    |
| 33.    | Communication linking          | 75. | Relief spotting                   |
| 34.    | Dawn and dusk patrol           | 76. | Rescue                            |
| 35.    | Defensive fighters             | 77. | Returning                         |
| 36.    | Depth charge alert             | 78. | Rocket-carrying                   |
| 37.    | Dive bombers                   | 79. | Scouting helicopter               |
| 38.    | Drone                          | 80. | Scouts (aerial)                   |
| 39.    | Dumbo                          | 81. | Seaplanes                         |
| 40.    | Enemy                          | 82. | Search                            |
| 41.    | EW aircraft                    | 83. | Search and rescue                 |
| 42.    | EW helicopter                  | 84. | Search helicopter                 |
| 43.    | Experimental                   | 85. | Single engine                     |
| 44.    | Fighting                       | 86. | Smoking                           |
| 45.    | Float type                     | 87. | Sortie                            |
| 46.    | Gunnery spotting               | 88. | Spotting (gunnery)                |
| 47.    | Helicopter(s)                  | 89. | Strafing                          |
| 48.    | Hospital                       | 90. | Strange aircraft                  |
| 49.    | Hunter/Killer                  | 91. | Strike aircraft                   |
| 50.    | Illuminating                   | 92. | Strike/reconnaissance aircraft    |
|        |                                | 93. | Suicide aircraft                  |



- |                          |                             |
|--------------------------|-----------------------------|
| 94. Support aircraft     | 100. Unidentified aircraft  |
| 95. Target air patrol    | 101. Upper air data         |
| 96. Target dawn and dusk | 102. V/STOL                 |
| 97. Target night patrol  | 103. Weather reconnaissance |
| 98. Torpedo              | 104. _____                  |
| 99. Transport            | 105. _____                  |

**3455 TABLE W — WHEN**

(See NOTE, page 34-1, for details of use.)

- |   |   |
|---|---|
| 1 — 9. Not to be used.                      | 51. Noon  |
| 10. After                                   | 52. On arrival (at _____)   |
| 11. After air operations now in progress    | 53. On completion (serial/exercise/event number may be indicated following DESIG) |
| 12. After completing current operations     | 54. On completing replenishment   |
| 13. After completing today's air operations | 55. On entering harbor  |
| 14. After event number _____                | 56. On entering the contact area  |
| 15. After next air operations               | 57. On entering torpedo danger area (TDA)   |
| 16. Afternoon                               | 58. On gaining sonar contact  |
| 17. After serial number                     | 59. On joining  |
| 18. As previously directed                  | 60. On leaving harbor   |
| 19. As soon as convenient                   | 61. On passing reference point  |
| 20. At earliest possible moment             | 62. On passing the furthest-on circle   |
| 21. At earliest suitable moment             | 63. Own aircraft have gained control of the air                                   |
| 22. At first light tomorrow                 | 64. Own destroyers attack   |
| 23. At same time as                         | 65. Own units designated have completed attack                                    |
| 24. At the commencement                     | 66. Own units designated have launched attack                                     |
| 25. At the time of                          | 67. Position (all forces are in favorable)  |
| 26. Before                                  | 68. Position (attack groups are in)   |
| 27. Conditions are favorable                | 69. Position (you or units designated are in favorable)                           |
| 28. Dawn                                    | 70. Prior to next air operations  |
| 29. During                                  | 71. Reinforcements arrive   |
| 30. During aircraft movements on deck       | 72. Smoke screens are dissipated  |
| 31. During decontamination                  | 73. Smoke screens are laid (refers to own smoke screens)                          |
| 32. During period of flight operations      | 74. Sunrise   |
| 33. During the delay/postponement           | 75. Sunrise to sunset   |
| 34. During the night                        | 76. Sunset  |
| 35. Dusk                                    | 77. Sunset to sunrise   |
| 36. Enemy destroyers attack                 | 78. Until   |
| 37. Enemy follows our retirement            | 79. Until further orders  |
| 38. Enemy is detected                       | 80. Upon anchoring (mooring)  |
| 39. Enemy is disorganized                   | 81. Upon clearing channel   |
| 40. Enemy is sighted                        | 82. Upon completion   |
| 41. Enemy reaches our minefield             | 83. Upon getting underway   |
| 42. Enemy retires                           | 84. When directed   |
| 43. Enemy still in sight                    | 85. When ready  |
| 44. Enemy turns away                        |   |
| 45. Evening                                 |   |
| 46. First light                             |   |
| 47. Forenoon                                |   |
| 48. Hourly (or every _____ hour)            |   |
| 49. Morning                                 |   |
| 50. Necessary                               |   |

**3460 TABLE X — EXERCISES**

(See NOTE, page 34-1, for details of use.)

Note: Second substitute preceding numeral(s) and table identifying letter "X" indicates the signal is for general information and that the originator is carrying out the exercise indicated.

- |  |  |
|--|--|
| 1 — 9. Not to be used.   | 33. Gunnery (AA)                                       |
| 10. Abandon ship   | 34. Gunnery (surface)                                  |
| 11. Amphibious   | 35. Helicopter deck landings                           |
| 12. ASW  | 36. Individual ship exercises                          |
| 13. Aviation   | 37. Leapfrogs  |
| 14. CIC  | 38. Low-visibility piloting                            |
| 15. Collision  | 39. Man overboard                                      |
| 16. Coming alongside   | 40. Mine warfare                                       |
| 17. Communication  | 41. Mooring  |
| 18. Damage control   | 42. Nancy  |
| 19. Diving incidents   | 43. Non-delaying emergency drills                      |
| 20. Dry hookups  | 44. Officer of the watch/officer of the deck maneuvers |
| 21. Emergency breakaway  | 45. Radar calibration drill (run number _____)         |
| 22. Emergency drills   | 46. Replenishment approaches without passing gear      |
| 23. Emergency flying stations  | 47. Rescue   |
| 24. Engineering  | 48. Seamanship   |
| 25. Engineering casualty control drills (which affect the speed of the ship) | 49. Semaphore  |
| 26. Engineering economy trial  | 50. Serial No _____                                    |
| 27. Engineering full power trial   | 51. Shore bombardment                                  |
| 28. Fire   | 52. Small arms familiarization                         |
| 29. Flaghoist drill  | 53. Steering breakdown                                 |
| 30. Flashing light   | 54. Tactical maneuvers                                 |
| 31. General drill  | 55. Torpedo  |
| 32. General quarters   | 56. Towing   |
|  | 57. Verification muster                                |
|  | 58. Watch drill  |
|  | 59. _____  |
|  | 60. _____  |
|  | 61. _____  |

**3465 TABLE Y — MCM EQUIPMENT**

(See NOTE, page 34-1, for details of use.)

Note: 1. Use the group from this table to supplement any group from the preceding chapters.

2. If it is necessary further to identify equipment, specify by adding DESIG and the appropriate type number or maker's name.

1 — 9.	Not to be used.	45.	Sonar, mine detection
10.	Anchor	46.	Sonar, near field
11.	Buoy	47.	Sonar, parametric
12.	Buoy, dan	48.	Sonar, reflector/Diablo
13.	Buoy, datum	49.	Sonar, towed sidescan
14.	Buoy, master reference	50.	Staff/stave
15.	Buoy, position marker	51.	Sweep
16.	Buoy, short scope	52.	Sweep, acoustic
17.	Cable	53.	Sweep, acoustic AF
18.	Cable, reel	54.	Sweep, acoustic combined
19.	Charge, mine disposal	55.	Sweep, acoustic explosive
20.	Cutter	56.	Sweep, acoustic LF
21.	Cutter, end	57.	Sweep, acoustic monitor
22.	Cutter, explosive	58.	Sweep, acoustic oscillator
23.	Cutter, remotely operated vehicle	59.	Sweep, helicopter acoustic
24.	Cutter, static	60.	Sweep, helicopter magnetic
25.	Diaphragm	61.	Sweep, helicopter mechanical
26.	Diverter	62.	Sweep, hovercraft acoustic
27.	Electrode	63.	Sweep, hovercraft magnetic
28.	Flag	64.	Sweep, hovercraft mechanical
29.	Float	65.	Sweep, magnetic closed loop
30.	Kite/depressor	66.	Sweep, magnetic electrode
31.	Lamp	67.	Sweep, magnetic open loop
32.	Line	68.	Sweep, magnetic solenoid
33.	Marker	69.	Sweep, mechanical antenna
34.	Mine disposal vehicle	70.	Sweep, mechanical chain
35.	Otter	71.	Sweep, mechanical net
36.	Pellets	72.	Sweep, mechanical Oropesa
37.	Radar reflector	73.	Sweep, mechanical snagline
38.	Remotely operated vehicle	74.	Sweep, mechanical team
39.	Rope	75.	Sweep, pressure
40.	Rubber mooring	76.	Sweep, protection combination (mechanical/influence)
41.	Sinker	77.	Swell recorder
42.	Sonar, hand-held	78.	Weight
43.	Sonar, mine avoidance	79.	Wire
44.	Sonar, mine classification	80.	_____

## 3470 TABLE Z — BEACH

(See NOTE, page 34-1, for details of use.)

- |        |                 |     |              |
|--------|-----------------|-----|--------------|
| 1 — 9. | Not to be used. | 23. | Purple one   |
| 10.    | Blue            | 24. | Purple two   |
| 11.    | Blue one        | 25. | Purple three |
| 12.    | Blue two        | 26. | Red          |
| 13.    | Blue three      | 27. | Red one      |
| 14.    | Green           | 28. | Red two      |
| 15.    | Green one       | 29. | Red three    |
| 16.    | Green two       | 30. | Yellow       |
| 17.    | Green three     | 31. | Yellow one   |
| 18.    | Orange          | 32. | Yellow two   |
| 19.    | Orange one      | 33. | Yellow three |
| 20.    | Orange two      | 34. | White        |
| 21.    | Orange three    | 35. | White one    |
| 22.    | Purple          | 36. | White two    |
|        |                 | 37. | White three  |

INTENTIONALLY BLANK







CHAPTER 35

STANDARD POSITION INDICATORS

3500 TABLE OF MEANINGS

<b>(See also Article 165c.)</b>	
QQ . . . . .	The center of the front of the main body or convoy when not in circular formation.
TT . . . . .	Originator's present position.
XX . . . . .	The standard position established by the OTC on which a search, enemy report, and so forth, is to be based.
YY . . . . .	Addressee's present position.
ZZ . . . . .	The center of the force.

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# INDEX

## WARNING

This index is not to be used alone to encode signals. Any instructions pertaining to the execution of the signal have been omitted and only a basic meaning is given. The basic group is listed for each signal only to assist in locating the signal on the page referred to. In most cases, the basic group requires the addition of a numeral or letter in order to convey the specific meaning. Therefore, reference must always be made to the main vocabulary chapters when encoding and decoding signals.

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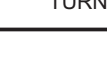


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 CORPEN	CORPEN	CORPEN	 PORT	PORT	PORT
 DESIGNATION	DESIG	DESIG	 SCREEN	SCREEN	SCREEN
 DIVISION	DIV	DIV	 SPEED	SPEED	SPEED
 EMERGENCY	EMERGENCY	EMERG	 SQUADRON	SQUAD	SQUAD
 FLOTILLA	FLOT	FLOT	 STARBOARD	STARBOARD	STBD
 FORMATION	FORMATION	FORM	 STATION	STATION	STATION
 INTERROGATIVE	INTERROGATIVE	INT	 SUBDIVISION	SUBDIV	SUBDIV
 NEGATIVE	NEGAT	NEGAT	 TURN	TURN	TURN
 FIRST SUBSTITUTE	FIRST SUB	1st.	 THIRD SUBSTITUTE	THIRD SUB	3rd.
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