

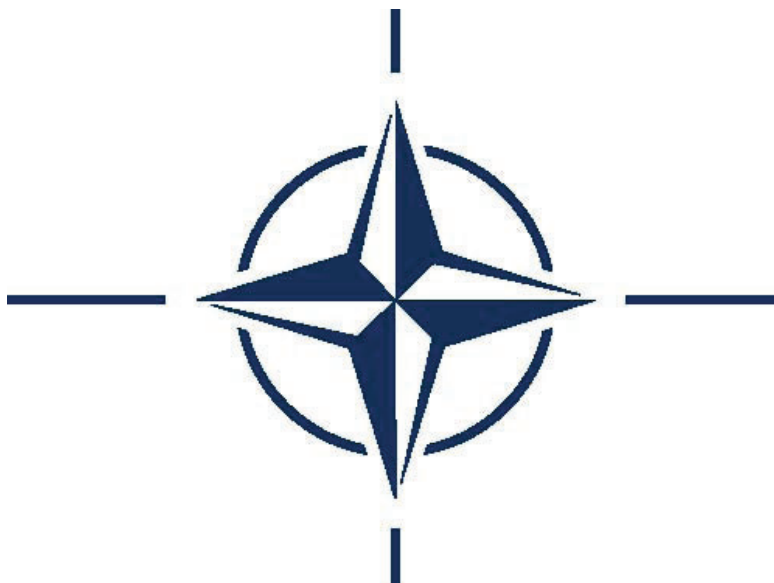
NATO STANDARD

ATP-01, VOLUME II

ALLIED MARITIME TACTICAL SIGNAL AND MANEUVERING BOOK

Edition (G) Version (1)

JANUARY 2016



NORTH ATLANTIC TREATY ORGANIZATION

ALLIED TACTICAL PUBLICATION

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ALPHABETICAL AND NUMERAL FLAGS

FLAG and NAME	Spoken	Written	FLAG and NAME	Spoken	Written	FLAG and NAME	Spoken	Written
 A	ALFA	A · —	 M	MIKE	M — —	 Y	YANKEE	Y — · —
 B	BRAVO	B — ...	 N	NOVEMBER	N — ·	 Z	ZULU	Z — ...
 C	CHARLIE	C — · — ·	 O	OSCAR	O — — —	 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	Ø — — — —

January 2016

PUBLICATION NOTICE

1. ATP-01(G)(1), Volume II, ALLIED MARITIME TACTICAL SIGNAL AND MANEUVERING BOOK, is effective upon receipt. It supersedes ATP-01(F)(1), Volume II.
2. Summary of changes:
 - a. Chapter 1: Updates chapter with information from MTP-01(F)(1).
 - b. Figures 1-5, 1-6, and 1-7 updated to reflect information from MTP-01(F)(1).
 - c. Chapter 2: Updates Signal Flags and Pennants table.
 - d. Chapter 5: Updates information for STATION M and STATION Q.
 - e. Chapter 10: Updates AAW Signals.
 - f. Chapter 13: Updates ASW Action Table.
 - g. Chapter 16: Updates Miscellaneous.
 - h. Chapter 19: Updates Threat Warning.
 - i. Chapter 27: Inserts new Article 2706, Fishing Vessel.
 - j. Chapter 34: Updates Table D—Duty.
 - k. Updates Index.
 - l. Editorial changes throughout.

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

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NORTH ATLANTIC TREATY ORGANIZATION (NATO)

NATO STANDARDIZATION OFFICE (NSO)

NATO LETTER OF PROMULGATION

4 January 2016

1. The enclosed Allied Tactical Publication ATP-01, Volume II, Edition G, Version 1, ALLIED MARITIME TACTICAL SIGNAL AND MANEUVERING BOOK, which has been approved by the nations in the Military Committee Maritime Standardization Board (MCMSB), is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 1174.
2. ATP-01, Volume II, Edition G, Version 1, is effective upon receipt and supersedes ATP-01, Volume II, Edition F, Version 1 which shall be destroyed in accordance with the local procedure for the destruction of documents.
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4. This publication shall be handled in accordance with C-M(2002)60.



Edvardas MAŽEIKIS
Major General, LTUAF
Director, NATO Standardization Office

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATIONS BY NATIONS

NOTE

THE RESERVATIONS LISTED ON THIS PAGE INCLUDE ONLY THOSE THAT WERE RECORDED AT TIME OF PROMULGATION AND MAY NOT BE COMPLETE. REFER TO THE NATO STANDARDIZATION DATABASE FOR THE COMPLETE LIST OF EXISTING RESERVATIONS.

RECORD OF RESERVATIONS

NATION	SPECIFIC RESERVATIONS

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Navy Warfare Development Command**Allied Publication USN Distribution****SUMMARY NOTE**

1. Summary: ATP-01(G)(1), Volume II, ALLIED MARITIME TACTICAL SIGNAL AND MANEUVERING BOOK, is NATO UNCLASSIFIED. The United States has ratified this publication without reservations. The U.S. implementing document is ATP-01(G)(1), Volume II.
2. ATP-01(G)(1), Volume II, is promulgated and effective upon receipt. It supersedes ATP-01(F)(1), Volume II. SECNAV M-5510.36 provides procedures for destruction of superseded material in accordance with the Department of the Navy Information Security Program Regulation.
3. USSANINST 1-07 provides procedures for disclosing this publication or portions thereof to foreign governments or international organizations.

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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)

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CONVENTIONS USED IN THIS PUBLICATION

CHANGE SYMBOLS

Revised text in changes is indicated by a black vertical line in either margin of the page, like the one printed next to this paragraph. The change symbol indicates added or restated information. A change symbol in the margin adjacent to the chapter number and title indicates a new or completely revised chapter.

WARNINGS, CAUTIONS, AND NOTES

The following definitions apply to warnings, cautions, and notes used in this manual:



WARNING

AN OPERATING PROCEDURE, PRACTICE, OR CONDITION THAT MAY RESULT IN INJURY OR DEATH IF NOT CAREFULLY OBSERVED OR FOLLOWED.



CAUTION

AN OPERATING PROCEDURE, PRACTICE, OR CONDITION THAT MAY RESULT IN DAMAGE TO EQUIPMENT IF NOT CAREFULLY OBSERVED OR FOLLOWED.

NOTE

AN OPERATING PROCEDURE, PRACTICE, OR CONDITION THAT REQUIRES EMPHASIS.

WORDING

Word usage and intended meaning throughout this publication is as follows:

“Shall” indicates the application of a procedure is mandatory.

“Should” indicates the application of a procedure is recommended.

“May” and “need not” indicates the application of a procedure is optional.

“Will” indicates future time. It never indicates any degree of requirement for application of a procedure.

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198	Standard Sector System

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 units of all types. It can be used with any method of signaling.

102 Security Warning

A simple unchanging code such as that used in this book has 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 Signaled. 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, p3, p4.

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—I—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—I—8. . . . Investigate buoy and lightship (tackline avoids confusion with 18).

IR6 . . . 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: IP. . . 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*

IP 125 . . . SUBMARINE's bearing is 125° from this unit.

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

IP 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 ____
BN	When able
BT	For use, see paragraphs 194e and 194g.
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.

TA2Attack.

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 196).

Examples: RE42—8 NEGAT 10 NEGAT NEGAT 25 Cp3p7 . . . Readiness of Cruiser 37 is: 8 antiaircraft 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 three 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 198).

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 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) Leadthrough 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, “Callsign.”

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).

	MORSE/TELETYPE		SEMAPHORE		SPOKEN	
Flag-Pennant	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 paragraph 119c					
Note: When transmitted in their single meaning, alphabetical and numeral flags are to be preceded by the word FLAG.						

120 Readiness to Get Underway

121 Notice to Get Underway

The order for number of hours notice for readiness to get underway is issued by the senior officer present. If, because of weather conditions or operational requirements, the senior officer present shortens this notice, ships are to report via the chain of command as soon as possible at what time they expect to be at the new notice. Commanding officers are authorized to shorten their notice for getting underway if they consider it necessary.

122 Preparing for Sea

When ships are ordered to have power for a specified number of knots (operational speed) by a certain time, they are to be ready for sea in all respects by that time.

123 Getting Underway

Because there are many different conditions that may be met in getting underway, no attempt is made here to provide definite instructions that will be applicable in all circumstances. The following paragraphs should, therefore, be considered of general application only.

a. Navigation and Pilotage. Each commanding officer is responsible for the navigation and pilotage of his own ship, and should take action as necessary to avoid endangering his own or other ships.

b. Preserving True Bearing and Distance. When ships of a unit in separate berths have weighed anchor together, or slipped from buoys together, they are, until further orders are received, to preserve the same true bearing and distance from the senior officer of their unit as existed before getting underway.

c. Casting Ship. When ships are leaving harbour in company, the senior officer may order them to cast to port or starboard or to cast to a particular course. In each case, ships should do so without gathering headway or sternway and should turn at the same rate as the senior officer of their respective units. In a confined harbour, it may be unsuitable for all ships to cast in the same direction or to gather headway at the same time. In such a case, the senior officer should then indicate the direction in which he intends to cast, at the same time ordering remaining ships to cast as required.

d. Sequence in Leaving.

(1) An OTC will normally indicate in advance the sequence in which his ships are to leave harbour. After consultation with the local authority, he will promulgate the departure sequence, taking into consideration:

- (a) Threat.
- (b) Navigational situation and harbour facilities.
- (c) Required time/distance intervals.
- (d) Which berths his ships occupy.
- (e) Number of ships.
- (f) Ship types and their characteristics.
- (g) Weather conditions.

(2) Should a unit be delayed, the unit commander is to inform the OTC, the unit commanders of succeeding units, and the local authority of the time at which his unit will be ready to proceed. In the absence of further orders from the OTC, the unit commanders are to adjust their times of proceeding accordingly. At night or by day, when not in direct visual touch, each unit commander should when necessary keep the unit commander of the succeeding unit informed of his progress.

124 Principal Rules for Maneuvering

125 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.

126 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.

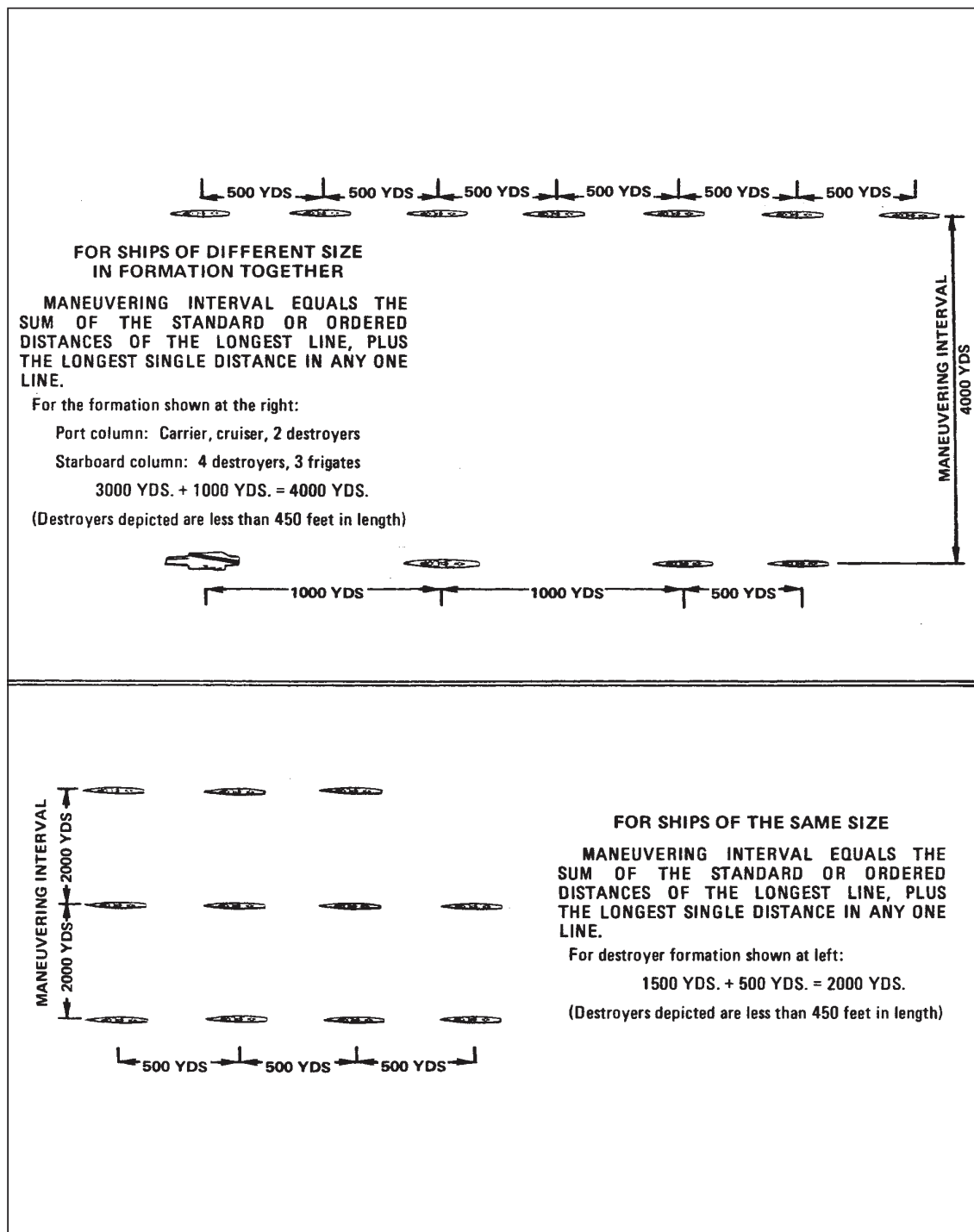


Figure 1-1. Standard Distances and Maneuvering Intervals

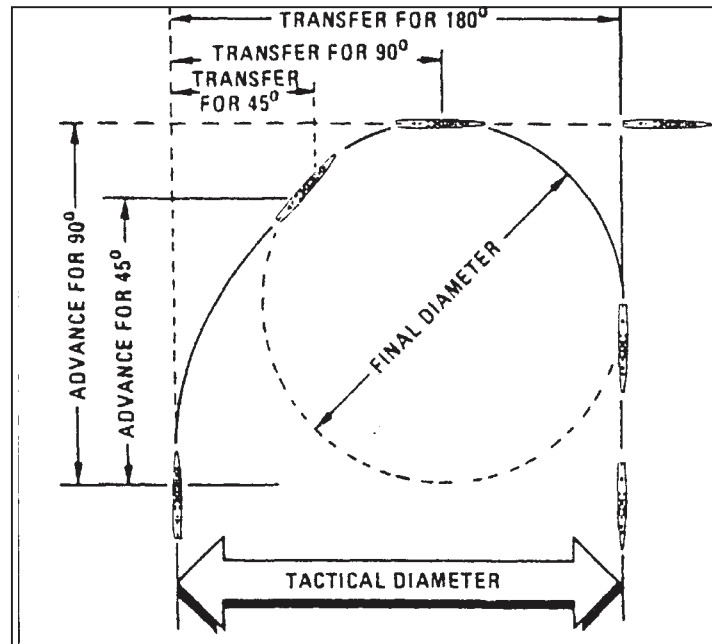


Figure 1-2. Turning Distances

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.

127 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

128 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 Signaled 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.

129 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.

130 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—I. . . . 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 198).

131 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.

132 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.

133 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-11. 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.

134 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 135. 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.

135 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.

(d) WHEN FORMED IN LINE ABREAST WITH DIVISIONAL LINE GUIDES AHEAD OR ASTERN, the pivot ship of the leading line 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).

136 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.

137 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)."

138 Special Maneuvering Rules

139 Individual Action to Avoid Danger

Ships, whether acting independently or in formation, must take such individual action as may be required to avoid danger. When necessary, ships may leave their stations to avoid risk of collision or to avoid navigational hazards.

140 Special Rules of the Road

The following rules are applicable to Allied naval ships and overrule the International Regulations for Preventing Collisions at Sea in the circumstances described.

a. Right of Way. Priority is in the following order.

(1) Helicopters when hovering with sonar in the water are to be considered as ships not under command. A helicopter in the dip or hover is not to be approached by ships within 500 yards.

(2) Mine Countermeasures Units, which includes helicopters operating tethered MCM equipment, have the right of way when showing the appropriate signal over ships engaged in replenishment or ships engaged in the launching or recovery of aircraft. MCM helicopters with gear streamed are not to be approached by ships within 1,000 metres.

(3) Ships Engaged in Replenishment (other than VERTREP) have the right of way over carriers and other ships engaged in flight operations.

(4) Ships Engaged in Launching or Recovery of Landing Craft Utilities have the right of way except over ships or formations showing the appropriate signals and are to be regarded as described at the above stated priority configurations (1), (2), and/or (3).

(5) Ships Engaged in Launching or Recovery of Aircraft have the right of way except over ships or formations showing the appropriate signals that are engaged in replenishment (other than VERTREP) or mine countermeasures operations; other ships are to keep clear.

(6) Ships Engaged in Launching or Recovery of Arrays have the right of way except over ships or formations showing the appropriate signals and are to be regarded as described at the above stated priority configurations (1), (2), (3), (4), and/or (5).

b. Screen Ships. When a formation consists of a main body and screen, ships of the screen are to keep clear of those of the main body. When, from any cause, a ship of the main body finds herself so close that collision cannot be avoided by action of the screen ship alone, she also shall take such action as will best avoid collision. Rule 15 of the International Regulations for Preventing Collisions at Sea is not to apply between screen ships and ships of the main body (but see Chapter 3 for instructions for individual screening units).

141 Sea Manners and Customs

With the exceptions stated in Article 140, the International Regulations for Preventing Collisions at Sea are to be observed by ships in formation. However, in order to facilitate maneuvering, the instructions in this article are to be observed, but in each case where one ship is directed not to hamper the other, the ship required to keep clear of the other is to conduct her movements throughout that her heading and/or proximity to the other are not such as to introduce any doubts whatsoever as to her intentions.

She should also, if possible, indicate her intentions by signal. However, if doubt does arise, the International Regulations for Preventing Collisions at Sea (or, where applicable, any local port rule) are to apply, except as in Article 140.

a. General Conduct of Ships in the Presence of Formed Units. Ships joining, leaving, approaching, or passing through a formation must not hamper ships already in formation.

b. Mine Countermeasures Units.

(1) Vessels or Formations engaged in mine clearance operations (as described in Rule 27f of the International Regulations for Preventing Collisions at Sea 1972 (modified 1983)) are not to be approached nearer than 1,000 metres. Under no circumstances is a ship to pass through a mine clearance formation.

(2) Helicopters engaged in mine countermeasures operations are to be considered as ships not under command when operating tethered countermeasures equipment (see Article 140a(2)).

c. Ships Not in Station. Ships that are not in station are not to hamper those in station. However, ships in station should not stubbornly maintain their course and speed if danger of collision exists.

d. Passing Between Ships in a Line. No ship is to pass between ships in a line without (in the case of a junior) asking permission, or (in the case of senior) indicating her intention to do so. It then becomes the responsibility of the ship passing through the line to avoid hampering the other ships.

e. Passing Through a Formation. If ships are required to pass between ships in a formation or between lines, it is the responsibility of the ships passing through the formation to avoid hampering the movements of the other ships. No ship is to attempt to pass through a formation of minesweepers with sweeps streamed.

f. Senior Officer's Orders to Keep Clear. If a senior officer wishes a junior officer who has the right of way to keep clear of him, the senior officer is to issue timely orders.

g. Restricted Waters. In restricted waters, a small ship must not hamper the movements of a large ship.

142 Executing Maneuver at Prearranged Time

a. Ordering the Maneuver. Maneuvers, such as altering course and speed or changing the formation, can be ordered to be executed at a specific time or on arrival in a prescribed position; in these cases no further signal to execute the maneuver will be made by the OTC, though unit commanders may have to make signals to their units.

b. When Signaling Is Restricted. When it is desired to restrict signaling during a particular period in the future, such as during darkness or when nearing the enemy's coast, the OTC can use the following signal: "The 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."

143 Scouting Units

Special maneuvering rules for scouting units will be found in MTP-01 Volume I Chapter 7.

144 Ships Towing Acoustic Arrays or Other Devices

Ships towing acoustic arrays or other devices do not have complete freedom of maneuver. They will not normally display lights or day shapes indicating conduct of special operations and are responsible for informing any unit closing them of any special restrictions.

145–147 Spare**148 Man Overboard—Standard Procedures**

- a. The ship from which a man falls overboard is to use the following procedure:
- (1) Use the rudder and engines as appropriate to avoid the man.
 - (2) Drop a lifebuoy; in peacetime, also drop a day/night pyrotechnic marker.
 - (3) Mark the plot.
 - (4) In peacetime, the above information is to be passed regardless of the EMCON plan in force.
 - (5) Sound at least six short blasts on the whistle.
 - (6) Maneuver according to rules set forth in Article 140 or 150, as appropriate.
 - (7) Secure active sonar if tactical situation permits.
 - (8) By day, hoist flag OSCAR where it can best be seen; by night in peacetime, display two pulsating red lights arranged vertically (see Article 152) or fire one white rocket (or one white Very light)
 - (9) In peacetime, any ship may use searchlights as necessary.
- b. Whenever a man has been reported missing overboard, the ship shall immediately inform the OTC. The OTC shall determine the advisability of initiating a search. If a search is conducted, the OTC shall designate the search plan and participating units. Ships towing acoustic arrays or other devices will normally require the assistance of another unit to recover a man overboard. The commanding officer of a ship steaming independently shall determine the search procedures for a crew member who may have been overboard for an undetermined period. In each case, the commander shall inform appropriate authorities and recommend the duration of the resulting search.

149 Peacetime Recovery Maneuvers

- a. When in Column.
- (1) The ship from which the man falls overboard shall stop engines temporarily and hold course, unless it is the rear ship of the column, in which case, it shall maneuver as required to recover the man. The rudder may be used to throw the stern away from the man slightly; the ship is then brought back to the course.
 - (2) Ships ahead of the one losing the man, stand on at the prescribed speed and hold course.
 - (3) Ships astern of the one losing the man, stop engines and maneuver as necessary to keep clear by hauling out of line: odd-numbered ships, counting from the leading ship of the column, turning to starboard and even-numbered ships turning to port. All ships then resume the course and signaled speed.
 - (4) The rear ship should always prepare to recover the man overboard; however, any ship in position safely to recover the man should do so as soon as possible, informing other ships of her intentions.

b. When in Line Abreast or Line of Bearing.

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

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

c. When in Any Other Formation.

(1) If a man falls overboard from a large ship, the nearest small ship, or the man-overboard recovery ship when designated by the OTC, is to proceed to recover the man. If, however, it is clearly safe for the ship losing the man to maneuver to recover him, it may do so. In either case, other ships are to maneuver as necessary to stand clear of rescue operations and, if possible, maintain formation integrity.

(2) If a man falls overboard from a small ship, it is to maneuver as necessary to recover the man. Other ships are to maneuver as necessary to stand clear of rescue operations and, if possible, maintain formation integrity.

(3) In a close formation, a ship of the van should not maneuver to recover a man overboard if risk of a collision exists. It should maintain course and speed unless otherwise directed by the OTC, who may designate a man-overboard recovery ship to make the recovery.

d. When Engaged in Replenishment at Sea. During transfer at sea or replenishment exercises, the following precautionary measures shall be taken for the purpose of rescuing anyone who should fall overboard.

(1) If a rescue helicopter is available, it should be at a minimum deck alert during daylight hours. However, if bad weather or special hazards demand, the helicopter should be airborne in a suitable position.

(2) If a man-overboard recovery ship is designated, it should be stationed 500 to 1,000 yards astern of the delivery ship.

(3) The customer ship is the designated man-overboard recovery ship when no other ship nor a suitably equipped helicopter is available. In this case, both the supplying and customer ships shall ensure that each is prepared to execute emergency breakaway quickly and safely throughout the replenishment.

(4) Should either the supplying or customer ship lose a man overboard, life preservers with markers shall be dropped by both ships as close to the man as possible.

(5) The OTC shall be informed immediately.

150 Wartime Recovery Maneuvers

a. If a man falls overboard from a large ship, the nearest small ship, or the man overboard recovery ship when designated by the OTC, is to proceed to recover the man if the tactical situation permits. Other ships are to maintain the course and speed. If no small ship is present, the OTC will issue the necessary orders but large ships should not stop in areas where enemy submarines may be encountered.

b. If a man falls overboard from a small ship, it is to maneuver clear of the formation and recover the man if the tactical situation permits. Other ships are to maintain the course and speed but are to keep clear.

151 Rescue Helicopter

If a man falls overboard and the tactical situation and flying conditions permit, a ship equipped with a suitable rescue helicopter, as designated by the OTC, is to launch such a helicopter to assist in the rescue. Surface ships are cautioned to keep clear when a helicopter is actually engaged in rescuing personnel.

152 Man Overboard Lights

a. If a man falls overboard during darkness, the emergency may be indicated by man overboard lights. These are two red pulsating lights in vertical line, with the following characteristics:

- (1) Visible two miles.
- (2) Visible all around.
- (3) Pulsating rate 50 to 60 pulses per minute.

b. During wartime, man overboard lights will be used only upon direction from the OTC.

153–157 Spare

158 Breakdown at Sea

a. Avoiding Danger to Other Ships. Should a breakdown occur, such as loss of steering control or failure of main engines, the first requirement is to avoid endangering others in company. As a means to this end, signals and information to other ships should be given as nearly concurrently with the orders to the wheel and engines as is possible.

b. Signals From Disabled Ship. The following steps must be taken by a disabled ship:

- (1) Sound at least six short blasts.
- (2) By day, hoist flag 5; hoist two black balls. By night in peacetime, show two red lights in accordance with Rule 27 of the International Regulations for Preventing Collisions at Sea.
- (3) If a turn is being made, indicate the direction by sounding one short blast if the turn is to starboard and two if to port.
- (4) Inform the OTC of the nature of the breakdown, giving estimated time of its repair and of return to station.

c. Maneuvering to Avoid Disabled Ship.

- (1) When in column: Ships ahead of the disabled vessel stand on. Ships astern of the disabled vessel maneuver as necessary to keep clear and indicate their intentions by the appropriate sound signal. When clear, all ships resume signaled course and speed.
- (2) When in any other formation: Ships maneuver to remain clear of the disabled vessel.

159 Night and Fog

160 Navigation Lights on Darkened Ships

a. Any Ship Endangered by Others. When ships are darkened, and any ship considers herself endangered by another, she is to switch on navigation lights using dimming feature if installed. Other ships in the immediate vicinity sighting such lights are to switch on their navigation lights using dimming feature if installed.

b. When Maneuvering in Formation. When it is necessary to change the formation, formation axis, or course of a screened unit, navigation lights may be switched on if it is not certain that ships will clear each other.

161 Whistle Signals While Maneuvering

The following signals from the International Regulations for Preventing Collisions at Sea may be used by ships in a formed state when maneuvering in fog or at night, even though the regulations require that the ships be in sight of one another:

One short blastI am altering my course to starboard.

Two short blastsI am altering my course to port.

Three short blastsMy engines are going astern.

Five or more blastsTo be used in accordance with International Regulations.

162 Standard Fog Signals

a. In Wartime. The standard fog signals, for example, one prolonged blast for a ship under way, are not to be sounded in wartime unless otherwise ordered.

b. In Peacetime. Fog signals by ships in formation are to be sounded in the manner ordered by the OTC, who will take into consideration the confusion that may be caused both to themselves and to other shipping by too strict adherence to the International Regulations when large numbers of ships in company are all sounding fog signals.

163 Entering Fog

a. No Change Without Signal. No change in the formation, disposition, course, or speed of the force is to be made without a signal from the OTC. However, when evasive steering is not being carried out, unit commanders may change the arrangement of their units to a compact and more suitable formation. If evasive steering is being carried out, it is to continue until stopped by a signal from the OTC.

b. Units Closing the Force. Units closing the force should maneuver so as to make their final approach from well abaft of the beam of the rear ships of the force. If unable to operate radar, they are not to attempt to join but are to assume the course and speed of the force until otherwise directed.

c. Use of Radar. If EMCON plan permits, ships are to man surface radar and the primary tactical circuit.

d. Lookouts. Fog lookouts are to be stationed.

e. Lights. In peacetime, navigation lights are to be shown.

f. Fog Buoys. Ships in column, except the rear ship, should be prepared to stream a buoy at four-fifths of standard distance and to direct a strong light on the ship astern.

164–168 Spare

169 Wartime Cruising Precautions

170 Darkening Ships

- a. Completely Darken Ship. Unless otherwise ordered, all ships are to be completely darkened from sunset to sunrise, while at sea. A ship is to inform any ship whose lights are visible. Navigation lights are not to be used when ships are darkened except in emergency to avoid collision. Article 160 explains this point more fully.
- b. Modified Darken Ship. To improve habitability, the OTC may order modified darken ship. Under this condition, doors, hatches, and ports may be opened but no direct white lights or red standing light shall be permitted to show outside the ship.
- c. Special Conditions. When authorized by the OTC, dimmed side lights and stern light may be permitted during screen maneuvers, when ships join the formation, when individual ships maneuver within the formation, or during coordinated operations. The OTC may authorize ships controlling aircraft at night during darken ship conditions to identify their ship to the aircraft by use of Grimes light or pulsating red truck lights. Ships involved in launching and recovering helicopters may show additional lights at minimum brilliance consistent with safety.

171 General Precautions

Ships are to take precautions to avoid disclosure of own forces to the enemy. These should include measures to avoid excessive external noises and smoke emission, including blowing of boiler tubes. Waste is to be disposed of by sinking or retained on board. Use of electromagnetic, electro-optic, and acoustic emitters is subject to the instructions in Chapter 5.

172 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).

173 Maneuvering Orders and Instructions

174 Forming

The OTC specifies the appropriate formation for the existing tactical and operational situation, the Guide, course, speed, axis, and ships' station assignments. The OTC may direct subordinate commanders to assign stations to their respective ships. Upon execution of the signal to form an operational formation, ships shall move to their new stations independently, hoisting station numbers by day when ordered (see ATP-1, Vol. II). Units already formed will be maneuvered by order of their unit commanders when the formation ordered is linear in nature and the new formation can be achieved by a unit maneuver.

175 Circular Formations

- a. **Formation Center and Axis.** The direction of a formation axis is signaled as a true bearing; however, if there is any doubt as to the position of formation center, the OTC is to indicate it by true bearing and distance from the Guide or an indicated ship.
- b. **Circular Stationing.** The circular method of stationing is shown in Figure 1-5. The station in the center is called station zero and the circles are numbered consecutively outward from the center. Circle spacing is 1,000 yards, unless otherwise ordered; thus the circle of radius 5,000 yards is known as Circle 5 and that of 7,300 yards as Circle 7.3. The location of a station is described by the number of the circle on which it lies followed by its direction relative to the formation axis measured clockwise from 000° to 359°.

c. Taking Station. Upon execution of the signal to form a circular formation, ships move to their new stations independently and, when ordered, are to hoist station numbers by day.

d. Stationing Units of More Than One Ship. A unit stationed in a circular formation is normally a single ship, but exceptions will occur when it becomes necessary for a unit consisting of more than one ship to occupy a station. Unit(s) so stationed shall not be of such size as to hamper adjacent units(s) and shall take station according to tactical requirements.

e. Rotating Formation Axis. The direction of a formation axis is rotated by signaling a new direction; the axis then rotates by the shortest way to the new direction. A formation axis is not to be rotated more than 60° in one step. Figure 1-6 illustrates rotation of the axis when the Guide is in station zero. (For ease of comparison, ships are in the same initial stations and the formation axis is rotated 30° in both figures.)

SEARCH TURN	TURN TOGETHER ↓ All formations listed below alter course by this method.(1)(2)	WHEEL
LIMIT		LIMIT
Not less than 45° nor more than 135°	yes (3) Line abreast Loose line abreast	yes 90°
DO NOT USE	Column Loose line of column Column open order Diamond Line of bearing Loose line of bearing Circular formations	yes (4) yes 180° 30° DO NOT USE
<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"> Column open order form a column. Loose line of column turn towards the Guide. <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"> Column open order automatically reforms. Loose line of column does not automatically reform unless signaled. 		

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

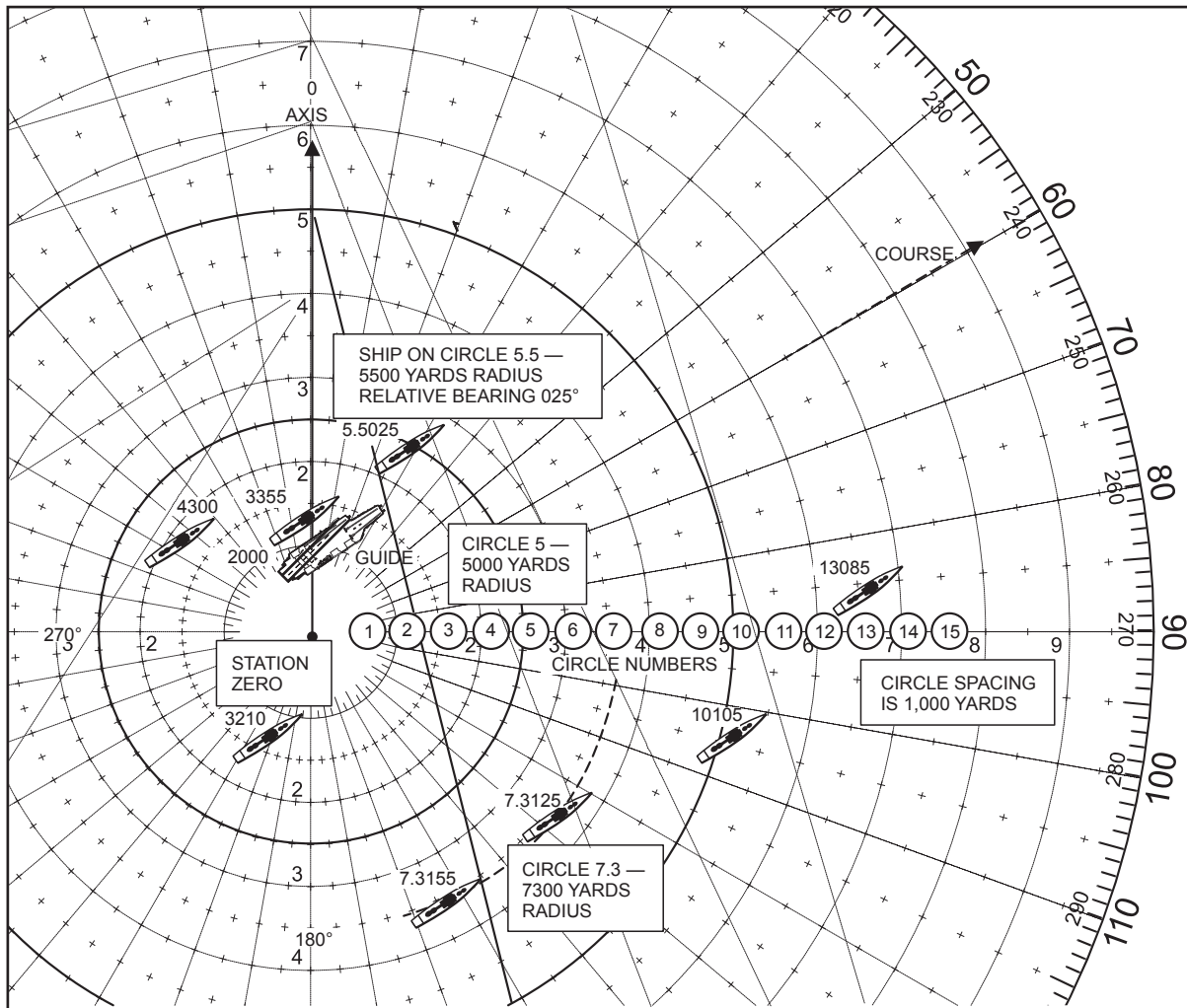


Figure 1-5. Stationing Ships in Formation by Circular Method

176 Maneuvering

a. Course and Axis Changes. Disposition course and axis changes should for simplicity ordinarily be given in multiples of 5° . When the disposition axis is rotated, the OTC of each formation is to maneuver his formation to resume the station relative to the old axis. Unless the rotation is a small one, the maneuver will take a long time to complete.

b. Change in Organization or Composition of the Force. When any change in the listed type or task organization is issued by the OTC or when units join or depart, the formation does not automatically change. No ship is to move from its present station until a signal is made orders a new formation or, in the case of a single ship, a signal orders the ship concerned to move to its new station. Screen units may adjust station to cover gaps. When dissolving a formation, the OTC will ensure that the formation is oriented to permit units to proceed on a safe course when detached. Normally, the OTC will detach screen units first; when these units are clear, the main body will be dissolved in an orderly manner.

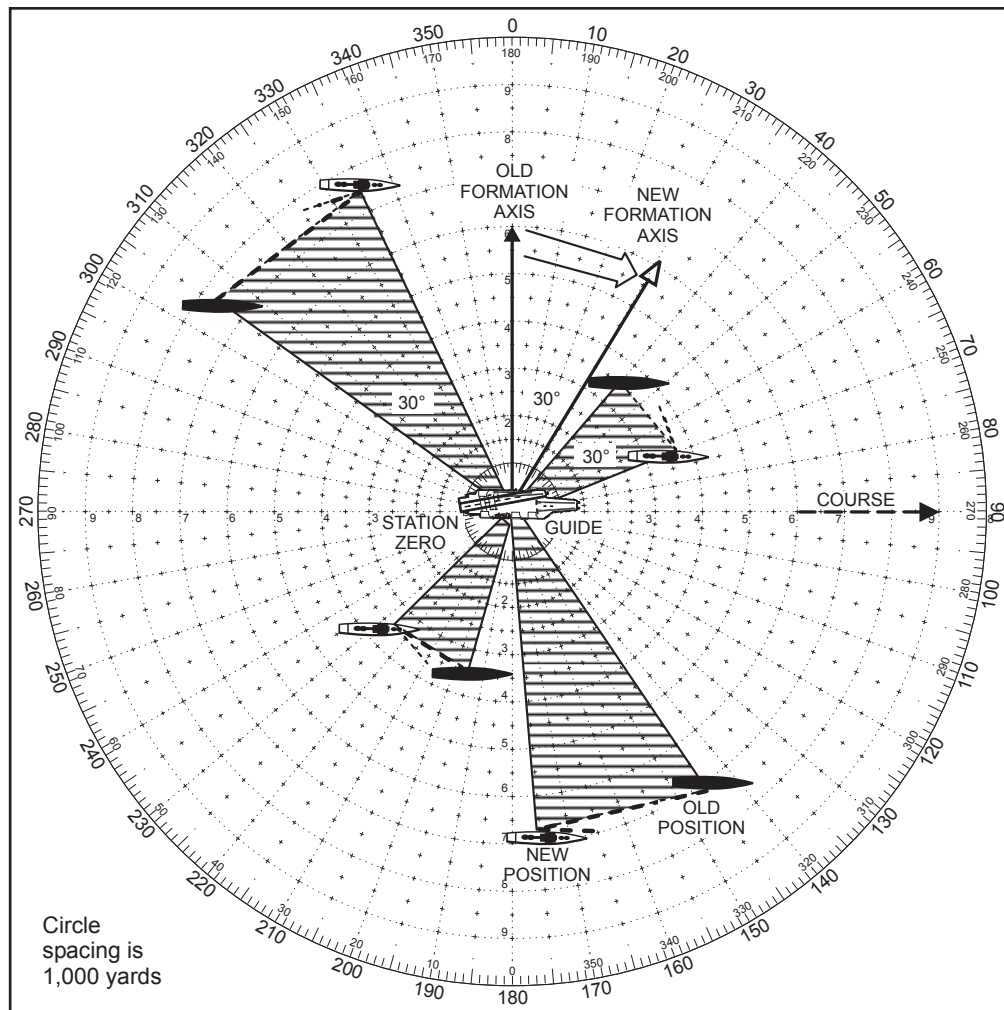


Figure 1-6. Rotating Formation Axis, Guide in Station Zero

177 Disposition 4W

a. Description. Disposition 4W provides a framework for operating forces in widely dispersed groups. It can be used to assign Battle Group(s)/Task Group(s)/Task Unit(s)/Task Element(s)/individual units to a specified dispersed operating area relative to a Force PIM. It can be used to define surveillance areas, execute intercept of hostile units, prevent mutual interference and execute operational deception (OPDEC).

b. Terminology.

(1) Disposition 4W. This refers to the entire Grid as illustrated in Figure 1-7.

(2) Segment. Any square within the Grid. The term segment is used to avoid confusion with AAW Sectors or formation/screen stations. A large segment can be identified by specifying its borders.

(3) Line. The boundaries dividing the segments in either direction (e.g., Line AB or Line 0405).

(4) Lane. The area between two specified lines (e.g., Lane C or Lane 04). A number of lanes can be grouped together (e.g., Lane 20-22). Included lanes need not be designated.

(5) Point. Intersection of Grid lines. A point is described as the southwest corner of a single square segment with the Grid oriented north (e.g., Point C19 is at the intersection of Line BC and Line 18-19).

c. Grid Construction.

(1) The 4W Disposition Grid, as shown in Figure 1-7, is 240 nm X 240 nm and is divided into 10 nm X 10 nm square segments. If a larger or smaller disposition is required the OTC/CWC can use a portion of Disposition 4W, change the size of the squares, or add new lanes in ascending alphanumeric order.

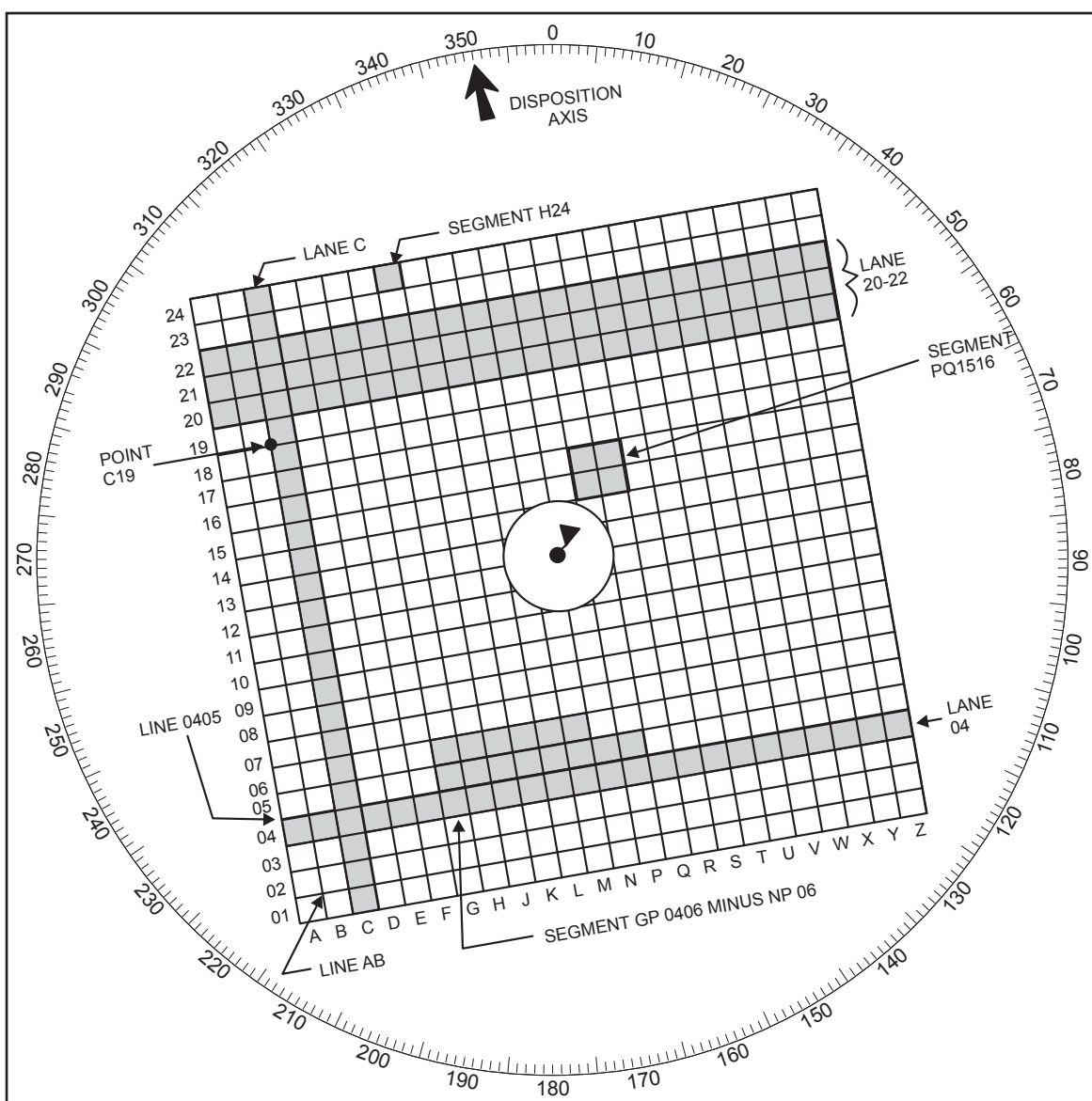


Figure 1-7. Disposition 4W

(2) The 10 nm X 10 nm segments are described by the letter and number which include that segment (e.g., H24). In labeling the lettered axis, the letters I and O are omitted. Lettering is A to Z (less I and O).

(3) Larger segments are described by combinations of the inclusive alphanumeric boxes which include that segment (e.g., segment PQ1516 defines a 20 nm X 20 nm segment containing subsegments P15, P16, Q15, Q16).

(4) The disposition axis is oriented parallel to the lettered lanes. Normally, the disposition axis is parallel to PIM track to allow efficient positioning of screen forces in the van of the disposition. However, if the PIM course changes frequently, or the nature of the threat does not require positioning of screen forces in the van, or the type of friendly forces assigned (e.g., merchant convoy) precludes changing the axis with PIM course changes, then it may be simpler to orient the axis to an appropriate bearing and keep it constant regardless of PIM.

(5) The geometric center of the grid is Point N13. Unless otherwise designated this will also be disposition center and PIM origin.

d. Execution. Disposition 4W will normally be ordered by instructions in the OPGEN/ OPTASKs or other appropriate messages. The OTC or designated warfare commander will specify segment assignments for all groups/units. These assignments must be made in close coordination with other warfare commanders/coordinators. Segment assignments may be executed by tactical voice signal using the "STATION S" signal.

e. Group Formation. The commander of each group in the disposition is responsible for his group's formation/screen within his assigned segment whenever more than one ship is assigned. Unless otherwise directed, a group may maneuver anywhere within its assigned segment.

f. Disposition Guide. Normally, there will not be a "Disposition Guide." The disposition moves with PIM. Therefore, all formations in Disposition 4W maneuver with PIM within their assigned segment. The OTC/CWC will designate a disposition center (normally Point N13) and a disposition axis which establishes the position and orientation of the Grid to PIM.

g. Communications. The OTC must be capable of communicating with each group at any time. If EMCON precludes HF communications, the OTC must establish alternate communication links. The following communications considerations pertain:

(1) Common HF/SATCOM circuits should be designated for intergroup communications. Each group may be assigned separate UHF frequencies for intragroup communications.

(2) Warfare commanders should be able to communicate with all units (regardless of groups) having primary capability in their warfare function.

h. Maneuvering Procedures.

(1) Segment Changes. Periodically, it will be necessary to change segment assignments. To minimize mutual interference or possible hostile action against friendly forces, intra-grid maneuvers should be ordered by tactical signal. This signal may be transmitted initially over a voice circuit, and should be followed up by record traffic. It is essential that all commanders/warfare commanders and the SOCA be made aware of the details of the change.

(2) Shadowing and Marking. Units will frequently be tasked to conduct surveillance or shadowing in a particular segment of the Grid. Units conducting such missions should avoid

entering segments assigned to other groups or units. After arrival in a specified segment, the movement of a unit will be largely determined by the target of interest it is following. Hence, these units should notify their warfare commander of their entry into unassigned segments as soon as it can be forecast.

(3) Planned Course Changes. The OTC's OPGEN normally will specify task force PIM. The disposition will move with PIM and the disposition axis will be PIM track unless otherwise specified.

NOT RELEASABLE.

(a) Large Axis Changes. A large axis change is any change in which rotation results in different segment locations for a unit or group. In this event, the following procedures may be used:

i. Reassign Grid Squares. This is done by overlaying the new Grid orientation over the old and determining what the new segment assignments should be. Such reassignments should be included in the signal executing the axis change. This procedure eliminates any requirements to maneuver. However, units may not be correctly aligned to threat axis.

ii. Retain Original Grid Segment Assignments. This procedure will require most units to maneuver to new Grid locations. The time required to perform this maneuver will vary and may be considerable.

(b) Small Axis Changes. When the disposition axis is rotated, the commander of each group is to maneuver his formation to remain in its assigned segment. If the before and after position of the segments is such that all ships remain within their original segment, no additional procedures are required. A larger course change can be accommodated using this method by dividing it into a series of smaller course changes over a period of time.

(4) Immediate Course Changes.

(a) Normally such changes should be made with a TURN signal. The 4W Disposition axis is not changed and all units and groups maintain the same true bearing and range from disposition center as before. Disposition center moves off PIM in direction of the turn at ordered speed.

(b) If there is a common net that is being guarded by all TF units, then a TURN signal can be executed by the IMMEDIATE EXECUTIVE method. At least one ship in each group and/or each group commander should be required to acknowledge the signal. NOT RELEASABLE.

If there is not a common circuit or if there is enough time, then the DELAYED EXECUTIVE method can be used. This can be done on a tactical voice circuit, such as the TF/TG OTH Command net, to all group commanders. After this is done, each group commander would put the signal over a local group UHF circuit, such as the Tactical Maneuvering net. Another option would be to send a HIGH PRECEDENCE tactical signal over the TF Broadcast with a specified execute time and direct each group commander to acknowledge receipt.

178 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.

179 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 paragraph (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 paragraph (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.

180 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 1-8). 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 1-8). This formation may be used when mutual AAW support and additional maneuvering space are required at short notice.

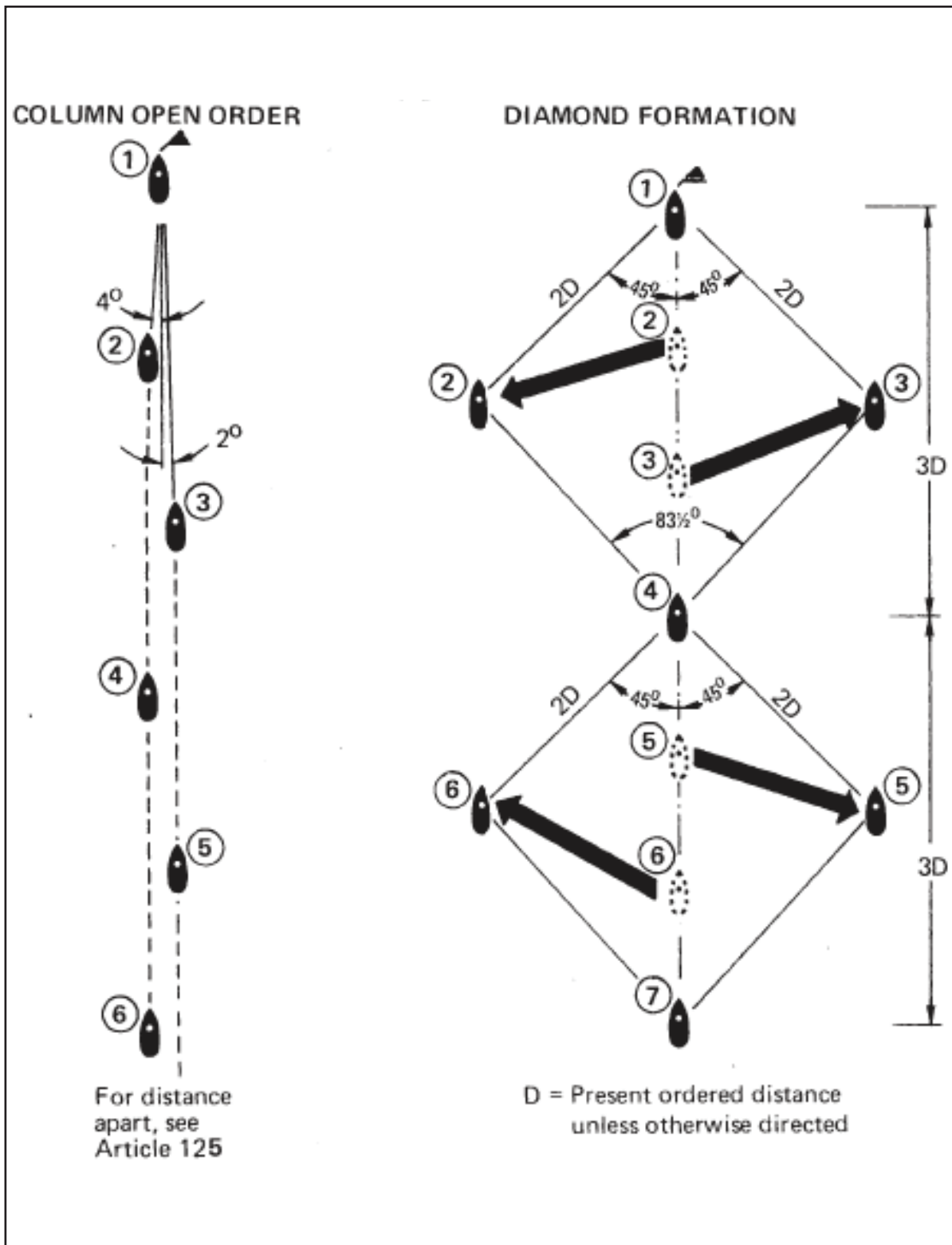


Figure 1-8. Column Open Order and Diamond Formation

(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 1-8.
- (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.

181 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 degrees ships are to wheel relative to the present course. The ANSWER pennant can be used to indicate a wheel to within 5°.

182 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 1-9.

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.

183 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 181. They are automatically to resume column open order after all ships have completed the wheel.

184 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 180a.)

185 Wheeling in Single Line Abreast

The pivot ship is to alter to the new course and become the Guide. See Figure 1-10. 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.

186 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.

187 Wheeling in Multiple Line Formation

a. Ships in Column with Line Guides Bearing Abeam. See Figure 1-11. 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.

b. Ships in Line Abreast with Line Guides Bearing Astern. See Figure 1-12. This maneuver is accomplished as follows:

- (1) Leading line is to alter course as described in Article 185.
- (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.

(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.

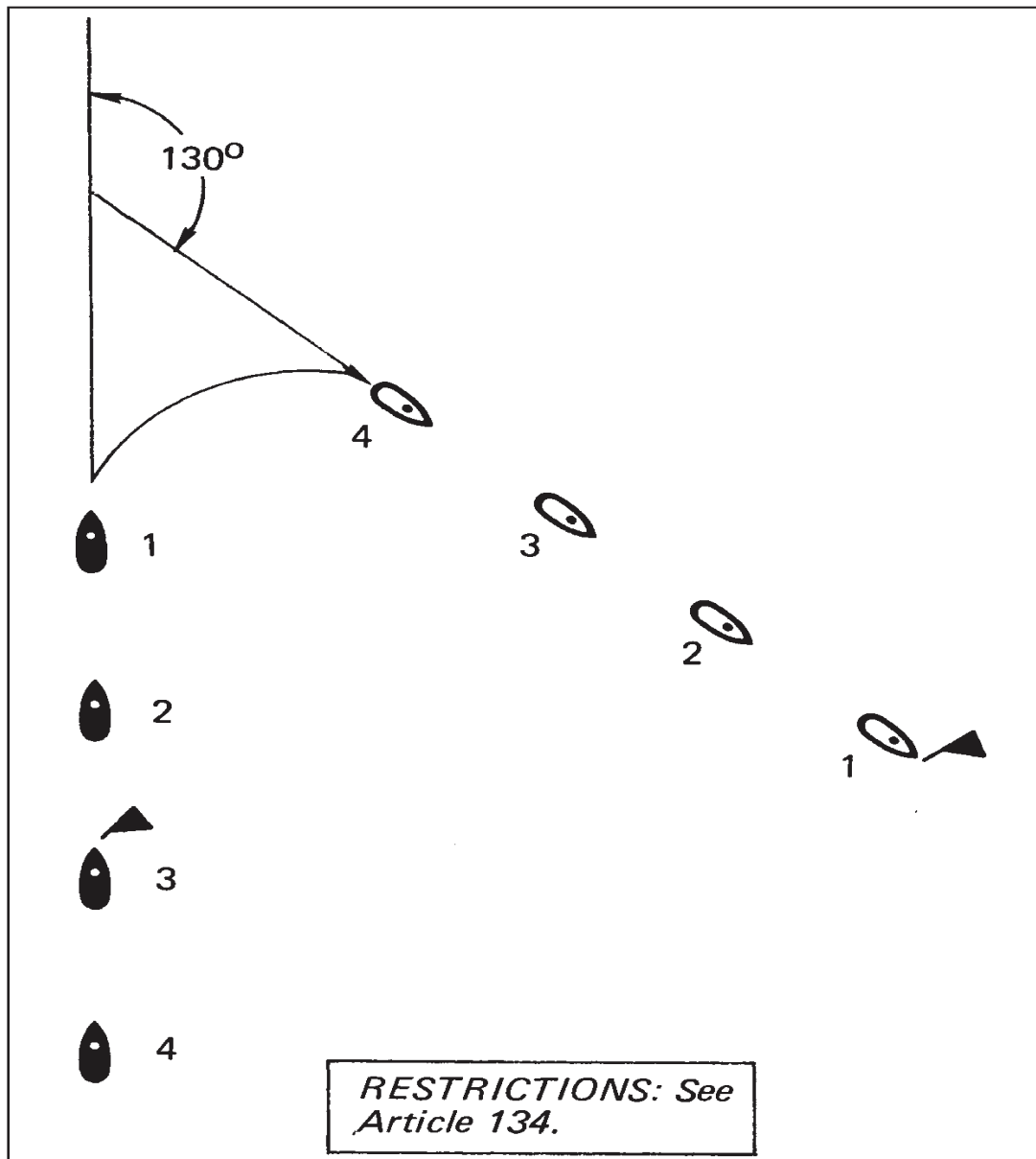


Figure 1-9. Wheeling in Single Column

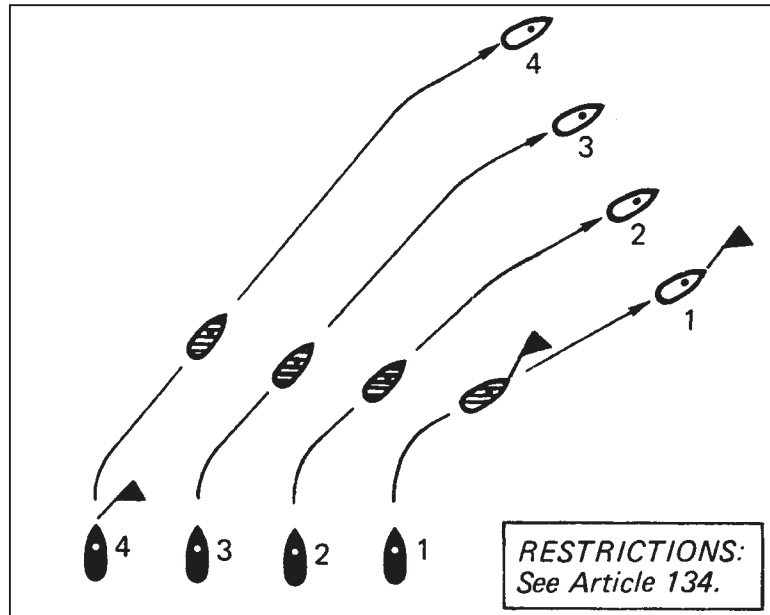


Figure 1-10. Wheeling in Single Line Abreast

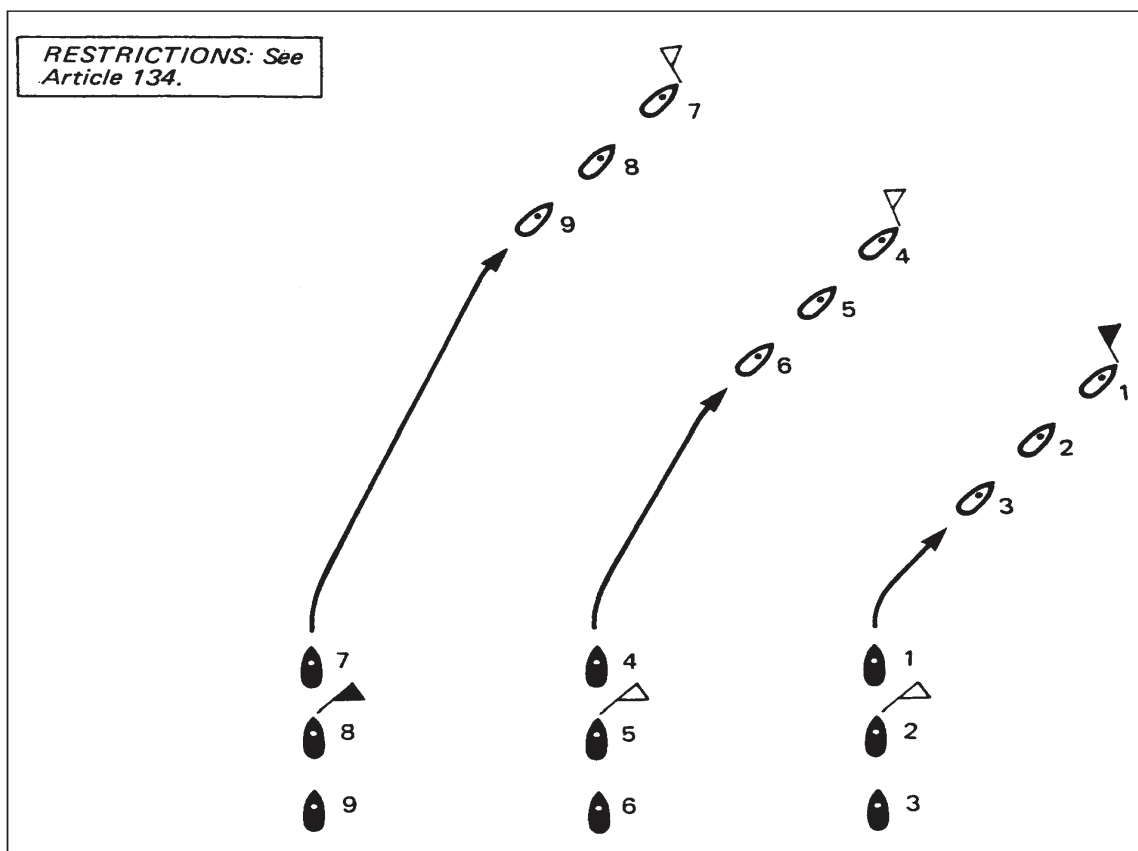


Figure 1-11. Wheeling in Multiple Line Formations

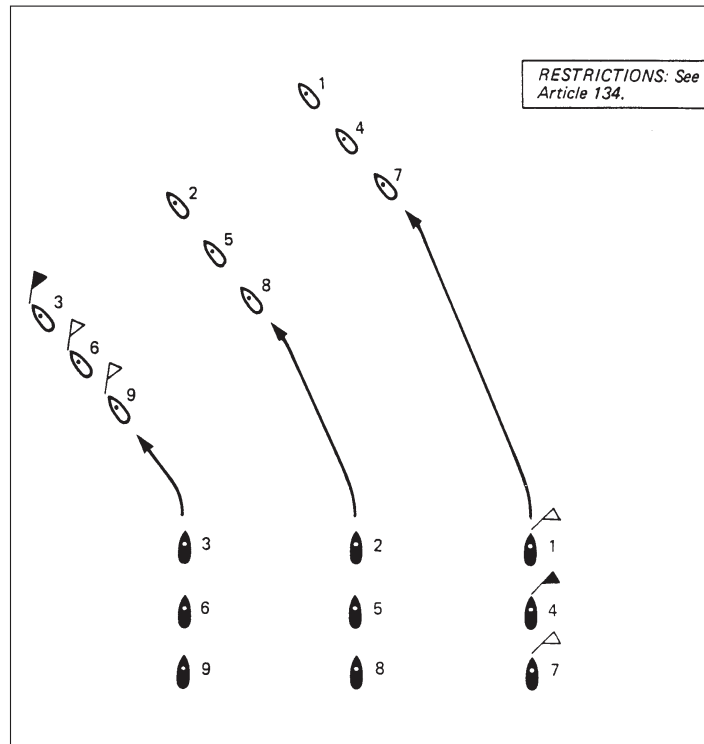


Figure 1-12. Wheeling with Lines Guide Bearing Astern

188 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 1-13 and 1-14.

(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 172) 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.

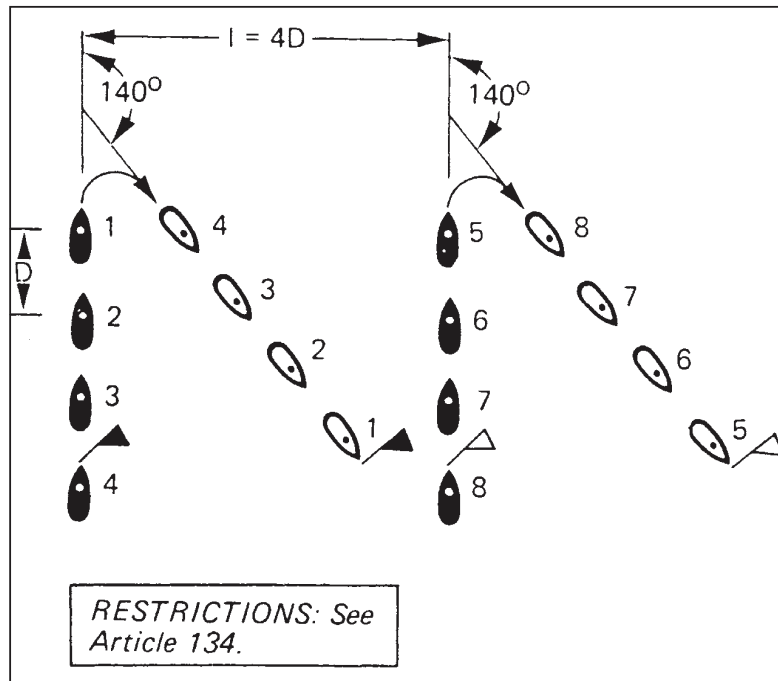


Figure 1-13. Wheeling Lines Simultaneously

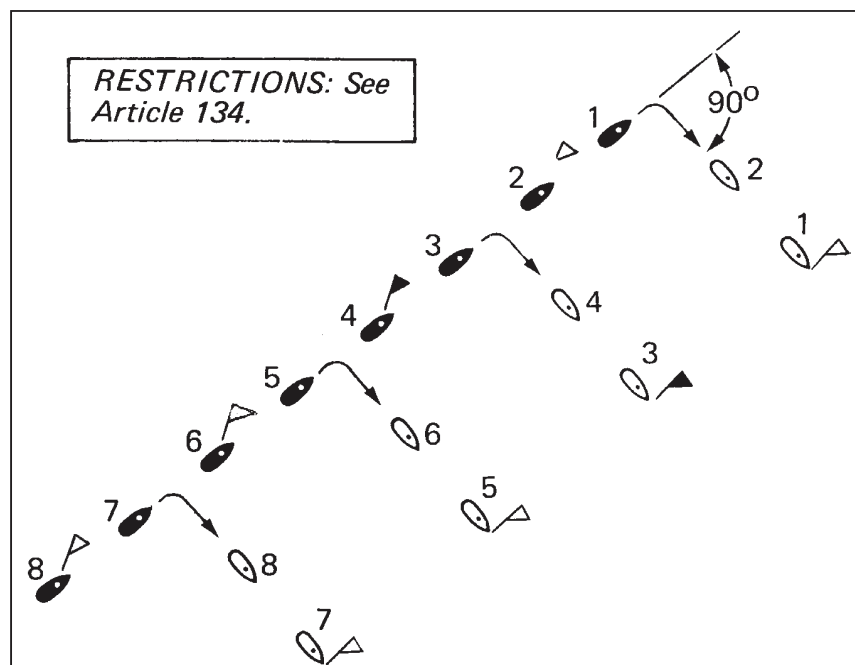


Figure 1-14. Wheeling Units Simultaneously

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° 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 1-15) 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.

189 Evasive Steering

Instructions for zigzagging and weaving are contained in ATP-3.

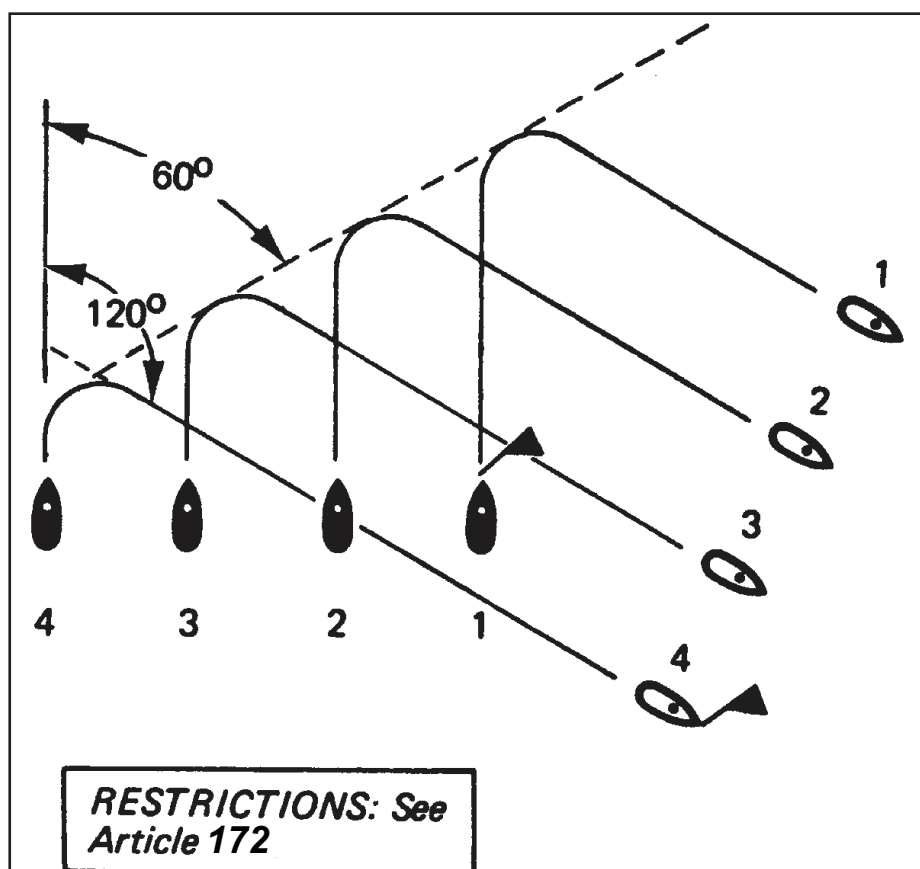


Figure 1-15. Search Turn

190 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.

191 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

192 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

193 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.

194 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
71/2 W to 71/2 E	0	Z	71/2 W to 221/2 W	+1	N
71/2 E to 221/2 E	-1	A	221/2 W to 371/2 W	+2	O
221/2 E to 371/2 E	-2	B	371/2 W to 521/2 W	+3	P
371/2 E to 521/2 E	-3	C	521/2 W to 671/2 W	+4	Q
521/2 E to 671/2 E	-4	D	671/2 W to 821/2 W	+5	R
671/2 E to 821/2 E	-5	E	821/2 W to 971/2 W	+6	S
821/2 E to 971/2 E	-6	F	971/2 W to 1121/2 W	+7	T
971/2 E to 1121/2 E	-7	G	1121/2 W to 1271/2 W	+8	U
1121/2 E to 1271/2 E	-8	H	1271/2 W to 1421/2 W	+9	V
1271/2 E to 1421/2 E	-9	I	1421/2 W to 1571/2 W	+10	W
1421/2 E to 1571/2 E	-10	K	1571/2 W to 1721/2 W	+11	X
1571/2 E to 1721/2 E	-11	L	1721/2 W to 180	+12	Y
1721/2 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.

195 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: NA 22 . . . My position (or ____) is as indicated by accompanying position signal. Time may be indicated by time signal.

NA 22—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.

196 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.*

197 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—I—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.

198 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 1-16.

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 ZZZ
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

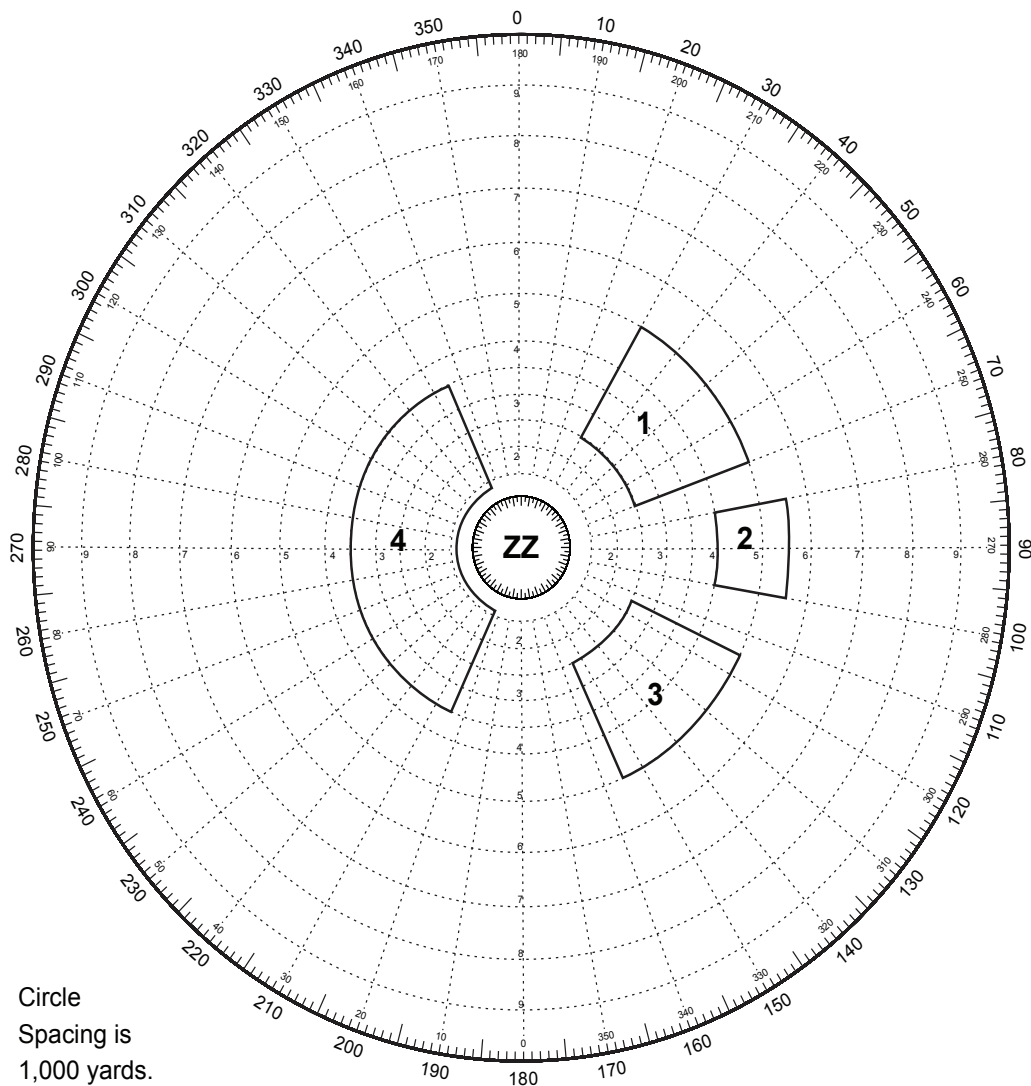


Figure 1-16. Sector Method

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
A	DIVERS OR FRIENDLY EXPLOSIVE ORDNANCE DISPOSAL PERSONNEL DOWN	Where best seen.	WHILE FLYING: Divers or friendly explosive ordnance disposal personnel down. A numeral group following will indicate the radius in hundreds of yards inside which personnel are operating. No other MCM operations are to take place within this area and all other vessels are to remain clear.
B	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.

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
B	TRANSPORTING EXPLOSIVES, FUEL, OR INFLAMMABLE MATERIAL	BY BOATS: In bow or where best seen.	WHILE FLYING: I am transporting explosives, fuel, or inflammable material.
C	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.
D	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.
E	NO RF DANGER	Where best seen.	Rotating antenna without radiating RF energy.
F	FLIGHT OPERATIONS (Flag hoist only)	Where best seen.	AT DIP: I am ready to operate fixed-wing aircraft when wind conditions are suitable. DIPPED after being close up: My flight operations have been delayed temporarily (about 10 minutes). CLOSE UP: I am operating fixed-wing aircraft. HAULED DOWN: I have completed operating fixed-wing aircraft. NOTE: When operating both fixed-wing aircraft and helicopters concurrently, Flag H need not be used.
G	GUIDE FLAG	Where best seen.	a. WHILE FLYING: This ship is GUIDE. b. G TACK Call Sign: Ship indicated is to be Guide (REPEATED BY ADDRESSEES). c. Call sign G TACK Call Sign: Guide of unit addressed is to be ship indicated (REPEATED BY ADDRESSEES).

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
H	HELICOPTER OPERATIONS (For helicopter transfer/vertical replenishment signals, see Article 3102.)	Where best seen.	AT DIP: I am ready to operate helicopters when wind conditions are suitable. DIPPED after being close up: My helicopter operations have been delayed temporarily (about 10 minutes). CLOSE UP: I am operating helicopters. HAULED DOWN: I have completed operating helicopters. See NOTE under Flag F.
I	GOING ALONGSIDE (in port or at anchor)	BY RECEIVING SHIP: At yardarm on side rigged.	AT DIP: I am preparing to receive you alongside. CLOSE UP: I am ready to receive you alongside. HAULED DOWN: First line is secured.
		BY SHIP GOING ALONGSIDE: At yardarm on side rigged.	AT DIP: I am preparing to come alongside you. CLOSE UP: I am ready to come alongside you. HAULED DOWN: First line is secured.
J			Spare
K	PERSONNEL WORKING ALOFT AND/OR OVER THE SIDE	Where best seen.	WHILE FLYING: 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.
L	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
M	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.

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
M	MOVEMENTS	Where best seen (underway).	WHILE FLYING: Disregard my movements.
N	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.
O	MAN OVERBOARD	Where best seen.	WHILE FLYING: Man overboard.
P	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 195.
Q	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 paragraph 1306b.
R	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 first line 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 first line 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.

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
R	READY DUTY SHIP	Where best seen	WHILE FLYING: I am ready duty ship.
	MCM OPERATIONS	Where best seen.	See ATP-24.
S	DRILL SIGNAL	Where best seen.	WHILE FLYING: Signal flying is for flaghoist drill only.
T	TIME INDICATOR		See paragraph 164c.
U	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.
V	STREAMING/ RECOVERING TOWED ACOUSTIC DEVICES NOT INCLUDING MINESWEEPING EQUIPMENT	Where best seen.	CLOSE UP: Streaming/recovering. HAULED DOWN: Streamed/recovered.
W	INFORMATION ADDRESSEE	At yardarm.	Information addressees follow: (See ACP-130 series).
X	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.

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
X		At yardarm.	X TACK — — — (signal inferior to second substitute): I am carrying out for exercise the meaning of the signal following.
Y	ACKNOWLEDGE	At yardarm. REPEATED BY ADDRESSEES	— — — (signal) TACK Y: A separate acknowledgment required. Y TACK — — — (signal): Signal following is acknowledged.
Z	COMMUNICATION GUARD	Where best seen (not underway)	WHILE FLYING: I have communication guard duty.

202 Single Numerical Flag Table

FLAG	INDICATION	NORMALLY DISPLAYED	MEANING
1	(Identifying flag for ASW Action Table—See Article 1311.)		
2	(Identifying flag for Surface Action Table—General—See paragraph 3208A.)		
3	(Identifying flag for Surface Action Table—Over-the-Horizon (OTH) Engagement—See paragraph 3208B.)		
4	(Identifying flag for Surface Action Table—To-the-Horizon Range Engagement—See paragraph 3208C.) (For use in Submarine and Antisubmarine Exercises—See paragraph 1306(B).)		
5	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.)
6	TOWING OPERATIONS	Where best seen.	Identifying flag for towing operations—See Article 3007.
7	(Identifying flag for AAW Action Table—See Article 1001.)		
8	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.
9	(Identifying flag for Torpedo Action Table—See Article 3205.)		
0	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
ANS	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.
CODE	USE INTERNATIONAL CODE OF SIGNALS (See Article 117.)	At yardarm. REPEATED BY ADDRESSEES	Signal group following is taken from International Code of Signals.
CORPEN	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.
DESIG	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.
EMERG	SIGNAL(S) FLYING ARE TO BE OBEYED AS SOON AS UNDERSTOOD		See Chapter 3.

FLAG OR PENNANT	INDICATION	NORMALLY DISPLAYED	MEANING
FORM	REFUSE BOAT IS REQUIRED	At yardarm or where best seen (not underway).	WHILE FLYING: Refuse boat is required.
INT	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.
NEGAT	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 Article 111.
	EXEMPTED ADDRESSEE FOLLOWS		In heading: See ACP-130 series.
PREP	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
PORT	INDEFINITE TURN TO PORT	At yardarm (underway). REPEATED BY ADDRESSEES.	Turn of unspecified amount. See Article 603.
	OUT OF ROUTINE	At yardarm (not underway).	Ship out of routine. No honors should be expected.
SCREEN			See Chapter 9.
SPEED			See Chapter 8.
STBD	INDEFINITE TURN TO STARBOARD	At yardarm (underway). REPEATED BY ADDRESSEES.	Turn of unspecified amount. See Article 603.
	NATIONAL SOPA	Where best seen (not underway).	Senior officer present afloat.
STATION	TAKE PROPER OR ASSIGNED STATION	At yardarm. REPEATED BY ADDRESSEES.	Take proper or assigned station.
TURN			See Chapter 6.

FLAG OR PENNANT	INDICATION	NORMALLY DISPLAYED	MEANING
1st	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.
2nd	GENERAL INFORMATION	Where best seen.	In place of addressee: For general information; no specific address; no answer required.
3rd	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."
4th			

204 Absentee Indicator Table (In Port)

FLAG OR PENNANT	INDICATION	NORMALLY DISPLAYED	MEANING
1st	ABSENCE OF OFFICIAL from this ship for a period of 72 hours or less. Use in port only.	Starboard main yardarm outboard.	Absence of flag officer or unit commander whose personal flag or command pennant is flying on this ship.
2nd	Same as 1st substitute	Port main yardarm inboard.	Absence of chief of staff.
3rd	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.
4th	Same as 1st substitute	Starboard main yardarm inboard.	Absence of civil or military official whose flag is flying on this ship.
<p style="text-align: center;">NOTES</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>			

INTENTIONALLY BLANK

EMERG

EMERG

CHAPTER 3 Emergency

300	Instructions
301	Emergency Execute Signal
302	Emergency Alarm Signals
303	Emergency Action Signals

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.

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. See Article 174. 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 paragraph 179.c)

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 (Also See Article 178.)

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 (Also See Article 174 and Figure 1-8).

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 1-8.*
- 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.

406 Line Guides Forming on a Bearing (Also See Paragraph 179.C.)

- 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). 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 paragraph 402c.)

FORM N . . . FORM TYPE FORMATION number _____. (See paragraph 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).

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/code word ____.

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.

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 according 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. Antiair 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.

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STATION

STATION

CHAPTER 5 Station

500	Instructions
501	Action Signals
502	Information Signals

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 to 500 yards astern)
7. Standby (400 yards abeam)
8. VERTREP

STATION M SHIP indicated is to take SHOTGUN station on ____ unit indicated, on bearing ____ from unit indicated, distance ____ miles.

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 SHIP indicated is to take BACK STOP station on ____ unit indicated, on relative bearing ____ PORT/STARBOARD from unit indicated, distance ____ hundred yards.

The back stop ship shall normally be control ship and have responsibility for maneuvering the protected unit. In exceptional circumstances a unit other than the back stop may be the control ship; if so "Control ship is ____" shall be added to the signal.

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. ASUW

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 XPURPOSE. 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 YAREA. 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—20Outer limit of area C in left flank group is to be 20,000 yards.

STATION ZAREA. 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 Z1E8Take station in approach disposition area E in right flank group. Disposition is to be 8,000 yards.

502 Information Signals

A STATIONIN 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. See Article 126. 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 Signaled 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 halyards. 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. . . . Alteration of course is delayed until. . . .

- (a) Navigationally safe
- (b) Connected (RAS)
- (c) Flight operations completed

E TURN. . . .

F TURN. . . .

G TURN. . . .

H TURN. . . .

I TURN. . . .

J TURN. . . . JOINING INFORMATION is as indicated.

- (a) Formation/screen/disposition in force
- (b) Guide unit
- (c) Guide's course
- (d) Guide's speed
- (e) Stationing speed
- (f) Operational speed
- (g) Units assigned to formation/screen/disposition
- (h) Main body consists of
- (i) Force ASMD course
- (j) Zigzag plan in force
- (k) Zigzag base course
- (l) Zero time of zigzag
- (m) Next alternation of base course is likely to be ____ (course) at ____ (time)

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 TURNCONVOY is carrying out convoy zigzag plan ____ . Zero time is ____ ZULU.
(Base course is ____ .)

Z TURNFORCE is carrying out zigzag plan ____ . Zero time is ____ . (Base course is
____ .)

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 asset 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 ____ . See Article 188 (Figures 1-13 and 1-14).

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 (paragraph 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 by using the signal group BB-M CORPEN.
5. If the alteration does not correspond to an exact sum of the size of the steps ordered, the last step is to correspond to the difference. (For example, the ships are steering course 055, CORPEN N 100 STBD is ordered.) The alteration will be by 4 x 10 degree steps and 1 x 5 degree step. When using method CHARLIE by day, CORPEN STBD 1 will be hauled down and replaced by CORPEN STBD ANS for the final maneuver.

EXAMPLES FOR EXECUTION OF CORPEN N

Method ALFA (Bridge-Bridge Telephone) or Method BRAVO (Voice Radio)		
Control Ship(s)	Ships Replenishing	Replenishment Unit Guide(s)
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 (when ready)	BF (when ready) (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 (when ready)	BF (when ready) (when not control ship)
Method CHARLIE (V/S—Flags by Day)		
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 (Executive 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 Alteration)	ANS Hauled Down	ANS Hauled Down Sound appropriate turning blast(s)
Method CHARLIE (V/S—Light by Night)		
IX BT CORPEN STBD/PORT ANS/1/1 ANS/2 IMI . . . BT IX IX ___ 5 second dash	IX IX ___ 5 second dash	IX IX ___ 5 second dash Sound appropriate turning blast(s)
	BF (when ready)	BF (when ready) (when not control ship)
IX BT CORPEN STBD/PORT ANS/1/1 ANS/2 IMI . . . BT IX IX ___ 5 second dash	IX IX ___ 5 second dash	IX IX ___ 5 second dash Sound appropriate turning blast(s)
	BF (when ready)	BF (when ready) (when not control ship)

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. See Article 188 (Figure 1-15). 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 PRE SENT COURSE (or course ____) (until ____).

CORPEN V . . ALTER COURSE by wheeling to ____ (at ____) with out further signal and resume zig zag. The base course is automatically changed to the new course.

The main body is to wheel to the course ordered at the time ordered. If zig zagging, 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.

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 with out 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 . . ASW EVASION COURSE is ____.

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?

SPEEDGUIDE 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 by using the signal group BB-M speed.

EXAMPLES FOR THE EXECUTION OF 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 (when ready)	BF (when ready) (when not control ship)
Immediate Execute Speed 16, I say again . . . Speed 16, Stand by . . . Execute, Over	Roger out	Roger out
	BF (when ready)	BF (when ready) (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 (when ready)	BF (when ready) (when not control ship)
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 (when ready)	BF (when ready) (when not control ship)

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 halyard	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.
<div>NOTE</div> <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>			

SCREEN

SCREEN

CHAPTER 9 Screen

900	Instructions
901	Action Signals
902	Information Signals

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. Grid departure/entry screen.
3. Helicopter windline screen.
4. 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 DESIGX2-18 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 . . .

SCREEN H . . . FORM ____ SCREEN (screen center ____) (base course ____) (base speed ____).

1. Sector
2. Helicopter windline
3. 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 mile sea sting, 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

1. Left
2. Right
3. Both

List B

- A. Clockwise
- B. Counterclockwise

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

1. Inner
2. Outer
3. Inner and Outer

List B

- A. Away from
- B. Towards

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. Helicopter windline
3. 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 (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.

AA5THREAT 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
12. Land based missile battery

AA6THREAT SECTOR. Threat is (____) from sector ____ .

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

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

AA7WEAPON COORDINATION method in force is ____ coordination.

1. Area
2. Zone

AA8THREAT OPINTEL. The assessed threat by (List A) from (List B) to (List C) is (DTG).

- | List A | List B | List C |
|-----------------------|---------------|--------------------|
| A. FBA | 1. North | A. Waypoints |
| B. LRSAM | 2. East | B. Missile release |
| C. Air Launched ASM | 3. South | C. On top |
| D. Ship Launched ASSM | 4. West | |

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).

List A

1. Center missile/aircraft
2. Left-hand missile/aircraft
3. Missile/aircraft bearing ____
4. Right-hand missile/aircraft
5. Track number following DESIG

List B

- A. Fighter-launched weapons
- B. Long-range SAMs
- C. Medium-range SAMs
- D. Short-range SAMS
- 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

1. Infrared
2. Radar

List B

- A. Bearing ____ (range ____ thousand yards)
- B. In accordance with plan previously ordered

7O. OPEN FIRE (on/in ____).

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

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.

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ADMIN
AD

CHAPTER 11 Administration

- 1100 Boats
- 1101 Ceremonial
- 1102 Medical
- 1103 Miscellaneous
- 1104 Orders/Publications
- 1105 Report

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).

List A

1. All boats
2. All power boats
3. All pulling boats
4. All sailing boats
5. ____ boat(s) indicated by
DESIG following signal

List B

- A. Turned out
- B. Lowered to the waterline
- C. Slipped

AD5 SEND (List A) (for ____ (List B)) to this unit or unit(s) indicated (sequence in order of call signs).

List A

1. Admin boat
2. Admiral's barge
3. Armed boat
4. Captain's boat
5. Commodore's boat
6. Diving boat
7. Guard boat
8. Helicopter
9. Hospital boat
10. Liberty launch
11. Motor boat
12. Vehicle

List B

- A. Admiral
- B. Commanding officer
- C. Commodore/senior officer
- D. Liberty party
- E. Mail
- F. Mail (Classified)
- G. Mail (Officer Courier)
- H. Mail (Registered)
- I. Material requested
- J. Men
- K. Movies
- 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).

List A

1. Admiral's flags
2. Ensign
3. Jack
4. Masthead flags
5. Masthead pennant

List B

- A. Daily
- B. Sunday/holiday
- C. Dress ship
- D. Steaming
- 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)).

List A

1. No injury
2. Cranial/neck
3. Thoracic nonpenetrating
4. Thoracic penetrating
5. Abdominal
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

List B

- A. Critical
- B. Serious
- C. Stretcher
- D. Ambulatory
- E. Neuropsychiatric

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

AD19

AD20

1103 Miscellaneous

AD21

AD22AWNINGS. 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

AD23LEAVE and LIBERTY. Usual leave and liberty may be granted (or from ____ to ____).

AD24MEALBREAK (while flying). Flag and commanding officers will have time for the next meal.

AD25NAME. Name of ____ (from Table P) is ____.

AD26REFUSE 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.

AD27RECALL PERSONNEL (List A) due to ____ (List B).

List A

1. All
2. Beach guard
3. Beach liaison officer
4. Motor pool
5. Naval
6. Officers
7. Other (from Table P).

List B

- A. Civil disturbance/disaster
- B. Emergency sortie
- C. Heavy weather
- D. Other (preceded by DESIG)

AD28SPLICE THE MAINBRACE.

AD29UNIFORM is ____ (List A) (for ____ (List B)). DESIG with national uniform numbers may be used instead of the suffixes.

List A

1. Battle
2. Blue

List B

- A. Dress
- 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

AD32ATTENTION is called to _____. (Paragraph number may be added.)

1. Publication ____ (title).
2. Plan ____ (title).
3. OORDER ____ (title).
4. Message ____ (DTG).

AD33DISTRIBUTED. 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.

AD34RECEIVED. Orders, envelopes, or hand messages (lettered or numbered as indicated) have been received.

AD35

AD36

AD37

1105 Report

AD38ABSENTEES. Number of absentees is ____ (at ____).

AD39MAKE ____ 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.

AD40REPORT ON BOARD. Officer (from Table P) or his representative is requested
to report on board this ship or unit indicated.

AD41REPORTING FOR DUTY.

AD42

AD43

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
or sea conditions | 7. Hazardous due to radioactivity
(of ____ roentgens per hour) |
| 4. Hazardous due to proximity
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. LANDING CRAFT. Unit indicated is to (List A) landing craft of type ____ (List B) (number indicated) by ____ (List C) (at time ____).

List A

1. Hoist
2. Recover
3. Deploy

List B

- A. LCAC
- B. ACV
- C. DUKW
- D. LARC
- E. LCM
- F. LCPL
- G. LCU
- H. LCVP
- I. AAV
- J. LC

List C

1. Dock
2. Crane
3. Davit (Port/Starboard)
4. Side Ramp

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

AM21 CONDITION. Ship (or unit indicated) is in ____ condition (at time ____).

1. Sailing
2. Pre-action
3. Full ballast

AM22 TROOPS/LOADS. Unit indicated is to send troops/loads ____ (List A) to ____ (List B) by ____ (List C).

List A

1. ABU
2. Landing forces
3. Infantry
4. MCM forces
5. Heavy loads

List B

- A. Unit indicated
- B. Beach

List C

1. LCAC
2. ACV
3. DUKW
4. LARC
5. LCM
6. LCPL
7. LCU
8. LCVF
9. AAV
10. Air
11. H/C external load

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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

AS1ATTACK. Make ____ attack (with ASW weapon from Table A).

1. Deliberate
2. Urgent
3. Vector aircraft

AS2ATTACK METHOD. Use attack method* indicated following DESIG.

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

3A . . . GEOGRAPHICAL SECTOR

3A MOD . . GEOGRAPHICAL SECTOR MODIFIED

11A . . . BEAR (from bearing ____), (range ____)

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).

AS3HOLD DOWN enemy submarine(s) following this force.

AS4

AS5

AS6RESULT 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

AS7TORPEDO DEPTH. Set torpedoes to ____ (feet) floor, ____ (feet) ceiling, ____ (feet) initial search depth.

AS8WEAPON DEPTH. Set ____ (ASW weapon from Table A) to a depth of ____ feet.

AS9WEAPONS 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

AS10WEAPON SAFETY RANGE. ASW weapon safety range is ____ .

AS11WEAPONS 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

AS12TORPEDO MISFIRE bearing ____ .

Note: When breech is safe, NEGAT superior is to be signaled (i.e., NEGAT AS12 bearing ____).

AS13

1301 Command

AS14DISPATCH 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)).

List A

1. If not in contact

List B

- 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/metres 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 metres, the first of the five digits of each group will be zero. To report depths greater than 990 feet/ 99 metres, 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 metres, 2,000 to 2,990 feet/200 to 299 metres, 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 metres 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 metres; 3.8 °C at 13 metres; and 7.8 °C at 325 metres. 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 ____ metres (2)
3. Minimum and maximum at best evasion/antidetection target depth of ____ metres (3)
4. Minimum and maximum at target optimum listening depth of ____ metres (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 metres; between 3,000 and 5,000 yards on a submarine at best depth evasion/antidetection depth of 80 metres; between 15,500 and 23,000 yards on a submarine at optimum listening depth of 200 metres; 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 metres)

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 metres. 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

1. Disappearing radar
2. ESM
3. MAD
4. Radar
5. Sonar
6. Sonobuoy
7. Towed array
8. Visual
- (e) Classification

List B

- A. Active
- B. Passive (broadband)
- C. Passive (narrowband)

1. CERTSUB
2. PROBSUB
3. POSSUB ____ (confidence level)

AS33DEPTH of submarine is ____ feet.

AS34AIRCRAFT 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

AS35INDICATIONS. 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

RADAR

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

SONAR (Cont.)

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

SEARCH RECEIVERS and DIRECTION FINDERS

31. Characteristics were those of submarine radar
32. Characteristics were those of submarine VHF voice
33. Characteristics were those of submarine VHF radiotelegraph

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.

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.

SONAR

21. Doppler effect is present

AS36MOVEMENT 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

AS37POSITION. Submarine's position was obtained by ____ (List A) (of ____ (List B)) (and is accurate within ____ miles).

List A

1. Bistatics
2. Cross-fixing, passive
3. Direction finding
4. ESM bearing
5. JEZEBEL
6. JEZEBEL analysis by other forces
7. JULIE
8. MAD
9. Missile attack
10. Radar
11. Sighting
12. Sonar active
13. Sonar passive
14. Sonobuoy active
15. Sonobuoy passive directional
16. Torpedo attack
17. Towed array
18. Unknown
19. Other (type following DESIG)

List B

- A. Helicopter
- B. Patrol aircraft
- C. Shore
- D. Surface ship
- E. Submarine
- F. Unknown
- G. Other (type 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 ANTISHIP TORPEDO DEFENSE (ASTD) grid is in force ____

1. Wakehoming

2. Wire guided
3. Autonomous acoustic homing
4. Unguided (straight running)
5. Uniform (multiple torpedo types/unknown)

AS47ASTD GRID is modified as follows:

- A. TC
- B. TD
- C. TU
- D. TZ

1305 Equipment

AS48CONDITION of ____ (List A) is ____ (List B) (until ____).

List A

1. Helicopter sonar
2. Hull sonar
3. Onboard ASW processor
4. Towed array
5. VDS

List B

- A. Fully operational
- B. Capable of omnidirectional transmissions only
- C. Capable of passive operation only
- D. Capable of reduced power operation
- E. Incapable of being operated

AS49DOMES/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

AS50FREQUENCY of sonar equipment is ____ kiloHertz.

AS51AMBIENT 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 1,000 Hertz, the first digit shall be zero and for frequencies less than 100 Hertz, the first two digits shall be zero. For noise levels less than 100 dB, the first digit shall be zero. The last group in the signal indicates the time of the ambient noise measurement.

Example: AS51—005101—010081—020070—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.

AS52LIGHTS. 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).

AS55SONAR 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.

AS56SONAR 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

AS57UNABLE 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

AS58UNABLE TO USE ASW WEAPON(S) (until ____).

AS59TOWED ARRAYS. ____ towed acoustic arrays or other devices.

1. Stream
2. Recover

AS60SONAR MODE OF OPERATION is ____ .

1. Convergence zone
2. Bottom bounce

AS61

1306 Exercises

a. SIGNALS

AS62CARRY OUT ASW PRACTICE NUMBER ____ (for ____ minutes).

AS63EXPLOSIVE CHARGES. Fire ____ explosive signal charges.

AS64ORDER SUBMARINE to ____ (List A) by any means (or by ____ (List B)).

List A

1. Close this unit or unit indicated to facilitate communications
2. Come to communications depth
3. Indicate her position
4. Remain at safe depth
5. Steer safety course
6. Surface

List B

- A. Explosive signal
- B. Radio
- C. Sonar signaling (SST)
- D. Underwater telephone (UWT)

AS65PROCEED 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

AS66VDS CABLE LENGTH. For submarine safety reasons, length of VDS cable is not to exceed ____ feet.

AS67SUBMARINE SAFETY COURSE is ____ .

AS68SUBMARINE 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

AS69SUBMERGE (or submerge to ____ depth).

1. Communication
2. Exercise
3. Periscope
4. Snort
5. ____ feet

AS70SURFACE (or come to ____ depth).

1. Communication
2. Exercise

3. Periscope

4. Snort

5. ____ feet

AS71TAKE SUBMARINE DIVING STATION in accordance with AXP-1/MXP-1.

AS72TAKE SUBMARINE SURFACING STATION in accordance with AXP-1/MXP-1.

AS73SUBMARINE DIVING COURSE. My diving course or submarine diving course is ____ .

AS74SURFACING SUBMARINE. Unit responsible for surfacing submarine is ____ .

AS75DIVE FOR SERIAL ____ . Report when ready to start the exercise.

AS76COMEX/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))

List A

1. Disappearing radar
2. ESM
3. MAD
4. Radar
5. Sonar
6. Sonobuoy
7. Towed array
8. Visual

List B

- A. Active
- B. Passive (broadband)
- C. Passive (narrowband)

(g) Classification of contact

AS87HELICOPTERS 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

AS88INTENTIONS. 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).

AS89MARKER. Drop marker (____).

1. At datum
2. In position indicated

AS90SONOBUOY PATTERN. A sonobuoy pattern (consisting of ____ type buoys) bears ____ from this unit or unit indicated at range ____ .

1. Active
2. Passive

AS91SONOBUOY POSITION. Sonobuoy number(s) ____ is (are) located bearing ____ from this or unit indicated range ____ thousand yards.

AS92SEARCH 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.

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 196a.

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 . . . ACORN (details from List A) or ACORN MODIFIED (details from List B)

List A

- (a) 1. ACORN RIGHT
- 2. ACORN LEFT
- (b) Datum bearing _____ at _____ hundred yards from ship making the signal
- (c) Datum time
- (d) Direction of axis
- (e) (Speed)
- (f) Range(s) and bearing(s) of helicopter(s) initial dip from datum

List B

- (a) MOD following DESIG
- (b) 1. ACORN MOD RIGHT
- 2. ACORN MOD LEFT
- (c) Axis
- (d) Datum bearing _____ at _____ hundred yards from ship making the signal

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

Example: AS103—1 PORT—2—DESIG 12 c/s 6RT—DESIG 23 c/s 2DE—DESIG 34 c/s 4AH

AS105. . . . SUPPORT METHOD. Carry out support method* _____.

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

11A . . . BEAR

(a) Bearing _____

(b) Range _____

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.ANTI-UNDERWATER SWIMMERS. Assume Operation Awkward State ____ .

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.

INTENTIONALLY BLANK

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. 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)).

List A

1. Snorkel or periscope
2. Submarine

List B

- A. Enemy
- B. Friendly
- C. Unidentified

1I. I AM EXPERIENCING ACOUSTIC INTERFERENCE. Request unit or units indicated to ____ .

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

1J. PASSIVE SONAR CONTACT (____ evaluation) (____ bearing from this or unit indicated).

1. Torpedo
2. Possible submarine
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. SHIP indicated is to carry out ____ elementary action.

List A (Fundamental Tasks)

1. Stop
2. Explore
3. Hamper
4. Mask

List B (Exploitation Task)

- A. Tracking
- B. Jamming

1N. COMMUNICATIONS. I have ____ (List A) (____ type (List B)) underwater communications with submarine.

List A

1. Good
2. Weak
3. Fading
4. Garbled
5. Intermittent
6. No

List B

- A. Voice
- B. CW
- C. RATT
- D. Covered RATTIACS
- E. IACS

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)
5. Helicopter at hover, dipping, range ____, bearing ____ (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 ____).

List A

1. Passive mode
2. Active mode
3. Fading

List B

- A. Unrestricted
- B. Intermittent
- C. Restricted

Note: List B to be used only with point 2. Active mode.

1R. CONTACT. I have a ____ (List A) sonar contact (on ____ (List B)).

List A

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)

List B

- A. Active
- B. Passive (broadband)
- C. Passive (narrowband)

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

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.

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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 NEGATA . . . 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 3102 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.

List A

1. Cancel (sortie number preceded by DESIG)
2. Delay launching (until ____)
3. Delay launching until further orders
4. Delay launching until weather improves

List B

- A. ASW patrol
- B. CAP
- C. Direct air support
- D. Exercise
- E. Helicopter
- F. Radar calibration
- G. Relief

- | | |
|----------------------|-------------------------------|
| 5. Keep a ready deck | H. Rescue |
| 6. Launch | I. Search |
| 7. Pick up | J. Spotting |
| 8. Provide | K. Strike |
| 9. Recall | L. Shadower |
| 10. Recover | M. Weapon-carrying helicopter |
| 11. Station | 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

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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 paragraphs 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

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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. Voice A3E
3. Voice A2E
4. Voice F3E
5. Voice J3E
6. RATT J2B/F1B

7. RATT A2B

8. 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 16
6. Link 22
7. Loudhailer
8. Nancy
9. Nancy point of train (POT) light
10. Radiotelephony
11. Radioteletype
12. Single sideband (SSB)
13. Sonar
14. Underwater telephone
15. VHF bridge-to-bridge (channel ____)
16. VML (voice modulated light)
17. HF e-mail
18. 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

CM10SHIFT to frequencies from column ____ (following DESIG) in present communication plan.

CM11EXPEDITE 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

CM12FREQUENCY in ____ Hertz is ____ .

1. Kilo
2. Mega
3. Giga

CM13GROUPS from ____ have been used for the following (number ____ of) groups.

1. International Code of Signals (INTERCO)

CM14NANCY 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).

List A

1. Below 3 MHz
2. 3 to 30 MHz
3. 100 to 156 MHz
4. 225 to 400 MHz
5. Frequency band from Table E

List B

- A. Above average
- B. Average
- C. Below average
- D. Very poor
- 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.

CM24LASER EMISSION HAZARD PRECAUTIONS. This unit or unit indicated has taken safety precautions to preclude, or warn of, laser emission dangers on own personnel.

CM25LASER EMISSION HAZARD EXISTS. Cease laser emission.

1603 Relay/Repeat

CM26RELAY SHIP. Act as ____ relay ship (on circuit indicated) (for unit(s) indicated).

1. Nancy
2. Radio
3. Sonar
4. Visual

CM27REPEAT 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

CM32CIRCUIT DESIG ____ has ____ (list A) and requires ____ (list B).

List A

1. Poor circuit discipline
2. Excessive repetition

List B

- A. Close supervision
- B. Attention to COMSEC procedures

CM33

CM34CRYPTO RESTART. Take this circuit (or circuits following DESIG) for crypto restart at this time ____).

CM35DAILY CHANGING CALL SIGNS. Activate daily changing call signs (for day ____) at this time (or at ____ time).

CM36AUTHENTICATION POLICY. Assume authentication policy ____ (List A) on ____ uncovered voice and CW circuits (List B).

List A

1. ALFA
2. BRAVO

List B

- A. All
- 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

1. Hoist
2. Sound

List B

- A. Visual
- 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
9. Others following DESIG

CM40

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. Deception group commander (DCGC)
6. Helicopter action group commander (HAGC)
7. Main body group commander (MBGC)
8. NCAGS commander (NCAGS-C)
9. Officer conducting the exercise (OCE)
10. Officer conducting the serial (OCS)
11. Officer in tactical command (OTC)
12. Principal warfare commander (PWC)
13. Scene of action commander (SAC)
14. Screen commander (SC)
15. Sea combat commander (SCC)
16. Search attack unit commander (SAUC)
17. Sector AAW commander (SAAWC)
18. Sector ASUW commander (SASUWC)
19. Sector ASW commander (SASWC)
20. Surface action group commander (SAGC)
21. Underway replenishment group commander (URGC)

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, 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, 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 ordered separately.)

1. SAG

2. SAU

CO8.OFFICER. ____ (from Table P) is to take charge.

CO9.

CO10ORGANIZATION. Assume ____ organization (number ____, or as indicated by call sign or type indicator following).

1. Task

2. Type

CO11ORGANIZATION. 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

CO12PLAN/ORDER. Execute (or ____) plan/order from Table C (phase ____).

1. Use

CO13SUPPORT 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)).

List A
1. National

List B
A. Cancelled
B. Newly authorized

CO18

CO19

CO20

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ENTRY/
DEPART
ED

ENTRY/
DEPART
ED

CHAPTER 18 Entry and Departure

- 1800 Anchor(ing)/Weighing
- 1801 Berth(ing)
- 1802 Channel/Swept Channel
- 1803 Getting Underway
- 1804 Miscellaneous

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

ED12SHIP'S HEAD (or ____) is ____ .

1. Line of direction between anchors

ED13SHORT STAY. Shorten in to short stay (or ____).

1. To ____ fathoms
2. To ____ shackles

ED14UNMOOR (at ____).

ED15

ED16VEER CHAIN (____).

1. To ____ fathoms
2. To ____ shackles

ED17

ED18WEIGH ANCHOR (or ____). PORT or STBD may be used to indicate which anchor.

1. Weigh second anchor
2. Secure anchors

ED19

ED20

1801 Berth(ing)

ED21

ED22BERTH ASSIGNMENT of this ship or unit indicated is ____

ED23BERTH ASSIGNMENT. Hoist your berth assignment.

ED24BERTH 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)).

List A

1. This unit
2. Unit indicated
3. Berth indicated

List B

- A. At my port side
- B. At my starboard side
- 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

ED37CHANNEL. Remain in swept channel (or ____).

1. Do not enter unswept water

ED38CHANNEL. Direction of channel is ____ .

ED39DEPARTURE 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

ED40ENTRY 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

ED42GUIDE this unit or unit indicated through swept channel.

ED43

ED44MOVEMENTS. 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

ED45OBSTRUCTION. Alter course as necessary to clear obstruction in channel (in position ____).

ED46

1803 Getting Underway

ED47

ED48DELAY 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

INTENTIONALLY BLANK

ENEMY
EN

CHAPTER 19 Enemy

- 1900 Electronic Warfare
- 1901 Operations and Movements
- 1902 Reporting/Intelligence
- 1903 Threat 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).

List A

1. Aircraft
2. Submarines
3. Surface craft

List B

- A. Ahead of this or unit indicated
- B. Astern of this or unit indicated
- 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).

List A

1. Bearing ____ (distance ____ miles)
2. Geographical, as indicated

List B

- A. Departure
- 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

EN20FORMATION. 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

EN21FORMATION. Number of ships in enemy formation is ____ .

EN22MISSILE SITE. Enemy missile site or platform is located on bearing ____ from this unit or unit indicated distance ____ miles.

EN23REPORT. Make enemy (or ____) report.

1. Amplifying

EN24 REPORTING. Use ____ for enemy reporting. (See paragraph 195c.)

1. TT
2. XX
3. YY
4. QQ
5. ZZ
6. Position indicated

EN25REPORTED. Enemy reconnaissance (or enemy ____) has reported this unit or unit indicated.

1. Aircraft
2. Submarine
3. Surface unit

EN26STATUS OF ENEMY. Enemy is ____ .

1. Destroyed
2. Disabled
3. Still engaged

EN27SUNK. Enemy ships of type indicated have been sunk. Number may be indicated following DESIG.

EN28

EN29SHADOWING. Enemy (or enemy ____) (bearing ____) is shadowing this unit or unit indicated.

1. Aircraft
2. Submarine
3. Surface unit

EN30MARKING. Enemy (or enemy ____) (bearing ____) is marking this unit or unit indicated.

1. Aircraft
2. Submarine
3. Surface unit

EN31

EN32

EN33

1903 Threat Warning

EN34THREAT WARNING ____ (type of threat from List A) warning ____ (severity from List B).

List A

- A. Air
- B. Mines
- C. CBRNE
- D. Surface
- E. Submarines
- F. Torpedo

List B

1. RED
2. YELLOW
3. WHITE

Example: EN34—A1Air warning RED.

EN34—AE1Air and submarine warning RED.

EN34—AE1—D2Air and submarine warning RED, surface warning YELLOW.

EN34—E1—A2—CD3Submarine warning RED, air warning YELLOW, CBRNE and surface warning WHITE.

EN35

EN36

EN37

CHAPTER 20 Electronic Warfare

- 2000 Emission Control
 2001 Enemy Countermeasures
 2002 Electronic Support Measures
 2003 Electronic Countermeasures

2000 Emission Control

EW 1BREAK SILENCE/TRANSMIT on ____.

1. This circuit or circuit indicated
2. Frequency of ____ MHz
3. ____ (from Table E)
4. Spot No. ____ .

EW 2SILENCE LIFTED (on ____ emissions).

1. Acoustic
2. Electronic

EW 3EMCON PLAN LINE. Unit indicated is to use line ____ in EMCON plan in force (or in EMCON plan ____).

EW 4

EW 5FREQUENCY SWITCH PLAN. Use frequency switch plan ____ (at ____).

EW 6

EW 7MAINTAIN SILENCE. Maintain complete and continuous silence on ____ (List A/B) to avoid intelligence collection (from ____ (List C)).

List A

1. Acoustic
2. Communication
3. Data link
4. Decoys
5. FC/NC radars
6. Jammers
7. Radars

List B

- A. A- to F-band radar
- B. HF
- C. Helicopter dipping sonar
- D. Medium/long-range radar
- E. Nonsecure
- F. Other radar
- G. Short-range radar
- H. VDS
- I. VHF/UHF

List C

20. AGI (____)
21. Aircraft
22. Combatant (____)
23. HF/DF network
24. Merchant
25. Satellite

EW 8

EW 9RADAR EMISSION INSTRUCTIONS ____.

Use of this group with EW 11, EW 12, 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: EW 9—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.

EW 10. . . . 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.

EW 11. . . . 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.)

Example: EW 11 DESIG B—84W . . . EMCON PLAN B in force when directed.

EW 12. . . . 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, 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/s9AW—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.

EW 13. . . . 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: EW 13 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.

EW 14.

EW 15.

EW 16.

2001 Enemy Countermeasures

EW 17.

EW 18. . . . COMMUNICATIONS DECEPTION. Enemy is ____ on circuit ____ .

1. Suspected of sending false (deceptive) traffic
2. Using our authentication system
3. Using our call signs

EW 19. . . . COUNTERMEASURES DETECTED. Enemy use of ____ countermeasures has been detected by this unit or unit indicated (on circuit/line ____ preceded by DESIG 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

EW 20. . . . 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

EW 21.

EW 22.

2002 Electronic Support Measures

EW 23* BEARING (or position) of Racket No. ____ by D/F is ____ .

**EMERG I is to be used for an interception constituting an immediate threat.*

EW 24.

EW 25.

EW 26. . . . INTERCEPT CLASSIFIED FRIENDLY. Racket No. ____ now classified friendly.

EW 27. . . . 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

EW 28. . . . 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: EW 28—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.

EW 29.

EW 30.

EW 31. SET ESM WATCH. Set ____ (from List A) watch for enemy emissions on ____ (from List B). (Enemy call sign is ____.)

List A

1. D/F
2. Intercept

List B

- A. Frequency band from Table E
- B. Frequency in kHz
- C. Frequency in MHz
- D. Spot No. ____

EW 32.

EW 33.

EW 34.

2003 Electronic Countermeasures

EW 35. AIRCRAFT DISPENSED CHAFF. Use aircraft dispensed chaff (type from Table E) to protect own unit or unit indicated.

EW 36. ELECTRONIC COUNTERMEASURES. Use ____ electronic countermeasures against radar/communications (____ from Table E).

1. Deception (spoof)
2. Disruption (jam)

EW 37. DECOYS. Use decoys to simulate ____ (at ____).

1. Aircraft, few
2. Aircraft, many
3. Ship, large
4. Ship, small
5. Submarine snort
6. Task group

EW 38. INFRARED DECOYS. Use infrared decoys to protect own unit.

EW 39. DECEPTION REPEATER. Use deception repeater (type from Table E) to protect own unit or unit indicated (against Racket No. ____).

EW 40.

EW 41. 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

EW 42. SHELL CHAFF. Fire shell chaff (type from Table E) to protect own unit or unit indicated (on bearing ____) (at range ____).

EW 43.

EW 44.

EW 45. 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.

EW 46. 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.

EW 47.

CHAPTER 21 Exercises

2100 General Signals

2100 General Signals

EX 1. 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

EX 2. EXERCISE AT ____ (from Table X) (ship indicated or officer from Table P to conduct the exercise).

EX 3. 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 ____)

EX 4. EXERCISE INDEPENDENTLY, (remain within ____ range of this unit or unit indicated).

1. Radar
2. UHF
3. VHF

4. Visual signaling

5. ____ miles

EX 5.EXPLOSIVE SIGNAL. Fire ____ explosive signal charges.

EX 6.OPERATE IN AREA ____ (type of training or exercise from Table X to be conducted).

EX 7.

EX 8.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 ____)

EX 9.TACTICAL MANEUVERS by flaghoist are to commence now (or at ____).

EX 10TARGET. 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

EX 11TRIALS. 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)

EX 12

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GUN/
MISSILE
GM

GUN/
MISSILE
GM

CHAPTER 22 Gunnery and Missiles

- 2200 Ballistic Signals
- 2201 General Signals
- 2202 Naval Gunfire Support

2200 Ballistic Signals

GM 1

GM 2

GM 3 BALLISTIC WIND. Find the ballistic wind at height of ____ thousand feet.

GM 4 BALLISTIC WIND (or ____) is from ____ at ____ knots (at height of ____ thousand feet).

1. Surface wind

GM 5

GM 6

2201 General Signals

GM 7 RANGE FOULED (by ____ from Supplementary Tables).

GM 8 CLEAR THE RANGE (or ____) from this unit or unit indicated (onbearing ____).

1. Line of fire

GM 9 FIRING LIMIT BEARING(S) is ____ (or are from ____ to ____).

GM 10. RANGE CLEAR.

GM 11. MALFUNCTIONS. I have a ____ .

1. Hangfire
2. Loaded gun
3. Misfire
4. Missile hangfire on launcher
5. Missile misfire

GM 12. BORES CLEAR. (____ expended rounds).

GM 13. 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—I—A—AM—M—N. The four shots of salvo 1 landed: over 50 yards, hit, short 50 yards, and short 100 yards.

RAKE CODE	
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

GM 14.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

GM 15.

GM 16.

GM 17.AMMUNITION. ____ (List A) ____ (List B) fuzes.

List A

1. Change to
2. Reload with
3. Select

List B

- A. Impact/time
- B. Proximity

2202 Naval Gunfire Support

GM 18.

GM 19.

GM 20. . . . FIRE into grid area ____ .

GM 21. . . . GRID REFERENCE for gunfire support is ____ .

GM 22. . . . GUNFIRE SUPPORT. Commence the scheduled gunfire support for landing beach ____ from Table Z).

GM 23. . . . SPOTTER. Call spotter on frequency allocated (or frequency ____) and carry out naval gunfire support task allocated.

GM 24. . . . 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-
MENT
HA

HARASS-
MENT
HA

CHAPTER 23 Harassment

- 2300 Shadowing and Marking
2301 Harassing and Hampering

2300 Shadowing and Marking

HA 1. SHADOW OR MARK (List A) OPPONENT (bearing) (as indicated List B).

List A

1. Shadow
2. Mark
3. Countermark
4. Countershadow
5. Tattletale

List B

- A. At close range
- B. At distant range
- C. At optimum range
- D. Covertly
- E. Overtly

HA 2.

2301 Harassing and Hampering

HA 3. 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).

HA 4. HARASS OPPONENT (bearing) (distance ____) by use of weapons _____ (List A) and sensors ____ (List B) as indicated.

List A

1. Crew at battle stations
2. SSM
3. SAM
4. Main battery
5. Secondary battery
6. Other ____ (from Table A)

List B

- A. Turret/launcher aimed
- B. Turret/launcher not aimed
- C. Associated control radar aimed but not activated
- D. Associated control radar aimed and activated in tracking mode
- E. Associated control radar aimed and activated in acquisition mode

HA 5. 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.

HA 6. HARASS SUBSURFACE CONTACT by ____ (List A) (using ____ (List B)).

List A

1. Make sudden and significant course alterations in direction of contact.
2. Make every effort short of attack to induce the submarine to surface.
3. Throw explosive charges close to contact (but not closer than ____ yards).
4. Change sonar transmission interval and carry out sonar in-contact procedure.
5. Activate equipment ____ (from List B or Table U).

List B

- A. Noisemaker
- B. Torpedo decoy
- C. UWT

HA 7. 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 of Signals 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

HA 8.

HA 9.

INTER-
DICTION
IN

INTER-
DICTION
IN

CHAPTER 24 Interdiction and Embargo Operations

2400 General Signals

2400 General Signals

IN 1 Contact (name/track number) is a (____) (from List A) (____) (from List B).

List A

1. Critical contact of interest
2. Contact of interest
3. Potential violator vessel
4. Assumed cleared vessel
5. Cleared vessel
6. Military vessel
7. Civil vessel
8. Friendly vessel

List B

- A. Tanker
- B. Cargo
- C. Tug
- D. Fishing vessel
- E. Ferry
- F. Pleasure craft
- G. Other ____

IN 2 You are directed to (track number/vessel name) for ____ .

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

IN 3 My query/challenge is (____) (from List A) via (____) (from List B).

List A

1. In progress
2. Completed

List B

- A. VHF
- B. Flashing light

IN 4 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

IN 5 Vessel (name/track number) is (____) (from List A) (____) (from List B).

List A

1. Cooperating (with)
2. Not cooperating (with)
3. Opposing
4. Obstructing

List B

- A. My boarding
- B. My boarding party

IN 6 Boarding is ____ .

1. (____) percent completed
2. Not possible
3. Other ____ .

IN 7 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 ____

IN 8 Assume tracking/boarding responsibility for contact (name/track number).

IN 9 Vessel (name/track number) is ____ .

1. Cleared to proceed
2. Diverted
3. Under my control

4. Arrested

5. Other _____

IN 10 In my area I hold (number) unknown vessels.

IN 11

IN 12 My method of boarding will be _____ .

1. Boat

2. Helicopter

3. Other

IN 13 Preferred method of boarding is _____ .

1. Boat

2. Helicopter

3. Other

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ME

METEOR-
OLOGY
ME

CHAPTER 25 Meteorology

2500 General Signals

2500 General Signals

ME 1 CEILING is ____ hundred feet.

ME 2 CLOUD COVER is ____ eighths (at ____ hundred feet).

ME 3 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

ME 4 SEA STATE is ____ .

1. Calm
2. Choppy
3. Moderate swell
4. Heavy swell
5. Rough
6. Very rough

ME 5

ME 6 STORM WARNING. Storm or line squall of ____ severity may be expected within ____ hours.

1. Intense
2. Moderate
3. Violent

ME 7 VISIBILITY is ____ miles.

ME 8 VISIBILITY is ____ (on bearing ____) from OTC or unit indicated.

1. Deteriorating
2. Improving
3. Not changing

ME 9 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

ME 10 WIND SPEED AND DIRECTION. Wind speed is ____ knots from direction ____.

ME 11 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 Celsius 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: ME 11—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

ME 12

ME 13

ME 14

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
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2609	Tasking and Reporting

2600 Safety Measures

MW 1

MW 2DECK. All men are to remain on deck

MW 3DEGAUSSING. Switch (____) degaussing equipment.

1. On

2. Off

MW 4

MW 5WATCH. Set mine watch.

2601 Mines/Minefields

MW 6AIRCRAFT MINES. Object ____ was dropped by aircraft in position indicated.

1. Identified as a parachute mine

2. Believed to be a mine

MW 7CUT. I have cut a mine (type ____ Table M) adrift (in position indicated).

MW 8MINE DANGER 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 9ENEMY MINEFIELD POSITION. Enemy minefield is bounded by lines joining positions indicated.

MW 10

MW 11MINE is ____ (in position indicated).

1. Drifting (direction ____ speed ____)

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 obstructors 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 unladen 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.

1. Has been searched
2. Is swept or hunted
3. Has been cleared to ordered percentage of clearance
4. Is not clear of mines

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.

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 ____ . <ol style="list-style-type: none">1. Aweigh2. Foul3. 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">1. Total2. Exempt convoy ops/admin VHF
XEC____TACK____(____)	Set watch on ____ . <ol style="list-style-type: none">1. VHF channel ____ (at ____)2. Frequency ____ (at ____)
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">1. On the surface2. At periscope depth3. Dived at ____ metres depth

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).

1. Point ALFA at ____ (time)
2. Point XRAY at ____ (time)
3. Point OSCAR at ____ (time)
4. Point YANKEE at ____ (time)

XJD ____ (TACK ____) (TACK ____)

Discontinue lead through at ____ (position) ____ (latitude/longitude) at ____ (time).

1. Point ALFA at ____ (time)
2. Point XRAY at ____ (time)
3. Point OSCAR at ____ (time)
4. Point YANKEE at ____ (time)

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 ____)	<p>I will be at ____ (position) ____ (latitude/longitude) at ____ (time).</p> <ol style="list-style-type: none"> 1. Point ALFA at ____ (time) 2. Point XRAY at ____ (time) 3. Point OSCAR at ____ (time) 4. Point YANKEE at ____ (time)

XJY ____ (TACK ____) (TACK ____)	You (or ship indicated) are to be at ____ (position) ____ (latitude/longitude) at ____ (time). 1. Point ALFA at ____ (time) 2. Point XRAY at ____ (time) 3. Point OSCAR at ____ (time) 4. Point YANKEE at ____ (time)
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 ____). 1. 3 cm (I) 2. 10 cm (E/F)

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. 1. Right of 2. Left of 3. On
XSD	You have a tendency toward ___ of the centerline. 1. Right 2. Left
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).

b. When either the tactical situation of 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:

UNIT	CALL SIGN	REMARKS
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.

c. 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 (metres)

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 (acoustics)
2. Partially effective (magnetic)
3. 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)).

List A

1. Blue light
2. Bright
3. Constant tension gear indicated
4. Dim
5. Double
6. Flag (to be indicated)
7. Flashing light
8. Green light

List B

- | | |
|---------------------|------------------------|
| 9. Lamp | A. Danbuoy indicated |
| 10. Medium | B. Geographic position |
| 11. Radar reflector | C. Reference point |
| 12. Red light | D. Route buoy |
| 13. Single | |
| 14. Transponder | |
| 15. White 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)).

List A

1. Audio frequency hammer
2. Cavitating
3. Combination acoustic
4. Explosive
5. Low frequency (displacer with long eccentric)
6. Low frequency (displacer with short eccentric)
7. Oscillator
8. Pipe noisemaker

List B

- A. Continuous
- B. Modulated
- C. Pulsed
- D. Warbled

List C

31. List C Build up ____ seconds
32. Build up to ____ percent of maximum output
33. Cycle time ____ seconds
34. Decay and low ____ seconds
35. High frequency ____, low frequency ____
36. High ____ seconds
37. Interval between individual charges ____ seconds, interval between initial charges of each complete

9. Very low frequency
10. ____ from Table Y

- set ____ seconds
38. Modulated cycle build
up ____ high ____
low ____ (seconds)
39. ON ____ seconds,
OFF ____ seconds

Example: MW 65—I—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).

List A

1. Anti-obstructor
2. Explosive
3. Mark ____ following DESIG
4. Static

List B

- A. As previously directed
- B. Heavy arming
- C. Light arming
- 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 ____ metres for speed ____ through the water.
2. Adjust gear to give swept depth of ____ metres for normal sweeping speed.
3. Raise depressor/kite.

MW 72 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.

List A

1. Asymmetrical closed loop
2. Asymmetrical diverted electrode
3. Solenoid (towed or self-propelled)
4. Straight electrode
5. Symmetrical close Loop
6. Symmetrical diverted electrode
7. ____ from Table Y

List B

- A. All forward
- B. All reverse
- C. Forward-Forward-Reverse-Reverse
- D. Forward-Reverse
- E. Standard pulsing sequence
- F. Synchronized, opposite polarity on first pulse
- G. Synchronized, same polarity on first pulse

List C

31. Continuous
32. Sawtooth
33. Sine
34. Square
35. Trapezoidal wave form

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. ____ metres of float wire.
2. ____ metres of kite wire.
3. ____ metres of sweep wire.
4. Float pendants and depressor tow wire lengths to sweep to a depth of ____ metres 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 ____ metres 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/Mine Disposal

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 MINELIKE CONTACT (in position indicated) is to be ____.

1. Allocated MRN/CRN 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/CRN ____).
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. No mines found from ____ to ____ (or position indicated)
3. Channel is mined from ____ to ____ (or position indicated)
4. Channel is mined (position of MRN/CRN is ____).

MW 112

MW 113

MW 114 MINEHUNTING TRACKS. Conduct minehunting on track(s) 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 (If drifting indicate direction ____ and speed ____)

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 coordinates ____ (or codename following DESIG).

1. Attrition
2. Clearance

3. Limited clearance

4. Exploratory

MW 122. . . .

MW 123. . . .

MW 124. . . . MCM OPERATIONS DIRECTIONS. MCM OPDIR 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 or risk in percent (t).

2. Clearance hunting/mechanical sweeping: percentage clearance

3. Time constrained operations (plain text)

J. MCM data parameter

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. Harbor name _____
6. 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 ____ .

G. Communication instructions for MCM forces ____ (List A) and for unit(s) to be guided ____ (List B).

List A

1. As indicated in COMPLAN
2. Line ____
3. UHF ____
4. VHF ____
5. HF ____
6. DESIG ____

List B

1. As indicated in COMPLAN
2. Line ____
3. UHF ____
4. VHF ____
5. HF ____
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

U. Mechanical

1. Single oropesa

2. Double oropesa
3. ____ metres depth setting
4. Not be armed
5. To be armed ____ (List A) with ____ cutters (List B)

List A

1. Light
2. Medium
3. Heavy

List B

- A. Explosive
- B. Static
- C. Type

6. Length of sweep wire ____ metres

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

(e) Amperage \overline{F} or \overline{R} \overline{F} or \overline{R} \overline{F} or \overline{R} \overline{F} or \overline{R}

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 ____ .

List A

1. Will start at (DTG)
2. Has started (DTG)
3. Has stopped (DTG)
4. Has been suspended (DTG)
5. Has resumed (DTG)
6. Will resume at (DTG)
7. Will be completed at (DTG)

List B

- A. Sea state
- B. Visibility
- C. Breakdown of ____
- D. In accordance with task order number (____) or DTG
- E. Other mission (reference)
- F. Off task period
- 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 ____ (metres)

J. Mine case at depth ____ (metres)

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 ATP-24)/DTG/status/position
 - a. DESIG ____
3. Contact marker
 - a. Position of the marker(s) ____
 - b. Direction(s) and distance(s) in metres 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 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 (metres) (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
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.*

NAVIG-
ATION
NA

CHAPTER 27 Navigation

- 2700 Charts/Compasses
- 2701 Conditions
- 2702 Lights
- 2703 Miscellaneous
- 2704 Position/PIM
- 2705 Time
- 2706 Fishing Vessel

2700 Charts/Compasses

NA 1.

NA 2.

NA 3. 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.

NA 4.

NA 5.

2701 Conditions

NA 6. CURRENT. Direction and speed of current are as indicated.

NA 7.

NA 8. DEPTH of water is ____ metres.

NA 9.

NA 10 FOG. Take fog precautions indicated ____ .

1. Sound fog signals
2. Stream fog buoy (at ____ hundred yards astern)

NA 11

NA 12

2702 Lights

NA 13 LIGHTS. Your (____) light(s) (List A) is (are) ____ (List B).

List A

1. Anchor aft
2. Anchor forward
3. Man overboard
4. Masthead
5. MCM (Green)
6. Minesweeping station keeping
7. Navigation/running

List B

- A. Correct
- B. Not showing/cannot be seen
- C. To be dimmed
- D. To be taken at full brilliance
- E. To be turned on
- F. To be turned out
- 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) | |
| 13. Towing | |
| 14. Other (following DESIG) | |

NA 14TURN ON NAVIGATION LIGHTS (or ____ lights (List A)) (____ (List B)).

List A

1. Anchor
2. MCM (Green)
3. Minesweeping station keeping
4. Overtaking/stern
5. Red mast/obstruction
6. Side
7. Other (following DESIG)

List B

- A. At full brilliance
- B. Using dimming feature
- C. Shaded/blue

NA 15

2703 Miscellaneous

NA 16HEIGHT. My (or unit indicated) ____ is ____ metres 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

NA 17PILOT FLAG. Hoist Pilot Flag (____) as required.

1. Starboard Yardarm
2. Port Yardarm

2704 Position/PIM

NA 18 DATALINK REFERENCE POINT is located at ____ latitude and ____ longitude.

NA 19 GRID ORIGIN. The grid origin is centered on ____ .

1. Position(____) latitude and (____) longitude
2. Unit indicated
3. Datum ____ (inferior to DESIG)

NA 20 GRID POSITION. My (or unit indicated) ____ grid position is ____ (and my reference position is ____) (at time ____).

1. CCG (XY grid)
2. GEOREF
3. UTM

NA 21 INITIAL POSITION for scheduled exercise or exercise event indicated from Table X is ____ .

NA 22 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

NA 23 CONTROL POINT. Position of control point is at ____ position indicated.

1. Grid
2. Geographic

NA 24 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: NA 24—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.

NA 25 PIM. Extend duration of course and speed now steaming until ____ .

NA 26

NA 27 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

NA 28 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

NA 29 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

NA 30

NA 31 REFERENCE POINT. This unit or unit indicated will pass through reference position identified by letter and/or numeral following DESIG at ____ (course ____ and speed ____).

NA 32 NAVTRACK. Responsibility for maintaining NAVTRACK lies with this unit or unit indicated.

NA 33 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

NA 34 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)

NA 35 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

NA 36 ZERO TIME. Zero time will be indicated by the execution of this signal or by numerals following.

NA 37 ZONE TIME. Use zone time indicated by letter following DESIG (at ____).

NA 38

NA 39

NA 40

2706 Fishing Vessel

NA 41 FISHERY GEAR/SIGNS sighted at my ____ side(s). Maneuver independently/keep clear to avoid damage.

1. Both.

2. Stbd.

3. Port.

NBC
NB

CHAPTER 28 N.B.C.

2800 Nuclear
2801 Chemical
2802 Biological

2800 Nuclear

NB 1. 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.

NB 2. 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.

NB 3. 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

NB 4.

NB 5. 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

NB 6. DOSE RATE at weather deck level in this area or area indicated is ____
roentgens per hour.

NB 7.

NB 8. FALLOUT. Forecast EDW (effective downwind) is from direction ____ at speed ____ . Duration of forecast may be indicated by time signal.

NB 9.

NB 10.

NB 11.

NB 12. PROBABLE YIELD in ____ tons is ____ .

1. Kilo
2. Mega

NB 13.

NB 14. GROUND ZERO bears ____ from guide or unit indicated distance ____ .

NB 15.

NB 16.

NB 17.

2801 Chemical

NB 18. CHEMICAL WARFARE ATTACK is ____ (List A) (expected method of delivery is ____ (List B)).

List A

1. Possible
2. Probable
3. Imminent

List B

- A. Warhead hit
- B. Vapor cloud released upwind
- C. Spray released by aircraft, bomb, shells or missiles

NB 19. 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

NB 20. CHEMICAL ATTACK CEASED.

NB 21.

NB 22.

NB 23.

2802 Biological

NB 24 BIOLOGICAL ATTACK. Attack by biological agent is probable.

NB 25

NB 26

NB 27

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RADAR
RA

RADAR
RA

CHAPTER 29 Radar

2900 General Signals

2900 General Signals

RA 1.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

RA 2.CALIBRATION. Carry out radar calibration (run number ____).

RA 3.

RA 4.CONTACT. Have radar contact (believed to be ____ (List A) ____ (List B)).

List A

1. Aircraft
2. Land
3. Radar beacon
4. Snort or periscope
5. Submarine
6. Surface craft

List B

- A. Enemy
- B. Friendly
- C. Unidentified

RA 5.

RA 6.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 ____)

RA 7.

RA 8.

RA 9.

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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)).

List A	List B	List C
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.)

List A

- A. Bombs
- B. Collision
- C. Fire
- D. Go fast attack
- E. Grounding
- F. Guns
- G. Heavy leakage
- H. Mines

List B

1. No restriction
2. Reduced AAW capability
3. Reduced ASUW capability
4. Reduced ASW capability
5. Reduced AMPHIB capability
6. Reduced MW capability
7. Reduced mobility
8. Sinking

- I. Missiles
- J. Storm
- K. Suicide attack
- L. Torpedo (PORT or STBD
may be indicated)
- M. Underwater explosion
- 9. Withdrawing

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
- H. Asymmetric warfare
- I. MIO

*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

RE29AMMUNITION. ____ . 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 on board is ____

RE30EFFICIENCY REDUCED. Equipment indicated is operating at reduced efficiency.

RE31INOPERATIVE. Equipment indicated is inoperative (for ____). (A time signal indicates estimated time at which repairs will be completed.)

1. Routine maintenance
2. Urgent corrective maintenance

RE32OPERATE ____ equipment indicated.

1. Continuously
2. Intermittently

RE33REPAIRS 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

RE34REPAIRS COMPLETED. Repairs have been completed on equipment indicated.

RE35MCM EQUIPMENT REMAINING. Number of usable items of MCM equipment (type from Table Y) is ____ .

RE36UNRELIABLE. Equipment indicated is unreliable.

RE37EQUIPMENT 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

RE43Tow. ____ .

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

RE46LIGHT SUPERHEATERS.

RE47SHAFT 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

RE48DELAY getting underway (____).

1. Remain at ____ hours notice
2. Remain at ____ minutes notice
3. Until ____
4. Until further notice

RE49NOTICE. 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 towing

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)).

List A

1. Outboard
2. Inboard
3. Foul
4. Parted

List B

- A. Avast
- B. Heave around
- C. Slack off
- D. Let go

6P. HEAVY MESSENGER (is ____ (List A)). (____ (List B)).

List A

1. Outboard
2. Inboard
3. Foul
4. Parted

List B

- A. Avast
- B. Heave around
- C. Slack off

6Q. TOWING HAWSER (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. Heave around
- C. Slack off
- D. Pay out (or I am paying out)
- E. Shorten in (or I am shortening in)
- F. Cast off/trip slip (or I have cast off/tripped slip)

6R. CHAIN (is ____ (List A)). (____ (List B)).

List A

1. Outboard
2. Inboard
3. Foul
4. Parted
5. Secure
6. Connected

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)

7. Disconnected
8. Riding well
9. In need of freshening

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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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.)

List A	List B	List C
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
4. Movies	D. Boat	call sign
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).

List A	List B	List C
1. AVCAT	A. Tons	21. Probe coupling
2. Aviation gasoline	B. Liters	22. NATO B-end
3. Burnable oil	C. Cubic metres	23. Admiralty screwed
4. Diesel oil	D. US gallons	connection (ASC)

- | | | |
|--|---------------------|----------------------------------|
| 5. Distillate fuel/DFM | E. Imperial gallons | 24. Quick-release coupling (QRC) |
| 6. Gasoline | F. US barrels | |
| 7. JP-5 | | |
| 8. Lubricating oil | | |
| 9. Feed water | | |
| 10. Potable water | | |
| 11. DESIG type of liquid (NATO symbol if one exists) | | |

RS5 POL/WATER RECEIVED/SUPPLIED. I received/supplied ____ (List A), quantity ____ units ____ (List B).

List A

1. AVCAT
2. Aviation gasoline
3. Burnable oil
4. Diesel oil
5. Distillate fuel/DFM
6. Gasoline
7. JP-5
8. Lubricating oil
9. Feed water
10. Potable water
11. DESIG type of liquid (NATO symbol if one exists)

List B

- A. Tons
- B. Liters
- C. Cubic metres
- D. US gallons
- E. Imperial gallons
- F. US barrels

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).

List A

1. Ammunition
2. Aviation gasoline
3. Burnable oil
4. Diesel oil
5. Distillate fuel/DFM
6. Feed water
7. Fleet freight

List B

- A. Abeam
- B. Astern fueling
- C. Boat
- D. Breakable-spool coupling
- E. Burton
- F. Close-in
- G. Double Burton

List C

31. FWD
32. AMID
33. AFT
34. Station No. ____

- | | |
|--|------------------------------|
| 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
(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

2. Alongside

3. Astern

4. Lifeguard (1,000 yards astern unless otherwise indicated)

5. Quarter

6. Standby (300 to 500 yards astern)

7. Standby (400 yards abeam)

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: Where best seen.	AT DIP	CLOSE UP	HAULED DOWN
			I am preparing to receive//commence VERTREP.	Helicopter may close now/commencing VERTREP. HELICOPTER ACTION: 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	PASSENGERS 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 floodlights 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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ASUW
SU

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).

List A

1. North
2. East
3. South
4. West

List B

- A. Skunk indicated
- B. Racket indicated
- C. Visual sighting

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).

List A

1. North
2. East
3. South
4. West

List B

- A. Skunk indicated
- B. Racket indicated
- C. Visual sighting

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

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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).

List A

1. TT
2. XX
3. YY
4. ZZ
5. SIM
6. DLRP
7. ____

List B

- A. ____ (latitude) ____ (longitude)
- B. ____ (bearing) ____ (distance)
- C. Reference point ____ previously issued
- D. Cartesian coordinate (xy) grid ____

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)).

List A

1. Certain
2. Probable
3. Possible

List B

- A. Hostile
- B. Friendly
- C. Neutral

List C

31. Carrier
32. Large combatant
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).

List A

1. ESM
2. Sonar
3. RDF

List B

- A. Measured system error
- B. Estimated system error
- 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).

List A

1. Helicopter
2. Maritime patrol aircraft
3. Tactical aircraft
4. Submarine
5. Surface ship

List B

- A. Type of ship
- B. Class of ship
- C. Nationality
- D. Hull number
- E. Battle damage assessment

List C

31. Low
32. Medium
33. High

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)).

List A

1. Infrared
2. Radar

List B

- 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

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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).

List A

1. Designated missile firing unit(s) and target reporting unit(s)
2. Designated missile firing unit(s) using own sensors only
3. Designated missile firing unit(s) and forward observer(s) to control flight of missile

List B

- A. GREYHOUND
- B. DESIG ____ (OPGEN serial)
- C. ____

Example: 3A—2134—1—DESIG c/s IPD—DESIG c/s 3NF—A . . Prepare to engage with OTH ASSM track 2134 with call sign IPD 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)).

List A

1. Immediately
2. Launch time ____
3. When ready
4. To achieve time on target of ____
5. As previously directed
6. As directed by attack coordinator

List B

- A. ____ GREYHOUND
- B. DESIG ____ (OPGEN serial)
- C. ____

List C

31. OTC
32. SWC
33. SAGC
34. Designated firing unit
35. Designated target reporting unit
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).

List A

- A. GREYHOUND
- B. DESIG ____ (OPGEN serial)
- C. ____

List B

- A. Designated target reporting unit(s)
- B. Own sensors only
- C. Designated forward observer(s)

List C

10. Immediately
11. Launch time ____
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).

List A

1. ____ (latitude) ____ (longitude)
2. ____ (x coordinate) ____ (y coordinate)
3. Bearing ____ (degrees true) and range ____ (thousand yards) from ____ (from List B)

List B

- A. Reference position
- B. Firing unit
- C. Indicated unit

3I. TARGET REPORTING STATION. I am reporting data on target or target indicated from position ____ (from List A).

List A

1. ____ (latitude) ____ (longitude)
2. ____ (x coordinate) ____ (y coordinate)
3. Bearing ____ (degrees true) and range ____ (thousand yards) from ____ (from List B)

List B

- A. Reference position
- B. Firing unit
- 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. FREQUENT TARGET REPORTING. I am passing frequent target reports on target or target indicated by method ____ (from List A) ____ (and, if using method BRAVO, from Lists B and C as required). (See ATP-31.)

List A

- A. ALFA
- B1. BRAVO ONE
- B2. BRAVO TWO
- C. CHARLIE
- D1. DELTA ONE
- D2. DELTA TWO

List B

1. Bearing and range from reference position designated as follows: ____ (from List C)
2. Grid/geographic coordinates

List C

- A. Indicated unit
- B. Computer reference point commonly held by both the target reporting and firing units
- C. Pre-ordered reference point
- D. Grid or geographic reference point
- E. Helicopter reference point (HRP)

Example: 3L—2134—B21B . . . I am passing frequent target reports by voice on track 2134 using bearing and range from a computer reference point commonly held by both the target reporting and firing units.

3M. FREQUENT TARGET REPORTING. Unit designated is to pass frequent target reports using 'Mark' procedures by method ____ (from List A) ____ (and, when using method BRAVO, from Lists B and C as required) on target or target indicated of target's position, course, and speed. (See ATP-31.)

List A

- A. ALFA
- B1. BRAVO ONE
- B2. BRAVO TWO
- C. CHARLIE
- D1. DELTA ONE
- D2. DELTA TWO

List B

- 1. Bearing and range from reference position designated as follows: ____ (from List C)
- 2. Grid/geographic coordinates

List C

- A. Indicated unit
- B. Computer reference point commonly held by both the target reporting and firing units
- C. Pre-ordered reference point
- D. Grid or geographic reference point
- E. Helicopter reference point (HRP)

Example: 3M—2134—B21B. . . Pass frequent target reports by voice on track 2134 using bearing and range from a computer reference point commonly held by both the target reporting and firing units.

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

1. Active
2. Passive
3. Active/passive
4. Passive/active
5. ____

List B

- A. Small
- B. Medium
- C. Large
- D. BOL unmodified
- E. BOL with minimum attack range of ____ thousand yards
- F. BOL with maximum attack range of ____ thousand yards
- G. Mode ____

3S. SEEKER SETTINGS. I am using ____ (from List A) terminal guidance and ____ (from List B) search pattern.

List A

1. Active
2. Passive
3. Active/passive
4. Passive/active
5. ____

List B

- A. Small
- B. Medium
- C. Large
- D. BOL unmodified
- E. BOL with minimum attack range of ____ thousand yards
- F. BOL with maximum attack range of ____ thousand yards
- G. Mode ____

3T. 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—045—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 X60 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).

List A

1. Clear
2. Foul by ____ (number of ships or radar contacts)
3. Unable to assess

List B

- A. Clear
- B. Foul by ____ (number of ships or radar contacts)
- C. Unable to assess

3V. 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.

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 | 7. Rockets |
| 2. Long-range SAMs | 8. Close-range guns |
| 3. Medium-range SAMs | 9. Machine guns |
| 4. Short-range SAMs | 10. Torpedoes |
| 5. Main gun battery | 11. All weapons |
| 6. Secondary gun battery | |

4C. CEASE FIRE (with ____) on target indicated (or target bearing or unit indicated) (range ____ thousand yards).

- | | |
|--------------------------|---------------------|
| 1. Short-range SSMs | 7. Rockets |
| 2. Long-range SAMs | 8. Close-range guns |
| 3. Medium-range SAMs | 9. Machine guns |
| 4. Short-range SAMs | 10. Torpedoes |
| 5. Main gun battery | 11. All weapons |
| 6. Secondary gun battery | |

4D. ENGAGING. I am engaging target or target indicated with ____.

- | | |
|--------------------------|---------------------|
| 1. Short-range SSMs | 7. Rockets |
| 2. Long-range SAMs | 8. Close-range guns |
| 3. Medium-range SAMs | 9. Machine guns |
| 4. Short-range SAMs | 10. Torpedoes |
| 5. Main gun battery | 11. All weapons |
| 6. Secondary gun battery | |

4E. CEASED FIRING. I have ceased firing on target or target indicated with ____.

- | | |
|--------------------------|---------------------|
| 1. Short-range SSMs | 7. Rockets |
| 2. Long-range SAMs | 8. Close-range guns |
| 3. Medium-range SAMs | 9. Machine guns |
| 4. Short-range SAMs | 10. Torpedoes |
| 5. Main gun battery | 11. All weapons |
| 6. Secondary gun battery | |

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.

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 (subdivision) 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 degrees 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
3303	Lights
3304	Miscellaneous
3305	Mission/Task/Duty
3306	Movements
3307	Operations/Intentions
3308	Identification/Recognition
3309	Scouting/Patrol
3310	Smoke/Making Smoke
3311	Weather/Meteorology
3312	Hydrography

3300 Attack

TA1

TA2ATTACK (_____ 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

TA3ATTACKED. 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

TA15INTERVAL. 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

TA17YOU BEAR ____ from this unit or unit indicated or position indicated (distance ____ miles).

TA18YOUR RANGE or that of unit indicated is ____ hundred yards from this or unit indicated.

TA19

TA20

TA21

3302 Intelligence/Data

TA22ATTACK 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
6. Asymmetric

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) |

- | | |
|---------------|-----------------|
| 12. Lightship | following TACK) |
| 13. Oil patch | 26. Wreckage |
| 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)).

List A

1. Blue riding
2. Blue stern
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

List B

- A. During night air operations
- B. To indicate position

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

TA38TURN ON LIGHTS. Turn on ____ lights.

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

TA39RIG DECEPTIVE LIGHTING.

TA40

TA41

3304 Miscellaneous

TA42ATTENTION is called to bearing ____ .

TA43BLOW TUBES (____).

1. Maneuver as necessary to blow tubes

TA44EXPEDITE (____).

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

TA45EXTAC. Employ EXTAC numbers ____ as found in AXP-5.

TA46MAN OVERBOARD has been ____ .

1. Given up for lost
2. Picked up
3. Sighted bearing ____ (range ____)

TA47OBJECT 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

2. Flare

3. Floating object

13. Reefs

14. Rocks

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

TA78REMAIN IN POSITION. Remain in your present position (or ____).

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

TA79RENDEZVOUS (in position ____) (at ____) (with ____).

TA80FOLLOW NAVTRACK so as to pass points ____ at time indicated.

1. Region along NAVTRACK or at point ____ along NAVTRACKS.
2. Follow NAVTRACK at ____ knots over the ground.
3. Keep within ____ miles of NAVTRACK.

TA81PORT/STARBOARD. Commence sailport to port/starboard IAW setting signal.

TA82

TA83

TA84

b. Joining/Leaving/Rejoining.

TA85CLEAR THE FORMATION or unit indicated (on course ____ or in general direction ____).

TA86JOIN 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

TA87LEAVE FORMATION.

TA88PROCEED (____).

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

TA89YOU ARE DETACHED.

TA90

TA91

c. Maneuvering.

TA92ACT 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

TA93AVOID. 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

TA94CLOSE ME or unit indicated (to ____ hundred yards).

TA95CLOSE UP (____).

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

TA96

TA97DISENGAGE (____) (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)).

List A

1. County of origin
2. Class
3. Unit

List B

- A. Aircraft
- B. ESM
- 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).

List A

1. AAW
2. ASW
3. ASUW
4. Multithreat

List B

- A. Expanding square
- B. Intercepting
- C. Intercepting from ahead
- 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).

List A

1. AAW
2. ASW
3. ASUW
4. Multithreat

List B

- A. Area
- B. Cross-over
- C. Linear
- 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

TA153VISIBILITY. Wait for visibility conditions to improve.

TA154WEATHER 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

TA160OPERATIONS. I am conducting ____ (List A) ____ (List B) operations utilizing a ____ (List C) lowered/streamed to a depth/length of ____ metres.

- | List A | List B | List C |
|-------------------|-----------------------------|----------------------------------|
| 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 ____ metres.

List A

1. Hydrographic
2. Oceanographic
3. General Survey

List B

- A. Beach Survey
- B. Route Survey
- C. Area Survey
- D. Wreck/Obstruction Survey

List C

1. Oceanographic Probe (lowered)
2. Side Scan Sonar (towed)

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
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3460	Table X — Exercises
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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. | 30. Engage enemy |
| | 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 ____) | |

3410 Table C — Command Plans

(See NOTE, page 34-1, for details of use.)

- | | |
|-----------------------------------|-------------------------------------|
| 1 — 9. Not to be used. | 42. Embarkation plan |
| 10. AA coordination plan | 43. Entrance order |
| 11. AAW plan | 44. Entrance plan |
| 12. Administrative plan | 45. Exercise plan |
| 13. Air attack plan | 46. Fueling plan |
| 14. Air cruising plan | 47. Heavy weather plan |
| 15. Air operations plan | 48. Illumination plan |
| 16. Air patrol plan | 49. Intelligence plan |
| 17. Alternate plan | 50. Interference plan |
| 18. Antiaircraft fire plan | 51. Landing force plan |
| 19. Anti-small boat plan | 52. Loading plan |
| 20. Anti-suicide boat search plan | 53. Logistics plan |
| 21. Approach plan | 54. Medical plan |
| 22. Area screening plan | 55. Mine countermeasures task order |
| 23. Arming plan | 56. Mining/minelaying order |
| 24. Assault plan | 57. (Not to be used) |
| 25. Attack plan | 58. (Not to be used) |
| 26. Base defense plan | 59. Movement plan |
| 27. Base occupation plan | 60. Naval gunfire support plan |
| 28. Blockage plan | 61. Observation plan |
| 29. Boat pool plan | 62. Operation order |
| 30. Bombing plan | 63. Operation plan |
| 31. Communication plan | 64. Patrol order |
| 32. Contact scouting plan | 65. Patrol plan |
| 33. Counterattack plan | 66. Planning memoranda |
| 34. Countermeasures plan | 67. Protective plan |
| 35. Cover plan | 68. Pursuit plan |
| 36. Deception plan | 69. Radio search plan |
| 37. Defense plan | 70. Relief aircraft spotting plan |
| 38. Demonstration plan | 71. Replenishment plan |
| 39. Departure plan | 72. Retirement plan |
| 40. Direction finder plan | 73. Scouting order |
| 41. Dispersal plan | 74. Scouting plan |

- | | |
|----------------------------|--------------------------------|
| 75. Screen plan | 83. Sortie plan |
| 76. Search plan | 84. Spotting plan |
| 77. Ship-to-shore plan | 85. Strategic plan |
| 78. Shore bombardment plan | 86. Surface action plan |
| 79. Smoke plan | 87. Tactical plan |
| 80. Smoke screen plan | 88. Torpedo plan |
| 81. Smoking plan | 89. Torpedo sector attack plan |
| 82. Sneak attack 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. Sea combat commander (SCC)
- 14 — 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. Inner defense zone coordinator (IDZC)
- 26. Outer defense zone coordinator (ODZC)
- 27 — 29. Spare

ANTISUBMARINE WARFARE (ASW)

- 30. ASW commander (ASWC)
- 31. Sector ASW commander (SASWC)
- 32. Local ASW coordinator (LASWC)
- 33. Search and attack unit commander (SAUC)
- 34. SSN link ship
- 35. Submarine element coordinator (SEC)
- 36. ASW force evasion commander
- 37 — 39. Spare

ANTISURFACE WARFARE (ASUW)

- 40. ASUW commander (ASUWC)

- 41. Sector ASUW commander (SASUWC)
- 42. Surface action group commander (SAGC)
- 43. Helicopter action group commander (HAGC)
- 44. Senior officer FPBs (SOFPB)
- 45. ASUW picket
- 46. Maritime interdiction operation coordinator (MIOC)
- 47. Sector MIO coordinator (SMIOC)
- 48. Maritime interdiction operation unit (MIO Unit)
- 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 gun fire support ship (DSNGSS)
- 71. General support naval gun fire 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)

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. FADIZ Coordinator
- 113. Sector FADIZ Coordinator
- 114. Sector Force Marshaller
- 115. Airstrike Safety Ship (SAFETY CELL)
- 116. IFF Guard Ship
- 117. TACAN Guard Ship
- 118—119. Spare

LOGISTICS

- 130. Force logistic coordinator (FLC) (new group logistic)
- 131. Group logistic coordinator (GLC)
- 132. Local air logistic coordinator (LALC)
- 133. Material control officer (MCO)
- 134. Repair coordinator
- 135. Underway replenishment coordinator
- 136. Delivering Ship
- 137. Hose Ship
- 138. Medical Guard
- 139. Receiving Ship
- 140. Replenishment Unit Guide
- 141. Towing Ship
- 142. Underway Replenishment Group Commander (URGC)
- 143—149. Spare

FORCE PROTECTION

- 150. Force protection coordinator (FPC)
- 151. Force protection operations center (FPOC)
- 152. Force Intelligence Coordinator

- 153. Diving Guardship
- 154. Rigid-hull Inflatable Boat (RHIB) Guardship
- 155. Anchorage/Harbour Radar Guardship
- 156. Anchorage/Harbour Sonar Guardship
- 157. Force Shore Patrol
- 158. Escort Forces Commander
- 159—169. Spare

SPECIAL DUTIES

- 200. Back Stop
- 201. Ballistic wind-finding guard ship
- 202. Bathythermographic guard
- 203. Consort
- 204. Control ship
- 205. Deception group commander (DCGC)
- 206. Disabled ship
- 207. Duty carrier
- 208. Emergency landing carrier
- 209. Firing ship
- 210. Flank marking or rake ship
- 211. Goal keeper on HVU or unit indicated
- 214. Illuminating ship
- 215. Main body group commander (MBGC)
- 216. Man-over board recovery ship
- 217. Meteorological guard
- 218. Military guard
- 219. Net control station (NCS) (circuit/line _____)
- 220. Officer conducting exercise (OCE)
- 221. Officer conducting serial (OCS)
- 222. Physical barrier (between unit indicated and unit bearing _____)
- 223. Radar guard ship
- 224. Radar picket
- 225. RADHAZ relay
- 226. Radio link (on circuit _____)
- 227. Ready duty ship

- 228. Recovery ship
- 229. 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 air craft.
- 230. Scene of action commander (SAC)
- 231. Search and rescue (SAR) ship
- 232. Senior Officer Present Afloat (SOPA)
- 233. Shotgun
- 234. Target ship
- 235. Tattletale
- 236. Unit responsible for surfacing the submarine
- 237. Visual communication duty ship for ship along side (or for _____)
- 238. Visual link between ships indicated
- 239. Weapon-carrying helicopter standby ship
- 240. Weather balloon tracking ship
- 241. Launch area coordinator (LAC)
- 242. TLAM strike coordinator (TSC)
- 243. NCAGS commander (NCAGS-C)
- 244. Fishing Vessel Safety Ship
- 245. _____

BALLISTIC MISSILE DEFENSE

- 586. Ballistic Missile Defense Commander (BMDC)
- 586s. BMDC Standby
- 587. BMD Firing Ship
- 588. BMD Surveillance Ship
- 589. BMD Firing Unit
- 590. BMD Surveillance Unit

MULTILINK MANAGEMENT

- 800. Multilink manager (MLM)
- 801. Track data coordinator (TDC)

- | | |
|--|---|
| 802. Regional track data coordinator (RTDC) | 823. Link 16 data forwarding unit Link 11 (FJUA) |
| 803. Sector track data coordinator (STDC) | 824. Link 16 data forwarding unit Link 11B (FJUB) |
| 804. Interface control officer (ICO) | 825. Link 16 data forwarding unit Link11A/B (FJUAB) |
| 805. Joint interface control officer (JICO) | 826. Link 16 position reference (L16PR) |
| 806. Regional interface control officer (RICO) | 827. Link 16 cryptonet manager (L16CRYPT) |
| 807. Combined interface control officer (CICO) | 828. _____ |
| 808. Sector interface control officer (SICO) | 829. _____ |
| 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)

IJMS DUTIES

830. IJMS change data authority (ICDA)
- 831 — 839. 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

3420 Table E — Electronics

(See NOTE, page 34-1, for details of use.)

1 — 9. Not to be used

TYPE OF EQUIPMENT

10. Acoustic

11. Acoustic gram recorder

12. Acoustic marker

13. Acoustic range prediction table

14. Airborne communications

15. Airborne radar

16. Air warning radar

17. Antenna

18. Approach radar

19. Automatic Identification System (AIS)

20. Command, control and information
system (CCIS)

21. Communications

22. Computer

23. Computer, tactical data system

24. D/F

25. ECM

26. Electro-optical

27. EPM

28. ESM

29. ESM analyzer

30. Facsimile

31. Fathometer

32. Fire control radar

33. Height-finding radar

34. HF communications

35. IFF interrogator

36. IFF/SIF

37. IFF transponder

38. LF communications

39. LF homer

40. Link 10

41. Link 11

42. Link 14

43. Message handling system

44. Meteorological

45. MF communications

46. Missile control radar

47. Nancy

48. Nancy point of train (POT) light

49. Navigation

50. Navigation, inertial

51. Navigational radar

52. Power Supply

53. Radar

54. Receiver

55. Satellite communications

56. Satellite navigation

57. Secure communications

58. Secure voice communications

59. Sonar, attack

60. Sonar, depth-determining

61. Sonar, hull-mounted

62. Sonar, reflector

63. Sonar, search

64. Sonar, towed

65. Sonar, transponder

66. Sonar, variable depth

67. Sonobuoys

68. Surface search radar

69. Tacan

70. Teletype/RATT

71. Towed array

72. Transceiver

73. Transmitter

74. UHF communications

75. UHF homer

76. Underwater communications

77. VHF communications

78. VHF homer

79. VML (voice modulated light)

80. _____

81. _____

82. _____

ECM TECHNIQUES/DEVICES

83. Barrage jamming

84. Blip enhancer

85. Countdown

86. Decoy

87. Distraction

88. False target generator

89. Inverse gain

90. Range gate pull-off

91. Seduction

92. Spot jamming

93. Swept audio

94. Swept jamming

95. Track breaker

96. Velocity gate pull-off

97. Chaff

98. Chaff Charlie

99. Chaff Delta

100. Chaff Sierra

101. Wobulation

102. _____

POLARIZATION

103. Circular

104. Horizontal

105. Random

106. Vertical

107. _____

108. Frequency band in kHz, whose lower and upper limits are _____ and _____ .

109. Frequency band in MHz, whose lower and upper limits are _____ and _____ .

110. Frequency band in GHz, whose lower and upper limits are _____ and _____ .

111. Frequency of _____ kHz

112. Frequency of _____ MHz

113. Frequency of _____ GHz

114. A band (0-250 MHz)

115. B band (250-500 MHz)

116. C band (500-1,000 MHz)

117. D band (1,000-2,000 MHz)

118. E band (2,000-3,000 MHz)

119. F band (3,000-4,000 MHz)

120. G band (4,000-6,000 MHz)

121. H band (6,000-8,000 MHz)

122. I band (8,000-10,000 MHz)

123. J band (10,000-20,000 MHz)

124. K band (20,000-40,000 MHz)

125. L band (40,000-60,000 MHz)

126. M band (60,000-100,000 MHz)

127. Line number _____

128. _____

129. _____

130. _____

131. _____

3425 Table F — Forces

(See NOTE, page 34-1, for details of use.)

1 — 9. Not to be used.	41. Disposition
10. Antiair warfare force (group)	42. Escort(s)
11. Air search attack unit (ASAU)	43. Explosive ordnance disposal (EOD) teams
12. Aircraft	44. Farthest column
13. Aircraft carrier(s)	45. Fast patrol boats (FPBs)
14. Amphibious force (group)	46. Firing group
15. Amphibious vehicle(s)	47. Forces ahead/advance force
16. Assault craft	48. Forces engaging light forces (or interfering with attack)
17. Attack group (unit)	49. Forces making or about to make torpedo attack
18. Auxiliaries	50. Forces repelling or about to repel torpedo attack
19. Barrier patrol	51. Formation
20. Bogey	52. Frigate(s)
21. Bombardment group(s)	53. Fueling (replenishing) group
22. Carrier task group(s)	54. Goblin
23. Center (forces in the center)	55. Guide, disposition
24. Center (of own disposition)	56. Guide, formation
25. Center (of enemy's disposition)	57. Guide, unit
26. Close covering group	58. Guided missile ship(s)
27. Communication linking ship (unit)	59. Helicopter action group (HAG)
28. Consort for submarine(s)	60. Inshore patrol
29. Control vessel	61. Investigating ship
30. Convoy	62. Landing craft
31. Convoy escort	63. Leading ship of enemy column
32. Cruiser(s)	64. Light group(s)
33. Cruiser(s), AA	65. Main body
34. Cruiser(s), heavy	66. Man-of-war
35. Cruiser(s), light	67. Marker
36. Demonstration group	68. Merchant ship
37. Destroyer(s)	69. Mine countermeasures vessel (MCMV) group
38. Destroyer escort(s)	
39. Detached force (group)	
40. Disabled ship	

-
- | | |
|--|--|
| 70. Minehunter | 105. Screen, entry |
| 71. Minelayer | 106. Screen, helicopter windline |
| 72. Minelayer group | 107. Screen, inner |
| 73. Minesweeper | 108. Screen, outer |
| 74. Missile-firing fast patrol boats (FPBs) | 109. Screen, sector |
| 75. Mobile inshore undersea warfare surveillance unit (MIUWSU) | 110. Screen unit(s) |
| 76. Naval beach group | 111. Search and rescue group |
| 77. Offshore patrol | 112. Search attack unit (SAU) |
| 78. Oiler(s) | 113. Searchers |
| 79. Patrol vessel(s) | 114. Sector patrol |
| 80. Picket(s) | 115. Service group (unit) |
| 81. Picket line | 116. Service line (1st) |
| 82. Picket, radar | 117. Service line (2nd) |
| 83. Picket, tomcat | 118. Shadower |
| 84. Picket, watchdog | 119. Ships engaged in ASW action |
| 85. Protective group | 120. Ships that have fallen behind |
| 86. Racket designation indicated | 121. Shore batteries |
| 87. Raiding group | 122. Skunk |
| 88. Rear (forces in the rear) | 123. Special rescue ship |
| 89. Reconnaissance group | 124. Speed boat/small boat |
| 90. Rescue destroyer | 125. SSM-firing submarines |
| 91. Rescue force (group) | 126. SSM ships |
| 92. Rescue ship | 127. Striking force (group) |
| 93. Rescue tug | 128. Submarine(s), diesel-electric |
| 94. Rocket-launching | 129. Submarine(s), nuclear |
| 95. SAM ships | 130. Support force (group) (ships) |
| 96. Scout(s) | 131. Surface action force |
| 97. Scouting group | 132. Surface action group (SAG) |
| 98. Screen | 133. Surface groups |
| 99. Screen, AAW | 134. Suspicious ship(s) |
| 100. Screen, advanced | 135. Tactical deception unit(s) |
| 101. Screen, anti-destroyer | 136. Target group(s) unit(s) |
| 102. Screen, anti-small craft | 137. Torpedo-firing fast patrol boats (FPBs) |
| 103. Screen, antisubmarine | 138. Torpedo-firing submarines |
| 104. Screen, departure | 139. Towing ship(s) |
| | 140. Tracking group |
-

- | | |
|-------------------------|-------------------------|
| 141. Trailer | 146. Waiting line (2nd) |
| 142. Training group | 147. Waiting line (3rd) |
| 143. Transport(s) | 148. _____ |
| 144. Transport group | 149. _____ |
| 145. Waiting line (1st) | 150. _____ |

3430 Table L — Compartment Locator

(See NOTE, page 34-1, for details of use.)

1 — 9. Not to be used.	28. Machinery control room
10. After deck	29. Magazine
11. Auxiliary machinery compartment	30. Mast structures
12. Boiler room	31. Messdeck ____ (number)
13. Bridge	32. Operations room
14. Cafeteria	33. Radar room
15. Chart room	34. Radio room
16. CO's cabin	35. Sickbay
17. Communications control room	36. Steering gear compartment
18. Computer room	37. Store rooms ____ (number)
19. Deck spaces	38. Superstructure
20. Engine room	39. Wardroom
21. EW control compartment	40. _____
22. Flight deck	41. _____
23. Fore deck	42. _____
24. Gyro room	43. _____
25. Hangar	44. _____
26. Hull	45. _____
27. Laundry	

3435 Table M — Mines

(See NOTE, page 34-1, for details of use.)

- | | |
|----------------------------------|------------------------|
| 1 — 9. Not to be used. | 29. Homing |
| 10. Acoustic (active) | 30. Magnetic |
| 11. Acoustic (passive) | 31. Magnetic induction |
| 12. Acoustic (subsonic) | 32. Magnetic needle |
| 13. Acoustic (sonic) | 33. Mine-like decoy |
| 14. Acoustic (supersonic) | 34. Mobile |
| 15. Antennae | 35. Moored |
| 16. Bouquet | 36. Obstructors |
| 17. Combination | 37. Oscillating |
| 18. Contact | 38. Pressure |
| 19. Controlled | 39. Remoored |
| 20. Deep-laid | 40. Self-propelled |
| 21. Drifting | 41. Snagline |
| 22. Drill | 42. Thermal delay |
| 23. Dummy | 43. Unknown |
| 24. Equipped with delayed arming | 44. Anti-invasion |
| 25. Equipped with delayed rising | 45. Anti-landing |
| 26. Equipped with ship counter | 46. Seismic |
| 27. Exercises | 47. Infrared |
| 28. Ground | 49. Rocket-propelled |

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. Mine warfare officer

- 42. Navigation officer
- 43. OCE
- 44. OCS
- 45. Officer commanding marines
- 46. Officer of the watch
- 47. Officer under training
- 48. Operations officer
- 49. OTC
- 50. Padre
- 51. Personnel officer
- 52. Radiological officer
- 53. Recreation-athletics officer
- 54. Shore patrol officer
- 55. Supply officer
- 56. Torpedo officer
- 57. Watch officer
- 58. Weapons officer
- 59. _____
- 60. _____

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	40. Helicopter hauldown
10. Active rudder	41. Log
11. Air compressor	42. Mount, gun, AA
12. Anchor windlass/capstan	43. Mount, gun, main
13. Assault craft	44. Mount, rocket, chaff
14. Automatic pilot	45. Mount, rocket, illuminating
15. Bathythermograph/bathycelerimeter	46. Noisemaker
16. Boat	47. Optical
17. Boiler	48. Pitch control
18. Bow ejectors	49. Plotting table
19. Catapult	50. Propeller
20. Compass, gyro	51. Pump
21. Compass, gyro magnetic	52. Rudder
22. Compass, magnetic	53. SAM battery
23. Compression chamber	54. Shaft, main propulsion
24. Compression chamber, multiplace	55. Shaft, port/starboard
25. Constant tension gear	56. Ship's task lights
26. Davit/boom	57. Signaling lights
27. Day shapes	58. SSM battery
28. Degaussing	59. Stabilization
29. Derrick/crane	60. Station, replenishment
30. Director	61. Steering, gear
31. Diving	62. Switchboard, electrical
32. Elevator	63. Torpedo tubes
33. Engine, cruise	64. Ventilation
34. Engine, main	65. Washdown equipment
35. Evaporator	66. Winch
36. Gastight citadel	67. _____
37. Gearing, main propulsion	68. _____
38. Generator, auxiliary	69. _____
39. Generator, main	70. _____

3450 Table V — Aircraft

(See NOTE, page 34-1, for details of use.)

1 — 9. Not to be used.	42. EW helicopter
10. Aerial pickets	43. Experimental
11. AEW aircraft	44. Fighting
12. Air search attack unit (ASAU)	45. Float type
13. Aircraft	46. Gunnery spotting
14. Aircraft carrier(s)	47. Helicopter(s)
15. Aircraft forced down	48. Hospital
16. Aircraft on board	49. Hunter/Killer
17. Amphibious vehicle	50. Illuminating
18. Antisubmarine patrol	51. Illuminating helicopter
19. ASM-carrying helicopter	52. Inner air patrol
20. Assault/transport helicopter	53. Interceptor
21. ASW aircraft	54. Intermediate air patrol
22. ASW aircraft, carrier-based	55. Jet
23. ASW aircraft, shore-based	56. Land-based
24. ASW dunking helicopter	57. Low air patrol
25. ASW weapon-carrying helicopter	58. Man-overboard recovery helicopter
26. Attack	59. Maritime patrol
27. Attacking	60. Mine countermeasures helicopter
28. Automatic relay	61. Mine countermeasures hovercraft
29. Bombing	62. Minelaying
30. Camera observation	63. Night strike group
31. Carrier-based	64. Observation
32. Combat air patrol (CAP)	65. Outer air patrol
33. Communication linking	66. Own aircraft
34. Dawn and dusk patrol	67. Patrol
35. Defensive fighters	68. Photographic
36. Depth charge alert	69. Pickets
37. Dive bombers	70. Pilotless
38. Drone	71. Pluto
39. Dumbo	72. Probe
40. Enemy	73. Radar picket
41. EW aircraft	74. Reconnaissance
	75. Relief spotting

- | | |
|-------------------------|------------------------------------|
| 76. Rescue | 90. Strange aircraft |
| 77. Returning | 91. Strike aircraft |
| 78. Rocket-carrying | 92. Strike/reconnaissance aircraft |
| 79. Scouting helicopter | 93. Suicide aircraft |
| 80. Scouts (aerial) | 94. Support aircraft |
| 81. Seaplanes | 95. Target air patrol |
| 82. Search | 96. Target dawn and dusk |
| 83. Search and rescue | 97. Target night patrol |
| 83. Search and rescue | 98. Torpedo |
| 84. Search helicopter | 99. Transport |
| 83. Search and rescue | 100. Unidentified aircraft |
| 84. Search helicopter | 101. Upper air data |
| 85. Single engine | 102. V/STOL |
| 86. Smoking | 103. Weather reconnaissance |
| 87. Sortie | 104. _____ |
| 88. Spotting (gunnery) | 105. _____ |
| 89. Strafing | |

3455 Table W — When

(See NOTE, page 34-1, for details of use.)

- | | |
|---|---|
| 1 — 9. Not to be used. | 42. Enemy retires |
| 10. After | 43. Enemy still in sight |
| 11. After air operations now in progress | 44. Enemy turns away |
| 12. After completing current operations | 45. Evening |
| 13. After completing today's air operations | 46. First light |
| 14. After event number ____ | 47. Forenoon |
| 15. After next air operations | 48. Hourly (or every ____ hour) |
| 16. Afternoon | 49. Morning |
| 17. After serial number | 50. Necessary |
| 18. As previously directed | 51. Noon |
| 19. As soon as convenient | 52. On arrival (at ____) |
| 20. At earliest possible moment | 53. On completion (serial/exercise/event number may be indicated following DESIG) |
| 21. At earliest suitable moment | 54. On completing replenishment |
| 22. At first light tomorrow | 55. On entering harbor |
| 23. At same time as | 56. On entering the contact area |
| 24. At the commencement | 57. On entering torpedo danger area (TDA) |
| 25. At the time of | 58. On gaining sonar contact |
| 26. Before | 59. On joining |
| 27. Conditions are favorable | 60. On leaving harbor |
| 28. Dawn | 61. On passing reference point |
| 29. During | 62. On passing the furthest-on circle |
| 30. During aircraft movements on deck | 63. Own aircraft have gained control of the air |
| 31. During decontamination | 64. Own destroyers attack |
| 32. During period of flight operations | 65. Own units designated have completed attack |
| 33. During the delay/postponement | 66. Own units designated have launched attack |
| 34. During the night | 67. Position (all forces are in favorable) |
| 35. Dusk | 68. Position (attack groups are in) |
| 36. Enemy destroyers attack | 69. Position (you or units designated are in favorable) |
| 37. Enemy follows our retirement | 70. Prior to next air operations |
| 38. Enemy is detected | |
| 39. Enemy is disorganized | |
| 40. Enemy is sighted | |
| 41. Enemy reaches our minefield | |

- | | |
|--|------------------------------|
| 71. Reinforcements arrive | 78. Until |
| 72. Smoke screens are dissipated | 79. Until further orders |
| 73. Smoke screens are laid (refers to own smoke screens) | 80. Upon anchoring (mooring) |
| 74. Sunrise | 81. Upon clearing channel |
| 75. Sunrise to sunset | 82. Upon completion |
| 76. Sunset | 83. Upon getting underway |
| 77. Sunset to sunrise | 84. When directed |
| | 85. When ready |

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.

10. Abandon ship

11. Amphibious

12. ASW

13. Aviation

14. CIC

15. Collision

16. Coming alongside

17. Communication

18. Damage control

19. Diving incidents

20. Dry hookups

21. Emergency breakaway

22. Emergency drills

23. Emergency flying stations

24. Engineering

25. Engineering casualty control drills
(which affect the speed of the ship)

26. Engineering economy trial

27. Engineering full power trial

28. Fire

29. Flaghoist drill

30. Flashing light

31. General drill

32. General quarters

33. Gunnery (AA)

34. Gunnery (surface)

35. Helicopter deck landings

36. Individual ship exercises

37. Leapfrogs

38. Low-visibility piloting

39. Man overboard

40. Mine warfare

41. Mooring

42. Nancy

43. Non-delaying emergency drills

44. Officer of the watch/officer of the deck
maneuvers

45. Radar calibration drill (run number ____)

46. Replenishment approaches without
passing gear

47. Rescue

48. Seamanship

49. Semaphore

50. Serial No ____

51. Shore bombardment

52. Small arms familiarization

53. Steering breakdown

54. Tactical maneuvers

55. Torpedo

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.	37. Radar reflector
10. Anchor	38. Remotely operated vehicle
11. Buoy	39. Rope
12. Buoy, dan	40. Rubber mooring
13. Buoy, datum	41. Sinker
14. Buoy, master reference	42. Sonar, hand-held
15. Buoy, position marker	43. Sonar, mine avoidance
16. Buoy, short scope	44. Sonar, mine classification
17. Cable	45. Sonar, mine detection
18. Cable, reel	46. Sonar, near field
19. Charge, mine disposal	47. Sonar, parametric
20. Cutter	48. Sonar, reflector/Diablo
21. Cutter, end	49. Sonar, towed sidescan
22. Cutter, explosive	50. Staff/stave
23. Cutter, remotely operated vehicle	51. Sweep
24. Cutter, static	52. Sweep, acoustic
25. Diaphragm	53. Sweep, acoustic AF
26. Diverter	54. Sweep, acoustic combined
27. Electrode	55. Sweep, acoustic explosive
28. Flag	56. Sweep, acoustic LF
29. Float	58. Sweep, acoustic oscillator
30. Kite/depressor	59. Sweep, helicopter acoustic
31. Lamp	60. Sweep, helicopter magnetic
32. Line	61. Sweep, helicopter mechanical
33. Marker	62. Sweep, hovercraft acoustic
34. Mine disposal vehicle	63. Sweep, hovercraft magnetic
35. Otter	64. Sweep, hovercraft mechanical
36. Pellets	65. Sweep, magnetic closed loop
	66. Sweep, magnetic electrode

- | | |
|--------------------------------|-----------------------------------|
| 67. Sweep, magnetic open loop | 74. Sweep, mechanical team |
| 68. Sweep, magnetic solenoid | 75. Sweep, pressure |
| 69. Sweep, mechanical antenna | 76. Sweep, protection combination |
| 70. Sweep, mechanical chain | 77. Swell recorder |
| 71. Sweep, mechanical net | 78. Weight |
| 72. Sweep, mechanical Oropesa | 79. Wire (mechanical/influence) |
| 73. Sweep, mechanical snagline | 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 |

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CHAPTER 35 Standard Position Indicators

3500 Table of Meanings

(See also paragraph 165c.)

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



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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I am/call sign is entering channel	XSA	26-10
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all tasks are to cease now	MW 133	26-33
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fire (emergency)	EMERG 4	3-4
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fire, I have ceased surface-to-surface missile (SURFACE ACTION)	3E	32-18
firing, I have ceased (SURFACE ACTION)	4E	32-23
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I have ceased to lead you.	XIX	26-7
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RADHAZ/HERO exists, cease transmission	CM22	16-4
run is to cease now	EX 8	21-2
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CENTERLINE		
I am off centerline to the right/left	XIZ	26-7
I am on centerline	XJE	26-8
you are off centerline to the north/south/east/west	XJB	26-7
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CENTER OF		
aircraft scouting area	AV40	14-6
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decoys, contact is using chaff (SURFACE ACTION)	2R	32-14
distraction/seduction, fire chaff for (SURFACE ACTION)	2T	32-15
enemy use of chaff detected	EW 19	20-3
fire chaff.	EW 41	20-5
fire chaff (AAW ACTION)	7L	10-3
main body alter course for employment of chaff	TURN K, L	6-3
protection, fire shell chaff for	EW 42	20-6
protection, use aircraft dispensed chaff for	EW 35	20-5
CHAIN (towing)	6R	30-10
CHAIN, veer	ED16	18-3
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clear of mines/mined	MW 111	26-19
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guide unit through swept channel.	ED42	18-5
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I am approaching entrance of channel	XJW	26-8
I am/call sign is entering channel	XSA	26-10
I cannot/can no longer lead you through channel	XJU	26-8
I will lead you/units through channel	XJT	26-8
lead down channel	ED35	18-4
leaving channel, report when	MW 46	26-11
left channel, I have	MW 46	26-11
minelike contact is to be removed from channel	MW 105	26-18
patrol channel.	TA130	33-18
search between channel points, ship is to	MW 110	26-19
stop your ship, remain in channel.	XWL	26-10
swept channel, mine countermeasures vessels approaching entrance/end of	MW 37	26-5
swept channel, remain in	ED37	18-5
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CHEER SHIP CEREMONIALLY	AD10	11-2
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alarm	EMERG L	3-2
attack, chemical warfare	NB 18	28-2
attacked with chemical agent	NB 19	28-2
attacked with chemicals, I am being	TA3	33-1
ceased, chemical attack	NB 20	28-2
smoke, make chemical	TA148	33-20
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vessel's cargo is	IN 7	24-2
weather is suitable for chemical warfare attack.	TA154	33-21
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take station on circle and bearing.	STATION	5-2
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poor discipline/excessive repetition, circuit has.	CM32	16-5
take for crypto restart	CM34	16-5
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area is clear of mines	MW 34	26-5
berth for unit	ED26	18-4
bores clear	GM 12	22-1
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emergency breakaway, clear all sides	EMERG 6	3-4
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formation/unit	TA85	33-10
kedge is clear	ED9	18-2
keep clear, helicopter at hover	1O	13-23
keep clear, suspect submarine has fired torpedo.	AS44	13-9
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keep clear during maneuvers	TA100	33-13
keep clear of contact/position/unit (ASW ACTION).	1O	13-23
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line of fire from unit	SU14	32-3
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pass clear of shipping, act independently to; resume station when clear	TA92	33-12
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range clear	GM 10	22-1
sweep, haul out of formation and clear	MW 82	26-17
vessel, contact is assumed cleared.	IN 1	24-1
vessel is cleared to proceed	IN 9	24-2
you are clear of the minefield, proceed as previously directed	XQJ	26-9
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attack, close and	SU3	32-1
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channel is closed by boom	ED36	18-4
enemy after attack (TORPEDO ACTION), continue to close	9I	32-7
gap in screen, adjust station to close	SCREEN J	9-2
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me or unit	TA94	33-12
range	SU4	32-1
screen ships close to distance	EMERG 8	3-4
submarine is close astern/to side (ASW ACTION)	1X	13-25
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transfer, close for	RS1	31-1
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COLLISION		
keep clear, you are on collision course with me	EMERG C	3-1
ship has been in a collision	EMERG D	3-1
ship is damaged by collision	RE11	30-2
COLORS		
clear/dip/half mast/haul down/hoist/shift colors	AD11	11-2
morning and evening colors	PREP	2-9
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COLUMN		
first unit of column show three white lights at bow	XMQ	26-9
follow column leader, adjusting course to pass over same ground . . .	XJP	26-8
follow in wake of column leader.	XJQ	26-8
follow your column leader.	XJF	26-8
form column (See FORM)		
form column in order of sequence numbers/in quickest sequence, get underway and	ED49	18-6
form single column	XCK	26-6
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JAN 2016	3-1 thru 3-4
JAN 2016	4-1 thru 4-10
JAN 2016	5-1 thru 5-6
JAN 2016	6-1 thru 6-6
JAN 2016	7-1 thru 7-8
JAN 2016	8-1 thru 8-6
JAN 2016	9-1 thru 9-6
JAN 2016	10-1 thru 10-6
JAN 2016	11-1 thru 11-6
JAN 2016	12-1 thru 12-6
JAN 2016	13-1 thru 13-26
JAN 2016	14-1 thru 14-8
JAN 2016	15-1, 15-2
JAN 2016	16-1 thru 16-6
JAN 2016	17-1 thru 17-4
JAN 2016	18-1 thru 18-8
JAN 2016	19-1 thru 19-4
JAN 2016	20-1 thru 20-6
JAN 2016	21-1 thru 21-4
JAN 2016	22-1 thru 22-4
JAN 2016	23-1, 23-2
JAN 2016	24-1 thru 24-4
JAN 2016	25-1, 25-2
JAN 2016	26-1 thru 26-36
JAN 2016	27-1 thru 27-6
JAN 2016	28-1 thru 28-4
JAN 2016	29-1, 29-2
JAN 2016	30-1 thru 30-12
JAN 2016	31-1 thru 31-8
JAN 2016	32-1 thru 32-32
JAN 2016	33-1 thru 33-22
JAN 2016	34-1 thru 34-28
JAN 2016	35-1, 35-2
JAN 2016	Index-1 thru Index-110
JAN 2016	LEP-1, LEP-2

INTENTIONALLY BLANK

NUMERAL PENNANTS

PENNANT and NAME	Spoken	Written
 1	PENNANT ONE	p1
 2	PENNANT TWO	p2
 3	PENNANT THREE	p3
 4	PENNANT FOUR	p4
 5	PENNANT FIVE	p5
 6	PENNANT SIX	p6
 7	PENNANT SEVEN	p7
 8	PENNANT EIGHT	p8
 9	PENNANT NINE	p9
 0	PENNANT ZERO	p0
TACKLINE	TACK	—

SPECIAL FLAGS AND PENNANTS

PENNANT or FLAG	Spoken	Written	PENNANT or FLAG	Spoken	Written
 CODE or ANSWER	CODE or ANSWER	CODE or ANS	 PREPARATIVE	PREP	PREP
 CORPEN	CORPEN	CORPEN	 PORT	PORT	PORT
 DESIG-NATION	DESIG	DESIG	 SCREEN	SCREEN	SCREEN
 DIVISION	DIV	DIV	 SPEED	SPEED	SPEED
 EMERGENCY	EMERG-ENCY	EMERG	 SQUADRON	SQUAD	SQUAD
 FLOTILLA	FLOT	FLOT	 STARBOARD	STAR-BOARD	STBD
 FORMATION	FORMA-TION	FORM	 STATION	STATION	STATION
 INTER-ROGATIVE	INTER-ROGATIVE	INT	 SUBDIVISION	SUBDIV	SUBDIV
 NEGATIVE	NEGAT	NEGAT	 TURN	TURN	TURN
 FIRST SUBSTITUTE	FIRST SUB	1st.	 THIRD SUBSTITUTE	THIRD SUB	3rd.
 SECOND SUBSTITUTE	SECOND SUB	2nd.	 FOURTH SUBSTITUTE	FOURTH SUB	4th.

ATP-01 (G)(1) VOLUME II