CODE FOR UNPLANNED ENCOUNTERS AT SEA

Version 1.0

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ISSUE HISTORY

Version	Date and Place	Description of Changes	Affected Sections
1.0	22 April 2014 Qing Dao, China	Approved at WPNS 2014	All

GLOSSARY

CUES	Code for Unplanned Encounters at Sea
COLREGS	International Regulations for Preventing Collisions at Sea 1972
IAMSAR	International Aeronautical and Maritime Search and Rescue Manual
ICS or INTERCO	International Code of Signals
UNCLOS	United Nations Convention on the Law of the Sea 1982

DISTRIBUTION

CUES is available to members of WPNS via the APAN website.

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1.0 INTRODUCTION

1.1 Purpose

1.1.1 The Western Pacific Naval Symposium (WPNS) 'Code for Unplanned Encounters at Sea' (CUES) offers a means by which navies may develop mutually rewarding international cooperation and transparency and provide leadership and broad-based involvement in establishing international standards in relation to the use of the sea. The document is not legally binding; rather, it's a coordinated means of communication to maximise safety at sea.

1.1.2 CUES offers safety measures and a means to limit mutual interference, to limit uncertainty, and to facilitate communication when naval ships or naval aircraft encounter each other in an unplanned manner. Units making programmed contact should use procedures agreed between their national command authorities.

1.2 Scope

1.2.1 This document offers safety procedures, a basic communications plan and basic manoeuvring instructions for naval ships and naval aircraft during unplanned encounters at sea.

1.3 Definitions

1.3.1 Where applicable, definitions used in CUES are those definitions found in the 1972 International Regulations for Preventing Collisions at Sea (COLREGS) and in accordance with international law.

1.3.2 An 'Unplanned Encounter at Sea' occurs when naval ships or naval aircraft of one State meet casually or unexpectedly with a naval ship or naval aircraft of another State.

1.3.3 For the purposes of CUES, a 'naval ship' is a descriptor that is assumed to include warships[1], naval auxiliaries, and submarines.

1.3.4 For the purposes of CUES, a 'naval auxiliary' is a vessel, other than a warship, that is owned by or is under the exclusive control of the armed forces of a State and used for the time being on government non-commercial service.[2] Because they are State owned or operated and used for the time being only on government non-commercial service, auxiliary vessels enjoy sovereign immunity.

1.3.5 For the purposes of CUES, a 'naval aircraft' is to include helicopters, fixed wing aircraft and unmanned aerial systems or vehicles.

1.4 Status and Adoption

1.4.1 WPNS navies that choose to adopt CUES for naval cooperation do so on a voluntary and non-binding basis. This document is also available for implementation by any navy on the same basis. A navy agreeing to utilise CUES or, alternatively, the procedures contained in it, is invited to advise the WPNS Secretariat at the next convenient opportunity.

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1 UNCLOS Article 29.

2 See e.g. *The San Remo Manual on International Law Applicable to Armed Conflicts at Sea* at 13(h) (Louise Dowwald-Beck ed., 1995); *The Convention regarding the Regime of the Straits* (Montreux Convention 1936).

1.4.2 Nothing in CUES absolves any Commander or Master (as applicable) from the consequences of any neglect of precautions to avoid collision or avoid taking any other course of action that may be required by the ordinary practice of seamen or airmen, or by the special circumstances of the case.[3]

1.5 Legal Considerations

1.5.1 Naval ships and naval aircraft enjoy sovereign immunity and are therefore immune from the jurisdiction of any State other than their flag State. Flag States have exclusive jurisdiction over their sovereign-immune vessels. Any act of interference with a naval ship or naval aircraft is an infringement on the sovereignty of the flag State.

1.5.2 CUES does not supersede international civil aviation rules or rules applicable under international agreements or treaties or international law.

1.6 Arbitration, Consultation and Review

1.6.1 The WPNS will not arbitrate disputes arising from incidents between naval ships or naval aircraft or from the use of CUES. Consideration of issues of that type are a State responsibility. CUES does not constitute an international agreement or treaty, and as such, is not legally binding under international law.

1.6.2 The WPNS will accept recommendations from any competent source for development of CUES to improve its effectiveness, examine proposals for developing higher levels of safety in maritime operations and for improvements to communications. Suggested amendments should be submitted to the WPNS Secretariat for consideration.

[3] COLREGS Rule 2 (a)

2.0 SAFETY PROCEDURES

WPNS navies are expected to comply with the 1972 International Regulations for Preventing Collisions at Sea (COLREGS).

2.1 Action to Avoid Collision at Sea

2.1.1 Any action to avoid collision shall, if the circumstances of the case permit, be positive, made in ample time and with due regard to the observance of good seamanship.[4]

2.2 Breakdown

2.2.1 Should a breakdown occur, such as the loss of steering control or failure of main engines, the first requirement is to avoid endangering other ships. Other ships should manoeuvre as necessary to remain clear of the disabled ship. The following steps should be undertaken by the disabled ship as rapidly as possible:

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

b) By day hoist two black balls. By night show two all-round red lights in a vertical line where they can best be seen.[5]

c) If turning using rudder or engines or if manoeuvring with engines, indicate the direction of the turn or the direction of application of engine power.[6]

2.3 Formations and Convoys

2.3.1 Commanding Officers and Masters (as applicable) should be aware of the danger to all concerned which is caused by single naval ship approaching any vessels in formation or in convoy, so closely as to involve risk collision, or attempting to pass ahead of or through a formation or convoy. Single naval ships should adopt early measures to keep out of the way of a formation or convoy.

2.3.2 Although a single naval ship is advised to keep out of the way of a formation or convoy, this does not entitle vessels sailing in formation or convoy to do so without regard to the movements of a single vessel. Naval ships sailing in formation or convoy are to be prepared to take such action as will best avert collision.

2.3.3 Naval ships or formations meeting or operating in the vicinity of other naval ships or formations should avoid manoeuvring in a manner that would hinder the passage of the naval ships or formations encountered.

2.4 Manoeuvres in Traffic Separation Schemes

2.4.1 Manoeuvres not necessary for safe navigation should not normally be conducted so as to interrupt the flow of traffic through internationally adopted traffic separation schemes.[7]

[4] COLREGS Rule 8 (a)
[5] COLREGS Rule 27 (a)
[6] COLREGS Rules 34 (a) and (b)
[7] COLREGS Rule 10

2.5 Safe Speed

2.5.1 Every vessel should proceed at a safe speed so that they can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.[8]

2.6 Safe Distance

2.6.1 The unit of distance for the application in CUES is the nautical mile.

2.6.2 Commanding Officers and Masters (as applicable) should at all times maintain a safe separation between their vessel and those of other nations. In determining the "safe distance" between vessels the following factors shall be among those taken into consideration:

a) the state of visibility;

b) the traffic density including concentrations of fishing vessels;

c) the manoeuvrability of both vessels;

d) the state of wind, sea and current and the proximity of navigational hazards;

e) reliability of propulsion;

f) state of training of the crew; and

g) understanding of the manoeuvring intentions of the other vessel.

2.7 Exercises with Submarines

2.7.1 When conducting exercises with submarines, surface naval ships should consider the display of the appropriate signals from the International Code of Signals to indicate the presence of submarine(s) in the area.

2.8 Assurance Measures for Naval Ships

2.8.1 Commanding Officers or Masters (as applicable) need to consider the potential ramifications before engaging in actions which could be misinterpreted. Actions the prudent commander might generally avoid include:

a) Simulation of attacks by aiming guns, missiles, fire control radars, torpedo tubes or other weapons in the direction of vessels or aircraft encountered.

b) Except in cases of distress, the discharge of signal rockets, weapons or other objects in the direction of vessels or aircraft encountered.

c) Illumination of the navigation bridges or aircraft cockpits.

d) The use of laser in such a manner as to cause harm to personnel or damage to equipment onboard vessels or aircraft encountered.

e) Aerobatics and simulated attacks in the vicinity of ships encountered.

[8] COLREGS Rule 6

2.9 Interference with Command and Control Systems

2.9.1 Interference with command and control systems may constitute a safety hazard. If interference is detected, the source should be identified and that station be advised that interference is being experienced and be requested to isolate the source of interference.

2.10 Notices to Mariners and Airmen

2.10.1 National authorities should provide, through the established system of radio broadcasts and information systems, warnings to mariners and airmen of any maritime activity that might represent a danger to navigation or to aircraft in flight.

3.0 COMMUNICATIONS PROCEDURES

3.1 Applicability to Naval Aircraft

3.1.1 Naval aircraft should comply with the communications procedures set out in this document to the extent that they are able. Naval aircraft will not normally use the signal groups provided but, instead, will comply with international protocols applicable to air navigation.

3.2 Sound, Light and Flag Signals

3.2.1 When naval ships are operating in sight of one another or in restricted visibility, such signals (flag, light, sound) as are prescribed in the International Regulations for Preventing Collisions at Sea should be used to signal intentions related to manoeuvres being undertaken in accordance with those Regulations.

3.2.2 When using flag signals from the International Code of Signals (ICS) for communications between warships, the CODE pennant should be used to indicate the source of those signals.

3.3 Radio Communications

3.3.1 So that communications between naval ships and naval aircraft during unplanned encounters at sea are established in a timely manner and for reasons of efficiency, radio communications are the preferred method of communicating information contained in CUES.

3.4 Call Signs

3.4.1 Individual ship call signs will be ship NAME, or HULL NUMBER, or INTERNATIONAL RADIO SIGNAL CALLSIGN. Aircraft call signs will be the aircraft INTERNATIONAL RADIO SIGNAL CALLSIGN. Ships and aircraft should also identify their nationality.

3.4.2 Where the call sign of the platform being called is unknown, it should be addressed as UNKNOWN STATION with sufficient supplementary information, for example position course and speed, to alert the station that it is being called. Units called as UNKNOWN STATION should answer using their INTERNATIONAL RADIO SIGNAL CALLSIGN.

3.5 Voice Procedures

3.5.1 All voice communications should be conducted in ENGLISH unless otherwise agreed upon.

3.5.2 All messages are to include:

a) Addressee(s). The command or commands for whom the message is intended.

b) Originator. Standard terminology THIS IS followed by the INTERNATIONAL RADIO SIGNAL CALLSIGN is to be used to indicate the message originator's identity.

c) Text. The message being sent, using the Selected Signals Vocabulary where possible.

d) Over. An invitation to transmit.

e) Out. When no reply is required.

3.6 Exchange of Key Information

3.6.1 In the interest of safety, on making initial contact, and after exchanging identities, Commanding Officers or Masters (as applicable) may elect to deconflict movement and operations by exchanging key elements of information between forces. This information may include unit position and current manoeuvring intentions, when appropriate. The decision to exchange data is left to the Commanding Officer or Master (as applicable) and nothing in this code is meant to imply that information exchange is required.

3.7 Tack Line

3.7.1 The tack line is transmitted and spoken as TACK and written as a dash. It is used:

a) To avoid ambiguity by separating signals or groups of numbers which if not separated could convey a different meaning to that intended, for example G Corpen 000-10.

b) When required by a particular signal, for example AV 26-3

3.8 Execution of Voice and Flag Signals

3.8.1 Signals may be executed by time or by the delayed executive method.

3.8.2 When not using the delayed executive method, a time group inserted after the text indicates that the action is to be taken upon receipt, for example TA 89 TACK Time 2120 ZULU.

3.8.3 When action is to be commenced or completed at a future time and without further orders, a “T” group is to be included in the text, for example TA 89 TACK TANGO 2145 ZULU TACK Time 2120 ZULU.

3.9 Delayed Executive Method of Signalling

3.9.1 When using tactical signal groups from the Selected Signals Vocabulary and it is intended that they be carried out by executive order, the delayed executive method is to be used, leaving sufficient time available for decode to occur in receiving stations. The text is to be repeated during each transmission.

3.9.2 Preliminary. The text of the first transmission of a tactical signal group is to be prefixed with the words EXECUTE TO FOLLOW which is to be followed by the tactical group. For example: Execute to follow TURN PORT 270 I say again TURN PORT 270.

3.9.3 Executive. The text of the executive transmission of a tactical signal group is to be followed by the words STANDBY EXECUTE. For example: TURN PORT 270 Standby Execute I say again TURN PORT 270 Standby Execute.

3.10 Designation (DESIG) Signal

3.10.1 The DESIG signal is used to describe own or other forces or to indicate that the information that follows is not a signal group and is to be interpreted as spoken.

3.11 Time

3.11.1 For the purpose of CUES, times are expressed as four numbers; the first two numbers denote the hour (00-23) and the second two the minutes past the hour (00-59). Also for the purposes of CUES, time is expressed as ZULU.

3.11.2 The letter "T" (pronounced TANG GO) is used to indicate time in a signal and is positioned as follows:

a) "T" preceding numbers signifies that action is to (or will) commence at that time, for example T2030;

b) "T" following numbers signifies that action is to (or will) be completed at that time, for example 2130T;

c) Number groups before and after "T" signify that action is to occur between the times indicated, for example 2030T2130; and

d) When a signal group consists of only "T" and four numbers, it is a time check, for example T2330.

3.12 Radio Communications Plan

3.12.1 Ship to ship

PURPOSE	PRIMARY	SECONDARY
Calling	VHF Channel 16 (156.8 MHz)	HF 2182 KHz
Working	As agreed upon establishing communications	As agreed upon establishing communications

3.12.2 Between naval ships and naval aircraft

PURPOSE	PRIMARY	SECONDARY
Calling	VHF 121.5 or 243 MHz	HF 3023 KHz or VHF 123.45
Working	HF 3023 KHz or As agreed upon establishing communications	HF 5680 KHz or As agreed upon establishing communications

3.12.3 Between naval aircraft and naval ships

PURPOSE	PRIMARY	SECONDARY
Calling	156.8 MHz (VHF Channel 16) or VHF 121.5 or 243 MHz	HF 3023 KHz or VHF 123.45
Working	As agreed upon establishing communications	As agreed upon establishing communications

3.12.4 When naval aircraft are operating in civil airspace or Outside Control Terminal Airspace, a designated area working frequency will be available. When naval aircraft are working within restricted airspace, the controller of that airspace will have a designated working frequency.

ANNEX A

ELECTED SIGNALS VOCABULARY AND BASIC MANOEUVRING INSTRUCTIONS

CAUTION: IN THE INTERESTS OF SAFETY AND EFFICIENCY, IT IS NOT NECESSARY THAT THESE GROUPS BE USED FOR COMMUNICATIONS PURPOSES

Single Letter Meanings

These signals are not to be confused with the International Code of Signals.

CODE WORD		PRONUNCIATION	SINGLE LETTER MEANING
		The bold-faced syllables are stressed	
USED IN ALL SIGNALLING		USED IN ALL SIGNALLING	WHEN SPOKEN OVER RADIO CIRCUITS, PRECEDED BY "FLAG" TO INDICATE SINGLE LETTER MEANING
A	Alfa	AL FAH	Divers or friendly explosive ordnance personnel down
B	Bravo	BRAV VOH	Weapons practice a. at the dip - on range between phases b. close up - firing has commenced c. hauled down - firing is completed Fuelling or transferring explosives or inflammable materials a. at the dip - have temporarily stopped delivering/receiving b. close up - fuel, explosives or inflammable materials are being transferred c. hauled down - transfer/delivery is completed
C	Charlie	CHAR LEE (or SHAR LEE)	Affirmative, yes or permission granted
D	Delta	DELL TAH	Reserved
E	Echo	ECK OH	Reserved
F	Foxtrot	FOKS TROT	Flight operations a. at the dip - I am ready to operate fixed-wing aircraft when wind conditions are suitable b. dipped after being close up - flight operations have been delayed temporarily c. close up - I am operating fixed-wing aircraft d. hauled down - fixed wing flying operations completed
G	Golf	GOLF	a. This ship is guide b. "G" followed by tack and callsign - ship indicated is guide

H	Hotel	HOH TELL	Helicopter operations a. at the dip - I am ready to operate helicopters when wind conditions are suitable b. dipped after being close up - helicopter operations have been temporarily delayed c. close up - I am operating helicopters d. hauled down - helicopter operations completed
I	India	IN DEE AH	I am going alongside a. at the dip - I am preparing to receive/come alongside b. close up - I am ready to receive/come alongside c. hauled down - first line is secured
J	Juliett	JEW LEE ETT	Reserved
K	Kilo	KEY LOH	Personnel working aloft or over the side
L	Lima	LEE MAH	Radiation hazard. Do not approach within ... yards of this unit or unit indicated without first obtaining positive clearance to do so 1. 200 yards 2. 500 yards 3. 3, 000 yards
M	Mike	MIKE	When not underway - Medical duty ship. I have medical and dental duty a. M1 - I have medical guard duty b. M2 - I have dental guard duty While conducting flying operations - Disregard my movements
N	November	NO VEM BER	Your movements are not understood
O	Oscar	OSS CAH	Man overboard
P	Papa	PAH PAH	Reserved
Q	Quebec	KEH BECK	All boats belonging to this ship (or boats addressed) should return to this ship immediately
R	Romeo	ROW ME OH	Replenishing or transferring abeam method a. I am steady on course and speed and am ready to receive/come alongside on side indicated b. close up - I am ready for approach/am commencing approach c. hauled down - messenger is in hand Replenishing or transferring by the astern method a. at the dip - I am steady on course and speed and am ready to stream hose on quarter indicated/I am ready to close and take the hose b. close up - I am ready for your approach/I am commencing approach c. hauled down - hose is on deck of receiving ship
S	Sierra	SEE AIR RAH	Signal flying is for flaghoist drill only
T	Tango	TANG GO	Reserved

U	Uniform	YOU NEE FORM (or OO NEE FORM)	Anchoring a. at the dip - anchor let go (PORT or STBD may be used to indicate which anchor) b. close up - chain cable veered to required length c. hauled down - chain cable secured Mooring a. at the dip - anchor let go (PORT or STBD may be used to indicate which anchor) b. close up - chain cable modified c. hauled down - chain cable secured Weighing a. at the dip - I am heaving in or unmooring (PORT or STBD may be used) b. close up - anchor aweigh c. hauled down - I am ready to proceed
V	Victor	VIK TAH	Streaming and recovering equipment a. close up - I am streaming or recovering towed acoustic devices not including minesweeping equipment b. hauled down - equipment streamed/recovered
W	Whiskey	WISS KEY	Reserved
X	X-ray	ECKS RAY	Reserved
Y	Yankee	YANG KEY	Reserved
Z	Zulu	ZOO LOO	Reserved
0	ZERO	ZAY ROH	Guard a. by boats - I am guard mail duty boat b. I have military guard duty
1	ONE	WUN	Reserved
2	TWO	TOO	Reserved
3	THREE	TREE	Reserved
4	FOUR	FOH WER	Reserved
5	FIVE	FIVE	Breakdown I have a breakdown or am not under control
6	SIX	SIX	Towing operations Identifying flag for towing operations
7	SEVEN	SAY VEN	Reserved
8	EIGHT	ATE	Boat signal
9	NINE	NI NER	Reserved
•	DECIMAL POINT	DAY SEE MAL	Decimal point
INT	INTERROG ATIVE	INT AIR OG AH TEEV	Signal not understood

Emergency Signals

Emergency Alarm Signals	
EMERGENCY (000 to 359)	Attention is drawn to danger or emergency on true bearing ….. from this ship or ship indicated.
EMERGENCY (PORT or STARBOARD) (0 to 18)	Attention is called to danger or emergency on relative bearing indicated in tens of degrees from this ship or ship indicated.
EMERGENCY C	Collision course. You are on a collision course with me. Keep clear.
EMERGENCY D	Collision. This ship or ship indicated has been in a collision
EMERGENCY F	I have an aircraft landing in an emergency
EMERGENCY H	Helicopter Emergency. I have a helicopter landing in an emergency.
EMERGENCY 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 material (such as magnesium, flares)
EMERGENCY U	Danger. You are standing into danger
Emergency Action Signals	
EMERGENCY 1	Avoiding action. Take individual avoiding action.
EMERGENCY 4	Cease fire. Do not fire.

Special Groups

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

Submarine Pyrotechnic Signals

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

Governing Groups

SIGNAL	MEANING
BA	Action is being carried out (or I am)
BB	Action completed (or I have)
BC	I recommend
BD	Report time you will be ready (to ...)
BE	Report when ready (to ...)
BF	Ready (to ...) (at ...)
BG	My present intention is to ……
BI	Action is not being carried out (or I am not)
BJ	If you desire
BK	When you desire
BL	When ready
BU	Unable (to ...)
BX	Indicates the end of a series of groups governed by governing group.

Tactical Signal Groups

FORM (FORMATION) SIGNALS	
FORM (PORT OR STARBOARD) (0 to 18)	Form on a line of bearing on a relative bearing in tens of degrees (0 to 18) from the guide or ship indicated on the present course or course indicated
FORM (000 to 359)	Form on a line of bearing on a true bearing from the guide or ship indicated on the present course or course indicated
Information Signals	
B FORM	Force is in formation number ... (this unit or unit(s) indicated is (are) occupying station(s) indicated.
G FORM	Guide of is ... (in station ... or bearing ... from this unit or unit indicated distance of ... miles.)

STATION SIGNALS	
Action Signals	
STATION (PORT OR STARBOARD) (0 to 18)	Take station on a relative bearing in tens of degrees from the guide or ship indicated at standard distance (or at a distance of ... miles)
STATION (000 to 359)	Take station on a true bearing indicated from the guide or ship indicated at standard distance (or at a distance of ... miles)
STATION F	Sequence …… 1. Assume sequence number … Assume sequence number …. and true action accordingly.
STATION R	Report when you are in station
Information Signals	
A STATION	In station. This unit (or unit indicated) is in station.
B STATION	Unable to keep station. This unit (or unit indicated) is unable to keep station or carry out movements directed (due to ...) 1. Breakdown 2. Engineering restrictions 3. Weather

TURN SIGNALS	
Action Signals	
TURN (PORT OR STARBOARD) (1 to 36)	Turn together in the direction indicated, the number of tens of degrees indicated
TURN (PORT OR STARBOARD) (000 to 359)	Turn together in the direction indicated, to the course indicated
CORPEN C	Stop the turn. Stead on course…
Information Signals	
J TURN	Formation course and speed for joining as indicated (b). Guide unit (c). Base course (d). Speed (m). Next alteration of base course is likely to be to (course) ... at (time) ... Example: J TURN 270-10: Formation course and speed for joining is 270° true at speed 10 knots

CORPEN (COURSE) SIGNALS	
Action Signals	
INT CORPEN	What is your course and speed?
CORPEN (PORT OR STARBOARD) (1 to 18)	Alter course by Corpen in the direction indicated, the number of tens of degrees indicated
CORPEN (PORT OR STARBOARD) (000 to 359)	Alter course by Corpen in the direction indicated, to the course indicated
CORPEN C	Stop the turn. Steady on course ...
CORPEN E	Steer safety course ...
CORPEN U	Maintain present course (or course …) (until ...)
Information Signals	
B CORPEN	Base course is ...
E CORPEN	Safety course is ...
G CORPEN	Guide's course is ... (or is altering to ...) Guide's speed is ...
K CORPEN	Course is ...
M CORPEN	My (or unit indicated) course is ... My speed is ...
X CORPEN (PORT OR STARBOARD)	I am about to alter course to port or starboard as indicated (... tens of degrees) (or to course ...)

SPEED SIGNALS	
Action Signals	
INT SPEED	What is your speed?
SPEED	Guide proceed at speed …., other ships proceed as necessary to maintain station.
SPEED H	Proceed at speed ...
SPEED S	Stop engines
Information Signals	
B SPEED	Base speed is ...
G SPEED	Guide's speed is ...
M SPEED	My (or unit indicated) speed is ...
S SPEED	Stationing speed is ...

Basic Formations

Column. In a column formation ships are formed in line, bow to stern, with station 1 the lead ship in the line. Subsequent stations in the line are directly astern station 1 and are numbered sequentially (stations 2, 3, 4, and so on). The bearing between stations in the line is the same as the course of the column formation. The distance between stations in the column will be signalled by the Officer Conducting or Scheduling the Exercise. The guide may be assigned any station in the column. Note that station numbers may not always correspond with sequence numbers.

Line abreast. In the line abreast formation ships are formed in a line, beam to beam, with station 1 at the end of the line. If stations 2, 3, 4 and so on are to starboard of station 1, the formation is line abreast to starboard. If stations 2, 3, 4 and so on are to port of station 1, the formation is line abreast to port. The bearing between stations in the line is perpendicular to the course of the line abreast formation. The distance between stations in the column will be signalled by the Officer Conducting or Scheduling the Exercise. The guide may be assigned any station in the column. Note that station numbers may not always correspond with sequence numbers.

Line of bearing. In a line of bearing formation ships are formed in a line with station 1 at the end of the line. Subsequent stations (2, 4, 4 and so on) are aligned along the designated line of bearing. The bearing may be designated as either a true bearing from station 1 using the signal FORM (000-359) and the true bearing from station 1. The bearing may also be relative to the course of the formation using the signal FORM (PORT or STARBOARD) and the relative number of degrees in tens of degrees (0-18). The distance between stations in the column will be signalled by the Officer Conducting or Scheduling the Exercise. The guide may be assigned any station in the line. Note that station numbers may not always correspond with sequence numbers.

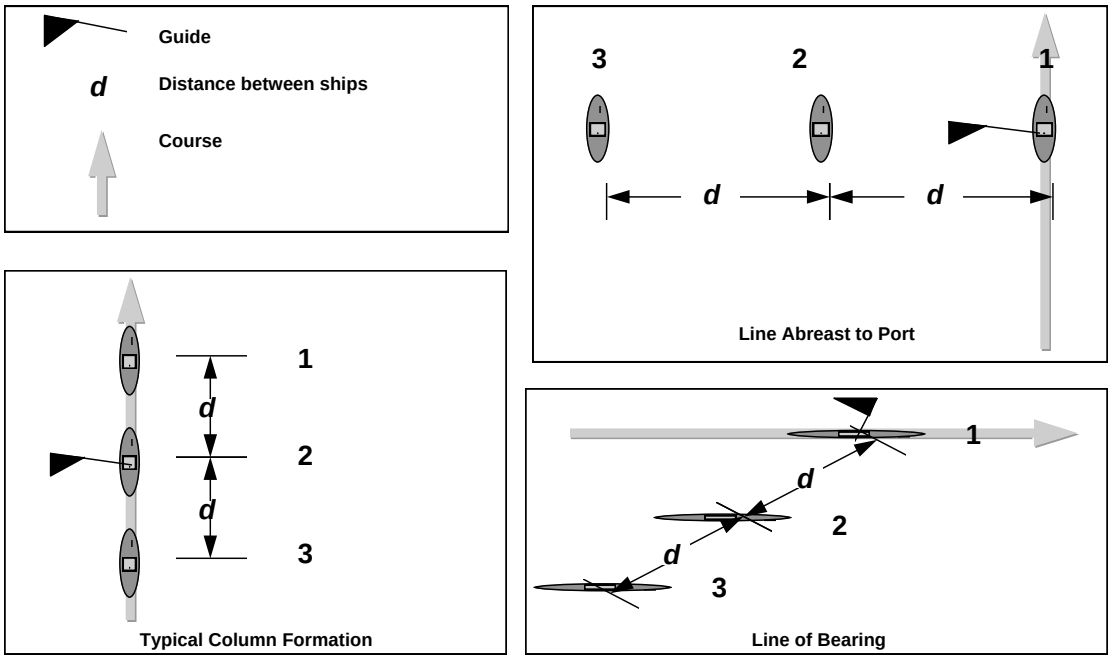

Figure 1: Typical Formations

Special Tactical Signal Groups

AD32	Attention is called to the publication, plan or operation order indicated by short title DESIG. Paragraph number may be added.
AD40	Officer indicated following DESIG or representative is requested to report onboard this ship or ship indicated
AS10	Weapon Safety Range. Anti-submarine warfare weapon safety range is (...)
AS55	Sonar operation is as indicated 2. Operate sonar emission equipment for tuning, maintenance and calibration
AS65	Proceed clear of submarine (and ...) 1. Maintain cavitation speed 2. Maintain speed of at least 12 knots 3. Operate at a speed avoiding cavitation
AS67	Submarine safety course is (...) Example: AS 67-270 ... Submarine safety course is 270° true
AS87	Helicopter (indicated) are to random dip
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 7. Postpone flights 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. 2. HIFR (Helicopter In-Flight Refuelling) 3. Mail transfer (in sequence of units) 4. Personnel transfer 5. VERTREP 6. RRR (Rotors Running Refuelling) 7. RRRR (Rotors Running Refuelling and Rearming) 8. Training
AV26	Progress of aircraft (fixed wing or helicopter) operations is as indicated 1. I am ready to operated fixed wing aircraft when wind conditions are suitable 2. I am ready to conduct helicopter operations when wind conditions are suitable 3. I am operating fixed wing aircraft 4. I am operating helicopters 8. My flight operations have been delayed (about 10 minutes) 10. I have completed operating fixed wing aircraft 11. I have completed operating helicopters

CM2	Communication difficulties. I am not in communication (or difficulties exist) with you or unit indicated (on ... MHz) or circuit indicated following DESIG. (action to be taken) 1. Check your transmitter 2. Check your receiver 3. Check for steady key
CM4	Establish communications with me or unit indicated by (...) 2. Flaghoist 3. Flashing Light 7. Loudhailer 10. Radiotelephony 15. VHF bridge-to-bridge (channel ….)
CM8	Shift frequency on this circuit or circuit indicated (to ...) 1. Primary frequency 2. Secondary frequency 4. Frequency ... MHz (following DESIG) 5. Channel (following DESIG)
CM13	Groups from … have been used for the following (number … of groups) 1. Allied Guide to Masters 2. International Code of Signals
ED10	Moor, with anchors…. PORT or STBD may be used to indicate which anchor is let go first.
ED18	Weigh anchor (or ...) PORT or STBD may be used to indicate which anchor is let go first. 1. Weight second anchor 2. Secure anchors
EX2	Exercise to be conducted indicated following DESIG
NA24	PIM. Position and intended movement (PIM) is as indicated a. Position b. Time of position in whole hours c. Course d. Speed e. Period in hours for which the preceding course and speed are in force
NA31	Reference Point. This unit or unit indicated will pass through reference position indentified by letter and/or numerial following DESIG at …. (course …. and speed …)

<table>
<tr><td>RE6</td><td>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)).
<table>
<tr><th>List A</th><th>List B</th><th>List C</th></tr>
<tr><td>A. Sunk
B. Imminent loss
C. Inoperable
E. Immobilised
F. Major damage
G. Medium damage
H. Minor damage
J. No damage</td><td>5. Communications and navigation impaired
6. Flight operations capability
7. Loss of sensors
8. Major fire
9. Major flooding
10. Major propulsion damage
12. Minor fire
13. Minor flooding
14. Onboard repairs
15. Personnel injuries
16. Speed reduced
17. Underwater penetration</td><td>A. Acoustic assessment
B. ESM assessment
C. Independent observer
D. Post-action visual observation
E. Radar assessment
F. Visual observation
G. Infrared assessment</td></tr>
<tr><td colspan="3">Example: RE 6-H-13 ... This unit has sustained minor damage from minor flooding</td></tr>
</table></td></tr>
<tr><td>RE7</td><td>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</td></tr>
<tr><td>RE32</td><td>Operate … equipment indicated following DESIG
1. Continuously
2. Intermittently

Example: BG-RE 32 DESIG TARGET INDICATION RADAR - 2 ... My present intention is to operate target indication radar continuously</td></tr>
<tr><td>RS7</td><td>Replenish (...) … call sign of receiving ships (... position, designation from RAS Planning Sheet) (….time in ZULU).
1. Fuel
2. Stores
3. Ammunition
4. Potable water</td></tr>
<tr><td>TA12</td><td>Distance. Maintain present distance (or take ...)
1. Distance of ... hundred yards
2. Distance of ... miles
3. Double standard distance
4. Standard distance

Example: TA 12-2-10 Maintain a distance of 10 nautical miles from this unit</td></tr>
</table>

TA17	You bear ... ° true from this unit or unit indicated or position indicated (distance ... nautical miles)
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 the vicinity (or position ...)
TA29	Ships in company are ...
TA87	Leave formation
TA88	Proceed (...) 2. As necessary to pass through formation or to reach position (at …). 3. As previously directed.
TA89	You are detached
TA99	Form part of this unit or unit indicated for manoeuvring purposes Example: BJ-TA 99 ... If you desire form part of this unit for manoeuvring purposes
TA100	Keep ... 1. Ahead 2. Astern 4. Clear during manoeuvres 7. Out of the way 8. To port of this unit or unit indicated 9. To starboard of this unit or unit indicated Example: TA100-1 ... Keep ahead of this unit
TA103	Pass ... 1. Ahead of this unit or unit indicated 2. Astern of this unit or unit indicated 5. Through formation 7. To port of this unit or unit indicated 8. To starboard of this unit or unit indicated Example: BC-TA103-5 ... I recommend that you pass through the formation
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 6. On present base course