

# **SADC IROO 1**

## **INTER-STATE DEFENCE AND SECURITY COMMITTEE**

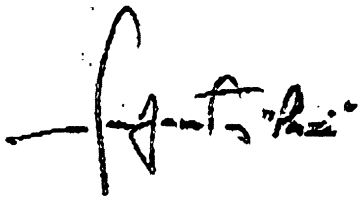
# **SADC INTEROP REFERENCE OPERATIONS ORDER FOR COMBINED MARITIME FORCE PREPARATION**

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2. Unauthorised copies of this publication may not be made.
3. Requests for additional copies of this publication are to be motivated and forwarded to SO1 Warfare Publications at the Navy Office, Department of Defence, Private Bag X104, Pretoria, South Africa, 0001.
4. *Mustering Requirements*
  - a. This publication is to be mustered at three monthly intervals and on every occasion of being transferred to the charge of another responsible person.
  - b. Page by page musters are to be carried out
    - i. on receipt;
    - ii. on insertion of a change;
    - iii. at three monthly intervals;
    - iv. on transfer to the charge of another person; and
    - v. on final return.
5. Proposed changes and amendments are to be forwarded to SO1 Warfare Publications, see paragraph 3 above, for further processing.



(F.A. DOS SANTOS)  
CHAIRMAN: STANDING MARITIME COMMITTEE OF THE ISDSC: ADMIRAL

June 2002





**PREFACE**

1. *Purpose*
  - a. It has been agreed by the Organisation of African Unity (OAU) and the Southern African Development Community (SADC) that a sub-regional conflict prevention mechanism should be established. For this purpose, the Inter-State Defence and Security Committee (ISDSC) was established by the member countries of SADC.
  - b. The purpose of this publication is to provide an INTEROP Reference Operations Order that will be used to plan and compile an Operations Order for future Combined Maritime Exercises/Operations between the Multi-National Maritime forces of SADC.
2. *Validation of Procedures*
  - a. The procedures are validated during “INTEROP” exercises.
  - b. Those parts that are validated practically, become approved parts of the publication.

**CONTENTS**

<i>Chapter</i>	<i>Title</i>
1	SADC INTEROP Reference Operations Order
2	Concept of Operations
3	Communications
4	Cruising Instructions
5	Electronic Warfare
6	Conduct of Combined Exercises
7	Exercise Descriptions
8	Air Operations
9	Ships and Aircraft Characteristics Information
10	Search and Rescue
11	Logistics and Readiness
12	Mine Warfare
Appendix A	List of Abbreviations

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**CHAPTER 1****SADC INTEROP REFERENCE OPERATIONS ORDER****01101 Format for SADC INTEROP Operations Order**

COPY N°  
 COMMANDER TASK FORCE TWO ZERO  
 DATE MONTH 200\_

**SADC INTEROP OPERATIONS ORDER *No/Year***

*Time Zone:* Local Time will be used.

**01102 Task Organisation**

1. Task Force 20 may be subdivided into Task Groups as follows:

Task Group 20.0	Participating Country X
Task Group 20.1	Participating Country Y
Task Group 20.2	Participating Country Z
Task Group 20.3	<i>etc</i>
Task Group 20.4	<i>etc</i>

2. *General Task Force Organisation*  
 To be confirmed during the exercise planning.

**01103 Situation**

The governments of the SADC Member States have authorised combined naval operations named INTEROP, between their respective maritime forces. Task Force 20 is the force designation for these operations and will be composed of units of the member states.

**01104 Missions**

1. Provide opportunities for participants to conduct combined maritime operations in compliance of mutual objectives.
2. Improve the compatibility/interoperability of the combat capabilities of participating units and enhance readiness for combined operations.
3. Encourage friendship and understanding.

**01105 Execution**

1. *Concept of Operations.* See Chapter 2.
2. *Tasks*
  - a. *Participating Units (General)*
    - i. Carry out assigned tasks in accordance with direction and guidance provided by own National Authority and this SADC Operations Order.
    - ii. Exchange observers.
    - iii. Accomplish the exercises selected from those listed in the Schedule of Events (Chapter 4 Section 2).

- b. *Surface Units*
  - i. Develop and improve tactics, doctrine and operating procedures for the employment of surface units.
  - ii. Conduct offensive and defensive operations against air, surface, sub surface and designated assets or targets ashore.
  - iii. Carry out Seamanship Evolutions required during underway operations.
- c. *Surface Auxiliary/Convoy Units*
  - i. Develop and improve tactics, doctrine and operating procedures for the employment/utilisation of replenishment, service units and convoy elements.
  - ii. Provide underway replenishment, logistic support, target towing and other services, conduct convoy operations, and provide main body units.
- d. *Co-ordinating Instructions*
  - i. The SADC Reference Operation Order publication is effective for planning and operations purposes upon receipt of the corrections made after the planning conference. The resultant SADC Operations Order *No/Year* will be utilised in the conduct of SADC INTEROP exercises between SADC member states.
  - ii. The official language is English.

**01106 Administration and Logistics**

- 1. The following procedures are to be adhered to:
  - a. Normal logistics will be in accordance with own national force directives. Special logistics will be in accordance with prior arrangements and Chapter 11 of this publication.
  - b. Units will be under command of their own national authorities for administrative purposes at all times.
  - c. Anchoring and berthing assignments will be made by the naval authorities of the host country.
  - d. The Task Group Commander hosting the planning conference will normally prepare the agenda for scheduled pre-sail conferences and the required signals/messages.
  - e. The country requiring clearance for their own units/personnel *wrt* port visits, aircraft overflight rights and landing, communications frequencies, *etc.*, will initiate such clearance.

**01107 Command and Communications**

- 1. *Definitions*
  - a. Officer Scheduling the Exercise (OSE).
  - b. Officer Conducting the Exercise (OCE).
  - c. Officer Conducting the Serial (OCS).
  - d. Officer in Tactical Command (OTC).
- 2. *Responsibilities*
  - a. *Task Force Commander (CTF)*. Is the host nation authority and will always act as Officer Conducting the Exercise (OCE). His function essentially comprises the overall co-ordination of the exercise schedules, area, safety and PIM.

- b. *Task Group Commander (CTG)*. Each country will promulgate their flagship unit and their Task Group Commander.
3. Succession to command of national forces is in accordance with own national directives.
4. Communications will be in accordance with Chapter 3.
5. During in-port periods, units will be under control of their own national authorities for operational purposes.

**CHAPTER 2**  
**CONCEPT OF OPERATIONS**

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## CHAPTER 2

### CONCEPT OF OPERATIONS

#### 02101 General

1. INTEROP is a combined maritime operation, designed to be used when the navies of SADC Member States request to exercise their maritime forces.
2. Task Force 20 is the allocated force designation for these operations and will consist of units of the participating countries.

#### 02102 Concept

1. INTEROP is a combined maritime operation. The participating countries will conduct multilateral operations when feasible and desired. The host country will have the primary planning responsibility.
2. Safety of personnel, ships and aircraft is paramount during peacetime operations. Nothing in this SADC Operation Order shall be construed as constraining any Commanding Officer from taking action deemed appropriate in the interest of safety.
3. Except as may be otherwise directed in the operations order, exercises will be conducted according to the instruction guidance contained in appropriate exercise manuals.
4. Search and Rescue (SAR) will be in accordance with directives of each participating country. See Chapter 10.
5. Nothing in this operation order should be construed as negating or violating sovereign rights of the participating nations.
6. Incidents which may attract national or international attention and for which other reporting procedures have not been prescribed will be reported to the Task Force Commander and the relevant national Task Group Commander, and will be resolved according to the host nation's procedures.
7. Exercises conducted during INTEROP are designed to enhance the readiness of each unit participating and the combined capabilities of the participating Task Groups.
8. Exercises cover as wide a range of naval warfare as possible with available assets and as mutually agreed by the participants.
9. In order to be better prepared to commence operations at sea, time should be allotted at the beginning of each operation for symposia, in-port drills, exchange visits, and discussions of tactics and procedures and the finalisation of required signals/messages to be used during the exercises at sea.

#### 02103 Procedures

1. The request for INTEROP operations will be presented to the Standing Maritime Committee of the ISDSC as early as possible, but normally not later than 12 months prior to the execution.
2. The official language to be used is English.
3. Irrespective of seniority, it is agreed upon that ceremonial and protocol activities will be conducted in alphabetical order of countries taking part.

4. A planning conference should be held not later than three months prior to the operation, and will normally be done in the host's country. A draft schedule of events including protocol and other proposed in port events should be provided through respective Military Attaché's no later than 15 days prior to the planning conference.
5. Subsequent planning sessions may be done to complete the finer details for the forthcoming INTEROP. The requesting nation or participating nations should notify the acceptability and/or comments on the proposed SADC Operations Order drawn up from the SADC INTEROP Reference Operations Order. These subsequent planning sessions may be held at the host's headquarters and the following additional details should be available at these sessions:
  - a. Operating Areas.
  - b. Ships/Aircraft Characteristics.
  - c. Ships/Aircraft Electronic and Communication configurations.
  - d. Berthing/Anchoring Plans.
  - e. Fuelling Data.
  - f. Assigned frequencies.
6. Publications used, in addition to this SADC INTEROP Reference Operations Order, will be agreed to at the planning conference. As an example:
  - a. ATP 1 Vol I and II.
  - b. EXTAC 1001/1011.
  - c. Multi National Maritime Manuals.
  - d. SADC MPSO 1 *etc.*

**CHAPTER 3**  
**COMMUNICATIONS**

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## CHAPTER 3

### COMMUNICATIONS

#### SECTION 1 - GENERAL

##### **03101 Introduction**

1. Communications will be in accordance with this Chapter and applicable publications listed in Section 5 of this Chapter.
2. All communications transmissions including the local weather broadcast will be in English.

##### **03102 Radio Communications**

1. *General*
  - a. Radio circuits will not be secured without notification of the net control station and OCS.
  - b. The net control station will always be considered to be on frequency. All stations on the net will tune their transmitters and receivers to the frequency of the net control station.
  - c. During operations, equipment failures, which adversely affect communication circuits, will be reported to CTF 20, the OCS and own Task Group Commander giving estimated time to repair.
2. *Radio Checks*
  - a. Pre-sail radio checks will be conducted by the units designated at the time specified in the schedule of events (Chapter 4, Section 2).
  - b. Initial radio checks will be conducted on Line C01A; subsequent radio checks as directed by the OCS.
  - c. Radio checks on each circuit will be conducted from remote operating positions to ensure satisfactory operation.
  - d. EMCON permitting, during periods of low activity on a circuit, the Net Control Station (or OCS) will conduct radio checks at least once every watch. Units desiring a radio check on a particular circuit will conduct the check with the Net Control Station only.
3. *Radiotelephone Circuits*
  - a. Voice transmissions must be spoken slowly and distinctly to minimise retransmissions.
  - b. All stations adhere to the "listen before transmit" policy to avoid interfering with transmissions already in progress.
  - c. Tactical voice circuits are not to be used for passing administrative traffic.
  - d. All units respond to collective calls in alpha/numeric order of call signs.
4. *Radioteletype Circuits*
  - a. Radioteletype circuits will be simplex, unless otherwise directed.
  - b. Net control on radioteletype exercise circuits will be the OCS unless otherwise designated. For tactical circuits the OCS/OCM is Net control.

- c. Radioteletype circuits will be used in preference to visual communications for passing lengthy operational and administrative message traffic, (*eg* pre-exercise instructions and post-exercise critiques).
  - d. Line B01/B02 will normally be guarded by Task Group Commanders. Task Group Commanders will accept and relay message traffic to and from units not on this net *via* other appropriate means.
  - e. Standard message format is contained in Section 8 of this Chapter.
5. *Radiotelegraph Circuits*
- a. TASK FORCE CW NETS will be activated when directed by CTF 20 or the Task Group Commander. When activated, these circuits will normally be guarded by all ships of the task force.
  - b. The sending operator shall not transmit faster than the receiving speed of the slowest operator.

**03103 Visual Communications**

1. Visual communications will be used in preference to radio communications for passing short operational and administrative traffic (*eg* fuel and position reports).
2. Each ship will maintain an alert visual signal watch from sunrise to sunset in port and at all times underway. Ship watch-keeping arrangements are permitted in port but must be approved by the Force Communications officer.

**03104 Communications Plans**

1. The frequency plan is contained in Section 3 of this Chapter.
2. Circuits appearing in a communication plan will be referred to as "lines" followed by a number to indicate the particular circuit.
3. The STANDARD UNDERWAY COMMUNICATION OPERATING PLAN and tactical communications packages are contained in Section 2 of this Chapter.
4. INPORT COMMUNICATIONS OPERATING PLAN is contained in Section 2 of this Chapter.
5. CTF 20 is tasked to provide in advance of the planning conferences a proposed list of frequencies for each Line Number of the Communications Line Plan. These are contained in Section 3 of this Chapter.
6. Each country is responsible for obtaining proper frequency clearance from National Authority for both in port and at sea operations.
7. A frequency plan modifying Section 2 which assigns mutually cleared frequencies to Line Numbers will be promulgated by CTF 20 prior to each operational phase as required.

**03105 Call Signs**

1. Call signs for radio communications when underway will be included in Section 4 of this Chapter as "RADIO".
2. Call signs for visual communications will be in accordance with Section 4 of this Chapter.
3. On national circuits, *eg* harbour, tug, emergency, *etc*, ship names should be used.

**03106 Fleet Broadcast, Ship/Shore**

1. Ships will utilise national communications circuits in accordance with national directives.
2. Units will not be required to copy fleet broadcast of any other navy unless specifically scheduled and mutually agreed upon.

**03107 Distress Communications**

1. Task Group Commanders will designate ships to guard national and international distress frequencies at sea.
2. The Task Force Commander (CTF 20) will designate ships in port to guard distress frequencies unless a shore station performs this duty.
3. Ships intercepting distress traffic will immediately notify the CTF 20.

**03108 Aircraft Communications**

1. National Task Group Commanders are responsible for communications between ships at sea and air bases of host country.
2. One hour prior to launch of aircraft, the National Task Group Commander will transmit a weather forecast in the operating area and will maintain communications with the air base until all aircraft have reported "IN".
3. Line K01 is normally utilised for communications with aircraft operating from the host country airfields.

**03109 "BEE" NET - Air Co-ordination and Safety Net**

For exercises involving the operation of aircraft by opposing sides, (*eg* a freeplay), a communications net will be established for the purpose of providing air-to-air and air-to-ground (ship) co-ordination and safety. Communications on this net are to be considered "non-exercise" by all units and information obtained *via* this net will not be used in exercise play. The net used for this purpose will be Line 101A. (Specific directions for the use of this net are included in Chapter 6.) All aircraft using the BEE NET will call as follows: "BEE NET CONTROL, THIS IS (AIRCRAFT CALL SIGN)".

**03110 Air/Ground/Air Radiotelephone Communications**

Whenever a Task Group Commander or aircraft desires to establish a Simplex radiotelephone circuit, co-ordination shall be affected on Line K01A. Both units will maintain voice communications on Line K01A until new circuit is operational.

**03111 SAR Communications**

SAR communications instructions and procedures are contained in Section 6 of this Chapter.

**03112 Submarine Communications**

1. Task Group Commanders will make appropriate communications guard arrangements for assigned submarines.
2. Submarines have priority over surface ships for transmitting messages of equal precedence.

**03113 Communications Exercises**

1. Communications drills will be held in accordance with schedule of events, Section 2 of Chapter 4.

2. Pre-exercise messages are normally not required for communication exercises, but participating units should be notified of the degree of skill level required. The OCS upon COMEX will pass other information concerning the exercise details to all units.
3. Communications exercises are primarily scheduled to improve combined communications capabilities. Consequently, emphasis should be placed on correct procedures and circuit discipline and not on speed.

**03114 Publications**

Section 5 of this Chapter will be issued at the INTEROP Planning Conference stating the publications and changes, which will be used for the INTEROP Exercise.

**03115 Operational Code (s)**

No operational code is provided.

**03116 Communications Security**

General COMSEC procedures are contained in Section 7 of this Chapter.

**03117 Ships Communications Capabilities**

1. In order to provide effective communications, planners must have information on the communication capabilities and limitations of participating units.
  - a. Chapter 9 contains the number of HF, VHF and UHF lines that participating units are capable of guarding. The list should not include lines dedicated to national communications requirements. This Chapter should be prepared/updated by each country prior to the Planning Conference.
  - b. To avoid placing excessive circuit requirements on any unit, the country having planning responsibility will review the capabilities of participating units and balance communications requirements accordingly. When determining the number of lines available, planners should consider all equipment, including antennas, couplers, *etc.* If limitations are applicable, they should be indicated (*ie* transmit only, receive only, *etc.*).

**03118 Amateur Radio Circuits**

No amateur radio circuits are permitted.

**SECTION 2 - STANDARD UNDERWAY COMMUNICATIONS OPERATING PLAN****03201 Underway Communications Operating Plan (U/W COMMSPLAN)**

1. This plan is for normal use underway. A specific COMMSPLAN for a particular exercise may be developed and published by the OCS if required.
2. When operating together, surface units will normally guard the following circuits:

<i>Lines</i>	<i>Remarks</i>
C01	<i>Tactical manoeuvring and warning net.</i> All movements of Task Group and screen and detachment of SAU/SAGS are made on this net. Net always remains with screen co-ordinator. All units guard.
C02	<i>Tactical reporting.</i> May be utilised for any SAU/SAG/picket report or SITREP outside UHF range. Other reports may be directed for transmission on this circuit. "AS/AX" may co-ordinate weapons employment on this circuit. All units guard.
D01	<i>Tactical reporting.</i> Utilised by all units making reports to Warfare Commander. SAU/SAG will automatically keep circuit when detached and use for manoeuvring and reporting as required. Remaining screen units may be directed to shift to a secondary frequency. "AS/AX" may co-ordinate weapons employment on this circuit. All units guard.
F01	<i>EW reporting</i> when AAW or EW intensity requires, shift from Line J01. "AW" will direct activation of net.
G01	<i>ASW Air Control.</i> Net should be monitored as equipment capabilities permit to maintain ASW picture. All units activate when directed.
I01	<i>BEE net.</i> Co-ordination (UHF) and SAFETY (VHF). Guarded by all air control units fitted with VHF.
J01	<i>Force Defence.</i> Utilised for AAW co-ordination and EW reporting (in low AAW/EW density situations) net controlled by "AW". All units guard.
K01	Guarded by CTF 20 and one other designated home surface ship.
B01	<i>Administrative RATT.</i> CTGs guard this circuit continuously.

3. Submarines will normally guard the following circuits:

<i>Lines</i>	<i>Remarks</i>
C01/A/B	Normal submarine to surface ship UHF.
C02	Normal submarine to surface ship HF (as required).
L01	As required.

4. Local aircraft will send "IN", "OUT", position reports and "WET FEET/ DRY FEET" messages on Line K01. CTF 20 and one other designated local surface unit will guard Line K01. All local units not in company with CTF 20 should guard Line URGE.

5. The following tactical communications packages are established for exercises. Pre-exercise messages must specify additional lines when required and designate lines when a choice is shown. Where a pre-exercise message does not indicate a specific choice, the lowest ALPHA numeric line will be used.

a. *Two ASW exercise groups*

<i>Group A Lines</i>	<i>Group B Lines</i>	<i>Remarks</i>
C01A	C01B	
C02A	C02B	
D01A	D01B	
G01A	G01B	
G02A	G02B	When A/C present or scheduled.
I01A	I01B	When A/C present or scheduled.

b. *Two general exercise groups (for example, air/surface shoot and refuelling)*

<i>Refuelling Lines</i>	<i>Remarks</i>	<i>Air surface Lines</i>	<i>Remarks</i>
C01A		C01B	
C02A/D01		C02B/D01B	

c. *Freeplay Exercises:*

<i>Blue (B)</i>	<i>Orange (O)</i>
Blue Force Commander may select any frequency which has a B suffix and all spare lines to use as Blue Force nets. His designated umpire line is R02B	Orange Force Commander may select any frequency which have an A or no alphabetic suffix to use as Orange Force nets. His designated umpire line is R02A.

*Note:* All assignments shall be made with Letter "B" or "O" preceding the normal line number.

6. All units will file as part of the Ready for Sea Report a list of those COMMs lines which cannot be guarded during specific events or at certain times.

**03202 Harbour/Inport Communications Operating Plan (HBR/INPT COMMPLAN)**

Units will maintain communications with CTF 20 and respective Task Group Commanders on the following lines:

<i>Lines</i>	<i>Remarks</i>
A02	International Channel 16 - bridge to bridge guard.
C01	A-11 units guard until all units moored and net secured by CTF 20.
K01	Guarded by CTF 20 and other designated surface unit.

**SECTION 3 - FREQUENCY PLAN****03301 Frequency Plan**

The following Frequency Plan is provided for use during SADC INTEROP Exercises.

**Table 3-1  
Frequency Plan**

<i>Circuit</i>	<i>Designator</i>	<i>Mode</i>	<i>Frequency</i>	<i>Remarks</i>
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
A01	CO-ORDINATION HARBOUR TUG	F3E	CHANNEL 10/17	
A02	BRIDGE TO BRIDGE	F3E	CHANNEL 16	
B01 A	RATT UHF	J2B	328.0 MHz	J2B/170/1/75
B01 B	RATT UHF	J2B	282.4 MHz	J2B/170/1/75
B02 A	RATT H F	J2B	2610.0 kHz	J2B/170/1/75
B02 B	RATT HF	J2B	8344.0 kHz	J2B/170/1/75
C01 A	TACTICAL	A3E	281.2 MHz.	
C01 B	PRIMARY	A3E	273.5 MHz	
C01 C	UHF-VHF	A3E	357.8 MHz.	
C02 A	TACTICAL	J3E	4141.0 kHz.	
C02 B	SECONDARY HF	J3E	1180.0 kHz	
D01 A	REPORTING	A3E	336.9 MHz	
D01 B	UHF - HF	A3E	352.9 MHz.	
D01 C		J3E	2464.0 kHz.	USB
E01 A	STRIKE CRAFT	F3E	43.150 MHz.	
E01 B	VHF	F3E	43.800 MHz	
F01 A	REPORTING	A3E	270.2 MHz	
F01 B	EW – COORD UHF	A3 E	278.95 MHz	



**SECTION 5 - PUBLICATIONS AND ASSOCIATED CHANGES**

**03501 Introduction**

This will be prepared at the Planning Conference and published separately as part of INTEROP OORDER. It may be inserted here for ready reference.

**SECTION 6 - SEARCH AND RESCUE COMMUNICATIONS****03601 General**

SAR action may be initiated whenever it is considered likely that an aircraft, surface vessel or submarine is in distress.

**03602 Mission**

The mission of SAR communications is to provide rapid and reliable communications that will support command and control, on-scene, monitoring and ship/shore communication requirements.

**03603 Responsibility**

1. Establishing a Rescue Co-ordination Centre (RCC) for controlling and co-ordinating SAR communications is the responsibility of the national SAR co-ordinator. The national SAR co-ordinator may designate another unit or official, better equipped to carry out these functions, to act as the SAR Mission Co-ordinator.
2. SAR Communications will be in accordance with the SAR Communications Plan provided later in this Section.

**03604 SAR Control Circuits**

The purpose of the SAR On-Scene circuit is to provide a communication link between the SAR Co-ordinator, SAR Mission Co-ordinator (SMC), and the On-Scene Commander (OSC) for command and control of the overall SAR effort. All other SAR units will maintain a strict listening watch on these circuits in order to be continuously aware of developing situations.

**03605 SAR On-Scene Circuits**

The purpose of the SAR On-Scene circuit is to provide a communications link between the OSC and all participating SAR units. The OSC is net control station on this circuit, in order to effectively control SAR actions, by participating units.

**03606 SAR Monitor Circuits**

The SAR Monitor circuits are those frequencies which the SAR units may be directed to monitor throughout the SAR mission as designated by the SAR Mission Co-ordinator. The monitor circuits are normally the established distress frequencies.

**03607 Additional SAR Communications**

Communication circuits listed in Section 3 of this Chapter will be made readily available to support any additional unforeseen communications requirements.

**03608 Search And Rescue Communications Operating Plan (SAR COMPLAN)**1. *Search and Rescue Frequency Plan*a. *SAR Control Circuits:*

<i>Line</i>	<i>Frequency</i>	<i>Emission</i>	<i>Use</i>
C01A	281.2 MHz	(Voice)	SAR Control (Primary)
C02A	4141.0 kHz	USB (Voice)	SAR Control (Secondary)
A02	Channel 16	(Voice)	SAR Control (If other than naval units involved)

b. *SAR On-Scene Circuits:*

<i>Line</i>	<i>Frequency</i>	<i>Emission</i>	<i>Use</i>
D0LA	336.9 MHz	(Voice)	SAR on-scene (Primary)
D01C	2484.0 kHz	USB	SAR on-scene (Secondary) (Voice)
101A	128.55 MHz	(Voice)	SAR air control (Primary)
G01A	125.5 MHz	(Voice)	SAR air control (Secondary)

c. *SAR Monitor Circuits:*

<i>Line</i>	<i>Frequency</i>	<i>Emission</i>	<i>Use</i>
Q01A	500 kHz	CW	International Distress and Calling
Q01B	2182.0 kHz	USB	International Distress and (Voice) Calling (Telephony)
Q01C	8364 kHz	CW	International Lifeboat/ Life craft or survival craft
Q01D	121.5 MHz	(Voice)	International Aircraft Emergency
Q01E	243.0 MHz	(Voice)	Military Aircraft Emergency or Distress
Q01F	4340 kHz	CW	Submarine Safety

**SECTION 7 - COMMUNICATIONS SECURITY****03701 General**

1. It is the protection of communications to deny unauthorised personnel access to valuable information and the utilisation of communications deception to mislead enemy analysis.
  - a. The three basic characteristics of a military communications system are reliability, security and speed. Reliability of communications is always considered the most important of the three. The relationship between speed and security can vary. When long range situations are involved, security considerations are generally dominant. In tactical situations, speed of communications becomes more important. However, security measures should always be used as much as possible within the constraints of reliable, rapid communications.
  - b. COMSEC is the responsibility of every Commander. It includes a continual program of education and training in COMSEC procedures, evaluation of procedures, and remedial actions as necessary. When remedial measures cannot be carried out, higher authority should be advised of the circumstances and reasons.

**03702 Basic Rules**

1. The following basic rules should be followed on all military radio telephone circuits, in order to maintain security of radiotelephone transmissions:
  - a. Never transmit without proper authority.
  - b. The following practices are specifically forbidden:
    - i. Violation of radio silence.
    - ii. Unofficial conversation between operators.
    - iii. Excessive testing and tuning.
    - iv. Transmitting the operator's personal sign.
    - v. Unauthorised use of plain language.
    - vi. The use of other than unauthorised prosigns.
    - vii. The unauthorised use of plain language in place of applicable prosigns or operating signals.
    - viii. Linkage or compromises of classified call signs/address groups by plain language disclosures or association with unclassified call signs.
    - ix. Profane, indecent or obscene language.
  - c. The following practices should be avoided:
    - i. Transmitting classified information in the clear.
    - ii. Use of excessive transmitting power.
    - iii. Excessive time consumed in tuning, changing frequency or adjusting equipment.
    - iv. Transmitting at speeds beyond the capabilities of receiving operators.
2. When any station observes a security violation on the circuit, which is not noted by the station responsible for net security, the observing station should notify net control immediately by means of Beadwindow signal. Violations of security observed by stations outside the net should be reported as quickly as possible by secure means.

**03703 Authentication**

1. *Challenge and Reply Authentication.* Challenge and reply insures the validity of the calling station.
  - a. Authentication is employed as follows:
    - i. When any station suspects imitative deception.
    - ii. When a station is challenged or requested to authenticate. Note that radio silence will not be broken solely for the purpose of authentication.

- iii. When making initial radio contact or after prolonged interruption of communications.
  - iv. When making contact and amplifying reports in plain language or brevity codes.
  - v. When transmitting operational instructions.
  - vi. When transmitting a plain language cancellation and the transmitting station cannot be recognised.
- b. *Transmission/Message Authentication.* Transmission/message authentication is a system whereby a station may establish the authenticity of its own messages or transmission. Transmission authentication should be used when it is impossible or impractical to authenticate using challenge or reply, such as
- i. when transmitting to a station which is under radio silence;
  - ii. when imposing or lifting radio silence;
  - iii. when a station suspects imitative deception and transmits a "Gingerbread" message; and
  - iv. when transmitting in the blind to a station which enable listening but incapable of transmitting due to equipment limitation or casualty, *etc.*

#### **03704 Defence Against Interception**

1. Transmission security measures are based upon two assumptions:
  - a. That every electromagnetic transmission can be intercepted and recorded by the enemy; and
  - b. That silence is the only positive protective measure against enemy interception and direction findings.
2. Based on these assumptions, the following defensive measures have been developed and should be used whenever possible or appropriate:
  - a. Use the least amount of transmitter power consistent with reliable communications.
  - b. Select and use frequencies that enable the use of the least amount of transmitter power.
  - c. Avoid simultaneous transmission on two or more frequencies.
  - d. Eliminate unnecessary and unauthorised transmissions.
  - e. Reduce transmission time to a minimum.
  - f. Eliminate unnecessary transmitter tuning and testing.
  - g. Use dummy load when available and minimum power where tuning or testing transmitter.
  - h. Adjust transmitting and receiving equipment accurately.
  - i. Shift frequencies as often as practical.
  - j. Conceal instructions to shift frequencies on tactical circuits by use of encrypted messages.
  - k. Employ the broadcast method of transmission in preference to the receipt method.
  - l. Maintain strict circuit discipline.

#### **03705 Defence Against Traffic Analysis**

1. COMSEC traffic analysts should examine traffic from the enemy's points of view attempting to obtain intelligence information through close observation of detail, inference, deductions, and perception of relationships. By demonstrating the extent of intelligence available to the enemy, and the factors which make it available, traffic analysis enables commanders to assess the degree of security prevailing in their communications system. Only through constant analysis of the transmission procedures, operating techniques employed, and the characteristics of the equipment itself, can more effective defences against enemy traffic analysis be developed.
2. The following defence measures are among those, which can be taken to render traffic analysis by the enemy more difficult and less reliable:
  - a. Use electronic communications only when other means are not available or practicable.
  - b. Use only authorised procedures.
  - c. Use the broadcast or intercept method of transmission whenever possible.

- d. Employ a secure system for rotating, encrypting, or scrambling call signs and address groups.
- e. Change all call signs/address groups simultaneously.
- f. Change frequencies at the time that call signs/address groups are changed.
- g. When secure call signs are used in the headings of a plain language message, their meanings should not be used in the message texts.
- h. When secure call signs are used in the call-up, their meanings should not be used in message headings.
- i. Do not use plain language address designations in the headings of a plain language message, which refers to a previous message on which secure call signs appeared.
- j. Do not use secure call signs in the heading on a plain language message which refers to a previous message on which plain language address designations appeared.
- k. When relaying traffic, use only the call signs or address designations, which appeared on the incoming message.
- l. Employ a secure system for concealing frequencies when frequency shifts are directed.
- m. Maintain strict circuit discipline.
- n. Avoid linkage of the call signs of a unit with any other it may have or with its call sign(s) for the previous day.
- o. Restrict plain language transmission to a minimum.

**03706 Imitative Communications Deception**

1. Any attempt to enter communications systems and simulate traffic, in order to confuse and deceive, is known as imitative communications deception. The presence of imitative communications deception can normally be detected through minor irregularities in procedures, operator characteristic and transmitter tone, repeated requests for message acknowledgement, and inability to authenticate correctly. Success depends largely upon unsuspecting or distracted communications personnel. Strict adherence to authorised operating procedures and observance of transmission security doctrine inhibits the success of imitative communications deception. Operator chatter, failure to authenticate and failure to observe correct operating procedures invite imitative communications deception. Enemy transmissions or ignorance of operating details are more likely to become conspicuous in a net in which circuit discipline is maintained constantly. When communications is recognised it should be reported promptly by "GINGERBREAD" signal.
  - a. Communications personnel must be on a guard against such enemy practices as the following:
    - i. Combining the text of a genuine message (sometimes intentionally garbled) with the heading of another, correcting the group count, and introducing the message on a different radio circuit.
    - ii. Removing a message, including authenticators from one circuit and introducing it on another circuit to waste time, create confusion, and produce service messages.
    - iii. Originating and transmitting false plain language messages.
    - iv. Calling a unit in the hope of taking DF bearings on the answering transmission. Communications personnel should be especially alert for this practice when radio silence is in effect.
    - v. Arranging to have a false message partly obliterated by interference, usually to conceal lack of knowledge of authenticators or call signs.
    - vi. Utilising recently used challenge and reply or authentication combinations to establish validity of messages.

- b. Defence against imitative communications deception is accomplished in the following ways:
  - i. By thorough training in operating procedures.
  - ii. By observance of circuit discipline.
  - iii. By alertness of operators who recognise irregularity in procedures and characteristics of tone or keying.
  - iv. By direction finding on transmissions of questionable origin.
  - v. By the minimum use of plain language and procedures messages.
  - vi. By the correct use of authentication. Inordinate delays in response to a request for authentication should be viewed with suspicion.

### 03707 Jamming

1. The deliberate radiation, re-radiation, or reflection of electromagnetic energy with the object of impairing the use of electronic devices, equipment or systems is known as jamming.
2. Defence against jamming is accomplished in the following ways:
  - a. Circuit and frequency shifts will occur only as directed by the Net Control Station (NECOS) in accordance with the following procedures:
    - i. When a circuit or frequency shift is required, shift instructions will be passed by the NECOS on the affected net and on the jamming control net (TF/TG reporting). All shift instructions will be authenticated by the NECOS initiating the shift. In addition, circuit/frequency shift information will be passed *via* flash precedence message on the TF/TG broadcast. Do not return to the abandoned circuit/frequency if communications are not established immediately, but contact the NECOS on the appropriated jamming control net for further instructions.
3. The following code words and suffixes will be employed to effect circuit/frequency shifts:
  - a. KICK - circuit or frequency shift.
  - b. ONE - maintain communications on primary frequency and attempt to work through jamming.
  - c. TWO - shift to secondary frequency.
  - d. THREE - shift to tertiary frequency.
  - e. FOUR - shift to alternative circuit.
  - f. FIVE - shift to designated frequency.
  - g. SIX - revert to A1 emission on designated circuit.
  - h. SEVEN - revert to primary frequency.
  - i. EIGHT - shift to alternate COMMPLAN primary frequency.
  - j. NINE - shift to alternate COMMPLAN secondary frequency.
  - k. TEN - shift to alternative COMMPLAN tertiary frequency.
4. The authenticated codeword "KICK" is to be used for executing a specific countermeasure.

*Example message:* "C/S THIS IS C/S IMMEDIATE EXECUTE. BREAK, KICK TACK TWO DESIG LINE (C01A)" C01A IS TO BE IN SHACKLE.".....STANDBY.... EXECUTE. AUTHENTICATION TIME IS 0142; AUTHENTICATION IS A8...

**03708 BEADWINDOW**

1. One of the primary factors contributing to the exploitation of non-secure circuits is the failure of NECOS (Net Control Station) or the Senior Commander in a free net to exercise positive control over all members of the net. To assist NECOS, BEADWINDOW procedures were developed. They provide a quick means of informing a station that it has just disclosed information of intelligence value. The following BEADWINDOW procedures shall be employed:
  - a. A NECOS shall be designated for all circuits. If none has been formally assigned, the Senior Commander shall either assume the function or designate a NECOS. (The ultimate responsibility for circuit discipline cannot be delegated and the Senior Commander is responsible for all aspects of circuit discipline.)
  - b. The BEADWINDOW Violation list shall be posted conspicuously at all radio operating positions and telephones. BEADWINDOW violations, whether used singularly or in combination, are unclassified.
  - c. When BEADWINDOW violations are noted, the NECOS shall immediately call the originator of the disclosure and say "BEADWINDOW NUMBER". In the event the NECOS does not immediately issue a BEADWINDOW report; or if NECOS is the station responsible for the disclosure, any station on the net may initiate the report.
  - d. The correct and only reply to a BEADWINDOW is "ROGER OUT".

**Table 3-2  
BEADWINDOW Violations**

00:	The information requested or about to be passed, will disclose an Essential Element of Friendly Information (EEFI) and should be transmitted <i>via</i> secure means.
01:	Forewarning/foreknowledge of the time frame, participating or objectives of an operation, mission or exercise.
02:	Capabilities, limitations of a force, ship, unit or special equipment. <i>Example:</i> Unit or personnel casualty, amount of fuel/armament on board.
03:	Movement, intent or location of any air, sea or ground element, unit or force. <i>Example:</i> Air squadron embarking/disembarking a carrier.
04:	Objectives or effectiveness of friendly or hostile deception or jamming.
05:	Present or intended emission control (EMCON) plans or type of equipment affected by a given EMCON condition.
06:	Disclosure of enemy locations or strengths.
07:	Compromise of daily changing Call Signs and Frequencies.
08:	Compromise of operation or numerical codes.
09:	Plain language reference to frequency, or linkage of circuit designator with either frequency or title.
10:	VIP movement (flag rank or civilian equivalent) during operations or exercises.
11:	Details of the success of failure of an operation, mission, exercise or tactic.
12:	Association of nickname/codeword with its classified or sensitive operation, mission, exercise or tactic.
13:	Your last transmission should not have been transmitted in plain language. Use appropriate code (NUCO/OPCODE) for future transmissions of this type.
14:	Improper authentication: <ol style="list-style-type: none"> <li>a. Your station should have requested authentication.</li> <li>b. Calling station cannot initiate a challenge.</li> <li>c. Calling station did not obtain counter challenge from receiving station.</li> </ol>

**SECTION 8 - STANDARD NAVAL MESSAGE FORMAT****03801 Standard Message Format**

1. The following standard message format will be used for all traffic on Task Force/Task Group radio teletype nets as well as other communications assigned a date-time group:

- a. PART I: PRECEDENCE

The precedence of a message indicates desired writer to reader delivery time. This is based on the urgency, not the importance of the subject matter. There are four precedences:

- i. ROUTINE (R) - Assigned to non urgent messages, *eg* normal peacetime operational and administrative communications. (To be delivered within 6 hours.)
- ii. PRIORITY (P) - Assigned to urgent messages, *eg* orders for movement of forces, impending low fuel status. (To be delivered within 3 hours.)
- iii. IMMEDIATE (O) - Assigned to messages requiring immediate delivery, *eg* amplifying reports of initial enemy contact, urgent intelligence messages. (To be delivered within 30 minutes.)
- iv. FLASH (Z) - Assigned to messages of an emergency nature. Message brevity is mandatory, *eg* initial enemy contact reports, warning of imminent attacks. (As fast as possible with an objective of less than 10 minutes.)

- b. PART II: DATE -TIME GROUP

The Date-Time Group is assigned for identification purposes and follows the precedence. It consists of six digits followed by a time zone suffix and abbreviated month year. The first two digits designate the day of the month, the second two digits designate the hour, and the third two digits designate the minutes. The time is written in Greenwich Mean Time (GMT) which uses the time zone suffix Z. For example: 122231Z AUG 94 would be the 12th day of August 1994 at 2231 GMT. Date-Time Groups may be used only once by each originator.

- c. PART III, IV, V: FROM, TO, INFO AND XMT ADDRESSEES:

**FROM:** The FROM line (Part III) of the message heading component contains the originator's Plain Language Address.

**TO:** The TO line (Part IV) contains the action addressee (s) plain language address.

**INFO:** The INFO line (Part V) contains the information addressee (s) plain language address.

**XMT:** The XMT line contains the exempt addressee (s). When addressing messages to collective address, the drafter may desire to exclude certain activities from receiving the message. Using the prosign XMT, meaning exempt, after the last INFO addressee and preceding only the first exempted addressee does this.

*Note:*

Although the number of addressees in either category is unrestricted, the prosign TO, INFO or XMT is placed before the first addressee in each category,

## d. PART VI: BT

"BT" is used at the end of the heading of the message. It is used to indicate the end of the heading and beginning of the next part of the message.

## e. PART VII: SECURITY CLASSIFICATION

The first word of a text is the security designation that identifies the overall classification of the message; CONFIDENTIAL, SECRET, TOP SECRET. If the message contains no classified data then the word UNCLAS is used.

## f. PART VIII: MESSAGE FORMAT

BRAVO is the format used for most narrative messages, with the only exceptions being those narrative messages for which other directives require a different format *eg* Exercise Message Format. Here are the rules and general instructions for the preparation of the INTEROP message format:

- i. The message body contains the subject line, reference line and the text. The subject line begins at the left hand margin of the first line following the classification line. It tells the reader the basic contents of the message. It may be eliminated for tactical messages when it will noticeably increase the length of a short message, or if the subject is apparent in the first line of the text. The prosign "SUBJ" precedes the subject.
- ii. The reference line is used instead of repeating lengthy references in the body of the message. Each reference is lettered consecutively one beneath the other. The prosign "REF" precedes the references. Other messages, documents, correspondence, phone calls, meetings, conversations, *etc*, may all be references. In referencing documents the abbreviated title and relevant sections/paragraphs must be cited. Correspondence is referenced by using the short title of the originator, the serial number and date of correspondence.
- iii. It is sometimes necessary to reference a document, which some addressees do not hold. In this case "NOTAL" (not send to all addressees) or "PASEP" (passed separately) will follow the reference. The prosign "NOTAL" is used when those who do not hold the reference will not need it. The prosign "PASEP" is used when the reference will be, or has been passed separately.
- iv. Punctuation is used in the text of the message in the usual manner and will be transmitted as such.
- v. Each paragraph and subparagraph of classified messages will be marked to show the level of classification. The classification is found at the beginning of the first sentence of each new paragraph or subparagraph. The parenthetical symbols (TS), (S), (C), and (U) for Top Secret, Secret, Confidential and Unclassified are used.

## g. PART IX: BT

"BT" indicates the message ending.

**SECTION 9 - STANDARD OPGEN ALPHA**

**03901 Purpose**

1. The OPGEN ALFA is a general information OPGEN used by the Officer in Tactical Command (OTC). During the planning conference the following must be discussed and included in the OPGEN ALFA:
  - a. Period. (Paragraph 1a.)
  - b. Position and Intended Movement (PIM). (Paragraph 1.b.)
  - c. Grid Origins or Data Link Reference Points (DLRP).(Paragraph 1.d.)
  - d. Warfare Commanders and General Duties. (Paragraph 1.e.ii.)
  - e. Various speeds to be used during the operation. (Paragraph 1.f.)

**03902 Format**

FM: CTF xxx  
 TO: CTG xxx xxxx PT \_\_\_\_  
 TG xxx xxxx PT ZERO  
 TG xxx xxxx PT \_\_\_\_  
 BT  
 CONFIDENTIAL //N03120//  
 SUBJ. INTEROP/ STANDING OPGEN ALFA SER 001 (U)  
 REF: A. APP-4 VOL I (MARITIME MESSAGES)  
 B. CTF xxx OORDER INTEROP WITH PERIODICAL OORDER \_\_\_\_  
 INSERTED

1. THIS STANDING OPGEN ALFA IS PREPARED IN ACCORDANCE WITH REFERENCE (A) FORMAT. IT WILL BE EFFECTIVE UPON RECEIPT AFTER FORMAL PROMULGATION FOR PLANNING PURPOSES AND FOR ACTIVATION AS OF \_\_\_\_

A. PERIOD: \_\_\_\_\_ TO \_\_\_\_\_

B. PIM:

POINT	LATITUDE	LONGITUDE	TIME	COURSE	SPEED
A	____ - ____ S	____ - ____ E	_____	____ T	____ KTS
B	____ - ____ S	____ - ____ E	_____	____ T	____ KTS
C	____ - ____ S	____ - ____ E	_____	____ T	____ KTS
D	____ - ____ S	____ - ____ E	_____	____ T	____ KTS
E	____ - ____ S	____ - ____ E	_____	____ T	____ KTS
F	____ - ____ S	____ - ____ E	_____	____ T	____ KTS
G	____ - ____ S	____ - ____ E	_____	____ T	____ KTS

C. FORMATION/SCREEN. AS SIGNALLED BY THE OFFICER IN TACTICAL CONTROL.

D. GRID ORIGINS.

NAME	DLRP	TIME PERIOD
____ - ____ S	____ - ____ E	_____
____ - ____ S	____ - ____ E	_____
____ - ____ S	____ - ____ E	_____
____ - ____ S	____ - ____ E	_____
____ - ____ S	____ - ____ E	_____

E. GENERAL DUTIES.

I. WARFARE DUTIES MAY BE ASSIGNED FOR SPECIFIC SERIALS AND PERIODS BY REFERENCE (B) OR MAY BE ASSIGNED BY THE OCE IN HIS PRE-EXERCISE MESSAGE. DURING PERIODS WHEN WARFARE DUTIES ARE NOT SPECIFICALLY ASSIGNED, THE FOLLOWING WARFARE DUTIES WILL BE IN EFFECT. AN INDIVIDUAL OCS FOR A SPECIFIC SERIAL MAY ISSUE A SUPPLEMENTARY OPGEN WHICH MODIFIES ELEMENTS OF THE GENERAL OPGEN. THE SUPPLEMENTARY OPGENS WILL BE EFFECTIVE FOR THE DURATION OF THE SERIAL, THE GENERAL OPGENS ARE AUTOMATICALLY REACTIVATED.

II. THE FOLLOWING GENERAL DUTIES ARE ASSIGNED:

CTF xxx -		10
_____	-	_____
_____	-	_____
_____	-	_____
_____	-	_____

III. THE SURVEILLANCE AREA IS DEFINED AS A 100 NM RADIUS AROUND THE FORCE. INDIVIDUAL UNITS ARE RESPONSIBLE FOR DETECTION, TRACKING AND REPORTING OF ALL CONTACTS WITHIN MAXIMUM DESIGN RANGE OF ONBOARD SENSORS.

F. SPEED.

- I. OPERATIONAL -
- II. STATIONING -

G. EMCOM: DELTA. EMCOM MAY BE MODIFIED BY THE EWC OR OTC AS REQUIRED FOR A SPECIFIC EXERCISE.

H. RULES OF ENGAGEMENT IN FORCE. IN ACCORDANCE WITH NATIONAL DIRECTIVES.

I. GENERAL DEGREE OF READINESS. IN ACCORDANCE WITH NATIONAL DIRECTIVES. AT NO TIME ARE INDIVIDUAL COMMANDING OFFICERS RESTRICTED FROM INCREASING READINESS IN RESPONSE TO A REAL WORLD OR EXERCISE SITUATION.

J. PREPLANNED RESPONSES.

I. SUBMARINE CONTACTS: THERE ARE KNOWN HOSTILE SUBMARINE UNITS OPERATING IN THE VICINITY OF TASK FORCE UNIDENTIFIED SUBMARINE CONTACTS SHALL BE REPORTED TO THE NATIONAL TASK GROUP COMMANDER INVOLVED AND CTF IN ACCORDANCE WITH REFERENCE (B) AND THE OPGEN GOLF. PROSECUTION OF UNIDENTIFIED IN ACCORDANCE WITH NATIONAL DIRECTIVES. UNITS OF ANOTHER NATIONALITY WILL ASSIST ONLY WHEN REQUESTED. IN NO CASE WILL SIMULATED ATTACKS BE CARRIED OUT. SHOULD SIMULATED ATTACKS BE CARRIED OUT IN AN EXERCISE ENVIRONMENT WITH A TASK GROUP

SUBMARINE WHICH IS LATER PROVEN OR SUSPECTED TO BE UNIDENTIFIED SUBMARINE, CTF 20 AND THE NATIONAL TASK GROUP COMMANDER WILL BE INFORMED OF ALL DETAILS.

II. SURFACE CONTACTS: THERE ARE NO KNOWN HOSTILE SURFACE UNITS OPERATING IN THE VICINITY OF TASK FORCE. ALL UNKNOWN CONTACTS WILL BE REPORTED IN ACCORDANCE WITH THE OPGEN DELTA. SURVEILLANCE OF UNIDENTIFIED SURFACE CONTACTS IS A HOST COUNTRY RESPONSIBILITY AND WILL BE CONDUCTED IN ACCORDANCE WITH NATIONAL DIRECTIVES.

III. AIR CONTACTS: THERE ARE NO KNOWN HOSTILE AIR UNITS OPERATING IN THE VICINITY OF TASK FORCE. ALL UNKNOWN CONTACTS WILL BE REPORTED IN ACCORDANCE WITH THE OPGEN BRAVO.

K. CODE AND AUTHENTICATION PROCEDURES IN USE. TO BE AGREED TO DURING THE PLANNING CONFERENCE.

L. TRACK NUMBER BLOCK ALLOCATION AS FOLLOWS.

Z. REPEAT OF PIM:

POINT	LATITUDE	LONGITUDE	TIME	COURSE	SPEED
A	___ - ___ S	___ - ___ E	_____	___ T	___ KTS
B	___ - ___ S	___ - ___ E	_____	___ T	___ KTS
C	___ - ___ S	___ - ___ E	_____	___ T	___ KTS
D	___ - ___ S	___ - ___ E	_____	___ T	___ KTS
E	___ - ___ S	___ - ___ E	_____	___ T	___ KTS

**CHAPTER 4**  
**CRUISING INSTRUCTIONS**  
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**CHAPTER 4****CRUISING INSTRUCTIONS****SECTION 1 - GENERAL****04101 Introduction**

1. Operations by groups and units of Task Force 20 will be conducted in accordance with the provisions of the EXTAC and ATP-1 series, as modified herein.
2. *General Duties.* Warfare duty assignments for the operation will be assigned to the Task Force in the standing OPGEN ALPHA. For a specific exercise, the individual Warfare Commanders may vary and in that case, will be assigned in the Schedule of Events. If no assignment for a specific exercise is made, the Warfare Commander assignments from the standing OPGEN ALPHA are in effect. Warfare Commanders for a specific exercise may issue a supplementary OPGEN, which modifies elements of the standing OPGEN. The supplementary OPGEN will be effective for the duration of the exercise only. Upon completion of the exercise, the standing OPGEN is automatically reactivated.
3. *Electronic Emission (EMCON) Policy.* EMCON will be in accordance with the standing OPGEN ALPHA. The OCS may modify the EMCON condition as desired for individual exercises.

**04102 The Officer Exercising Tactical Control Duties (OTC)**

1. While units of TF 20 is underway tactical control (TACON) will be formally transferred by CTF 20 using ATP-1 signals. The OTCs responsibilities include the following:
  - a. Ordering changes in formation, course and speed as necessary to conduct ongoing events, to meet transit requirements between scheduled events and to ensure navigation safety.
  - b. The transfer of tactical control will be accomplished by CTF 20 to permit the next OCS adequate time to position units for events under his control. It should be noted however, that not all exercises require that the OCS have tactical control and tactical control will not always be shifted in the case of CIC, EW or communication exercises. The officer in tactical control therefore, must be aware of any special formations required in such exercise, *ie* EW and visual signalling exercises to name a couple of examples.

**04103 Speed**

1. Operational and Stationing speeds will be in accordance with the standing OPGEN ALPHA.
2. Fuel economy will be considered in all manoeuvres. The most economical speed consistent with the mission will be utilised. High speeds solely for the purpose of displaying ship spirit or the flair of the Commanding Officer are not authorised.
3. *For manoeuvres*
  - Normal speeds: 12 knots.
  - Stationing speed: 5 knots above signalled speed.
  - Operational speed: 18 knots.
4. If a ship should have to reduce speed, the CO must inform the Task Force Commander in advance, giving the reason, period and maximum speed available

5. *Acceleration and Deceleration.* Acceleration and deceleration tables in ATP-1 series, Vol I, will be used unless otherwise directed.
6. *Manoeuvring or Shifting Formations and Dispositions.* When forming or dissolving a formation, the course and speed of the guide must be clearly established and should be maintained until the evolution is completed. The OCS is to assure accomplishment in a safe and orderly manner using step-by-step continuously monitored procedures to ensure that all units are proceeding in a safe direction with adequate relative motion.
7. *Special Manoeuvring Rules.* When an advance screen is being rotated, a separate signal from the EXTAC Series will be used. Ships of the advance screen are to move independently to their new station on the new screen axis, keeping clear of the main screen and the main body.
8. *Quick Reaction Exercises.* Quick Reaction Exercises (QRE) may be signalled at any time by the OTC/OCS, using visual or radio means.

**04104 Individual Action to Avoid Danger**

1. Nothing in this Operation Order is to be interpreted as limiting action to avoid collision, grounding or other imminent danger. Early positive action is encouraged. Keep the OTC and OCS informed.
2. In the absence of any compelling reason to proceed, decisions to delay or cancel will be fully understood when, in the Commander's best judgement, weather or other factors make it unwise to continue. Commanders will continually monitor all available environmental reports bearing in mind that exercise play and station keeping are secondary to safety and good seamanship. Keep the OTC informed.

**04105 Heavy Weather**

Ships are to be prepared for heavy weather at all times. The destructive force of high winds and heavy seas cannot be over-emphasised. Preparations include instruction of personnel in individual safety.

**04106 Reporting Casualties**

A report of personnel or equipment casualties is required with minimum delay. Reports should not be delayed because amplifying information is not immediately available.

**04017 Daily Situation Reports**

1. The individual units will send daily situation reports to their respective national Task Group Commander. CTF 20 and the national Task Group Commander will exchange a daily exercise summary. This summary may be the individual unit's daily situation reports or a message summary of all the individual daily reports. The summary message will be sent no later than 2000 (local time) daily and include a minimum of the following:
  - a. Critique of each exercise conducted since the last summary.
  - b. Percent fuel onboard of the ship with the lowest fuel state.
  - c. Any new casualties that may affect the underway exercises.

**04108 Position Reports**

1. Position reports will be made as follows:
  - a. By all submarines and ships not in company with the flagship, as part of the daily SITREP.
  - b. During freeplays all units will comply with special position reporting instructions.
  - c. The CTF 20 flagship will transmit GPS positions to all ships in company *via* visual means or *via* tactical signal at 0800, 1200 and 2000.

- d. Position reports transmitted by other than flashing light will be given in latitude and longitude and covered using secure means to be provided.
2. *Methods of Expressing Position.* The Cartesian co-ordinate (X Y) grid system will be used for combat information reporting between ships. Position reporting by aircraft is contained in this Chapter:
  - a. *Establishing the Grid.* Grid reference points will be promulgated by OPGEN A message. Reference points will be separated by no more than 300 miles and will be based on the intended track. Reference points will be assigned for in-port periods as well as at sea for the purpose of in-port exercises.
  - b. *Gridlock.* AW will perform gridlock whenever significant differences appear to exist or upon request from individual units. Gridlock will be promulgated using signals from ATP-1 series. Ships should not hesitate to request reference positions from the OCE or other units as required to facilitate operations.

**04109 Joining Units**

Action by joining units: The senior officer of a unit scheduled to join will guard line C01 and line C02 at least four hours prior to the scheduled rendezvous time.

**04110 Effective Sonar Range**

1. Designated units will take a bathythermograph (BT) reading every 6 hours and report the existing sonar condition to CTF 20, the Screen Commander, OCS and all surface ships. For exercise periods, the OCS may designate a ship to take a BT reading one hour prior to commencement of the exercise period and to report this reading to all surface ships prior to COMEX. If computer calculated acoustic information is available, it will be promulgated to all units.
2. After receiving the BT information all units will calculate acoustic ranges for their equipment and report the results to CTF 20, the OCS and the Screen Commander.
3. Ships participating in multi-ship ASW exercises will also report their maximum effective sonar speed to the Screen Commander, OCS and CTF 20.

**04111 Darken Ship**

1. When darken ship or modifications thereof are ordered, the following instructions apply:
  - a. Nothing limits the authority of Commanders to use navigation lights at any time for reasons of safety.
  - b. During any night exercises involving submarines, darken ship instructions will be specified in the standing submarine relaxation and the pre-exercise message and acknowledged by all participating submarines.
  - c. Screen ships leaving assigned station to investigate or prosecute a submarine contact shall show navigation lights when rejoining.

**04112 Fuel**

1. *Fuel Economy.* Commanding Officers are directed to give continuing attention to economy of fuel and to good engineering practice. Authority is hereby granted for ships to steam under their most economical conditions of engineering readiness, consistent with safety and speed requirements.

2. At sea, all ships except submarines will report to the national Task Group Commander, the percent of burnable fuel on board projected to 2000 (local time) daily, as part of the daily report.

**04113 Blowing Boiler Tubes**

Unless otherwise directed, ships are authorized to blow tubes underway as required. When this requires a temporary departure from station, permission to do so will be requested from the OCE who will inform the OTC.

**04114 Disposal of Waste**

Plastic bags or non-biodegradable materials will not be dumped 200 miles to the nearest shore. Bilge and ballast may be pumped whenever the distance to the nearest land exceeds 50 miles. Trash and garbage biodegradable may be dumped whenever the distance to the nearest land exceeds 12 miles. Bilge and ballast should never be pumped or garbage dumped while conducting ASW or Replenishment At Sea (RAS) operations. Trash and garbage should never be dumped when a ship is at flying stations and operating or expecting to receive a helicopter.

**SECTION 2 - SCHEDULE OF EVENTS**

**04201 Introduction**

The Schedule of Events is prepared at the Planning Conference and is published separately as part of the specific INTEROP OORDER. It may be inserted here for ready reference.

**SECTION 3 - OPERATING AREAS**

**04301 Introduction**

The Operating Areas are prepared at the Planning Conference and is published separately as part of the specific INTEROP OPORDER. They may be inserted here for ready reference.

**SECTION 4 - ANCHORING/BERTHING PLANS**

**04401 Introduction**

The Anchoring and Berthing Plans are prepared at the Planning Conference and is published separately as part of the specific INTEROP OORDER. They may be inserted here for ready reference.

**CHAPTER 5**  
**ELECTRONIC WARFARE**

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**CHAPTER 5****ELECTRONIC WARFARE****SECTION 1 - GENERAL****05101 Introduction**

The successful prosecution of the War-At-Sea will depend heavily on how well we ensure friendly use of the electromagnetic spectrum and how well we deny the enemy that same use. Electronic Warfare must be an integral component of operational planning and execution.

**05102 Policy**

1. The employment of Electronic Warfare in the Task Force shall be in accordance with the following guidelines:
  - a. ESM will be employed at all times and to the maximum extent feasible. Active ECM may be employed only with specific prior authorisation of CTF 20 and as agreed to by participating navies.
  - b. Operations will be conducted with emphasis on minimum radiation. Radiation of electronic equipment only to the degree and time required to accomplish a specific mission or task and to ensure safety is not an EMCON condition, but an attitude and state of training. Denying an enemy electronic intelligence through the development of internal discipline is the desired result. Such discipline requires continuous Command attention, personnel education and diligent supervision at all levels.
  - c. Up-to-date friendly Electronic Order of Battle (EOB) will be maintained as included in Chapter 9. All reporting of friendly emitters will use line numbers assigned in Chapter 3.
  - d. Radiation of ship or class unique emitters should be avoided.
  - e. Frequency diversity and frequency shifting will be employed as a primary ECCM (anti-jamming) technique.
  - f. Emission control (EMCON) will be consistent with desired weapons system readiness (*ie* EMCON policy must permit necessary fire control radar system warm-ups, testing and alignment).
  - g. Imitative Deception will not be employed without prior approval of CTF 20 and as agreed by participating navies.
  - h. Timely and realistic EMCON plans and guidance will be promulgated by EWC or OCS for specific events *via* a tactical signal.
  - i. ESM control should be assigned to the command or unit in the most advantageous position to co-ordinate the efforts of the EW Guardship.
  - j. Communications jamming and deception operations must be planned and co-ordinated with appropriate commands and agencies. Possible electromagnetic interference with friendly force operations and other agencies must be considered.

**05103 Planning**

1. Electronic Warfare planning must be based on and reflect effective tactical doctrine and concepts, intelligence and technological improvements. Planning should provide guidance in the following areas:
  - a. Emission Control (EMCON).
  - b. Time sharing plans.
  - c. Radar guard assignments.
  - d. ESM search and DF guard and control.
  - e. ECM (jamming assignments, when applicable).
  - f. Electronic deception measures to be employed in conjunction with tactical deception.

**05104 Command Relationships and Responsibilities**

1. Authority for organisation of EW in this force will be as directed below:
  - a. The OTC will delegate to the Electronic Warfare Commander (EWC). Specifically he will
    - i. act as EW net control station (call sign ALPHA ECHO);
    - ii. assign ESM guards;
    - iii. co-ordinate intercept search and D/F;
    - iv. locate contacts by triangulation and report their position to ALPHA BRAVO;
    - v. disseminate evaluated EW information;
    - vi. co-ordinate information relating to surface and air contacts with ALPHA SIERRA and ALPHA WHISKEY, to aid in the identification of unknown surface and air contacts; and
    - vii. promulgate force EMCON conditions and monitor adherence to current EMCON plans.
  - b. The EWC shall establish EMCON conditions in accordance with Section 2 of this Chapter.
  - c. Individual Commanding Officers are responsible for supervising emission control within their own units and establishing shipboard procedures to effectively implement EMCON plans on short notice.

**05105 EW Co-ordination and Reporting:**

1. Tactical, ESM and ECM reports and logs will be submitted, when required, in accordance with the procedures prescribed in reference (a).
2. ESM guards shall be set using the frequency indicators in reference (b).
3. The EW Co-ordination Net shall be used to provide for EW reporting and co-ordination.
4. The Task Group Reporting Net will be used for EW reporting and co-ordination, when the EW co-ordination net cannot be maintained due to equipment limitations.

**05106 Safety**

EWC/OCS may promulgate specific EMCON plans or signal general EMCON conditions in accordance with ATP-1. However, Commanding Officers are authorised to radiate radar and/or voice communications at anytime in the interest of safety.

**05107 Emission Control Entering and Leaving Port**

Electronic emissions are permitted for the safe navigation of the ship when entering or leaving port, except as specifically restricted by port authorities. Radar emissions while in port should be kept to a minimum and then only as authorised by port authorities.

**05108 Installed Electronic Equipment**

Chapter 9 lists the general information regarding installed electronic equipment of each ship in the Task Force.

**05109 EMCON Plans**

EWC/OCS will promulgate specific EMCON plans or signal general EMCON conditions in accordance with ATP-1 Vol.1.

**SECTION 2 - RADIATION STATUS INDICATORS FOR EMCON PLANS****05201 Radiation Status Indicators**

The following Radiation Status Indicators (RSIs) will be used, with meanings as indicated:

- A Aircraft Safety** - Equipment or communications may be operated if essential to safe operation of aircraft/helos.
- B Night** - Between sunset and sunrise.
- C Day** - Between sunrise and sunset.
- D Distant** - Equipment is only to be operated when well clear of friendly forces; distance (in miles) is given following the RSI.
- E Essential Emissions** - Emissions which the Commanding Officer considers necessary to the successful or safe conduct of the mission at hand. Essential emissions should be carefully monitored and kept to an absolute minimum required to effect mission requirements.
- G Guard** - Unit is to operate equipment on designated circuit on behalf of the entire force.
- H Helicopter Operations** - Equipment may be operated by units directly concerned with helicopter control.
- P Positive control** - Under positive control of OTC/ALFA ECHO. Specific prior authorisation is required before radiation.
- S Silence** - No emissions are authorised.  
*Note:* Silence is automatically cancelled when:
  - a. Under attack.
  - b. Any contact is designated as Hostile (displays hostile intent).
- T Reduced Power Out** - Radiated power will be reduced to the minimum level consistent with safety or as required to obtain desired operational results (See Note 1).
- U Unrestricted** - No restrictions on emissions (See Note 3).
- X Total Silence** - No emissions are authorised including leakage through antennas or by local oscillators. No emission by A/C is permitted within 150 NM of the force.

*Notes:*

1. RSIs B, C and T may only be used as modifiers to another RSI, they may not be employed alone.
2. A blank space in any EMCON plan is understood to be assigned the RSI S (Silence).
3. "Unrestricted" means that equipment will be operated if a specific requirement dictates their use. Ships should assume that silence is the norm and transmitting is the result of a deliberate decision to radiate.

**CHAPTER 6****CONDUCT OF COMBINED EXERCISES****INDEX**

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**CHAPTER 6****CONDUCT OF COMBINED EXERCISES****SECTION 1 - PLANNING CONSIDERATIONS****06101 Responsibilities**

Overall training schedules are made at the planning conference where all commanders involved are represented. Concepts and exercise objectives are presented and participants comment on the feasibility, suitability and adequacy of the broad planning. The host country will prepare and forward a draft schedule of events to CTF 20 prior to the planning conference.

**06102 Scope of Objectives**

1. Objectives should always be in consonance with the size and capability of the force available.
2. The well-balanced schedule of events provides for the following:
  - a. Efficient employment of assigned forces.
  - b. Incorporating sufficient flexibility, including alternative exercises to allow any necessary variation in schedules which may be caused by adverse weather or changes in service, operating area, or force assignment.
  - c. Opportunities for internal ship training.
  - d. Conduct of exercises during transit periods.
  - e. Equitable distribution of OCE functions among assigned units and Unit Commanders.

**06103 Selection of the Exercise Area**

1. Appropriate ocean operating area size and adequate airspace are primary considerations in the choice of the exercise area. If the schedule calls for services to be provided by forces external to the exercise force, location of the area in relation to the bases from which sea and air service units must operate will restrict the exercise operating area.
2. The size and shape of exercise areas must be determined with the view of the planned track of exercise forces and the opportunities for positioning and repositioning surface and subsurface opposition in order to promote the frequency of engagements desired in the exercise.
3. General considerations in the selection of an exercise area are numerous and include the following:
  - a. Duration and scope of the exercises.
  - b. Availability of the area.
  - c. Transit time for participating and supporting units and service forces, gun shoots and ASW exercises should be planned with the SOA below five knots.
  - d. Proximity of shipping lanes and air routes and density of traffic.
  - e. Anticipated sea and weather conditions and their effect on specific operations.
  - f. Proximity of restricted and prohibited areas.
  - g. Availability of search and rescue facilities and divert airfields.
  - h. Depth of water for submarine operations.
  - i. Electronic emissions and ordnance restrictions.
  - j. Fuel economy.

**06104 Assignment of Supporting Forces**

1. Units are assigned to discharge supporting functions when simulated hostile elements are required to be engaged by the exercise force. These units may be used to provide services or opposition, the distinction being the degree of restrictions imposed on the freedom of choice of action. A service is the support of a force having restrictions imposed upon it to ensure a pre-planned development of the exercise. Opposition is the support provided by forces assigned to simulate hostile action when there are no restrictions or when restrictions are imposed equally on both forces engaged in the exercise. Both service and units, which are either external or internal to the exercise force, may provide opposition support.
2. *Services provides for:*
  - a. Close control of the exercise, including the degree of engagement and complexity of tactics.
  - b. Planned engagement of forces for the conduct of tests, evaluation, or analysis.
  - c. Maximum use of time and forces assigned.
3. *Opposition provides for:*
  - a. Random contact of forces similar to that which occurs in real war situations.
  - b. Introduction of command decision and reaction factors thereto forcing development and analysis of alternative courses of action.
  - c. An exercise environment approximating that which is found in actual War-At-Sea situations.

**06105 Other Requirements**

1. In addition to other considerations and requirements set forth in this section, Task Group Commanders in whose waters exercises are to be conducted shall
  - a. obtain clearance for use of operating areas;
  - b. co-ordinate use of the exercise area with other agencies having interest therein;
  - c. obtain necessary air space reservations; facilitate aircraft clearances required of national authorities to permit land based aircraft to fly to and from exercise areas under a block or blanket clearance which will be valid for the time frame covering the entire air-sea portion of the exercise;
  - d. establish necessary rules to provide for air safety; and notify all other Task Group Commanders, particularly those that may provide air support, of any changes, rules, or distinct requirements, which differ from those contained in this OPORDER; and
  - e. ensure compliance with frequency restrictions imposed on use of Navy radar in certain geographical areas.

**06106 Exchange of Observers**

Observers should be exchanged among participating units in order that a broader appreciation of operational capabilities and problems may be gained. Observers should normally report on board the ship they are to ride not later than 2000 (local time) the evening before the ship gets underway to allow time for berthing assignments and familiarisation with the ship.

**06107 Planning**

1. The most important parts of any exercise are the pre-sail and post-sail conference, which provide forums for presentation and resolution of questions both before and after at-sea periods.
2. Normally the country responsible for planning the specific phase will act as Chairman at all pre-sail and post-sail conferences. Host navies are responsible for scheduling the pre-sail and post-sail conference and should include these in the in-port schedule of events.
3. *Conferences.* Conferences are scheduled following underway operations in order to:
  - i. Review exercise results.
  - ii. Exchange perspectives among exercise participants.

- iii. Present recommendations for improving future operations.
  - b. Discussion at conferences should be limited to subjects of general interest. Resolutions of specifics should be handled in more limited forums.
  - c. The host country will chair the conference.
4. *Pre-Sails*
- a. Pre-sails should be scheduled after the OPS/COMM conference to
    - i. conduct a broad review of the next operational phase, examine possible problems in detail and propose solutions;
    - ii. afford an opportunity for Task Group Commanders/exercise OTC(s)/OCE(s) to express their desires on specific exercises; and
    - iii. clarify or expand certain points where exercises, OPORDERS, schedule of events or exercise messages have not sufficiently explained details of underway operations.
  - b. All units participating in the operational phase should be represented at the pre-sail conference.
  - c. The host country will chair the pre-sail conference.
5. *OPS/COMM Conferences*
- a. OPS/COMM conferences should be scheduled as soon as possible, preceding an operational phase after arrival in port to
    - i. ensure all participants have all exercise messages for the upcoming operational phase. All units should have a list of applicable date-time groups, which index their exercise messages;
    - ii. permit co-ordination and clarification of exercise messages and communications;
    - iii. resolve problems and difficulties concerning the details in the schedule of events; and
    - iv. accomplish final planning in sufficient detail to streamline the pre-sail conference.
  - b. Only staff and unit operations and communications officers need attend. Attendance by other senior officers (Chief of Staff, individual unit COs, *etc*) is not normally desired in order to maintain an informal setting and encourage open and honest exchanges of view at working levels.
  - c. The OPS/COMM Conference will normally be chaired by the CTF 20 Operations Officer subject to agreement of the participating navies.

**06108 Conferences**

Operational conferences are a vital point of the in-port program of each phase. OPS/COMM and pre-sail conferences afford the opportunity to resolve questions thereby improving the opportunity of successful operations. Similarly, a post-exercise conference can review results and maximise training benefits. Normally the host country will be responsible for scheduling conferences and should include them in the in port schedule of events. The conferences will normally be conducted in English; however, bilingual conferences may be conducted at the discretion of the hosts. In this case, the host country will provide interpreters.

**06109 Individual Exercise Messages**

1. *Exercise Messages*
  - a. In many cases the exercise instructions in Chapter 7 or other appropriate references, will be sufficient to conduct an exercise and an additional exercise message will not be required.
  - b. Whenever an OCE deems it necessary for clarity or to prescribe a modification or deviation from the standard exercise procedures or the exercise is not included Chapter 7, he shall issue an exercise message.
  - c. For a complex exercise, such as a long freeplay or opposed transits, a special series of exercise OPGENS will be prepared specifically for the exercise event.
  - d. Exercise messages for an entire phase should be prepared upon arrival of the host ships and distributed in the pre-sail conference.
2. *Critique Messages*
  - a. Exercise critique messages will be submitted at the end of each exercise by the OCE concerned. These critiques are intended to make the exercise more meaningful and to point out corrective actions needed in future operations. Critique messages should contain a brief objective narrative of exercise high points, including specific recommendations for improvement in procedures, tactics and effective employment of participating units. All units are encouraged to submit comments on exercises to the CTF/CTG and Task Force participants. All units, especially submarines, should provide essential data when it will contribute to better exercise analysis and understanding.
  - b. Critiques messages will be sent by the OCE to his CTG, who will send a summary of all critiques of the day to the CTG of the participant navy, for "Info" the CTF 20. These messages should normally be assigned routine precedence and transmitted on the appropriate Task Group Teletype Net to prevent delays of operational traffic on voice radio nets. OCE critiques and participant comments may be included in the daily SITREP or submitted separately.

**SECTION 2 - EXERCISE MESSAGE FORMAT****06201 Exercise Message Format**

The Exercise Message Format is used to inform all forces of pertinent details of training exercises. In using this format, designations not required or not applicable may be omitted.

FM: OCE

TO: PARTICIPATING UNITS

INFO: "NON" PARTICIPANTS UNITS - CTG

*Designation    Meaning*

A	The exercise to be conducted, designated by number or descriptive title.
C	The Officer Conducting the Serial (OCS).
G	BLUE Forces (ships, submarines and aircraft designated for): <ol style="list-style-type: none"> <li>1. Screened force or convoy.</li> <li>2. Screen and patrol group.</li> <li>3. Carrier-borne aircraft.</li> <li>4. Shore-based aircraft.</li> <li>5. Other task force aircraft.</li> <li>6. Independent units.</li> <li>7. Exercise units using VDS/towed array systems, frequencies and maximum depth.</li> </ol>
GG	GREEN Forces (nonbelligerent/neutral, sympathetic to BLUE).
H	ORANGE Forces (ships, submarines and aircraft designated for): <ol style="list-style-type: none"> <li>1. Individual attacks.</li> <li>2. Coordinated attack.</li> <li>3. Shadowing.</li> <li>4. In transit (on passage).</li> <li>5. On patrol.</li> </ol>
HH	PURPLE Forces (secondary major opponent or non-belligerent, sympathetic to ORANGE).
I	Time zone to be used throughout exercises.
J	Date and time exercise is to start (GO TIME). Zone time is to be used throughout the exercise.
JJ	Date and time exercise is to end (STOP TIME).
K	Duration of ASW action.
KK	Out-of-action period.
L	Procedures in effect.

LL	Escort Attack Order in effect.
M	Base course and speed.
N	Areas <ol style="list-style-type: none"><li>1. Area of exercise.</li><li>2. Rendezvous point.</li></ol>
NN	Policy for use of illuminants.
O	Limits of submarine zone.
OO	Weapons <ol style="list-style-type: none"><li>1. Practice ordnance to be used.</li><li>2. Permissible weapon settings.</li></ol>
P	Positions, by latitude and longitude (or GeoRef), the line joining which is the center of a channel of stated width, which the force to be attacked may be expected to pass, in the direction from the first position toward the last.
PP	The width of the channel (in miles) either side of the channel line.
Q	Relaxations to exercise orders permitted: <ol style="list-style-type: none"><li>1. By day.</li><li>2. By night.</li></ol>
QQ	Submarine evasion. <ol style="list-style-type: none"><li>1. Not permitted.</li><li>2. 30° from base course, +/- 3 kt ordered speed, no change in depth.</li><li>3. 90° from depth course, unlimited speed, 20m change in depth.</li><li>4. Unlimited evasion in course and speed, Depth restriction as prescribed in RR.</li><li>5. Unlimited evasion.</li></ol>
R	Safety course (true cardinal course expressed in degrees).
RR	Depths <ol style="list-style-type: none"><li>1. Submarine ordered depth.</li><li>2. Submarine depth restrictions.</li></ol>
S	Special instructions to ships and aircraft (not to be communicated to submarines), or to blue forces.
ST	Special instructions to ships, aircraft and submarines, or both forces.

- T Special instructions to submarines (not to be communicated to ships and opposing aircraft), or to orange forces.
- U Communications means available:
1. CW and voice radio (with frequencies and call signs).
  2. Flags.
  3. Sonar, with frequency and call signs.
  4. Light.
  5. Explosive charge signals.
  6. Pyrotechnics.
  7. Aircraft manoeuvres.
  8. Underwater telephone.
- VV Time in minutes from last attack signal after which submarine should attempt to disclose location by:
1. Smoke.
  2. Pyrotechnic.
  3. Underwater telephone.
  4. Bubbles.
- W Orders for action in emergency loss of submarine.
- X Special instructions for safety of participating aircraft.
- Y Ships detailed for torpedo or drone recovery.
- Z Movements on completion of the exercise.
- ZZ Special instructions for records and forwarding data to analyzing authority.

**06202 Daily Situation Reports**

1. Daily sitreps will be submitted not later than 2000 (local time) and will be transmitted *via* the appropriate teletype net. The format is provided in par 06203.
2. All units will send to CTF 20 and the national Task Group Commander a daily summary message and will include the following:
  - a. Any new casualties that may affect the underway exercises.
  - b. Percent fuel onboard of the ship with the lowest fuel state.

**06203 Daily Situation Report Format**

FROM UNIT

TO CTF TWO ZERO

INFO CTG TWO ZERO PT XX  
(Appropriate National Task Group)

SUBJ (DATE) DAILY SITREP

1. MATERIAL: Indicate any material changes or casualties that may affect the participation of the unit. Insert N/A (Not Applicable) if no comment desired.

2. FUEL STATE: PERCENT REMAINING  
SHIP PROPULSION: xx  
AVIATION: xx

3. WATER PERCENT ON BOARD  
FEED xx  
PORTABLE xx

4. COMMENTS: Insert N/A (Not Applicable) if no comment desired.

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**CHAPTER 7****EXERCISE DESCRIPTIONS****SECTION 1 - COMMUNICATIONS AND CIC EXERCISES****07101 INTERCOM-1C - Flashing Light Procedures**

1. *Purpose:* To train and evaluate signal bridge personnel in the use of directional and non-directional flashing light.
2. *Special instructions for exercise ships:*
  - a. Formation, station assignments, base course and base speed will be ordered via TF/TG TACTICAL by the Officer in Tactical Control at or prior to start time. All units will be formed within visual range.
  - b. Ships will transmit a minimum of three messages with a minimum of 25 groups in either plain or coded format.
  - c. Ships are to maintain a complete log, file, and list of procedural errors.
  - d. Order of transmission will be designated by the OCS.
  - e. Each exercise message will have the word "DRILL" at the preface and at the end of the message.
3. *Planning conference:* During the preparation of the operations order, the following assignments and information will be included in the basic schedule of events:
  - a. Designate Event Number, GO/STOP times, OCS and participants.
  - b. Designate directional or non-directional flashing light.

**07102 INTERCOM-2I - Tactical Manoeuvres (Non-Manoeuvring)**

Reference A: CTF 20 PERIODICAL OPORDER.  
B: EXTAC 1001 Series.  
C: ATP Vol 1 and II.

1. *Purpose:* To train CIC personnel in assisting the con during simulated tactical manoeuvres.
2. *Special instructions for exercise ships:*
  - a. Initial formation, station assignments, base course and base speed will be ordered *via* a designated exercise circuit by the OCS at or prior to start time.
  - b. Ships will report to the OCS course to station, time to station and bearing and range to guide when on station.
  - c. Stationing speed will be 5 knots over base speed.
  - d. Tactical signals and instructions will be as prescribed in References B and C.

3. *Communications*: As prescribed in Reference A.

Primary Line Number: Frequency:

Secondary Line Number: Frequency:

4. *Planning Conference*: During the preparation of the operations order, the following assignments and information will be included in the basic schedule of events:
- a. Designate Event Number, GO/STOP times, OCS, participants and exercise communication line numbers (primary and secondary).

**07103 INTERCOM-4C - Teletype Circuit Procedures**

Reference A: CTF 20 PERIODICAL OORDER.

B: EXTAC Series.

C: ATP Vols I and II.

1. *Purpose*: To evaluate circuit operating procedures used on teletype nets and terminations by shipboard operating personnel.
2. *Special Instructions for Exercise Ships*
  - a. Each unit will draft and transmit a minimum of five messages to all units. Messages will include at least one immediate precedence, one priority precedence and one routine precedence.
  - b. OCE will act as the net control ship.
  - c. Each ship will check in with the OCS and indicate the number and precedence of messages ready for transmission.
  - d. When all ships have checked in, the OCS will designate the order in which ships are to send their messages.
  - e. Each exercise message will have the word "DRILL" at the preface and at the end of the message.
3. *Communications*: As prescribed in Reference A.

Primary Line Number: Frequency:

Secondary Line Number: Frequency:

4. *Planning Conference*. During the preparation of the operations order the following assignments and information will be included in the basic schedule of events:
- a. Designate Event Number, GO/STOP times, OCS, participants and exercise communication line numbers (primary and secondary).

**07104 INTERCOM-5P - Publication Exercise**

Reference A: CTF 20 PERIODICAL OPORDER.

1. *Purpose:* To familiarise ship personnel with publications used during INTEROP exercises.
2. *Special Instructions for Exercise Ships:*
  - a. The publication package to be used will be designated in Reference A.
  - b. Each ship will draft twenty questions from any of the publications listed under the designated publication package.
  - c. The OCS will designate the order in which the ships will send their question at or prior to start time.
  - d. The ship answering the question will answer by passing the publication title, page and paragraph number where answer was found.
  - e. *Publication Packages* (designated in Reference A):
    - i. REFERENCE OPORDER
    - ii. EXTAC Series of Publications
3. *Communications:* As prescribed in Reference A.

Primary Line Number: Frequency:

Secondary Line Number: Frequency:

4. *Planning Conference:* During the preparation of the operations order the following assignments and information will be included in the basic schedule of events:
  - a. Designate Event Number, GO/STOP times, OCS, participants and exercise communication line numbers (primary and secondary).
  - b. Designate the publication package to be used.

**07105 INTERCOM-6C - Communication Checks**

Reference A: CTG 20 PERIODICAL OPORDER.

1. *Purpose:* To establish and test the radio communication circuits that will be used during INTEROP.
2. *Special Instructions for Exercise Ships:*
  - a. Line D01 will be used as the co-ordination circuit. Line A02 (Bridge to Bridge) may also be used as a secondary.
  - b. Each ship will answer the OCS in alpha/numeric order using their daily changing call sign from Reference A.
  - c. Ships will conduct the radio checks from each remote position in CIC and the Bridge. With exception of teletype, radio checks will not be conducted from the communications office. The objective is to have good communications from the position where the circuit will actually be used.

- d. Ships are not to conduct radio checks on a specific line number until directed by the OCS. On establishing a radio check on a circuit, the OCS will direct all ships to go to the next line number and will initiate a call-up on the new circuit.
  - e. Ships with limited communication equipment will conduct radio checks only on those circuits that they have sufficient equipment for. Ships will notify OCS of limited participation and equipment limitations on line C01.
  - f. Frequencies for all line numbers are as prescribed in Reference A and the OPTASK COMMS. The OCS must verify that the frequencies and line numbers agreed prior to comms checks.
  - g. Ships will not secure from the communication checks until EX 3-4 is signalled by the OCS. The STOP time is provided only as a guide.
  - h. The OCS will conduct a time check prior to FINEX.
3. *Communications:* As prescribed in Reference A.

<i>Order/ Priority</i>	<i>Line Number</i>	<i>Circuit/Title</i>	<i>Frequency</i>
1	C01	TF/TO COMMAND	(UHF)
2	D01	TF/TG REPORTING	(UHF)
3	E01	STRIKE-CRAFT	(VHF)
4	A02	BRIDGE TO BRIDGE	(CH 16)
5	B01	TF/TG TELETYPE	(UHF)
6	P01	LINK 14	(UHF)
7	K01	FLIGHT GUARD	(HF)

4. *Planning Conference.* During the preparation of the operations order the following assignments and information will be included in the basic schedule of events:
- a. Designate Event Number, GO/STOP times, OCS and participants.

**SECTION 2 - GENERAL EXERCISES****07201 INTERGEN-1M – Quick Reaction Exercises**

Reference A: ATP 1 Volume II.

B: EXTAC Series.

1. The Quick Reaction exercises are exercises designed to test the reaction time of the Task Force. They may be signalled at any time by the OTC/OCS, using visual or radio means. Prior to ordering a particular quick reaction exercise, the OTC/OCS will carefully consider safety, the effect on the exercise in progress, and the consequences of any action required by the ship to meet the quick reaction exercise requirements such as maneuvering, shooting the gun, *etc.*
2. The following exercise list should be temporarily placed in Reference A. These signals are to be used with the tactical signal:

"ECHO XRAY THREE TACK NINE DESIG QUICK REACTION TACK"

a. *Gunnery*

ONE - Fire one round air burst at 8,000 yards, bearing \_\_\_\_\_ degrees true.

TWO - Fire one round High Explosive (HE) at 5,000 yards, bearing \_\_\_\_\_ degrees true.

THREE - Fire one round High Explosive (HE) at 7,000 yards, bearing \_\_\_\_\_ degrees true. Fuse set for an air burst.

FOUR - Man your topside, small calibre (50 cal or less) guns and expend 5 rounds on a clear firing bearing.

FIVE - Illuminate my ship with your fire control radar.

b. *ASW*

SIX - Conduct a simulated attack on a sonar contact bearing \_\_\_\_\_ degrees true, range \_\_\_\_\_ yards.

SIX - a. Fire one Drill/Dummy by port/starboard side in remote/local position, FLO....., ISD....., CEI....., PRG....., ACE....., ACM....., DOP....., ISR....., ISC....., bearing .... degrees true.

SEVEN - Take immediate action to avoid a simulated inbound torpedo bearing \_\_\_\_\_ degrees true.

EIGHT - Stream and activate acoustic torpedo decoy.

NINE - Form a SAU and prosecute a radar sinker bearing \_\_\_\_\_ degrees true, range \_\_\_\_\_ yards. SAU commander is call sign \_\_\_\_\_; ships in SAU are \_\_\_\_\_, \_\_\_\_\_, *etc.*  
(ship) (ship)

*Note:*

SAU Commander is to form a SAU and proceed to datum. Upon passing through datum, exercise is terminated and SAU Commander will order ships to return to screen or previous station using signal "STATION ECHO".

c. *General Warfare*

- TEN - Using the proper report format, make a report to me on a simulated\_\_\_\_\_.
- ELEVEN - Set EMCON ALFA and maintain it for 20 minutes.
- TWELVE - Monitor call sign \_\_\_\_\_ for compliance with EMCON ALFA.  
(ship)

d. *Communications*

- THIRTEEN - Establish communications with my ship using underwater telephone.
- FOURTEEN - Man your helo control tower and conduct a radio check on your land/launch frequency.
- FIFTEEN - Using your masthead lights or yardarm blinkers, send an international signal to call sign\_\_\_\_\_.  
(ship)
- SIXTEEN - Using signal flags, send an international signal to call sign \_\_\_\_\_.  
(ship)
- SEVENTEEN - Using flashing light send an international signal to call sign \_\_\_\_\_.  
(ship)

f. *Seamanship*

- EIGHTEEN - Launch your small boat. Circle your ship once and recover it.
- NINETEEN - Muster a boarding party, lower your boat and conduct a visit and search of call sign \_\_\_\_\_.  
(ship)
- TWENTY - Heave to and simulate a merchant vessel awaiting boarding.
- TWENTY-ONE - Assemble your Rescue and Assistance Party with all of their equipment on the fantail.
- TWENTY-TWO - Send your Rescue and Assistance Party and their equipment to call sign \_\_\_\_\_.  
(ship)

- TWENTY-THREE - Assemble your Fire Party on the fantail, charge a fire hose and direct the stream water over the side.
- TWENTY-FOUR - Conduct a simulated man overboard by putting a life-ring in the water.
- TWENTY-FIVE - Take charge and conduct leapfrogs with call sign \_\_\_\_\_.  
(ship)
- TWENTY-SIX - Conduct a light line transfer with call sign \_\_\_\_\_.  
(ship)
- TWENTY-SEVEN - Launch your helo, fly to call sign \_\_\_\_\_ and transfer a package.  
(ship)
- TWENTY-SEVEN - a. Launch your helicopter, simultaneously with a simulated rescue man overboard by putting a life ring in the water.

g. *Navigation*

- TWENTY-EIGHT - Conduct a sun line fix (local apparent noon) and pass your position to me for comparison *via* line \_\_\_\_\_. .
- TWENTY-NINE - Using a Beaufort Scale, report winds and sea state to me.
- THIRTY - Report the range and bearing of the nearest airport with a runway length of 2,000 metres or greater.

h. *General*

- THIRTY-ONE - According to "JANES ALL THE WORLDS AIRCRAFT", report on line the maximum speed, range and weapon load of the \_\_\_\_\_.  
(aircraft's name)
- THIRTY-TWO - According to "JANES FIGHTING SHIPS", report on line the maximum speed and standard displacement of the \_\_\_\_\_.  
(ship's name)

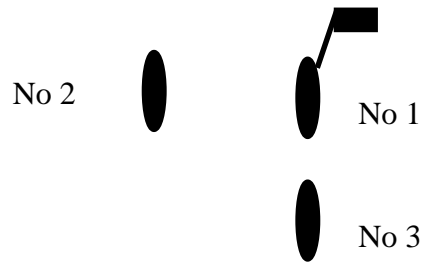
**07202 INTERGEN-2M – Tactical Manoeuvres**

Reference A: CTF 20 PERIODICAL OPORDER.  
 B: ATP-I Volume I and II.  
 C: EXTAC Series.

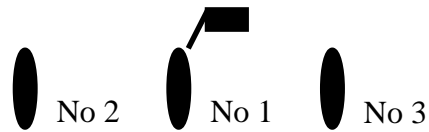
1. *Purpose:* To train ship's personnel in conducting actual tactical manoeuvres.
2. *Special Instructions for Exercise Ships:*
  - a. Initial formation, station assignments, base course and base speed will be ordered *via* TF/TG TACTICAL by the Officer in Tactical Control at or prior to start time.



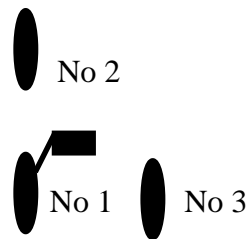
- d. Using flaghoist signal, the second ship (No 2) will make her approach by the port side of the guide (No 1).



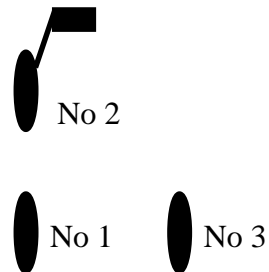
- e. Upon completion her approach, the third ship (No 3), will make her approach by the starboard side of the guide (No 1).



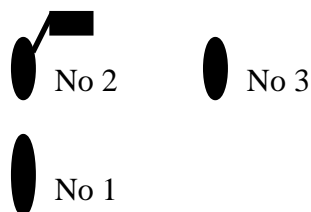
- f. When both ships (No 2 – No 3), have made their approach simultaneously, the ship No 2 will break away and will proceed to a station 1000 yards ahead of the guide.



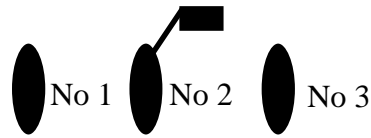
- g. When on station the guide will shift automatically to the new leader of the column.



- h. The ship No 3 will make her approach by the starboard side of the guide.



- i. Upon completion of her approach, the ship No1 will make her approach by the port side of the guide.



- j. No lines or rigs will be passed during this exercise.
3. *Communications:* As prescribed in Reference A.
- Primary Line Number: Flaghoist
- Secondary Line Number:
4. *Planning Conference:* During the preparation of the operation order, the following assignments and information will be included in the basic schedule of events:
- Designate event number, GO/STOP times, participants and exercises communication line numbers (primary and secondary).
  - This exercise should be conducted with groups of only three ships.

#### 07204 ATLEXGEN-4M – Light Line

Reference A: CTF 20 PERIODICAL OPORDER.

- Purpose:* To train ship personnel in making approaches, breakaway and conning alongside a delivery ship. To train deck personnel in rigging and using a light line.
- Special Instructions for Exercise Ships:*
  - Formation, station assignments, base course and base speed will be ordered *via* TF/TG TACTICAL by the officer in Tactical Control at or prior to start time.
  - The formation will be a FORM 1 (column), 1,000 yards spacing with the lead ship as the guide.
  - Using flaghoist signals, the guide (acting as the delivery ship) will signal when she is ready for the second ship of the column to make her approach.
  - When the second ship is alongside, the guide (delivery ship) will pass a light line to the second ship (receiving ship).
  - The third ship of the column will move into lifeguard station for the duration of the lightline transfer.
  - Upon completion of the light line transfer, if there are three ships participating, the second ship (receiving ship) will break away and proceed to the lifeguard station. The third ship (lifeguard) will proceed to waiting station and go alongside when the guide (delivery ship) signals she is ready to receive the third ship alongside.

- g. If there are only two ships participating, the second ship (receiving ship) will break away and proceed to station 1,000 yards ahead of the guide. Once on station, the guide will automatically shift to the lead ship and the exercise will be repeated with the new guide acting as the delivery ship.
  - h. If there are three or more ships participating, all ships will make approaches on the guide (delivery ship). When all ships have been alongside, the last ship to back away will proceed to a station 1,000 yards ahead of the guide. Once on station, the guide will automatically shift to the lead ship and the exercise will be repeated with the new guide acting as the delivery ship.
  - i. During the light line transfer, token transfers will be passed between the ships.
3. *Communications:* As prescribed in Reference A.
- Primary Line Number: Flaghoist
- Secondary Line Number: Frequency:
4. *Planning Conference:* During the preparation of the operations order, the following assignments and information will be included in the basic schedule or events:
- a. Designate Event Number, GO/STOP times, OCS, participants and exercise communication line numbers (primary and secondary).
  - b. This exercise should be conducted with groups of only two or three ships. If four or more ships are available, the exercise should be split into two events, with each group conducting their own light line transfer.

**SECTION 3 - GUNNERY EXERCISES****07301 INTERGUN-01 - High Speed Surface Target**

Reference A: CTF 20 PERIODICAL OPORDER.

B: ATP I (C) Vol. II.

1. *Purpose:* To train personnel to counter small, high-speed surface craft while manoeuvring at high speed. To train gun control, CIC and conning personnel in co-ordination, in countering this type of craft.
2. *Requirements:*
  - a. One TOW SHIP.
  - b. One SLED TARGET.
3. *Special Instructions for Ship Towing the Target:*
  - a. If required, the tow ship will be detached from the formation as prescribed in Reference A, proceed to the exercise area and stream the target sled.
  - b. Tow the sled target using a towline of 1,000 yards or greater. The tow ship will report to the OCE when the sled target is streamed and the tow ship is ready for the first firing run.
  - c. Upon completion of each firing run the tow ship will provide rake data as prescribed in Reference B *via* the exercise circuit. Upon completion of the exercise the tow ship will provide a hard copy message to the all participants.
  - d. If for any reason it becomes necessary to stop firing, the towing ship will signal cease-fire.
4. *Special Instructions for Exercise Ships:*
  - a. Formation, station assignments, base course and base speed will be ordered *via* TF/TG TACTICAL by the Officer in Tactical Control at or prior to start time.
  - b. The formation will be a FORM 1 (column), distance between ships 2,000 yards. The guide of the ship will be positioned 70 degrees right or left of the bow of the sled target at a range of 14,000 yards. Base course and speed will be identical to that of the tow ship.
  - c. If the firing ship shoots ammunition with combat head, they must use a 10 mil. offset astern of the target and must visually identify the tow ship prior to commencing fire.
  - d. Communications between the tow ship, firing ship and OCS must be established prior to commencement of the first firing run. If for any reason positive voice communications between the tow ship, firing ship or OCS is lost the firing ship will immediately cease-fire, report bore status. The firing run will not be continued until communications are re-established.
  - e. The tow ship and the lead ship of the column will report to the OCE when they are ready for the firing run. The OCS will then order the lead ship of the column to commence her firing run.
  - f. Upon commencement of the firing run, the guide of the column will automatically shift to the second ship of the column.



3. *Special Instructions for Exercise Ships:*
  - a. Formation, station assignments, base course and speed will be ordered *via* TF/TG Tactical by the Officer in Tactical Control at or prior to start time.
  - b. The formation will be FORM 1, distance between ships 1000 yds.
  - c. According to wind direction the OCS will establish the firing side.
  - d. OCS will authorise "commence firing", then the Units will individually launch their flares and start firing when the flare is within the firing sector.
  - e. Each ship shall ensure range clear for own firing.
  - f. Upon completion of firing, Units will report to the OCS Bore Status, Rounds Expended any guns defects.
4. *Communications:* As prescribed in Reference A.  

Primary Line Number:	Frequency:
Secondary Line Number:	Frequency:
5. *Planning Conference:* During the preparation of the operations order, the following assignments and information will be included in the basic schedule of events:
  - a. Designate Event Number, GO/Stop times, OCS, participants and exercise communication line numbers (primary and secondary).

**CHAPTER 8**  
**AIR OPERATIONS**

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**CHAPTER 8****AIR OPERATIONS****SECTION 1 - GENERAL**

- Reference A: International Rules and Procedures (ICAO).  
B: ATP-1 Tactical Instructions.  
C: EXTAC Series.

**08101 Basic Rules**

1. The purpose of this Chapter is to clarify all basic rules for air operations.
  - a. Air operations will be conducted in accordance with instructions issued by the national authorities assigned to SADC INTEROP exercises.
  - b. Exercise operations will be planned and conducted to simulate wartime conditions, consistent with SAFETY. Simulated attacks will be directed against exercise units only.
  - c. SAFETY of personnel and equipment will be paramount to all other exercise objectives and considerations.
  - d. Air operations may be cancelled or modified at any time by the OCE when, in his opinion, such action is required by peacetime SAFETY considerations.
  - e. During the course of the exercise, all commanders planning or controlling flight operations will ensure that normal peace time SAFETY restrictions are observed. ICAO PROCEDURES MUST BE FOLLOWED AT ALL TIMES.
  - f. While checking in for an exercise, all aircraft will confirm their position and altitude assignments with the SAFETY CONTROL UNIT.
  - g. A controlling unit assuming control of another unit will report to the parent unit that they have assumed control (close or advisor) and provide the following information:
    - i. Time assuming control.
    - ii. Persons inboard.
    - iii. Fuel state.
  - h. Upon relinquishing control of other units, the controlling unit will advise the parent units of:
    - i. Time off station.
    - ii. ETA to Home Plate.
    - iii. Fuel state.

**08102 Definitions**

1. *SAFETY CONTROL UNIT*: A unit designated by OCT to control and provide vectoring assistance to all aircraft joining, in transit, or departing the force at sea.
2. *Helicopter Control Unit (HCU)*: A unit exercising positive or advisory control over a helicopter and employing it tactically.
3. *ASW Aircraft Control Unit (ASWACU)*: A unit exercising positive or advisory control over a fixed-wing ASW aircraft and/or maritime patrol aircraft and employing them tactically.

**08103 Duties and Responsibilities**

1. *Safety Control Unit*: Responsible for incorporating all aircraft approaching the Task Force. This unit is designated by the Officer-in-Tactical-Control (OTC). Once communications are established with the aircraft, this unit will transfer aircraft control to another ship designated as HCU/ASWACU.
2. The Safety Control Unit will oversee SAFETY OF FLIGHT co-ordination and will provide both communications support and SAFETY OF FLIGHT information to any aircraft that cannot contact its assigned control unit.
3. The HCU (for helicopters) and the ASWACU (for fixed wing) are responsible for maintaining flight following over assigned aircraft, keeping them advised of the tactical situation and of the presence of any other aircraft operating in the same area.
4. All units with shipboard helicopters, acting as "HOME PLATE," will maintain communications with their helicopters and will be prepared to assume control at all times, even when their respective helicopters are operating under the control of another HCU. This is to ensure that safety of flight can be maintained in event of a defect to the assigned HCU.

**08104 Scheduling**

1. Operational flights will be scheduled in accordance with the AIR PLAN.
2. The Task Force Commander will be informed of all unscheduled flights. If airborne aircraft are diverted for emergency reasons, the Task Force Commander will be informed and kept abreast of the situation.
3. Helicopter utility flights may be scheduled when feasible, both countries authorities will control the use of helicopters for utility flights, but schedules will be co-ordinated by the Task Force Commander in order to achieve maximum efficiency.

**08105 Check-in and Check-out Procedures for "INTEROP EXERCISES"**

1. All aircraft will observe the takeoff times specified in the Air Plan. Should delays due to mechanical problems cause an aircraft to miss its COMEX time, the Task Force Commander shall be informed.
2. All aircraft will follow the normal operating procedures of the host country.
3. When airborne and operating beyond 50 nautical miles from the force, aircraft will establish communications for flight following and safety of flight with the Safety Control Unit.
4. All aircraft approaching the operating area of the task force will establish communications with the SAFETY CONTROL UNIT prior to entering within 50 nautical miles of the task force. After positive communications are established, the SAFETY CONTROL UNIT, will verify that the aircraft is operating at the correct altitude and will provide flight following and will allow aircraft entry into the task force operating area. The SAFETY CONTROL UNIT will then pass the aircraft control to the AIRCRAFT CONTROL UNIT (ASWACU or HCU).
5. Once positive communications have been established, the assigned ACU is responsible for the tactical employment of that aircraft and for maintaining positive or advisor control.
6. Prior to departing off-station, all helicopters will notify their assigned HCU before switching control to their "HOME PLATE".

7. All aircraft will notify their assigned ASWACU, PACJCU and SAFETY CONTROL UNIT prior to departing the task force operations area (50nm from the task force) and prior to switching control to convenient national authorities.
8. The assigned ASWACU, HCU or PACJCU will maintain positive or advisor control until the aircraft indicate that positive communications and control have been established with the air control national authorities.

**08106 Communications Procedures for Air Operations**

1. All aircraft should use the communications circuits specified for each event. Once communications with national authorities are completed, the SAFETY CONTROL UNIT will be contacted to approach the Force. Once transferred to a controlling ship, the joining report will be passed. Upon joining, the aircraft will switch to the operational frequency specified in the exercise message.
2. Helicopters operating from ships will use their specific approach/takeoff frequencies with "HOME PLATE," and then will switch to the operational frequency specified by the exercise message. The SAFETY CONTROL UNIT will guard the following frequencies at all times:
  - a. SAFETY LINE:
  - b. LINE AS:
  - c. LINE TA:

**08107 All Air Operations**

1. All aircraft joining reports will be standardised. The following is the minimum format of a joining report:

ALFA : Aircraft call sign.  
 BRAVO : Position (latitude and longitude or relative to ZZ).  
 CHARLIE : Heading, altitude and airspeed.  
 DELTA : Fuel state (in hours or tenths hours).  
 ECHO : Souls on board.  
 FOXTROT : Equipment state:

ONE : Fully mission capable.  
 TWO : Partially mission capable (no major mission sensors degraded).  
 THREE : Partially mission capable (some minor mission sensor degradation).  
 FOUR : Major mission sensor degradation.

GOLF : Weapon load and stores carried.  
 HOTEL : Estimated time on station.  
 INDIA : Amplifying comments.

2. Flights in support of scheduled exercise shall depart their bases with sufficient time to arrive on station so that communications checks are completed with the aircraft ready to commence the exercise at the scheduled time.
3. Aircraft will not participate in exercise when instrument flight condition exist in the operating area, unless so directed and under positive control. INSTRUMENT FLIGHT CONDITIONS ARE DEFINED AS A CEILING of LESS than 1000 feet and FLIGHT VISIBILITY of LESS than 3 miles.

4. During hours of darkness, aircraft shall operate with run-night lights or BRIGHT and STEADY and rotating anti-collision light ON.
5. ANY SHIP WITH AIRCRAFT UNDER POSITIVE CONTROL IS RESPONSIBLE FOR THE SEPARATION OF SUCH AIRCRAFT FROM ALL OTHER AIR TRAFFIC.
6. Ships and aircraft only when specifically authorised by the Task Force Commander will use night illumination. This precaution is to protect night vision.
7. Air Control ships will keep aircraft informed of current altimeter settings, other air contacts in the area, range and bearing to the force, whether or not the aircraft is under positive control.
8. Prior to assuming control of any aircraft, the assigned Air Controller should be aware of the following information and pass it to the aircraft:
  - a. General activity of the Task Force.
  - b. Status of equipment which might affect air control.
  - c. Other aircraft in the area.
  - d. Hazards to air operations, such as helo or drone operations, *etc.*
  - e. Weather conditions in the operating area.
  - f. Range and bearing to home base.
  - g. Discrete and common air control frequencies.

**08108 Safety**

1. *Control Responsibilities:* The authority exercising control of an aircraft is responsible for its safety while under his control. The mission assigned should never exceed the prudent limit of endurance for that aircraft. This limit allows a reserve of fuel when the aircraft returns to base and is necessary in the event of adverse weather or a requirement to divert to an alternate base.
2. The responsibility for safety begins when taking control of the aircraft and ends when the aircraft has reported to another authority for control. The responsibility includes:
  - a. Altitude separation.
  - b. Promulgation of environmental and operational information which affect aircraft safety.
  - c. Providing for search and rescue (SAR) operations.
  - d. Maintenance of a plot of the area of operations.
3. *Safety Considerations:*
  - a. Helicopters may ditch without warning and should, whenever possible, be kept under constant surveillance by a surface unit.
  - b. ASW dipping helicopters are to be considered as ships not under command. When working at close quarters, it is the responsibility of ships to avoid helicopters. Ships shall not pass within 500 yards upwind of hovering helicopters.
  - c. *Ship's Lights.* At night, ships will illuminate all-around masthead lights when low-flying aircraft are in the area.
  - d. *Altitude Separation.* In accordance with the altitude separation specified in AIR PLAN. This information SHALL be posted at every air control console.

**Table 8-1  
Vertical Separation**

<i>Type</i>	<i>VFR</i>	<i>IFR/Night</i>
Fixed Wing	As required by tactical situation.	1000 ft between aircraft with less than 4 miles horizontal separation.
Dipping Helo	As required by tactical situation: however, 200 ft between fixed wing and helo in dip (helo must be advised that it will be overflown and acknowledge this information.	1000 ft between aircraft with less than 4 miles horizontal separation.

**08109 ASW Aircraft Ordnance**

1. Aircraft ASW ordnance loads will be as directed by appropriate national authorities.
2. The use of SUS and POCs will be co-ordinated with submarine commanders prior to use and as allowed by proper national authorities.

**08110 Weapon Employment by Surface Ships**

The Scene of Action Commander (SAC) shall clear all aircraft from the area before permitting the use of air trajectory weapons by surface ships. Aircraft should be on the unengaged side during a firing run.

**SECTION 2 - AIRCRAFT DISTRESS PROCEDURES****08201 General**

1. All pilots and air controllers will be thoroughly acquainted with the instructions contained herein regarding distress:
  - a. Selections of divert bases and termination bases ashore will be the responsibility of host nations Commanders. Consideration will be given to proximity of available facilities and existing weather conditions when selecting divert bases and termination bases ashore.
  - b. Commanding Officers will ensure that aircrews are thoroughly briefed regarding local air traffic control procedures, frequencies, facilities in the area and any special procedures.

**08202 Distress Procedures**

1. The following instructions adhere closely to those published in the Pilot Information Handbook, shore stations and every air control console. Recognize an aircraft in distress immediately when the following distress procedures are followed:
  - a. *Aircraft Lost or in Distress*
    - i. Switch IFF equipment to "EMERGENCY". Gain altitude if possible.
    - ii. If in radio contact, inform control unit of nature of distress and intentions.
    - iii. Make the following report on one or more of the nets listed:
      - (1) Air control ship.
      - (2) SAFETY CONTROL UNIT.
      - (3) TASK FORCE FLIGHT GUARD.
      - (4) MAYDAY transmission followed by aircraft call sign. Repeat twice.
      - (5) Type of aircraft.
      - (6) Position and time.
      - (7) Heading.
      - (8) True Airspeed.
      - (9) Altitude.
      - (10) Nature of emergency.
      - (11) The pilot's intentions for bail out or ditching must be made clear.
2. Once contact has been established, comply precisely with the instructions given.
  - a. *Aircraft Lost or in Distress and Unable to Establish Radio Contact:*
    - i. Switch IFF equipment to "EMERGENCY".
    - ii. IF RECEIVER ONLY IS OPERATING: Fly a triangular pattern to the right. Hold each heading for one minute (two minutes for propeller aircraft). Complete a minimum of two such patterns before resuming original course. Repeat at frequent intervals.
    - iii. IF TRANSMITTER AND RECEIVER ARE BOTH INOPERATIVE: Fly a triangular pattern to the left, in the same manner as described above.
    - iv. If flying at low altitude, attempt to climb. This will increase chances of radio or radar contact.

**08203 Assistance to Aircraft in Distress**

1. In order to provide the most rapid means of assistance to aircraft in distress, the following procedures are established:
  - a. Pilots in distress conform to the procedures in paragraph 08202.a and b. above.
  - b. Ships maintain up-to-date information on nearest suitable divert fields at all times when aircraft are operating. Parent ships initiate messages by most rapid means alerting those airfields when required.
  - c. The following designated ships guard 243.0 MHz or 121.5 MHz as directed:
    - i. All ships.
    - ii. SAFETY CONTROL UNIT.
  - d. Ships in vicinity of aircraft in distress assist in vectoring aircraft to nearest ship (if bailing out or ditching are imminent), or to nearest airfield as appropriate.
  - e. Ships having knowledge of a bailout, crash, or ditching will relay all information to the OCE and TASK FORCE COMMANDER.
  - f. Units having tape recorders shall record all distress incidents.
  - g. Air Control Ships will record the number of persons on board each aircraft if such aircraft is capable of carrying persons in addition to the pilot. This listing will be maintained for all aircraft, whether terminating, departing, or reporting overhead for operational control.

**SECTION 3 - AVOIDANCE OF MUTUAL INTERFERENCE IN AIR OPERATIONS****08301 Purpose**

To provide procedures for the avoidance of mutual interference among aircraft of various types.

**08302 Specific Guidelines**

1. There may be events scheduled which require specific guidelines for the avoidance of mutual interference:
  - a. Exercise events requiring simultaneous air operations by different types of aircraft in the same Task Force.
    - i. When different types of aircraft are on station simultaneously, the following altitude separations will be adhered to unless otherwise specified by the Air Plan or schedule of event note.

(1) Jet Aircraft	-	16,000 feet or above.
(2) Patrol/Transport	-	8,000 to 15,000 feet.
(3) L-188/BE-200	-	5,000 to 7,000 feet.
(4) S2E	-	2,000 to 4,000 feet.
(5) H-3	-	500 to 1,500 feet.
(6) Other Helos	-	below 400 feet.
    - ii. Unless under positive control, all aircraft will maintain assigned altitudes until communications and, if possible, positive visual aircraft will establish communications and positive visual contact prior to entering the contact area.
    - iii. When aircraft relieve on station, positive communications and visual contact will be established between aircraft prior to departure from established altitudes.
    - iv. The altitude schedules above will not be mandatory once the aircraft has reported on station and a positive control can be assumed by the air control ship for all climbs and descents under instrument conditions and be under at least advisory control.
  - b. Exercise events requiring simultaneous air operations by aircraft in opposing Task Forces:
    - i. The Umpire will review the complete air plans by opposing Task Organization prior to the pre-sail conference. The Umpire will ensure that mutual interference will be avoided by assigning discrete altitudes if necessary.
    - ii. An inherently dangerous situation exists if high-speed jet aircraft are allowed to operate at low altitudes in the same air space as low speed ASW aircraft. In every event where this circumstance might exist it will be a mandatory requirement for attacking aircraft to:
      - (1) Be in radio contact with their OCE prior to commencing attack and throughout any attack.
      - (2) Have contacted Task Force Commander and/or the Umpire prior to commencing. This contact may be direct or indirect, but it must be accomplished prior to any attack and in sufficient time to allow the Umpire to take whatever steps might be required to ensure safe operations. If any event, the Umpire must clear all attack aircraft prior to the attack. This will be accomplished *via* SAFETY CONTROL UNIT or Flight Guard.

- (3) Attacking aircraft will call the Control Ship on a line to be specified by exercise message and report inbound prior to commencing any attack runs. Attack aircraft will remain clear of the exercise area until other aircraft have reported clear of the area within 25 miles of the center of the force, or the OTC/UMPIRE has ascertained that no hazard to aircraft operations will exist. If necessary, the Control Ship may direct the attack aircraft to avoid a particular airspace sector.
- (4) Both the UMPIRE and OCE will maintain sufficient information regarding the air picture to ensure avoidance of mutual interference of friendly forces. In addition, all aircraft operating within the exercise area will be informed of a common air control frequency being used (Flight Guard) so that the pilots and aircrews may assist in maintaining safe separation.

**SECTION 4 - HELICOPTER CROSS-DECK OPERATIONS****08401 General Discussion**

1. While operating helicopters from ships of different countries particular care must be taken to ensure that pilots and shipboard personnel are fully briefed as to particular operating procedures and conditions.
2. The EXTAC # HOSTAC Manual (Helicopters Operations from Ships other than Aircraft Carriers) provides specific information about shipboard facilities and operating procedures.

**08402 Launch**

Specific guidance for each country is provided in the EXTAC # HOSTAC Manual. A briefing must be conducted prior to launch to ensure that pilots have current tactical and meteorological information and that pilots and shipboard personnel understand procedures for rotor engagement, take off and departure.

**08403 Arrival**

1. *Helicopter*. When approaching the recovering ship and upon release from the previous control agency, an inbound helicopter shall establish radio contact and provide the following information:
  - a. Identification and type of helicopter.
  - b. Position relative to the ship.
  - c. Heading and altitude.
  - d. In-flight conditions - instrument meteorological conditions (IMC) or visual meteorological conditions (VMC).
  - e. Fuel remaining to be expressed in hours and minutes to mandatory commencement of approach.
  - f. Number of persons on board.
  - g. Additional information which may affect the recovery.
2. *Ship*. The recovery ship shall provide the following information prior to the helicopter commencing approach:
  - a. *Preliminary recovery instructions*
    - i. Type of approach approved.
    - ii. Recovery course.
    - iii. Estimated recovery time and time-check.
  - b. *Weather conditions*
    - i. Surface wind.
    - ii. Cloud base and visibility.
    - iii. Relative wind direction and velocity.
  - c. Altimeter setting.
  - d. Missed-approach instructions, if required.
  - e. Additional information which may affect the recovery (such as pitch, roll, yaw, *etc*).

**08404 Approach Procedures**

1. *Visual approach in visual meteorological conditions*: If a visual recovery is selected, the air controller will vector the inbound helicopter to close the ship. When the pilot confirms he is in visual contact with the ship, the control of the helicopter shall be passed to the appropriate flight deck authority to complete the recovery. When the ship is ready for recovery, the flight deck authority shall pass landing instructions to the pilot.

b. *Instrument approaches*: May be incorporated in future operations.

**08405 Missed Approach Procedures**

A missed-approach procedure will be carried out if by approach minimum the pilot fails to establish the position of the ship visually.

**08406 Holding**

Holding shall be carried out as outlined or as instructed by the controller.

**08407 Lost Communications**

Proceed to the last known position of the ship, displaying the appropriate IFF code if fitted. If the ship is in sight, make a visual approach and land. If no visual contact is made, the helicopter shall carry out lost communications procedures.

**CHAPTER 9****SHIPS AND AIRCRAFT CHARACTERISTICS INFORMATION****INDEX**

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## **CHAPTER 9**

### **SHIPS AND AIRCRAFT CHARACTERISTICS INFORMATION**

#### **SECTION 1 - GENERAL**

##### **09101 Introduction**

This Chapter will be prepared at the Planning Conference and is published separately as part of the specific SADC INTEROP Operations Order. It may be inserted here for ready reference.

**SECTION 2 - SHIPS AND AIRCRAFT FEATURES**

**SECTION 3 - ELECTRONIC ORDER OF BATTLE**

**SECTION 4 - FATHOMETER AND ESM CHARACTERISTICS**

**SECTION 5 - SHIPS COMMUNICATION CAPABILITIES**

**CHAPTER 10**  
**SEARCH AND RESCUE**

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## CHAPTER 10

### SEARCH AND RESCUE

#### 10101 General

1. Search and Rescue (SAR) operations will be conducted in accordance with CTF 20 Periodical Operations Order.
2. *Purpose.* The purpose of this Chapter is to serve as a base of standardisation for SAR operations undertaken by the combined forces of countries participating in SADC INTEROP operations.
3. *Responsibility.* The safety of ships, aircraft, submarines and assigned personnel is a national responsibility.

#### 10102 Control of Forces

During SAR operations, control of participating forces will be exercised by the appropriate national SAR Co-ordinator in accordance with agreements effected between the national SAR Co-ordinator and Commanders of forces providing SAR assistance. The national SAR Co-ordinator (SC) may assign operational control of forces to the SAR Mission Co-ordinator (SMC) or On-Scene Commander (OSC).

#### 10103 SAR Organisation

1. The basic SAR organisation will consist of a SAR Co-ordinator, a SAR Mission Co-ordinator, an On-Scene Commander and SAR units.
  - a. *SAR Units.* Any unit under the control of the SAR Co-ordinator not assigned duties as SC, SMC, or OSC.
  - b. *On-Scene Commander.* The first SAR unit to arrive at the scene will assume the duties as OSC. The OSC will control SAR operations and communications until such time that a SAR Mission Co-ordinator is designated by the SAR Co-ordinator. The OSC is subordinate to the SAR Mission Co-ordinator.
  - c. *SAR Mission Co-ordinator.* The SAR Co-ordinator may designate the OSC as SAR Mission Co-ordinator or designate another unit with more adequate facilities to establish and maintain a Rescue Co-ordination Centre (RCC) for co-ordination of SAR operations and communications. The SMC is subordinate to the SAR Co-ordinator. SMC will direct the actions of all SAR units.
  - d. *SAR Co-ordinator.* The SAR Co-ordinator has primary responsibility for the overall SAR operation from initiation to completion of the operation. The national commander of the unit in distress will normally assume the responsibility of SAR Co-ordinator. The Task Force Commander will assume responsibility of SAR Co-ordinator when the unit in distress is of a nationality other than those participating in the combined operation. The SAR Co-ordinator will direct the actions of the SAR mission Co-ordinator.

#### 10104 SAR Initiation

The ultimate decision to answer a distress call and initiate a SAR operation rests with the commander of each independent or separate unit. He may engage in search and rescue operations upon his own initiative. Such independent action shall be reported immediately to and co-ordinated with the appropriate SAR Co-ordinator and the Task Force Commander.

**10105 SUBMISS/SUBSUNK**

1. Submarine disaster SAR operations may be designated either as EVENT SUBMISS (the initial search state) or EVENT SUBSUNK (the full-scale search). In either case, the primary SAR mission is to render prompt assistance to the subsurface craft through an efficient search for its location and the rescue of its personnel.
2. *Circumstances when SUBMISS conditions may exist:*
  - a. The safety of the submarine is in doubt, or when the surfacing signal, check report or arrival signal is one hour overdue.
  - b. A submarine fails to surface promptly following a known accident or when an accident report has been received from any source.
  - c. Participating units for more than one hour after exercise FINEX has lost all contact with a submerged submarine during an exercise, unless such lack of contact has been planned.
  - d. There is a reason to suspect that a submarine has suffered a defect and requires assistance.
  - e. The submarine is overdue in reporting completion of submerged operations.
3. *Circumstances when SUBSUNK conditions may exist:*
  - a. A submarine fails to surface promptly and there is reason to suspect that a submarine has sustained damage and requires assistance.
  - b. The surfacing signal, check report or arrival signal is two hours overdue.
  - c. There is reason to suspect that a submarine has suffered a defect and requires assistance.
  - d. A submarine messenger buoy has been sighted.
  - e. A red distress pyrotechnic from a submarine has been sighted.
  - f. Survivors and debris from a submarine are sighted and identified.
  - g. Distress communications by SONAR or Emergency Radio Buoy (on 121.5 MHz) are received.
4. *Communications.* Communications for SAR/SUBMISS/SUBSUNK will be in accordance with Chapter 3.

**CHAPTER 11****LOGISTICS AND READINESS****INDEX**

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**CHAPTER 11****LOGISTICS AND READINESS****SECTION 1 - GENERAL****11101 Purpose and Scope**

1. This Chapter establishes the basic logistic and readiness policies of the Task Force formed and provides guidance to attached commands and units.
2. *General*
  - a. Logistic support for units of the Task Force is a national responsibility and will be in accordance with national directives and this Chapter.
  - b. Mutual technical assistance and emergency parts supports assistance among participating units is encouraged.

**11102 Logistics Concept**

1. Fundamental to the logistics concept of the Task Force is the principle that ships will be self-supporting to the greatest extent practicable. Adherence to prescribed readiness, endurance and supply stock levels is mandatory.
2. Although ships operating with the Task Force, will normally be supported from shore facilities, appropriate emphasis shall be placed on training in underway replenishment to maintain a mobile support capability.
3. Ships that deploy with the Task Force outside of national waters will ensure the maximum degree of supply endurance.

**11103 Material Condition and Ship Damage Reports**

1. Every effort should be made to correct material discrepancies and calibrate equipment prior to operations at sea.
2. All units will immediately report by message to CTF and to their national Task Group Commander, material failures or maintenance difficulties which will adversely affect the accomplishment of their assigned operational mission.

**11104 Salvage**

Salvage, emergency repair of ships and related salvage tasks are national responsibilities; however, all units shall be prepared to provide assistance when requested.

**11105 Replenishment**

1. *General.* The inherent dangers of replenishment and transfer operations at sea require strict adherence to safety precautions by all hands, prudent seamanship and (in helicopter operations) airmanship. The OCS will ensure that appropriate lifeguards are stationed and all units are prepared to mark, with smoke lights and/or life rings, the position of personnel or material which may be lost over the side. All units will be prepared to conduct rescue operations as directed by the Task Force Commander and/or the OCS.
2. *Refuelling.* Refuelling-at-Sea (RAS) will be conducted in accordance with this Chapter.
3. *Other.* The Task Force Commander at sea will co-ordinate transfer of personnel, light freight and mail between units.

**11106 In-port Requirements**

In-port requirements shall be the responsibility of national authorities. National Task Group Commanders will ensure that their requirements are submitted to the host navy and national in port authorities keeping the Task Force Commander informed, in accordance with Section 3 of this Chapter.

**11107 Logistics and Readiness Reports**

1. Ready for Sea reports in accordance with Section 2 of this Chapter.
2. Logistics Requirement Requests in accordance with Section 3 of this Chapter.

**SECTION 2 - READINESS FOR SEA**

**11201 Ready for Sea Report**

- 1. Each Task Force ship and submarine will submit a ready for sea report at least two hours before the sortie of the individual unit. The report will be sent to the respective National Task Group Commander. The report may be made by voice or message. Reports will be consolidated by the respective National Task Group Commander and one report submitted to CTF 20.

**11202 Ready for Sea Format**

From Individual Unit  
 To CTG XX.X (Task Group Commander)

Subj : Ready for Sea Report

- 1. \_\_\_\_\_ ready for sea and \_\_\_\_\_ sortie on time.  
 (Unit Name) (is/is not) (will/will not)

- a. Reason for delay: \_\_\_\_\_  
 (if unit will not sortie as scheduled)

- 2. All personnel \_\_\_\_\_ accounted for.  
 (are/are not)

- b. Personnel not accounted for: \_\_\_\_\_  
 (if applicable)

- 3. Material problems affecting at sea phase.

	Name of equipment	Brief description of problem	Limitation(s) imposed
a.	_____	_____	_____
b.	_____	_____	_____

(Brief list of major equipment problems that may affect participation in the underway exercise).

**SECTION 3 - LOGISTICS REQUIREMENTS (LOGREQ)****11301 General**

1. Standard LOGREQ will be sent by the visiting Task Group Commanders at least 15 days before arriving in port using the LOGREQ message format below:
  - a. Following completion of the planning conferences a single, consolidated logistics requirement (LOGREQ) message applicable to all ports to be visited will be submitted by the visiting Task Group Commander.
  - b. The requirements not addressed in the standing LOGREQ will be agenda items for the arrival conference.
  - c. The basic LOGREQ format is provided below for use by the navies at the discretion of their Task Group Commander. Information shall be furnished using designators listed in the article.

**11302 LOGREQ Message Format**

## LOGREQ

ALPHA	Estimated time of arrival (local time at destination or indicated geographical position, harbour or swept channel entrance, or anchorage, as applicable).
BRAVO	Berthing assistance (tugs and pilot only, if required; request berth preferred to pier space).
CHARLIE	Passengers and troops for disembarkation (include numbers, designations and nationalities of officers, enlisted men and civilians. Hospital cases: stating diagnosis, ambulatory or not). For personnel transfers list full legal name; rate/rank; service/serial number; citizenship; passport and visa number or statement that they are not held; reason for transfer; destination; date.
DELTA	Fleet freight, mails and stores for off loading.
ECHO	Voyage repairs, ship's maintenance needed. If extensive ships force work to be accomplished, give estimated number of hours main machinery will be out of commission.
FOXTROT	Bulk fuel and bulk lubricants desired.
GOLF	Ammunition required.
HOTEL	Other stores required (used only to requisition bread, milk and ice cream), applicable requisitioning procedures will be used for all other stores; reference may be made to the DTG and requisition number of previously submitted requisitions or routine demands on which expeditious action is desired.
JULIET	Special requests (for example VIP arrangements).
KILO	Harbour facilities required, boating, electric power requirements, telephones, <i>etc.</i>
LIMA	Estimated time of departure, if known.

MIKE	Potable water required.
NOVEMBER	Currency exchange requirements.
OSCAR	Number of Medical Officers on board, if any.
PAPA	Certification as to state of health aboard, if other than satisfactory (normal pratique certified).
QUEBEC	Customs clearance, if required.
ROMEO	Number of aircraft being flown off and estimated zone time, time of fly off and arrival at destination.
TANGO	Replacement aircraft required.
UNIFORM	Name, grade and date of rank of Flag Officer/Unit Commander embarked and Commanding Officer; number of officers and enlisted men aboard.
VICTOR	Radio watches manned.
WHISKEY	(1) Next port. Space available for: (2) officers, (3) enlisted passengers and (4) enlisted troops (troops provide own bedding; passengers are provided bedding by ship).
XRAY	(1) Measurements tons of cargo by hatches for off loading, stating number and weights of heavy lifts required, (2) measurements tons of space available by hatches for loading cargo after discharge and nature of any deck cargo blocking or preventing normal access to main deck hatches which open into available cargo space.
YANKEE	Names of passengers of the following classes: (1) Officers of the Armed Forces of the grade of Captain (Navy), Colonel, or above. (2) Cabinet members. (3) Members of national legislative bodies. (4) Members of the diplomatic service. (5) Civilian chief of bureau and officers of government departments. (6) Civilians travelling in the status of guests of an agency of the government or as representatives of media.
ZULU	Miscellaneous items not covered by any of the preceding items.

*Explanatory Notes:*

1. Non applicable items in the preceding list should be omitted.

2. Replies to LOGREQ messages will be keyed to items addressed in the LOGREQ. *Examples:*
  - a. Berthing instructions would be given under BRAVO.
  - b. Miscellaneous information not covered by any other item would be given under ZULU.
  - c. The short title "LOGREQ REPLY" should precede the actual message in order that it may be readily identified.
  - d. Changes to LOGREQs reply shall likewise contain the phrase "CHANGE\_\_\_\_\_" The format shall be the same as in the original reply, for example, to report a change in berthing assignment only, the message should read: "LOGREQ REPLY, CHANGE ONE. BRAVO: BERTH HOTEL 2 VICE MIKE 3."
3. Changes to the LOGREQ report shall contain in the text, in addition to the word "LOGREQ", the phrase "CHANGE\_\_\_\_\_" Items previously reported which are not changed shall be omitted. The format shall be the same as that used in the original report (For example, to report a change: "LOGREQ, CHANGE ONE. ALFA: 091000Q POINT XRAY").

**CHAPTER 12****MINE WARFARE****INDEX**

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## CHAPTER 12

### MINE WARFARE

#### 12101 Transit of Ships through Mined Areas - Lead through Operations

1. *General Considerations:*
  - a. This Chapter provides convoy commodores, OTCs and individual units with instructions for manoeuvring through mined waters.
  - b. The responsibility for the safety of merchant shipping rests with the appropriate OCA. The OCA of transiting units must decide whether merchant shipping will or will not transit mined areas. The decision to pass naval units through mined waters rests with their OTC. The senior OTC of the naval forces afloat assigns tactical control to MCM forces in order to conduct the lead-through phase. In the case of a convoy/independents, tactical control of the lead-through operation is to be assigned to MCM forces by the OCA. MCM authorities provide information related to the transit.
  - c. It is important that the MCM tasking authority and the OCA of transiting units establish clear, reliable communications between themselves and their subordinate units at sea as depicted in Table 12-1.
  - d. Units transiting a swept/hunted channel should keep station by true bearing from the lead unit, or navigate by radar or by radio direction finding (if available), in order to proceed on the Centre line or on another track indicated by MCM tasking authority. Depending on the sea state, visibility, method of navigation, and manoeuvrability and other characteristics of transiting units, one MCM vehicle (MCMV) can lead up to four units.
  - e. MCMVs may be used to lead, but this should not preclude the use of other units, or of suitably qualified personnel, such as pilots, or special radio direction finding equipment, in special circumstances.
  - f. It should be kept in mind that the less the distance is between the ships in a column, the less the danger from influence mines will be with regard to the mines' intercount dormant period.
  - g. In some MCM operations, units may have to transit the channel at certain intervals. In this case they will be warned in advance by the OTC of the MCM force.
2. *Safety Measures and Preparations:*
  - a. *When a convoy is approaching:*
    - i. The convoy commodore must form his convoy into a single column formation. As a general rule, inter-ship spacing should not exceed 1 000 yards, depending on the size of the ships and the navigational facilities.
    - ii. A naval force should pass in a single column formation at a standard distance or less if possible (other values of these distances may be indicated by the OTC of the MCM force).
  - b. If rendezvous with an MCM force is expected during darkness, the first unit of the column is to show three white lights displaced vertically at her bow for identification purposes. The lead unit will point the rendezvous position, showing white light over red. If more than one lead unit is employed, only the first lead unit will show the lights mentioned. Other lead units are to proceed to their assigned stations and to show the lights after arrival.

- c. Proceed along the Centre line or along another indicated track, each unit navigating independently.
  - d. The lead unit only is to adjust speed to maintain the signalled distance.
  - e. The speed ordered should not be exceeded.
3. *Situations.* Table 12-1 provides a list of actions for transiting units which apply to situations that involve:
  - a. Mine danger area known/not known.
  - b. Through channels established/not established.
  - c. MCM forces available/not available.
4. *MCM Responsibilities:*
  - a. *MCM Tasking Authority.* The MCM tasking authority shall:
    - i. Order a *lead-through* operation, if necessary. In that case, the OTC of the MCM force (an MCMV or a lead ship) is to guide transiting units through a channel.
    - ii. Send appropriate task orders to the MCM force(s) to carry out an MCM check operation on the track that the traffic will use and if time permits, to confirm, as far as possible, that no mines are left.
  - b. *The MCMV or Lead Ship.* The MCMV or lead ship shall:
    - i. Conduct the *lead-through* operation.
    - ii. Ensure the distance to the transiting units.
    - iii. Ensure that the transiting units maintain the ordered track or centreline.
5. *Transit Instructions.* A naval force, convoy, or independent unit about to be lead through a mined area will be passed relevant instructions using the format in par 12102.
6. *Units Damaged by Mines.* Units damaged by mine detonation and unable to proceed at the ordered speed should attempt to manoeuvre clear of the channel's centreline. In narrow and shallow channels, such as harbour entrances, heavily damaged or sinking units should be grounded outside the main channel. Mine explosions are to be reported using the format in paragraph 12103.

**Table 12-1**  
**Action for Transiting Units in Mine Danger Areas**

<i>Situation</i>	<i>MCM Forces</i>	<i>Transiting Units</i>
ONE  Mine Danger Area known and channel established, promulgated and marked.	May or may not be available	UNITS NEED NOT BE LED  1. Conform with instructions in the latest appropriate: a. Q message. b. NAVSHIPWARNS. c. MERSHIPWARNS. d. Routing Instructions. e. Channel Information.  2. Comply with appropriate safety measures.
TWO  Mine Danger Area being established, channel being established, and channel may be marked.	Available	UNITS MUST BE LED  1. BEFORE ARRIVAL at danger area or channel entrance : a. OTC or convoy commodore set watch on MCM tactical frequency (HF/UHF), establish communications two hours before ETA, and pass relevant MCM operations information to units in company. b. Keep OTC of MCM force informed of first unit's ETA. c. Prepare to comply with appropriate safety measures.  2. AFTER ARRIVAL at channel entrance: a. Comply with instructions from OTC of MCM force and lead ship b. Maintain signalled distance on channel centreline or ordered track c. Comply with appropriate safety measures.
THREE  Mine Danger Area not established and channel not established	Available  Not available	Same as for Situation TWO  1. Transiting units not yet in a mined area: a. Consider diversion if permissible. b. Comply with appropriate safety measures. c. Inform the OCA.  2. Transiting units in a mine danger area a. Continue transit. b. Comply with appropriate safety measures. c. Inform the OCA.

**12102 Transit Instructions Signal Format**

FROM : OTC of MCM units  
 TO : OTC of naval units or convoy commodore  
 HEADING : Exercise/Operation Code Name - Transit Instructions

**A. PASSAGE NOT PERMITTED**

1. Stop immediately (YES/NO)
2. Anchor in position
3. Sail to (as indicated)
4. Use diversion indicated
5. Estimated duration of MCM operations

**B. PASSAGE PERMITTED**

1. Lead-through (YES/NO)
2. Leading vessel will be unit indicated for ships indicated
3. Leading vessel will be unit indicated for ships indicated

**C. CHANNEL DETAILS (Use column for every linear part of the channel)**

1. Length in nautical miles
2. Width in yards
3. Datum (dan) buoy position
4. Course of channel in degrees, and direction of (dan) buoy line in degrees if it is different
5. Number of (dan) buoys and spacing in hundreds of yards
6. Centreline in yards N-S-E-W of buoy line

**D. SPECIAL INSTRUCTIONS**

1. Maximum speed in knots
2. Ship spacing in hundreds of yards
3. Tidal stream
4. Other units in the channel
5. Estimated time of entering channel
6. Visual signals in operation

**E. SPECIAL REMARKS**

1. Dan (buoy) characteristics
2. Navigational hazards
3. Miscellaneous

**12103 Reporting Mine Explosions**

1. Every ship detonating a mine, whether damaged or not, shall make a mine explosion report (MINEXREP) to the OPCON authority, with an information copy to the OTC of the MCM forces if in contact with such force. The DTG of the report should be the time of observation and the report should include the following:
  - a. Own position.
  - b. Course and speed.
  - c. True bearing and distance in yards from the ship's bridge to the plume axis.
  - d. Type of mine (if known).
  - e. Remarks.
2. The signal should be sent as soon as the EMCON plan permits. If doubt exists as to which unit activated a particular mine, the nearest ship is to report it. The report does not substitute for any other report requested (for example, OPREP).

**APPENDIX A****LIST OF ABBREVIATIONS**

<b>A</b>	
AA	ANTI-AIRCRAFT GUNNERY
AAOC	ANTI-AIRCRAFT OPERATION CENTER
AAW	ANTI-AIR WARFARE
AAWCR	ANTI-AIR WAR COVERED REPORTING NET
ABCG	ASSISTANT BOAT GROUP COMMANDER
AC	AIR CONTROL (RADAR)
ACRYNOM	A combination of letters, normally the first letters of words in a multiple or title used to save space, (ASMAR, ATP, <i>etc.</i> )
AEW	AIRBORNE EARLY WARNING
AIC	AIR INTERCEPT CONTROL
AIRMOVE	AIR MOVEMENT REPORT
AKAC	CODE SYSTEM DESIGNATOR
ALCON	ALL CONCERNED (PERSONNEL/UNITS)
ALT -	ALTITUDE
AO	AUXILIARY OILER
AO	AIR OBSERVED
AOA	AMPHIBIOUS OPERATIONS AREA
ARRCS	AIR RAID REPORTING CONTROL SHIP
AS	AIR SEARCH RADAR
AS	ANTI-SUBMARINE
ASA	ANTI-SUBMARINE AREA
ASAC	ANTI-SUBMARINE AIR CONTROL
ASAP	AS SOON AS POSSIBLE
ASCM	ANTI-SHIP CRUISES MISSILE
ASW Action	In ASW exercises, ASW action begins with COMEX and ends with FINEX, or STOP TIME, whichever is the earlier. The duration of ASW action must be given in minutes in the Exercise Orders.
AMSD	ANTI-SHIP MISSILE DEFENSE
ASROC	ANTI-SUBMARINE ROCKET
ASRT	AIR SUPPORT RADAR TEAM
ASUW	ANTI-SURFACE WARFARE
ASW	ANTI-SUBMARINE WARFARE
ASUWC	ANTI-SURFACE WARFARE COORDINATOR
ASWC	ASW COORDINATOR
AFT	AMPHIBIOUS TASK FORCE
ATP	ALLIED TACTICAL PUBLICATION
AWTT	SURFACE VESSEL TORPEDO TUBE
<b>B</b>	
BDR	BEST DEPTH RANGE
BGC	BOAT GROUP COMMANDER
BPDMS	BASIC POINT DEFENSE MISSILE SYSTEM
BRG	BEARING
BWC	BOAT WAVE COMMANDER

**C**

CAP	COMBAT AIR PATROL
CASCOR	CASUALTY CORRECTION REPORT
CASREP	CASUALTY REPORT
CATF	COMMANDER AMPHIBIOUS TASK FORCE
CCO	CENTRAL CONTROL OFFICER
CEO	COMMUNICATION-ELECTRONICS OFFICER
CIC	COMBAT INFORMATION CENTER
CICO	COMBAT INFORMATION CENTER OFFICER
CLF	COMMANDER LANDING FORCE
CO	COMMANDING OFFICER
COC	COMBAT OPERATIONS OFFICER
COMEX	In exercises, this is the time of starting ASW action.
COMSEC	COMMUNICATIONS SECURITY
CONVEX	CONVOY EXERCISE
COTP	CAPTAIN OF THE BOAT
CS	COMBAT SUPPORT
CSS	COMBAT SERVICE SUPPORT
CV	FIXED-WING AIRCRAFT
CW	CONTINUOUS WAVE TRANSMISSION

**D**

DASC	DIRECT AIR SUPPORT CENTER
D-DAY	DAY OF THE ASSAULT
DET	DETACHMENT
DEMO	DEMONSTRATION
D/F	DIRECTION FINDING
DFM	DISTILLATE FUEL MARINE
DIFAR	DIRECTIONAL PASSIVE SONOBUOY (SSQ-53)
DMA	DEFENCE MAPPING AGENCY
DRT	DEAD RECKONING TRACE
DS	DIRECT SUPPORT (SUBMARINE)
DSSA	DIRECT SUPPORT SUBMARINE AREA
DSCC	DIRECT SUPPORT SUBMARINE COMM AREA
DTG	DATE TIME GROUP

**E**

ECOM	ELECTRONIC COUNTER-COUNTER MEASURES
EEFI	ESSENTIAL ELEMENTS OF FRIENDLY INFORMATION
ELINT	ELECTRONIC INTELLIGENCE
EMCOM	EMISSION CONTROL
EMREL	EMISSION RELEASE
ESM	ELECTRONIC WARFARE SUPPORT MEASURES
ETA	ESTIMATED TIME OF ARRIVAL
ETR	ESTIMATED TIME OF RETURN
ETR	ESTIMATED TIME OF REPAIR
ETD	ESTIMATED TIME OF DEPARTURE
EVT	EVENT
EW	EARLY WARNING (RADAR)
EW	ELECTRONIC WARFARE
EWCS	ELECTRONIC WARFARE CONTROL SHIP
EXTER	EXPERIMENTAL TACTICS, EXERCISES AND PROCEDURES

<b>F</b>	
FAAWC	FORCE ANTI-AIR WARFARE COORDINATION
FAC	FORWARD AIR CONTROLLER
FBHL	FORCE BEACH HEAD LINE
FC	FIRE CONTROL RADAR
FDC	FIRE DETECTION CENTER
FEBA	FORWARD EDGE THE BATTLE AREA
FINEX	In exercises, this is the time of ending an ASW action. It is equal to COMEX plus the duration of ASW action ordered.
FL	FLIGHT LEVEL (100s FEET)
FM	GUIDE MISSILE FRIGATE
FO	FORWARD OBSERVER
FSC	FIRE SUPPORT COORDINATOR
FSCC	FIRE SUPPORT COORDINATOR CENTER
FSCL	FIRE SUPPORT COORDINATOR LINE
<b>G</b>	
GO TIME	The start of an ASW exercise period.
<b>H</b>	
HDG	HELICOPTER DIRECTION CENTER
H-HOUR	HELO OPERATION FROM SHIP OTHER THAN AIRCRAFT CARRIERS
HST	HELICOPTER SUPPORT TEAM
<b>I</b>	
IAW	IN ACCORDANCE WITH
IFF	IDENTIFICATION FRIEND OR FOE
IFR	INSTRUMENT FLIGHT RULES
IRT	IN REPLY TO// IN REGARD TO
IMC	INSTRUMENT METEOROLOGICAL CONDITION
<b>L</b>	
LOD	LINE OF DEPARTURE
LOFAR	PASSIVE NON-DIRECTION SONOBUOY (SSQ-41)
LOGREQ	LOGISTICS REQUEST
LF	LANDING FORCE
LSE	LANDING SIGNAL ENLISTED
LVT	LANDING VEHICLE TRACK - ASSAULT AMPHIBIOUS
LZ	LANDING ZONE
<b>M</b>	
MAD	MAGNETIC ANOMALY DETECTION (OF SUBMARINE)
MAGTF	MARINE AIR GROUND TASK FORCE
MCM	MINE COUNTER MEASURES
MIN	MINUTES
MIW	MINE WARFARE
MLA	MEAN LINE OF ADVANCE
MSB	MINE SWEEP BOAT
<b>N</b>	
NA	NAVIGATIONAL RADAR
NCS	NAVIGATIONAL RADAR

NCS	NET CONTROL STATION (NTDS)
NGFS	NAVAL GUNFIRE SUPPORT
NGF(S)	NAVAL GUNFIRE (SHIP)
NFL	NO FIRE LINE
NR	NUMBER
NTDS	NAVAL TACTICAL DATA SYSTEM (LINK)
NWP	NAVAL WARFARE PUBLICATION
<b>O</b>	
OA	OUT OF ACTION
OBJ	OBJECTIVE
OCE	OFFICER CONDUCTING EXERCISE
OCM	OFFICER CONDUCTING MANEUVERS
OCS	OFFICER CONDUCTING THE SERIAL
OFFSTA	OFF STATION
ONSTA	ON STATION
OPLAN	OPERATIONAL PLAN
OPSEC	OPERATIONS SECURITY
OSC	ON SCENE COMMANDER (SAR)
OSE	OFFICER SCHEDULING EXERCISE
<b>P</b>	
PAX	PASSENGERS
PCO	PRIMARY CONTROL OFFICER
PCS	PRIMARY CONTROL SHIP
PDR	PERISCOPE DEPTH RANGE
PIF CODE	PARTICULAR IDENTIFICATION FEATURE CODE
PIM	POSITION AND INTENDED MOVEMENT
PINGER	ACTIVE SONOBUOY (SSQ 47, SSQ 62)
PL	PHASE LINE
PMCF	POST MAINTENANCE CHECK FLIGHT
PRF	PULSE REPETITION FREQUENCY
PRI	PULSE REPETITION INTERVAL
PVST	PORT VISIT
PW	PULSE WIDTH
<b>R</b>	
RBOC	RAPID BLOOMING OFFBOARD CHAFF
RCC	RESCUE COORDINATION CENTER
R/D	RESCUE DESTROYER
RDF	RADIO DIRECTION FINDING
RDVU	RENDEZVOUS
REQ	REQUESTS
RECCE	RECONNAISSANCE
RFS	READY FOR SEA
RMKS	REMARKS
RNG	RANGE
R/T	RADIO TELEPHONE
R/V	RENDEZVOUS
<b>S</b>	
SAAWC	SECTOR ANTI-AIR WARFARE COORDINATOR
SAC	SCENE OF ACTION COMMANDER

SACC	SUPPORTING ARMS COORDINATION CENTER
SAG	SURFACE ATTACK GROUP
SAM	SURFACE TO AIR MISSILE
SAR	SEARCH AND RESCUE
SAU	SEARCH ATTACK UNIT
SC	SAR COORDINATOR
SEPTAR	REMOTE CONTROL TARGET BOAT
SFCP	SHORE FIRE CONTROL PARTY
SIGINT	SIGNAL INTELLIGENCE
SITREP	SITUATION REPORT
SMC	SAR MISSION COORDINATOR
SOA	SPEED OF ADVANCE
SOP	STANDARD OPERATING PROCEDURES
SPA	SUBMARINE PATROL AREA
SPD	SPEED
SS	SURFACE SEARCH (RADAR)
SS	CONVENTIONAL SUBMARINE
SSM	SURFACE TO SURFACE MISSILE
SSN	NUCLEAR POWERED SUBMARINE
SSSC	SURFACE SUBMARINE SURVEILLANCE COORDINATOR
SSRCS	SURFACE RAID REPORTING CONTROL SHIP
STOP TIME	The end of an ASW exercise period.
SU-AIR	SURFACE TO AIR
SUROBS	SURFACE OBSERVATION
SSVT	SURFACE VESSEL TORPEDO TUBE

**T**

TACC	TACTICAL AIR COMMAND CENTER
TACCO	TACTICAL AIR COORDINATOR
TACLOG	TACTICAL-LOGISTICAL CONTROL GROUP
TACP	TACTICAL AIR CONTROL PARTY
TACRON	TACTICAL AIR CONTROL SQUADRON
TADC	TACTICAL AIR DIRECTION CENTER
TAOC	TACTICAL AIR OPERATION CENTER
TAS	TRUE AIRSPEED (KNOTS)
TBA	TO BE ANNOUNCED // ARRANGED
TBD	TO BE DETERMINED

**U**

U/C	UPON COMPLETION
UDT	UNDERWATER DEMOLITION TEAM
UNREP	UNDERWAY REPLENISHMENT
UTB	UTILITY BOAT
USEC	MILLI-SECONDS
UWC	UNDERWATER COMMUNICATIONS
UWT	UNDERWATER TRANSMISSION

**V**

VDS	VARIABLE DEPTH SONAR
VFR	VISUAL FLIGHT RULES
VIA	BY WAY OF
VIC	IN THE VICINITY OF
VMC	VISUAL METEOROLOGICAL CONDITIONS

VP  
VS  
VS.

FIXED-WING AIRCRAFT  
FIXED-WING ANTI-SUBMARINE AIRCRAFT  
VERSUS

**W**  
WGO  
WPM

WAVE GUIDE OFFICER  
WORDS PER MINUTE

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