ALLIED

MARITIME

VOICE REPORTING PROCEDURES

APP-1(A) (NAVY) (AIR)

1981

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November 2001

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CHAPTER	RECORD OF RESERVATIONS BY NATIONS
1	GE – The examples and Annex C are using X-ray codes for link 11 management. Since March 2000 the AdatP-11(B) is effective and with This change these codes are removed. It is only allowed to use Alpha-codes for Link-11 management.
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ANNEX A	
ANNEX B	
ANNEX C	GE – The examples and Annex C are using X-ray codes for link 11 management. Since March 2000 the AdatP-11(B) is effective and with This change these codes are removed. It is only allowed to use Alpha-codes for Link-11 management.
ANNEX D	
ANNEX E	

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

November 2001

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CHANGE 10	3 December 01	1 December 01	J. Cayz

CONTENTS

CHAPTER 1 - RAID REPORTING

SECTION I - GENERAL
101. Use of raid reports 1-1
102. Voice reporting 1-1
103. Automatic data exchange 1-1
104. Callsigns 1-2
105. Transmission of figures in voice reporting 1-4
106. Authentication 1-4

SECTION II - COMPONENTS
110. Sequence of components 1-5
111. Details 0f components 1-7

SECTION III - TYPES OF VOICE RAID REPORTS
120. FLASH raid report 1-11
121. INITIAL raid report 1-12
122. AMPLIFYING raid report 1-12
123. MISCELLANEOUS raid report 1-13
124. SITREP (SITUATION REPORT) 1-14
125. GRID POSITIONS 1-15

SECTION IV - EXAMPLES
130. Examples 1-17

SECTION V - LINK MANAGEMENT
140. General 1-24
141. Link 11 management reports 1-24

CHAPTER 2 - THE TF/TG REPORTING NET

SECTION I - GENERAL
201. Use of the TF/TG REPORTING net by the Surface Picture Supervisors (SPS) 2-1
202. The GRID and the use of NUCO 2-1
203. Bearing and distance 2-1

SECTION II - SURFACE RAID REPORTS AND SURFACE SITREPS
210. The surface raid report 2-2
211. The surface situation report 2-3
212. Weapon state informations 2-3

SECTION III - SUBSURFACE INFORMATION AND SUBSURFACE SITREPS
220. General 2-4
221. INITIAL reports of sonar contacts 2-4
222. Positions of submarines and DATUMS 2-5
223. Positions and activities of ASW helicopters 2-6
224. Activities of ASW aircraft 2-6
225. SITREPS concerning the subsurface situation 2-7

SECTION IV - OTHER INFORMATION
230. EW information 2-7
231. Tactical information 2-7
232. Air information 2-7

CONTENTS

CHAPTER 3 - ANTI AIR WARFARE NETS (AAW NETS)

SECTION I - INTRODUCTION
301. Communications 3-1
302. Manning communications 3-2

SECTION II - PROCEDURES ON THE AAW COORDINATION NET (AAWC NET)
310. General 3-2
311. Ordering the weapon coordination method 3-3
312. Target engagement messages (TEMs) 3-4
313. Type of target engagement messages 3-4
314. Control of the air battle 3-7

SECTION III - PROCEDURE ON THE AAW REPORTING NET (AAWR NET)
320. General 3-11
321. Traffic on the AAWR net 3-11
322. Information obtained by ships detection equipment 3-12
323. Information obtained by AEW detection 3-12
324. Information about radar jamming 3-13

SECTION IV - PROCEDURE ON THE LOCAL AAW COORDINATION NET (LAAWC NET)
330. General 3-14
331. Procedure 3-15
332. Reports from other ships of the LAAWC group 3-15
333. Positions 3-16
334. Supplementary instructions 3-16
335. Situating and activating safety sectors 3-17
336. Carrier flying operations 3-17

SECTION V - PROCEDURES OF THE JOINT AAW SHORE COORDINATION NET (JAAWCS NET)
340. General 3-19
341. Traffic on the JAAWCS net 3-20
342. Selective crosstelling of the air picture 3-20
343. Immediate requests for TASMO AAW tasks 3-21
344. Execution messages for TASMO missions 3-22
345. Inter-controller air defence operational liaison 3-23
346. Transfer of aircraft 3-24
347. Reporting of time on target (TOT) 3-25
348. In-flight report 3-25
349. Friendly air movements report 3-26

SECTION VI - PROCEDURES OF THE SINGLE NET INFORMATION AND POSITION (SNIP)
350. General 3-26
351. Procedure 3-26

SECTION VII - ASMD PROCEDURES ON TACTICAL AAW NETS
360. General 3-27
361. Control of ZIPPO's 3-27
362. Example of ZIPPO reports 3-28

CHAPTER 4 - ASW AIR COORDINATION NET (ASWAC NET)

SECTION I - INTRODUCTION
401. Procedure on the ASWACnet 4-1

SECTION II - JOINING PROCEDURES
410. Joining procedure 4-1
411. Abbreviated joining procedure 4-6

SECTION III - THE SEARCH AND CONTACT PHASE PRIMARY SENSOR PASSIVE ACOUSTICS

420. The search and contact phase of the aircraft, primary sensor passive acoustics 4-7

SECTION IV - THE SEARCH AND CONTACT PHASE PRIMARY SENSOR RADAR

430. The search and contact phase of the aircraft, primary sensor RADAR 4-8

SECTION V - SHIPS AND MPA COORDINATED ACTION

440. Ships and MPA coordinated action 4-10

SECTION VI - USE OF MP AIRCRAFT FOR THE RELAY OF SURFACE FORCE MESSAGES

450. When to use MP aircraft as relay 4-13
451. Precedence of messages 4-14
452. Message limitations 4-14
453. Example of messages 4-14

CHAPTER 5 - HELICOPTER CONTROL PROCEDURES

SECTION I - GENERAL
501. Helicopter control 5-1
502. Nets on which procedures are used 5-1
503. MP aircraft at scene of action 5-1

SECTION II - HELICOPTER JOINING PROCEDURE
510. Helicopter joining procedure (ASW helo net) 5-2
511. Full procedure 5-2
512. Abbreviated procedure 5-6
513. Joining the scene of action commander 5-6

SECTION III - TAKING OVER CONTROL
520. Transfer of control 5-7

SECTION IV - SCREENING OPERATIONS
530. Safety related arms 5-8
531. Screening operations under loose control 5-8
532. Screening operations under close control 5-8

SECTION V - INVESTIGATING SONAR CONTACTS
540. Directing helicopter to investigate a ship's sonar contact (ASW or ASWAC net) 5-9

SECTION VI - RADAR VECTAC
550. Radar VECTAC (on ASW or ASWAC net) 5-10
551. Reversed radar (REVTAC) 5-12

SECTION VII - COORDINATED ASW ACTIONS
560. Coordinated ASW actions (for radar fitted helicopters 5-13
561. Helicopter airplans 5-14

SECTION VIII - SHIPS CONTROLLED APPROACH PROCEDURES
570. Carrying out ship controlled approach procedures 5-14

CHAPTER 6 - THE ASW CONTROL NET (ASW NET)

SECTION I - USE OF THE ASW NET
601. Traffic on the ASW net 6-1
602. Coordination of traffic on ASW and tactical nets 6-1

SECTION II - GENERAL ASW INFORMATION
610. Manning ASW net and action plot 6-1
611. Use of callsigns 6-2
612. Use of codewords 6-2
613. ASW reports (ASREP) 6-2
614. Standard reference positions and accuracy suffixes 6-2
615. Abbreviated procedures 6-2
616. Passive acoustic designators 6-3

SECTION III - PROMULGATION OF SAU APPROACH INTENTIONS
640. The SAUC intentions 6-3

SECTION IV - INFORMATION ABOUT THE MOVEMENTS OF ENEMY SUBMARINES
650. Type of information 6-6
651. Type of initial sonar contact 6-6
652. Positions 6-6
653. Classification and confidence level 6-6
654. Course, speed, depth, relative movement 6-8
655. Sonar contact reports 6-8
656. TAS voice reports 6-9

SECTION V - ORDERS CONCERNING ATTACK/SUPPORT AND SEARCH PLANS
658. Procedure examples for the dissemination of plans 6-10

SECTION VI - INFORMATION CONCERNING THE MOVEMENTS AND SAFETY OF OWN UNITS
660. Reporting and repeating courses and speeds 6-13
661. Torpedo interference area (DOG BOX) 6-14

SECTION VII - ORDERS AND INFORMATION CONCERNING WEAPONS AND EQUIPMENT
670. Orders and information concerning weapons 6-14
675. Orders and information concerning equipment 6-17

SECTION VIII - ESTABLISHING DATUM
680. Establishing a DATUM 6-18
681. DATUM components 6-18

SECTION IX - AIR/SUB COOPERATION PROCEDURES.
690. Call for assistance or contact handover 6-19
691. Rendez-vous 6-20

CHAPTER 7 - FIGHTER CONTROL PROCEDURES AND DIRECTION OF ATTACK AIRCRAFT

SECTION I – FIGHTER CONTROL PROCEDURES
701. Transferring control of CAP 7-1
702. Assignment of CAP stations 7-2
703. Air intercept control communications 7-3

SECTION II - PROCEDURES FOR TACTICAL DIRECTION OF ATTACK AIRCRAFT ON THE AIR CONTROL NET
731. Tactical direction 7-12
732. Organization 7-12
733. Nets on which procedures are used 7-12
734. Callsign 7-12
735. OTC 7-12

CHAPTER 8 - ELECTRONIC WARFARE COORDINATIONS

SECTION I - GENERAL
801. Introduction 8-1
802. Electronic warfare information 8-1
803. Use of callsigns 8-1
804. Traffic passed on EW coordination net 8-1
805. Abbreviated procedures 8-2

SECTION II - TYPES OF EW REPORTS
820. FLASH report 8-3
821. INITIAL report 8-2
822. ASSOCIATION report 8-3
823. MISCELLANEOUS reports 8-3

SECTION III - JAMMING PROCEDURES
830. Jamming report 8-7

SECTION IV - ANTI JAM COUNTERMEASURES
840. Methods 8-8
841. Ordering circuit shift by TACSIG/visual signalling 8-8

CHAPTER 9 - MISCELLANEOUS PROCEDURES

SECTION I - DELAY OF CALLSIGNS
901. MISFIT procedure 9-1
902. CHARTER procedure 9-1

SECTION II - SPOOFING ON RADIO CIRCUIT (GINGERBREAD)
920. Spoofing 9-2

SECTION III - COMMUNICATIONS SECURITY/BEADWINDOW PROCEDURE
930. Introduction and procedures 9-2

SECTION IV - ABBREVIATED PROCEDURES
940. Introduction 9-3
941. Use of the abbreviated alarm procedure on TF/TG tactical net. 9-4

SECTION V - OVER THE HORIZON TARGETTING (OTHT)
950. Introduction 9-5
951. OTHT - procedures (Greyhound/Bulldog) 9-6
952. SURPIC 9-8
953. COVEC value 9-9

SECTION VI - SUB/AIR AND SUB/SURF COORDINATION/COOPERATION
960. Rendez vous 9-10
961. PRE-recorded SLOT BUOY initial contact report 9-12
962. Call for assistance/contact handover procudure 9-13
963. Submarine generated search (SGSA) establishment 9-16
964. SGSA cancellation 9-18
965. JTAA attack authorization 9-19
966. NOTACK area established 9-21
967. JEZEBEL handover and contact reporting procedures 9-22
968. GUERRILLA procedure 9-27

SECTION VII - EXCHANGE OF DUTIES
970. Introduction and procedures 9-27

ANNEX ALFA	UNITS OF REFERENCE	A - 1
ANNEX BRAVO	IDENTITY DEFINITIONS	B - 1
	DEFINITION OF IDENTITY MODIFYING DESCRIPTIONS	B - 2
ANNEX CHARLIE	LINK MANAGEMENT CODES	C - 1
ANNEX DELTA	GADGET LIST	D - 1
ANNEX ECHO	JAMMING STATES	E - 1
ANNEX FOXTROT	WEAPON STATE REPORTS	F - 1
LEP	LIST OF EFFECTIVE PAGES	

PREFACE

PURPOSE

The purpose of APP1 is to provide doctrine and instructions governing the use of common voice procedures employed on maritime tactical voice circuits for use in operations at sea. Those messages which can be used for either record communications or as voice reports are found in APP4.

SCOPE

This publication contains material which encompasses most commonly used procedures on tactical voice nets. While not providing guidance about every conceivable variation to voice procedures, the instructions and examples tabled herein reflect accepted NATO-practices.

GENERAL INFORMATION

1. The functional lay-out illustrating the organization used in this publication is as follows:

TRACK BLOCK	CALLSIGN	TYPE	FUNCTION
	5CU		OTC
	3YZ		Collective callsign
2100 - 2177	4AU		Collective callsign SAU
1200 - 1677	6DC	CV	AAWACU
6100 - 6177	1PD	CG	LAAWC FTC-A EWC AAWC L11CU
2600 - 2677	2CD	DDH	
7300 - 7377	R6F	DDR	Radar picket
2200 - 2277	2VT	DD	
4600 - 4677	1EF	FFMH	
2300 - 2377	4AB	FF	ASWACU HCU FTC-S/SS ASUWC ASWC SC GRU Equipped with
3200 - 3277	7BF	FFC	critical angle towed array system
7100 - 7177	4GH	FFH	
	J4T	FF	
5000 - 5077	0SS	SS	
	1ZH	MPA	
	A5Y	ASW HELO	
	B9S	ASW HELO	
	A3N		SOC
	8BH	FF	Ship joining unexpectantly
	Lettered C/S	AAW	I.A.W. para 104.4

2. Annex A contains the units of reference in accordance with ATP-1 Vol II.

3. Proposals to change or amend this publication should be made in accordance with AAP-3 indicating whether the proposals are of an editorial or substantive nature.

4. There are of course many combinations and alternatives in conducting voice procedures and a good deal of common sense and clear speech will be necessary to effect both control and understanding.

5. Codewords used in this publication are drawn from APP-7. For link codewords see Annex C.

6. Ship designators are taken from STANAG 1166 as published in APP-4.

CHAPTER 1

R A I D R E P O R T I N G

SECTION I - GENERAL

101. *USE OF RAID REPORTS.*
(NR)

Raid reports are made to alert other units in a formation or disposition to new contacts, and, by means of series of related reports, to develop comprehensive plots to assist in the rapid evaluation of the tactical situation in the air, surface and subsurface environments. Raid reporting may be used with land-based stations when a continuous flow of information is required to develop a comprehensive common plot. There are two methods of raid reporting: voice reporting and automatic data exchange. General instructions on raid reporting are given in ATP 1 Vol.I. This chapter in APP 1 provides only general guidelines on voice reporting procedures in chapter 2 and 3.

102. *VOICE REPORTING.*
(NR)

Raid reports are made by individual units of the force to the designated Force Track Coordinator using voice communication circuits which are available for that purpose.

Reports may be made using identities from Annex B. There are four types of voice raid reports.

(1) FLASH raid report. Used to report contacts which may represent an immediate threat.
(2) INITIAL raid report. Used to report new contacts which are considered not to represent an immediate threat.
(3) AMPLIFYING raid reports. Used to report new or revised information about contacts previously reported.
(4) MISCELLANEOUS raid reports. Used to amplify or clarify the appropriate plot.

103. *AUTOMATIC DATA EXCHANGE.*
(NR)

When two or more units in a force are equipped with compatible computer tactical data handling systems, data may be exchanged between them using data links. The detection of new contacts should normally be reported by voice whether or not data links are used. Amplifying information passed by data link may help reduce voice communications. For technical link management details see respective ADatPs. Components to be used in voice raid reporting in a link force will be dedicated by the differences in implementation for NTDS/link systems for individual units in a force (implementation details can be found in respective ADatPs). When voice reports are necessary to support the data link information exchange, following rules apply:

(1) standard voice raid reporting procedures will be used.

(2) standard codewords enjoy the preference over dedicated link codewords and codes.

104. *CALLSIGNS*
(NC)

Callsigns are used as a means of identification. Ships use different types of callsigns to suit the occasion. They are made up of a combination of:

LETTERS	A - Z
FIGURES	1 - 0

(1) *International ship callsigns*.

These are made up of 4 characters, the third and fourth are always letters. They are used in peacetime and never change, e.g. GAAN is the full international callsign for HMS NORFOLK.

(2) *Encrypted callsigns.*

These are made up of 3 characters. The first or second of which is a number. Every NATO unit has a callsign allocated to it. Encrypted call signs are taken from AMSH 1707 which is a periodic superseded document and is a crypto publication.

e.g.		Day1	Day 2	Day 3
	HMS ACTIVE	R2S	C3Y	7PO

(3) *Collective callsigns*.

A collective callsign for a group of ships eg SQUADRON, TASK GROUP or TASK UNIT. Either encrypted or international can be used.

(4) *Functional lettered callsign*.

a. Standard callsign convention for Warfare Commanders and Coordinators. Warfare Commanders and Coordinators may be allocated a two-letter callsign related to their respective command coordination function as shown below. This does not preclude the use of encrypted callsigns.
The Force commander will promulgate which system will be used. A force may have more than one CWC (such as a carrier battle force consisting of multiple carrier battle groups, each with their own CWC organisation).The first letter of each callsign signifies which CWC the commander/coordinator is subordinate to and is unique to that CWC organisation. For example, the first battle group would be allocated the letter "A", the second group "B", and so on. The second letter of each callsign denotes the coordination function of that group. Therefore, callsign "BW" is the AAWC of the second battle group. Primary and alternate second letter designations are defined below.

NOTE: The callsign "AA" is reserved for the Fleet Commander.

	Primary	Alternate
1. CWC	"__" B	"__" V
2. AAWC	"__" W	"__" C
3. ASWC	"__" X	"__" Y
4. ASUWC	"__" S	"__" T
5. SC	"__" N	"__" D
6. EWC	"__" E	"__" Z
7. AREC	"__" R	"__" U
8. HEC	"__" L	"__" H
9. MWC	"__" G	"__" F
10. SOCA	"__" J	"__" K

b. Lettered AAW Callsign. Encrypted Callsign or one or two letter callsign may be used on AAW circuits.

The OTC will promulgate which system will be used in his force. When lettered callsigns are used, they will be assigned in the OPTASK AAW message. Letter designators are assigned to AAW units as follows:

1. "W" - Collective Callsign for all primary and secondary AAW units.
2. "__" W - Anti-air Warfare Commander (AAWC) for a specified CWC organisation (see para 104.(4) a.2 above).
3. "__" C-Alternative AAWC (see para 104 (4) a.2 above).
4. "D" through "P" - Single letters for primary AAW units.
5. "Q" through "R" - Single letters for EW aircraft.
6. "S" for all ASuW units.
7. “T” through “Z” (except “W”) - Single letters for AEW stations.
8. Dual letters for secondary reporting units - first letter of callsign is that of primary AAW unit assigned as LAAWC. Second letter is “A” to “Z” (except “I” and “O”). Ensure callsigns assigned to secondary reporting units do not conflict with those previously assigned to warfare Commanders and Coordinators.

(5) The following additional voice callsigns may also be used on EW COORD only to distinguish between different tasked equipment in one ship.

CONTROL	- Electronic Warfare controller	SUPERDUFFS	- SHF/DF tasked equipment
MIKEDUFFS	- MF/DF tasked equipment	SEARCHERS	- Search tasked equipment
HUFFDUFFS	- HF/DF tasked equipment	DUFFERS	- All DF tasked equipment
VICTORDUFFS	- VHF/DF tasked equipment	HOOTERS	- Jammer equipment
ULTRADUFFS	- UHF/DF tasked equipment		

These additional callsigns would not normally be used when passing EW information on surface or air reporting nets. The nature of the report and the terms RACKET, HUMP, PINNACLE, VOLCANO are considered sufficient to identify the transmissions as an EW report.

(6) When callsigns as described in paras (1) through (4) in the text of a voice report are being preceded by a group of letters and/or figures (e.g. times, track numbers, positions), the word "CALLSIGN" is to be inserted to ensure proper separation and to avoid possible confusion between such groups and the callsigns. This does not apply to callsigns in message headings and endings.

(7) When controlling helicopters, there may be occasions when it is more suitable to use helicopter sidenumbers or general agreed nicknames however when AMSH 1707 callsigns are in use no other callsigns are authorised.

(8) *Abbreviation of callsigns.*

When using abbreviated callsigns (for international, encrypted or collective callsigns) the last 2 characters are used, e.g. GWPE becomes PE and C3Y becomes 3Y. If 2 or more ships have the same last 2 characters then the last 3 are used.

(9) As long as not all communications established within a Taskforce are encrypted, the callsigns used on cryptocircuits will be the same callsigns as those in force at the same time on non-protected voice circuits.

105. *TRANSMISSION OF FIGURES IN VOICE REPORTING.*
(NR)

When figures are used in voice reports, they are spoken digit by digit in accordance with ACP 125. Following examples apply:

a. Track number	- one zero two five
b. Bearing	- two four zero
c. Grid reference	- green one one three tack one six five
d. Distance (miles)	- one two DECIMAL five (12.5)
e. Range (hundreds of yards)	- RANGE two five (2500)
f. Speed	
(1) Surface tracks incl. helicopters (in knots)	- SPEED one five (15).
(2) Air tracks (in tens of knots)	- SPEED four five (450).
g. Depth	
Devils (in tens of feet) (submerged tracks)	- DEVILS two (20).
Demons (in meters) (objects/water depth)	- DEMONS one five (15).
h. Heights	
(1) Height (in feet)	- HEIGHT one seven zero (170).
(2) Altitude (in hundreds of feet)	- ALTITUDE five zero (5000).
(3) Angels (in thousands of feet)	- ANGELS DECIMAL nine (900).
(4) Flight level (in hundreds of feet)	- FLIGHT LEVEL one two zero (12000).

106. *AUTHENTICATION.*
(NR)

The object of authentication is protection against enemy deceptive radio transmissions. A description of and occasions for authentication are covered in ACP 122 and ATP 1; however, the methodology and low grade codes used on circuits are found in AMSC 608 and AMSC 1800. When appropriate, the authentication procedure is to be carried out at the end of the relevant voice report. For simplicity most examples in this publication omit all authentication procedures. Excessive use of authentication with single seat aircraft is to be avoided. In cases where authentication is mandatory a reminder may be inserted as follows: "(authentication)"

SECTION II - COMPONENTS

110. *SEQUENCE OF COMPONENTS*
(NR)

Voice reports will include different components depending on the type of report being made. If more components than those required in the specific type of report are available, they also can be included in that report. Whenever a track number is included in a report it is always to be preceded by a Track Identity from annex B and/or Classification (see diagram). Components are always to be included in the correct position from the following sequence:

a. Addressees callsign

b. Originators callsign

c. Precedence

d. Environment **(As required)**

e. Prefix

f. Track Identity and/or Classification

g. Track number

h. Position

i. Course and Speed/Direction

j. Time

k. Amplifying Data

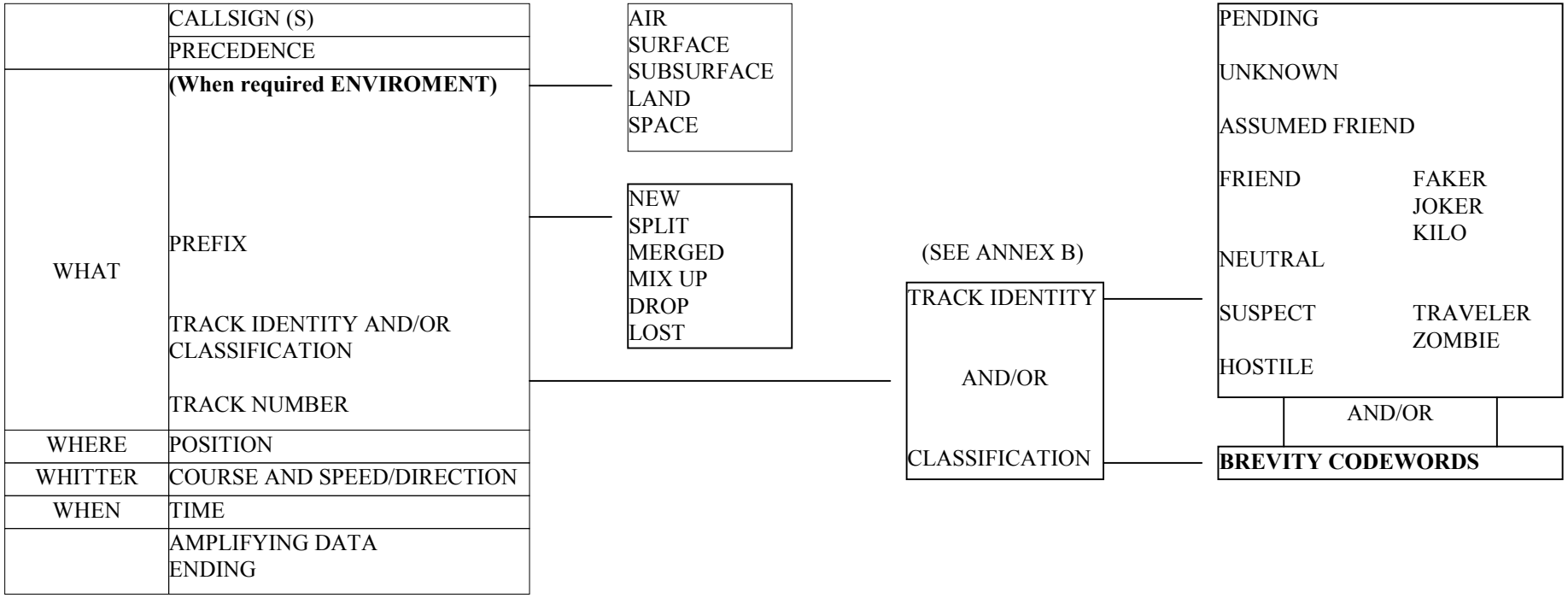
l. Track Identity and/or Classification (Confidence Level not required)

m. Track Number

n. Authentication Procedure (If appropriate)

o. Ending Sign

VOICE REPORTING ORDER OF COMPONENTS



111. *DETAILS OF COMPONENTS.*

(NC)

a. CALLSIGN - Used as ordered. (Encrypted - and lettered AAW callsigns re used in the examples throughout the book - see art.104)

b. PRECEDENCE - Used for FLASH raid reports only.

c. PREFIX - The prefix which reflects the contact situation:
(1) New
(2) Split
(3) Merged
(4) Mix up
(5) Drop
(6) Lost

Normally, the prefix is added when needed

E.g. New Puffball, New assumed friendly, Split unknown, Drop friendly.

(Or **when required** ENVIRONMENT) - (1) Air
(2) Surface (Sea)
(3) Subsurface (Sea)
(4) Land
(5) Space

d. TRACK IDENTITY AND/OR CLASSIFICATION - (1) Track Identity codeword from annex B.
(2) Classification.
A classification is indicated by the use of brevity codewords. Additionally in the case of EW reports:
(a) NATO NICKNAME or spot number and confidence level of a non-communications intercept.
(b) If a non-communications intercept is not classified, frequency/frequency band is to be reported, eg "FREAK 8050" or "JULLIETT BAND".
(c) Spot number of a communications intercept with a suitable plain language amplification eg "SPOT KILO 8352 ENEMY LANGUAGE".

NOTE: All spot numbers in the examples are fictitious.
When possible the NATO NICKNAME is to be used in preference.

e. TRACK NUMBER Each track reported is assigned an individual track number to enable subsequent reports to be correlated correctly. There are two methods of allocation in use which ensure that different tracks are not given the same track number within a force: allocation by the Force Track Coordinator (FTC) and block allocation. In case of a massive air attack, a Force Track Number may be assigned to each group of aircraft/missile approaching from the same direction. Individual track numbers should be assigned when split occurs.

(1) ALLOCATION BY FTC. When this method is in use, new tracks are reported to the appropriate FTC, using some suitable internal reference number. This may be the detecting units call sign followed by a two-digit number. The FTC will acknowledge the report and allocate a four-digit octal track number, which is then used for all further reports of that track. Land-based units will retain their own track number as allocated by the Regional Air Defence Commander (RADC). It will be necessary for the FTC to correlate this number with the track number allocated within the force.

(2) BLOCK ALLOCATION. When use of this method has been specified, the OTC allocates blocks of octal track numbers from the range 0200 to 7776 to any or all reporting units and with regard to the capacity and other requirements of the individual TDS present in the force. In a reporting unit which is not fitted with a TDS, the allocated block may be further subdivided with sub-blocks allocated to elements making ESM detection's and detection's in the air, surface and subsurface environments. Track number usage is as follows:

1. 0001 to 0076 - Link 11 participating units and forwarding participating units operating on another data link.
2. 0000 and 0077 - Illegal numbers.
3. 0100 to 0176 - Collective identifiers for commanders and/or selected supporting units, reporting units and forwarding reporting units.
4. 0177 - Collective address for all link participating and reporting units.
5. 0200 to 7776 - Numbers for allocation to track and sensor contact data.
6. 7777 - Reserved for internal use.

For clarity, all units of own force not participating on Link 11 or on a link addressable by Link 11 are supporting units. Link 10 units are supporting units and may be given track numbers from 0001 to 0076

(3) RETENTION.
The same track number should normally be retained by a contact throughout its existence as a track. Where a contact has been given more than one track number the FTC air will order the use of a single track number.

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f. POSITION

The position of a track is based on methods specified in ATP 1 Vol I. Unless otherwise ordered the following methods are to be used:

(1) FLASH and sonar contact reports: bearing and distance (in miles or RANGE in hundreds of yards) from detecting unit. Depths should be reported if accurately known as DEVILS in tens of feet (eg DEVILS 10 is 100 feet), by the codewords SHALLOW or DEEP or by DEMONS in meters.

(2) AIR TRACKS: CCG (Cartesian Coordinate Grid) or GEOREF. (GEOREF is generally used when shore authorities are also reporting). On LAAW net bearing and distance are generally used. Altitude information may be added, if available. If an accurate altitude of any air track cannot be determined, estimated altitude is to be reported using the appropriate brevity codewords (eg VERY LOW, LOW, and VERY HIGH).

(a) Friendly air tracks. The accurate altitude of friendly air tracks determined by radar or the altitude of aircraft controlled within the force can be reported using the brevity codeword ANGELS, in thousands of feet (eg ANGELS 1 DECIMAL 5 is 1500 feet) or using the International Civil Aeronautical Organisation (ICAO) term, FLIGHTLEVEL, in hundreds of feet (eg FLIGHTLEVEL 250 is 25,000 feet).

(b) Other air tracks. The accurate altitude of other air tracks determined by radar is to be reported as ALTITUDE in hundreds of feet using three digits (e.g., ALTITUDE 151 is 15,100 feet).

Note: IFF is a secondary surveillance radar (SSR)

(3) Passive bearing reports: bearing and bearing accuracy suffix A, B, C or D.(All bearings assumed to be class C unless otherwise stated.) In case of an aircraft making the report, bearing should be given from a position rather than from TT or the aircraft's callsign. In this case the aircraft should also report its height.

(4) Other tracks: CCG

g. COURSE AND SPEED/ DIRECTION:

- The apparent course of a contact is reported as follows
  (1) Surface and subsurface contacts: TRACKING as followed by the course in degrees
  (2) Air contacts: TRACKING followed by the course to the nearest ten degrees or to the nearest cardinal/intercardinal point (N,NE,E), both spoken in full. ORBITTING may be used instead of TRACKING if appropriate.
  (3) SPEED is reported as follows: surface and subsurface tracks, estimated speed in knots to the nearest knot (e.g. 5.4 Kts are reported as SPEED FIVE).
  (4) Air tracks: The nearest multiple of ten knots ground speed (e.g. SPEED FOUR FIVE indicates 450 knots) or appropriate brevity codeword (eg SLOW, FAST, etc. ....., or if appropriate INDICATING).
  (5) Passive bearing report: Bearing movement (e.g. left, right, steady).

h. TIME

- The time component is required for certain special reports (e.g. DATUM) and for any raid report when the information being reported is more than 3 minutes old. Time is reported using four digits, except that the hour digits may be omitted when no ambiguity can result. Zulu time is to be used unless otherwise ordered.

i. AMPLIFYING DATA

- Any other relevant data including:
  (1) PLATFORM: Appropriate brevity codeword to complement the Track Identity, e.g. PELICAN, PROWLER.
  (2) STRENGTH AND SIZE: The numerical strength of a track is reported using the actual number of contacts if known (e.g. STRENGTH ONE FOUR) or appropriate brevity codeword (e.g. SINGLE, FEW, MANY). When reporting surface contacts the size of the contact as well as the numerical strength may be given (e.g. 1 JULIETT SIERRA,1 JULIETT MIKE, 2 JULIETT BRAVO).
  (3) EW reports:
    (a) Parameters of non-communications intercepts (brevity codewords e.g. RENT, SLOPE etc., or plain language, e.g. CONICAL SCAN).
    (b) Radar mode (e.g. SEARCH, TRACK MODE or LOCK ON).
    (c) Signal strength (STRONG, MODERATE, WEAK).
    (d) Assumed type of intercepted traffic (e.g. ASSUMED SHIP-SHIP TACTICAL NET).
  (4) Link management codewords
  (5) INTENTIONS, ENGAGEMENT STATUS, etc.: Operational brevity codeword or plain language statement amplifying present or intended action (e.g. INVESTIGATING, SPITTING,ALLOCATED FIGHTER etc.).
  (6) Acoustic reports:
    (a) Passive acoustic designators (see chapter 6) (e.g. FOXTROT -Doppler fix).
    (b) Submarine classes by type from ATP 1 Vol. I (e.g. PANTHER TYPE 2).
    (c) Submarine operating mode (e.g. EVADING, CLANKING).

j. AUTHENTICATION - This system may be used for challenge and reply and for transmission authentication. For further details see the appropriate crypto publication.

k. ENDING SIGN - Transmissions requiring confirmation of receipt end with OVER; transmissions not requiring confirmation end with OUT.

NOTE: A single unit may be directed to confirm receipt by inserting his callsign before OVER.

SECTION III - TYPES OF VOICE RAID REPORTS

120. *FLASH RAID REPORT.*

(NR)

The FLASH raid report is used to report contacts which may represent an immediate threat. The report includes the precedence proword FLASH after the callsign and before identity and/or classification. If the circuit is busy, the break-in procedure described in ACP 125 should be used (see section IV - examples). Irrespective of the release policy in force, these contacts should be released to the link when available. In this case, to alert other units, track release should be supported by voice reports.

The following components should normally be included:

(1) Originators callsign
(2) FLASH
(3) Track Identity and/or Classification
(4) Position
(5) Course/Direction
(6) Link management codeword (as required)
(7) Ending sign (See para. 111 k.)

NOTE: Emergency alarm signals from ATP 1 Vol.II may be used as appropriate in addition to FLASH raid reports to alert ships in company with the detecting unit.

121. *INITIAL RAID REPORT.*
(NR)

The INITIAL raid report is used to report new contacts which are considered not to represent an immediate threat. The components of an INITIAL report will vary with the type of contact and the length of time from first detection to making the report, but normally should include at least:

(1) Addressees callsign
(2) Originators callsign.
(3) Prefix.
(4) Track Identity and/or Classification
(5) Track Number
(6) Position
(7) Link management codeword (as required)
(8) Track Identity and/or Classification (confidence level not required)
(9) Track Number
(10) Ending Sign

122. *AMPLIFYING RAID REPORT.*
(NR)

The amplifying raid report is used to update information about contacts previously reported. The components of an AMPLIFYING report will depend on the information available and on circuit loading, but should normally include at least:

(1) Originators callsign
(2) Track Identity and/or Classification
(3) Track Number
(4) Position
(5) Amplifying data as available
(6) Track Identity and/or Classification (confidence level not required)
(7) Track Number
(8) Ending Sign

In case of a link being used in the force, the use of AMPLIFYING voice reports should be minimised.

AMPLIFYING LINK raid reports will be used to report:

(1) Change of identity
(2) Change of classification
(3) Change of size and strength
(4) Amplifying data which are not released by link amplifying messages.

The following components should normally be included:
(1) Originators callsign
(2) Track Identity and/or Classification
(3) Track Number
(4) Amplifying data as available
(5) Ending sign

123. *MISCELLANEOUS RAID REPORT.*
(NR)

MISCELLANEOUS raid reports are used to amplify or clarify the appropriate plot.

(1) *I HOLD report*

This may be used when a unit reports a track. Either the Force Track Coordinator (FTC) or another unit confirms the existence of the reported track on his own sensor.

(2) *I WANT report*

This may be used when another unit or the FTC confirms the existence of a reported track and requires reporting responsibility of nominated track.

(3) *I MAKE report*

This may be used by a unit to report different amplifying information to that already reported. It is usually used when a unit is closer to the track being reported, or has a more accurate sensor.

(4) *LOST report*

A unit losing contact with a track for which it has reporting responsibility is to report the loss of contact immediately.

(5) *DROP TRACK report*

When track continuity has been interrupted for a significant period of time, the appropriate track is cancelled by the Force Track Coordinator by making a DROP TRACK report. When a link with independent release is used in the force, the reporting unit relinquishes the track from link. The exact period of time will depend on the type of contact and may be varied by the OTC.
Unless otherwise ordered, the following are to apply:
(a) Air tracks - two minutes
(b) Surface tracks - ten minutes
(c) Subsurface tracks - NOT dropped (except for DAMAGE ASSESSMENT ALFA)(see ATP 28).
(d) Rackets - on order FTC or EWC

(6) *MERGED REPORT*

When two or more hostile or suspect tracks merge and remain merged for a significant period of time, the appropriate Force Track Coordinator will decide which track number is to be retained and will inform other units by a MERGED report. In deciding which of two track numbers to retain, the appropriate FTC should appreciate the implication on threat evaluation and weapon assignment computer programs and endeavour to retain the track number of:

(a) The nearest and most threatening track

or:

(b) A hostile track in preference to suspect or unknown

or:

(c) The track with the biggest strength component.

(7) *SPLIT REPORT*

When a track splits into two or more components, the original track number should be retained for the contact which poses the most immediate threat, contains the greatest number of contacts or maintains the original heading. New track numbers should be assigned to the other tracks by the unit reporting the split. For tracks with a strength component greater than single, SPLIT reports will normally be made as follows:

(a) Air tracks - When individual echoes become more than 10 miles apart.

(b) Surface tracks - When individual echoes become more than 1 mile apart.

In the event that a missile launch from an existing track is detected, initiation of a new track using the FLASH raid report will normally be preferred to making a SPLIT report.

124. *SITREP (SITUATION REPORT).*
(NR)

a. Force Track Coordinators may issue SITREPs of the tracks on their environmental plot if the EMCON plan in force permits. SITREPs may be passed by any means of communication. Voice SITREPs, when permitted, will be issued by the Force Track Coordinator on the appropriate raid reporting communication circuit at such intervals as circumstances demand or on request from another reporting unit. SITREPs should not be made too frequently, nor should the transmission be too long, as they may prevent ships which have more vital information from passing it. If there is a large number of tracks, SITREPs are made in two or more parts, each about half a minute's duration.

b. If a link is being used in the force, SITREPs should normally not be used for picture compilation but may be used by the appropriate FTC to evaluate the situation and to report the status of tracks.

The components of a voice SITREP are:

(1) *CONTROL SHIP POSITION (if position unknown/co-operation with non link participants).*

From time to time the FTC should report his own grid position (or the position of ZZ if different). If all reporting units do not hold the FTC on radar, it may be necessary also to carry out a grid check from time to time.

(2) *NON-FRIENDLY TRACKS*

These are normally reported in clockwise sequence, with track identity and/or classification, track number and position being given, as well as other amplifying information considered significant. This procedure applies also for neutral tracks.

(3) *EW RACKETS*

These are normally reported by the EWC, upon request by the FTC, in a clockwise sequence, with racket identity, racket number, and bearing being given, as well as other amplifying information considered significant. This procedure applies for emissions believed to be originating from hostile, neutral or unknown transmitters.

(4) *FRIENDLY TRACKS*

Friendly tracks which are maintaining their assigned station should be reported as ON STATION in order not to compromise the security of the GRID. If it is necessary to report the position of friendly surface or subsurface units, the use of a suitable numeral code will normally be required, in accordance with the EMCON plan.

(5) *GENERAL ACTIVITIES ASSESSMENT*

A general assessment should be made by AAWC/LAAWC in enemy intentions, expected direction or nature of attack, enemy feints, possible deception, etc. Care must be exercised on non-secure nets to divulge own force intentions.

125. (NC) *GRID POSITIONS.*

a. *CARTESIAN COORDINATE GRID (CCG) ORIGIN AND THE DATA LINK REFERENCE POINT (DLRP)*

The DLRP is the common point from which all positional information on data link is derived and in principle is in the same position as the CCG origin when TDS and non-TDS units are co-operating. The Grid Reference Unit (GRU) is responsible to the OTC for maintaining the accurate position of the DLRP. The duties of GRU and FTC preferably should be combined.

b. *GRIDLOCKS*

The GRU executes GRIDLOCKS on completion of the insertion of the DLRP into the various TDS's or after changing the DLRP. Periodically (intervals less than 4 hours) the GRU executes a GRIDLOCK to update The gridposition of units and thus reduce errors in grid reporting. The GRIDLOCK re-establishes the units position(s) in relation to the grid and may concern either one particular unit (individual gridlock) or all units (general gridlock). The responsibility for maintaining locked in the grid lies within the individual unit(s).

(1) *Individual GRIDLOCK (codeword RONSON).*
The unit addressed is to carry out an individual gridlock with the Grid Reference Unit. They are normally undertaken on the following occasions:
(a) When a unit joints the force and enters the net.
(b) On request of a misaligned unit.
(c) On detection of misalignment of one unit only.

(2) *General GRIDLOCK (codeword GRIDLOCK).*
These are undertaken:
(a) When misalignment occurs in several units.
(b) Upon activation of the net and after insertion of the DLRP into the various TDS's.
(c) After changing DLRP. When TDS and non-TDS units are co-operating, gridlocking can be executed simultaneously for both categories on a commonly held track, TDS units report whether or not satisfactory GRIDLOCK has been achieved (GRIDLOCK/RONSON POSITIVE or NEGATIVE).

(3) *Change of DLRP/GRID ORIGIN* (Codeword GRIDSHIFT) for non TDS fitted units.
The origin will be shifted to a new position, in order to follow a change of DLRP (ATP1 VOL I 2111d).

(4) *Locking non-TDS aircraft into grid*.
This is executed by the appropriate Aircraft Control Unit (ACU). Three methods are available:
(a) RADAR GRIDLOCK. On joining and after full identification procedures.
(b) REVERSE RADAR GRIDLOCK. If for some reason the ACU is unable to use radar. This requires the aircraft to use radar and take bearing and distance from QQ or ZZ as applicable.
(c) ON TOP. If the aircraft has permission to enter the ISR (Identification Safety Range) and overfly the force and can identify the ACU, the aircraft may obtain an ON TOP grid position of the ACU.
(d) TACAN METHOD. EMCON permitting and when a TACAN fitted ship is in the group, an aircraft can obtain a TACAN lock of this unit and then be passed its grid position.

c. *SECURITY OF THE GRID*

Correlation between the geographic reference point and observed units enables the enemy to break the grid and obtain a missile firing solution on any subsequent unit reporting its grid position. While grid reports in the clear are acceptable (EMCON plan permitting) of detached units, BOGEYS and so forth, the position of major units must be encoded in a suitable numerical code.

SECTION IV - EXAMPLES

130. Examples.
(NC)

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
(1)	Flash raid report	1. Detects fast moving radar contact and reports to the Local AAW Co-ordinator.	THIS IS D-FLASH-BOGEYS-235-18-LOW-TRACKING NORTHEAST-AW OVER
		2. Detects missile acquisition radar. (Break-in procedure).	FLASH FLASH FLASH THIS IS D-FLASH-PUFFBALL 7372-BEARING 090-AE OVER
(2)	INITIAL raid report	1. Detection of an underwater contact	4AB THIS IS 2VT-NEW SONAR CONTACT 7327-153 CALLSIGN 2VT RANGE 90-LANCE SEARCHER CONTACT 7327-OVER
		2. A ship on picket station detects one slow moving air contact at long range.	W THIS IS F-NEW BOGEY 2624-085 .. (IN FORCE REF POINT)75 TRACKING NORTHWEST SLOW BOGEY 2624 AW OVER
		3.a. Detection of a surface contact at long range.	4AB THIS IS 2VT-NEW SKUNK 7330-RED 048 TACK 124-ONEJULIETT BRAVO-SKUNK 7330-OVER
		b. FTC doesn't hold contact and directs detecting unit to report	THIS IS 4AB-ROGER-REPORT SKUNK 7330-OVER
		4. a. Detection of a contact by unit not assigned octal track	4AB THIS IS 8BH-NEW SKUNK 12-RED 060 TACK 08 ONE SMALL-SKUNK 12-OVER
		b. FTC assigns an octal track number	THIS IS 4AB-ROGER-SKUNK 12 NOW SKUNK 4623-REPORT-OVER

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
(3)	AMPLIFYING raid report.	1. Air contact is closing.	THIS IS F BOGEY 2624-030 50-HIGH CLOSING BOGEY 2624 -OUT
		2. An already reported surface contact now with course and speed as reported to FTC-S.	THIS IS 2VT-SKUNK 7330-RED 045 TACK 125-TRACKING 270 SPEED 17-SKUNK 7330 - OUT
		3. Previous unidentified air track has been evaluated as suspect.	W THIS IS D BOGEY 2624-030 40 NO JOY NOW SUSPECT 2624-F-OVER
		4. Previous surface track has been classified as two fishing vessels.	3YZ THIS IS 4AB-SKUNK 3210 2 TU -OUT
		5. Previous air track has been evaluated to consist of two units.	W THIS IS F - UNKNOWN 1242 STRENGTH 2 OUT THIS IS (C/S FTC-A) UNKNOWN 1242 IS FORCE TRACK NUMBER 1242 OUT.
		6. Course, speed, height and engagement status not released to link.	W THIS IS AW HOSTILE 1266 -050 80-ALTITUDE 400 TRACKING 330 SPEED 50 ALLOCATED CHICKS OUT.
(4)	I HOLD report.	1. Another unit confirms the track.	THIS IS F - I HOLD SUSPECT 2624 - E OVER
		2. The FTC-A confirms the track	THIS IS E - I HOLD SUSPECT 2624 - CEASE REPORTING - OUT
		3. A unit holds contact of track previously reported as lost by another unit.	a. W THIS IS D - LOST UNKNOWN 7133 - TIME 1410 - F OVER b. THIS IS F - I HOLD UNKNOWN 7133 - OVER
(5)	I MAKE report.	Reported by another ship. Ship with callsign M reports more accurate information of suspect 2624.	W THIS IS M - I MAKE SUSPECT 2624 - ALTITUDE 120 - SPEED 45 OUT

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
(6)	I WANT report.	1. Unit requires reporting responsibility (R^2) of nominated track.	M THIS IS E - I WANT FRIENDLY 2412 -OVER THIS IS M - ROGER - OUT
(7)	LOST report.	Reporting unit loses radar contact on a track and reports immediately.	THIS IS H - LOST SUSPECT 2624 - 190 045 - TIME 1025 - E OVER
(8)	DROP TRACK report.	Track continuity has been interrupted for a significant period of time.	THIS IS E - DROP SUSPECT 2624 - OUT
(9)	MERGED and MIX UP reports.	1. Two hostile tracks are merged. 2. A DROP TRACK report should follow. 3. MIX UP reports are used when two identified radar contacts merge, as for example CAP and target(s).	W THIS IS H - MERGED-HOSTILE 1204-150 130 - WITH HOSTILE 2305 - E OVER THIS IS E DROP HOSTILE 1204 OUT W THIS IS E - MIX UP-FRIENDLY 7112 -180 65 AND HOSTILE 7134 - OUT
(10)	SPLIT report.	Track splits into more components.	THIS IS 2VT - SPLIT - SKUNK 7341 - RED 215 TACK 034 - SKUNK 7342 1 MILE SOUTHWEST OF SKUNK 7341 - 4AB OVER THIS IS 4AB - ROGER REPORT - OUT

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
(11)	SITREP.	1. SITREP on TF/TG reporting.	THIS IS 4AB-SITREP-GRID CHECK-NUCO (RED 212 TACK 020)-SKUNK 7341-RED 215 TACK 030-TRACKING 270 SPEED 20-2JULIETT MIKE- SKUNK 7342-RED 210 TACK 020-TRACKING 220 SPEED 25-TIME 1234-4GH OVER
		2. SITREP on AAW coord net.	THIS IS 4AB-SITREP-BEAVER-OUT
		3. SITREP on secure Link 14.	
		AAW/FTC-A issues threat warning, weapon control instructions, track status of designated tracks.	
(12)	GRIDLOCK	1. Misaligned TDS or non-TDS unit request gridlock.	4AB THIS IS 7BF-REQUEST RONSON-OVER
	a. Individual gridlock (RONSON)	Also for joining unit.	THIS IS 4AB-ROGER-STANDBY RONSON FRIENDLY 2332 IN 1 MINUTE-OVER
		GRU executes gridlock. Also when GRU detects misalignment of a unit.	
		GRIDLOCK for non-TDS-unit.	THIS IS 4AB-STANDBY RONSON-NOW-NOW-NOW .....NUCO(WHITE 242 TACK 083) - OVER
		GRIDLOCK for TDS-unit.	THIS IS 4AB-STANDBY-RONSON-NOW-NOW-NOW-OVER

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
		Satisfactory gridlock achieved. or: Satisfactory gridlock not achieved 2. orders 1EF to execute an individual gridlock with 4GH. 1EF executes gridlock.	THIS IS 7BF-RONSON POSITIVE-OUT THIS IS 7BF-RONSON NEGATIVE-OVER 1EF THIS IS 5CU-EXECUTE RONSON-4GH OVER 4GH THIS 1EF-STANDBY RONSON IN 1 MINUTE OVER
	b. General gridlock.	1. Gridlock for all units upon detection of misalignment of several units. 2. Gridlock for TDS units only. 3. Gridlock for non-TDS units only	3YZ THIS IS 4AB-STANDBY GRIDLOCK FRIENDLY 2332 AT 1415-1EF OVER or: 3YZ THIS 4AB - STANDBY GRIDLOCK IN 2 MINUTES-1EF OVER 3YZ THIS 4AB-GRIDLOCK-NOW-NOW-NOW-OVER THIS IS 6DC-GRIDLOCK POSITIVE-OUT THIS IS 1EF-GRIDLOCK POSITIVE-OUT THIS IS 1PD-GRIDLOCK NEGATIVE-OVER 3YZ THIS IS 4AB-STANDBY GRIDLOCK FRIENDLY 2332 IN 1 MINUTE-1EF OVER 3YZ THIS 4AB-STANDBY GRIDLOCK-NOW-NOW-NOW.....NUCO (WHITE 242 TACK 083) UNNUCO-2VT OVER

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
		4. Gridlock for TDS and non-TDS units co-operating.	3YZ THIS IS 4AB-STANDBY GRIDLOCK FRIENDLY 2332 IN 1 MINUTE-6DC OVER 3YZ THIS IS 4AB-STANDBY GRIDLOCK-NOW-NOW-NOW.....NUCO(WHITE 242 TACK 083)-OVER THIS IS 2CD-ROGER-OUT THIS IS 6DC-GRIDLOCK POSITIVE-OUT THIS IS 1EF-GRIDLOCK POSITIVE-OUT THIS IS J4T-ROGER-OUT THIS IS 1PD-GRIDLOCK NEGATIVE-OVER ETC.....
		Note: GRU then executes individual gridlock for units not having achieved satisfactory GRIDLOCK.	
	c. GRID SHIFT.	1. Change of DLRP/Grid origin. (GRID SHIFT)	3YZ THIS IS 4AB-GRID SHIFT AT 1200-(POSITION NUCO (5135N-00432W)UNNUCO - 1PD OVER or: 3YZ THIS IS 4AB-PREPARE FOR GRID SHIFT-1PD OVER
		2. OTC decides change undesirable due to tactical situation.	3YZ THIS IS 5CU-NEGAT GRID SHIFT-OUT
		3. OTC orders GRU to execute postponed GRID SHIFT.	4AB THIS IS 5CU-EXECUTE GRID SHIFT-OUT
		4. On completion of GRID SHIFT the GRU executes a general gridlock. (Example not included).	
	d. Locking non TDS aircraft.	1. ACU orders radar gridlock; in the example, a time check is included which may be used by all units of the net.	1ZH THIS IS 4AB-STANDBY RONSON AT 1545-1 MINUTE-OVER

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
1	RADAR GRIDLOCK.	ACU executes radar gridlock and passes X and Y co-ordinates.	1ZH THIS IS 4AB-STANDBY RONSON-NOW-NOW-NOW-TIME 1545-YOUR POSITION NUCO (GREEN 082 TACK 075)-OVER
2	REVERSE RADAR GRIDLOCK.	1. Reverse radar gridlock on QQ. 2. Aircraft reports affirmative. 3 ACU executes reverse radar grid-lock.	1ZH THIS IS 4AB-DO YOU HOLD QQ-OVER 1ZH THIS IS 4AB-STANDBY REVERSE RONSON-NOW-NOW-NOW.....QQ NUCO (WHITE 242 TACK 083)-OVER
3	ON TOP GRIDLOCK.	1. ACU orders RONSON ON TOP. 2. Aircraft executes ON TOP. 3. ACU passes X and Y co-ordinates.	1ZH THIS IS 4AB-EXECUTE RONSON ON TOP-OVER 4AB THIS IS 1ZH-STANDBY RONSON ON TOP IN 1 MINUTE-OVER 4AB THIS IS 1ZH-ON TOP NOW-NOW-NOW-OVER THIS IS 4AB-RONSON ON TOP NUCO (WHITE 239 TACK 081) OVER

NOTE:
TDS units perform a gridlock by matching the position of a single track reported over data link with the same locally held radar track. Correction to align the link reported track over the local contact will be in X-and Y co-ordinates and will be applied according to the system design. Non-TDS units adjust the X-and Y co-ordinates of the track on which gridlock has been executed.

SECTION V - LINK MANAGEMENT

140. *GENERAL*

(NR)

Technical details for link management can be found in respective ADatPs. For dedicated codewords and codes from various ADatPs see Annex C. For the use of codewords and codes following rules apply:

a. Standard codewords for voice raid reporting enjoy preference.

b. Dedicated link codewords are not be used instead of existing common voice procedures (e.g. frequency shifts, netting procedure, exchange of duty).

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
1	Initiating the Link 11 organisation.	NCS orders all PKTs to prepare for net initiation.	3YZ THIS IS 4AB-STANDBY ATA-J4T OVER 3YZ THIS IS 4AB-STANDBY XAA-J4T OVER
		PKTs report when ready for net initiation.	4AB THIS IS J4T-ATA READY-OUT 4AB THIS IS J4T-XAA READY-OUT
		NCS orders net initiation.	3YZ THIS IS 4AB-ATA-7BF OVER 3YZ THIS IS 4AB-XAA-7BF OVER
		PKTs report results.	4AB THIS IS 7BF-ATA1-OUT 4AB THIS IS 7BF-XAB-OUT
2	Ordering NET TEST	NCS orders to prepare for NET TEST.	3YZ THIS IS 4AB-STANDBY ATB-J4T OVER 3YZ THIS IS 4AB-STANDBY XAC-J4T OVER
		PKTs report when ready.	4AB THIS IS J4T-ATB READY-OUT 4AB THIS IS J4T-XAC READY-OUT
		NCS orders NET TEST.	3YZ THIS IS 4AB-ATB-7BF OVER 3YZ THIS IS 4AB-XAC-7BF OVER
		PKTs report results.	4AB THIS IS 7BF-ATB1-OUT 4AB THIS IS 7BF-XAD-OUT

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
3	NET SYNCHRONIZATION	NCS orders all PKTs to prepare to carry out NET SYNC procedure for terminal clock synchronisation purpose, beginning in (....) mins.	3YZ THIS IS 4AB - STANDBY ATA-J4T OVER 3YZ THIS IS 4AB - STANDBY XAA-J4T OVER
		NCS orders all PKTs to carry out NET SYNC.	3YZ THIS IS 4AB - ATA - 7BF OVER 3YZ THIS IS 4AB - XAA - 7BF OVER
	(See note)	PKTs report results.	4AB THIS IS 7BF - ATA1- OUT 4AB THIS IS 7BF - XAB - OUT
4	ROLL CALL mode	NCS orders PUs to ROLL CALL mode.	3YZ THIS IS 4AB - ANA - 7BF OVER 3YZ THIS IS 4AB - XAG - 7BF OVER
5	Results on received data	PKTs report received data to FTC.	4AB THIS IS J4T - ADA1- OVER 4AB THIS IS J4T - XAP - OVER
6	Leaving a net.	From PKT to L11CU.	1PD THIS IS J4T-INTERROGATIVE EXECUTE AEB-OVER 1PD THIS IS J4T-REQUEST PERMISSION TO EXECUTE NET EXIT PROCEDURES - OVER
		From L11CU to PKT leaving.	J4T THIS IS 1PD - EXECUTE AEB APPROVED - OVER J4T THIS IS 1PD - APPROVED - OUT
	After transfer of reporting responsibility of tracks.	From PKT to L11CU.	1PD THIS IS J4T - REQUEST AEB - OVER 1PD THIS IS J4T - XDD - OVER
	Permission to leave net.	From L11CU to PKT leaving.	J4T THIS IS 1PD - AEB - OVER J4T THIS IS 1PD - XDE - OVER
	L11CU orders removal of PKT address.	From L11CU to NCS the order to remove the address of the leaving PKT.	4AB THIS IS 1PD -AAB CALLSIGN J4T - OVER 4AB THIS IS 1PD -XAN CALLSIGN J4T - OVER

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
6	Emergency net exit by PKT.	From PKT to NCS/FTC Note:1) after ABF/XBV (break down) execute net entry procedures 2) FTC takes reporting responsibility of tracks.	4AB THIS IS 1PD - AAB CALLSIGN J4T - OVER 4AB THIS IS 1PD -XAN CALLSIGN J4T - OVER
		From NCS to L11CU.	4AB THIS IS 7BF -ABD(or ADE,ACE etc.) - OVER 4AB THIS IS 7BF -XBO(or XBN,XBP etc.) - OVER
	Emergency net exit by NCS	From L11CU to all units, directing new NCS to receipts.	1PD THIS IS 4AB -ABD (or ADE,ACE etc.) - OVER 1PD THIS IS 4AB -XBO (or XBN,XBP etc.) - OVER
	Assigned ship acts as NCS.		3YZ THIS IS 1PD-ASA CALLSIGN 1EF-1EF OVER 3YZ THIS IS 1PD-XAE CALLSIGN 1EF-1EF OVER
7	Changing to net mode BROADCAST.	From OTC or L11CU to PUs.	3YZ THIS IS 1PD - ANA 4 - 7BF OVER 3YZ THIS IS 1PD - XAH 1 - 7BF OVER
8	Changing NCS.	From NCS to L11CU.	1PD THIS IS 4AB - REQUEST ASA - OVER or 1PD THIS IS 4AB - REQUEST XAE - OVER
	Ready to act as NCS.	From L11CU to NCS.	4AB THIS IS 1PD - READY ASA - OVER or 4AB THIS IS 1PD - READY XAE OVER
	Act as NCS.	From NCS to L11CU.	1PD THIS IS 4AB - EXECUTE ASF - OVER or 1PD THIS IS 4AB - XAE OVER
9	Switch to ROLL CALL.	From NCS to PKTs.	3YZ THIS IS 4AB - ANA1/2/3 - 6DC OVER or 3YZ THIS IS 4AB - XAG - 6DC OVER
10	Change of NET speed.	From NCS to L11CU.	1PD THIS IS 4AB - REQUEST ATC2 - OVER or 1PD THIS IS 4AB - XAG - 6DC OVER
		From L11CU to NCS.	4AB THIS IS 1PD - ATC2 - OVER or 4AB THIS IS 1PD - XAJ2 - OVER
		From NCS to PKTs.	3YZ THIS IS 4AB - ATC2 - J4T OVER or 3YZ THIS IS 4AB - XAJ2 - J4T OVER

CHAPTER 2

THE TF/TG REPORTING NET

SECTION I - GENERAL

201. *USE OF THE TF/TG REPORTING NET BY THE SURFACE PICTURE SUPERVISOR (SPS).*
(NR)

a. The TF/TG REPORTING net is used for the exchange of radar, plot and data link information on surface, subsurface and air contacts. When the situation demands, air information will be carried on the AIR REPORTING- and AAW COORDINATION nets and subsurface information on the ASW CONTROL nets.

b. The TF/TG REPORTING net is normally manned by the SPS, and he will exercise net control if his ship is Force Track Coordinator Surface (FTC-S).

c. For designation of tracks, fixes (including RACKET-fixes) use is made of 4 figure octal numbers assigned to each unit (see chapter 1).

202. *THE GRID AND THE USE OF NUCO.*
(NR)

a. When using "Cartesian Coordinate Grid" the GRID position of the FTC-S should be given from time to time (at least once every hour if allowed by the EMISSION policy) at the beginning of a SITREP to enable other ships to check their GRID position. A GRIDLOCK should be given at intervals of not more than 4 hours.

b. It depends on the EMCON plan in force whether or not GRID positions must be encoded (ATP 1 Vol.I). GRID positions of major units must always be encoded in a suitable numerical code (ATP 1 Vol.I). To avoid disclosure of GRID information, GRID positions could be passed on secure Link 14.

203. *BEARING AND DISTANCE.*
(NR)

Although surface raid reporting is carried out using GRID coordinates, the SPS and his assistant should be prepared to make reports in bearing and distance when more plotting accuracy is required.(e.g. ASW action, man overboard).

SECTION II - SURFACE RAID REPORTS AND SURFACE SITREPS

210. *THE SURFACE RAID REPORT.*

(NC)

a. When making an INITIAL report the full call is used. For subsequent reports the abbreviated call may be used. The text should be in accordance with chapter 1 (AMPLIFYING report).

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)	INITIAL report.		4AB THIS IS 2CD-NEW SKUNK 6130-RED 248 TACK 010-SKUNK 6130-OVER THIS IS 4AB-ROGER-REPORT-OUT
(2)	AMPLIFYING report.	Designators from table 9-2 (APP-4 VOL I) may be used instead.	THIS IS 2CD-SKUNK 6130-RED 050 TACK 012-TRACKING 340-SKUNK 6130-OUT THIS IS 2CD-SKUNK 6130-RED 051 TACK 012-4 JULLIET MIKE-SKUNK 6130-OUT THIS IS 2CD-SKUNK 6130-RED 051 TACK 018-SPEED 28-SKUNK 6130-OUT.
(3)	SPLIT report.	SKUNK splitting.	THIS IS 2CD-SKUNK 6130-RED 053 TACK 018-SPLIT-SKUNK 6131 1 MILE NORTH OF SKUNK 6130-4AB-OVER THIS IS 4AB ROGER-REPORT-OUT
(4)	AMPLIFYING report.	Altering course, number of ships, changing speed.	THIS IS 2CD-SKUNK 6130-RED 256 TACK 017-CHANGING PORT-2 JULLIET MIKE-SKUNK 6130-OUT THIS IS 2CD-SKUNK 6131-RED 255 TACK 020-2 JULLIET MIKE-INCREASING SPEED-SKUNK 6131-OUT

b. The ships of the formation are listening in, process the information in their plots, compare it with their own observations and calculations and should report important difference immediately.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
I MAKE report.		4AB THIS IS 1EF-I MAKE SKUNK 6130 TRACKING 350-OVER

c. It is the duty of every ship to report amplifying information, as it becomes available.

FLASH report.	Amplifying information.	THIS IS 4AB-FLASH-SKUNK 6131-LAUNCHING BULLDOGS-NOW HOSTILE 6131-2CD OVER

d. Additional information helping to clarify the picture may be passed as the tactical situation dictates.

	Additional information.	THIS IS 2EF-ENGAGING HOSTILE 6131-0UT

211. *THE SURFACE SITUATION REPORT (SITREP).*

(NC)

a. The compilation of the plots of individual ships is done by means of information from own sensors, raid reports and other such as EW reports, INTREPS, ENEMY CONTACT reports, etc. ..... .

b. The FTC-S periodically passes reports about the surface situation. These SITREPs must be considered as a check of the situation, which is given once every 20 to 30 minutes (if necessary more often). The SITREP or part there of should not last more than 30 seconds.

SITREP	Check of a situation	THIS IS 4AB-SITREP-GRID CHECK-NUCO-(RED 248 TACK 021)-HOSTILE 6130-RED 260 TACK 025-TRACKING 285 SPEED 28-2 DELTA DELTA ENGAGED BY CALLSIGN 1EF AND CALLSIGN 2CD-HOSTILE 6131 NUCO (RED 265 TACK 028)-TRACKING 340 SPEED 26-2 JULLIET MIKE-SHIP 52 HIT BY VAMPIRE-TIME 1236-4GH-OVER

212. *WEAPON STATE INFORMATIONS.*

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
ASSM STATE report	A unit reports to the ASUWC that it has missiles remaining. A unit reports to the ASUWC that it has a percentage of surface ammunition remaining.	4AB THIS IS 1EF - BITTER TANGO EIGHT - OVER 4AB THIS IS 1EF - CANDY SIERRA FOXTROT FOUR FIVE - OVER

SECTION III - SUBSURFACE INFORMATION AND SUBSURFACE SITREPS

220. *GENERAL.*
(NR)

Details of exchange of information on an ASW action are contained in chapter 6 (ASW CONTROL net). Nevertheless much ASW information will also be exchanged on the surface reporting net.
This can be divided as follows:

(1) Initial reports of sonar contacts (see art. 221)
(2) Positions of submarines and DATUMS (see art. 222)
(3) Positions and activities of ASW helicopters (see art. 223)
(4) Activities of ASW aircraft, e.g. positions of sonobuoys, patterns and barriers (see art. 224)
(5) SITREPs of the FTC-S concerning the subsurface situation (see art. 225)
(6) SITREPs of a SAUC (see art. 226)

221. *INITIAL REPORTS OF SONAR CONTACTS.*
(NC)

These reports shall be made on the TF/TG REPORTING net to all ships, as well as being promulgated on TF/TG TACTICAL net in ATP 1 Vol.II format.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
INITIAL report.	Initial sonar contact not considered an immediate threat to the force (the report contains some amplifying information.)	3YZ THIS IS 4GH-NEW SONAR CONTACT 3236-135 TT 10-LANCE DIVER CONTACT 3236-4AB-OVER THIS IS 4AB-ROGER-REPORT-OUT or: 3YZ THIS IS 4GH-NEW SONAR CONTACT 3236-135 C/S 4GH 10-LANCE DIVER CONTACT 3236-4AB-OVER THIS IS 4AB-ROGER-REPORT-OUT or: 3YZ THIS IS 4GH-NEW SONAR CONTACT 3236-135 CALLSIGN 4GH 10 POSSUB LOW 1 - SUB 3236-OVER
FLASH report.	Torpedo detected	THIS IS 1EF-FLASH-TORPEDO 180-4AB-OVER

222. *POSITIONS OF SUBMARINES AND DATUMS.*
(NC)

These can be obtained from aircraft and helicopters, EW information, lookouts etc. .....
They will subsequently be promulgated on the TF/TG REPORTING net.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
INITIAL report	Submarine contact reported by PELICAN. In this example some amplifying data is included.	3YZ THIS IS 4AB-NEW SONAR CONTACT 5036-RED 232 TACK 011-POSSUB LOW 2-TIME 1802 REPOR-TED BY 1ZH-POSSUB 5036-OVER
	Subsurface contact detected by TACTAS ship (two ambiguous bearings in this case 020 and 090 are reported). The contact is assessed as CZ (1st CZ range is 32 miles).	3YZ THIS IS 7BF-NEW POSSUB LOW 2 2651-TT O2O TACK 090-LIMA 32-TIME 0903-SERPENT-POSSUB 2651-OVER
AMPLIFYING report	Subsurface contact's bearing ambiguity is resolved. The contact is analysed but distance remains unknown.	3YZ THIS IS 7BF-POSSUB LOW 2 2651 NOW PROBSUB 2651-BEARING 093 BRAVO- TIME 0910-PAPA-POSSIBLE PANTHER TYPE 2-PROBSUB 2651-OVER
	The PROBSUB has been monitored for a considerable time and the ship established an area of probability of radius less than 10 miles. Method of establishing position is not amplified.	3YZ THIS IS 7BF-POSSUB 2651-NUCO(RED 001 TACK 320 RADIUS 10)-TRACKING SOUTHEAST-SPEED SLOW-TIME 1100-PANTHER TYPE 2-PROBSUB 2651-OVER
FLASH report	RISER	THIS IS 1EF-FLASH-RISER-120 CALLSIGN 1EF RANGE 30-4AB-OVER
DATUM established	1. Established on RACKET AREA.	4AB THIS IS 2CD-DATUM 5036 ESTABLISHED - WHITE 210 TACK 080-ERROR 2 MILES-DATUM TIME 1830-BASED ON RACKET AREA-CLASSIFIED POSSUB HIGH 4-DATUM 5036-OVER
	2. OTC/delegated authority designates datum.	See art. 681

223. *POSITIONS AND ACTIVITIES OF ASW HELICOPTERS.*
(NC)

It is particularly important that all ships are kept informed about the positions and activities of the ASW helicopters. Therefore the positions of DIPPERS IN THE DIP together with a time indication with must be plotted.

	1. Position of DIPPERS	3YZ THIS IS 4AB-CALLSIGN A5Y-RED 232 TACK 011-CALLSIGN B9S-RED 234TACK 013-2CD OVER
	2. DIPPERS co-operate with PELICAN	3YZ THIS IS 4AB-CALLSIGN A5Y AND CALL-SIGN B9S JOINING CALLSIGN 1ZH OVER
	3. Launching PONY	3YZ THIS IS 1EF-LAUNCHING PONY FOR VECTAC-4AB OVER

224. *ACTIVITIES OF ASW AIRCRAFT.*
(NC)

Positions and movements of aircraft should be primarily reported on the AAW REPORTING net and/or the Local AAW COORDINATION net. Nevertheless it may be necessary to pass certain air information which may be of value to the surface or subsurface picture.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
	1. PELICAN is approaching to investigate SPOOK	3YZ THIS IS 4AB-PELICAN-GREEN 225 TACK 018-APPROACHING FROM NORTH-INVESTIGATING SPOOK-1EF OVER
	2. Classification of SPOOK	3YZ THIS IS 4AB-SPOOK IS FRIENDLY 5040-1 TANGO UNIFORM-TRACKING 270 SPEED 10-1EF OVER
	PELICAN spitting barrier.	3YZ THIS IS 4AB-PELICAN 235 QQ 15-TRACKING EAST - EXECUTING AIRPLAN 3-SPITTING BETWEEN DATUM 5026 AND CONVOY - 1EF OVER

225. *SITREPS CONCERNING THE SUBSURFACE SITUATION.*
(NC)

Like the surface picture the subsurface picture is also compiled with information from own sensors and reports from other units. Surface and subsurface SITREPS are preferably issued by the same ships.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
SITREP	1. GRID CHECK not included in this example.	THIS IS 4AB-SITREP-CALLSIGN 2CD AND CALLSIGN 1EF EXECUTING BEETROOT LEFT-CALLSIGN 2CD LANE 23-CALLSIGN 1EF LANE 56-DIPPERS A5Y AND B9S INVESTIGATING DATUM 5036-RED 235 TACK 010-DATUM TIME 1826-1EF OVER

SECTION IV - OTHER INFORMATION

230. *EW INFORMATION.*
(NR)

EW information, relevant to the surface/subsurface picture, must be passed as a raid report on the TF/TG REPORTING net. FLASH reports of surface/subsurface threat radar's are made directly on this net using "break-in" procedure if necessary. Further EW instructions are contained in chapter 8.

231. *TACTICAL INFORMATION.*
(NR)

Tactical signal groups from ATP 1 Vol. II may be passed on nets other than TF/TG TACTICAL. The operator is alerted to the fact by the proword SIGNALS preceding the signal. Other traffic may be passed as a formal message in accordance with ACP 125 and will be preceded by the proword MESSAGE.

232. *AIR INFORMATION.*
(NR)

On occasions when an air reporting circuit is not in use, aircraft contacts should be reported on the TF/TG REPORTING net. SITREPS of this kind must be designated SITREP AIR .....

CHAPTER 3

ANTI-AIR WARFARE NETS (AAW NETS)

SECTION I - INTRODUCTION

301. *COMMNUCIATIONS.*
(NC)

a. For weapon system coordination and picture compilation the following communications are available.

	NET TITLE	EMISSION	GUARDED BY	TRAFFIC
(1)	AAW Coordination net (AAWC net) (Force/sector).	HF (SSB)/UHF voice	AAW units	W
(2)	AAW Reporting net (AAWR net).	HF (SSB)/UHF voice	AAW units	P
(3)	Local AAW Coordination net (LAAWC net).	UHF voice	All ships of a LAAW group	W + P
(4)	Joint AAW Shore Coordination net (JAAWSC net)	HF (SSB) voice	SOCs and AAW units	W + P
(5)	Single Net Information and Position (SNIP).	HF (SSB) voice	AAWC and SAAWCs	W + P
(6)	DATA Link	HF/VHF/UHF	----------	W + P

W = Weapon system coordination P = Picture compilation SOC = Sector Operation Centre.

b. These communications may only be necessary in large formations/dispositions, consisting of at least one aircraft carrier with fighters and missile ships.

c. In smaller dispositions the AAWR net and AAWC net may be combined to one net, which is called AAW Coordiantion and Reporting net.

d. In a small formation and with only one AAW unit present, the LAAWC net will suffice for exchange of information.

302. *MANNING COMMUNICATIONS.*

(NR)

a. *AAWC net.*

Manned by the weapon coordination team and by the fighter direction officers, missile direction officers and electronic warfare controllers on board the AAW units.

b. *AAWR net.*

Manned by Air Picture Reporter (APR) and the EW operators on board the AAW units.

c. *LAAWC net.*

Manned by the LAAW officer and/or the APR (local) as well as the LAAW plotters of the other ships of a LAAW group.

d. *SNIP.*

Manned by the AAW Commander and Sector AAW Coordinators.

e. *JAAWSC net.*

Manned by the air defense agency ashore, (Maritime teller) and APR afloat.

SECTION II - PROCEDURES ON THE AAW COORDINATION NET (AAWC NET)

310. *GENERAL.*

(NR)

a. Lettered callsigns can be used in AAW for units, with primary anti-air warfare reporting responsibilities (see article 104).

Notes:

1. AEW aircraft use the codeword ANY FACE, followed by the barrier designator (e.g. ANY FACE TANGO). A numeral suffix must be included when the relieving AEW aircraft is airborne before its predecessor has landed (e.g. ANY FACE TANGO ONE relieves ANY FACE TANGO).
2. On AAW nets CAPs will be reported using the word STATION followed by the station number. Airborne CAPs steering, or whose relief has been launched will be reported as STEERED plus the station number, the launched relief assumes the STATION callsign.
3. The callsign AW is exclusively used for passing orders on behalf of the AAWC; members of the weapon coordination team use the ships AAW callsign.
4. It should be borne in mind that use of the callsigns mentioned in art. 104 may compromise the encrypted callsigns in use on other nets. The OTC Will promulgate whether encrypted or lettered callsigns are in force on AAW circuits.The callsigns used in examples represent *encrypted callsigns*

b. On this net the main types of traffic are:

(1) Threat warnings and ZIPPO calls.

(2) Orders relative to CAP or AEW assignments (stationing and relieving)

(3) Weapon coordination (target assignments, weapon designation).

(4) Weapon control instructions orders relative to safety sectors.

(5) Target engagement messages (TEMs).

(6) Missile/Ammunition state report.

(7) Coordination and direction of the initial phase of search and rescue (SAR).

(8) Coordination of homing for lost aircraft.

(9) Shore coordination, when appropriate.

c. For abbreviated procedures see chapter 9 section IV.

311. *ORDERING THE WEAPON COORDINATION METHOD.*

(NC)

It is the responsibility of the AAWC to ensure that the forces involved are aware of the weapon coordination method in use.

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
(1)	Establish	Normally promulgated in OPTASK AAW.	W THIS IS AW - AREA COÖRDINATION IN FORCE - OVER
(2)	Change		W THIS IS AW - CANCEL AREA COÖRDINATION - ASSUME ZONE COÖRDINATION - OVER
(3)	Warning		W THIS IS AW - AT 2100 CANCEL AREA COÖRDINATION WILL BE ASSUMED - OVER

312. *TARGET ENGAGEMENT MESSAGES (TEMs).*

NC)

TEMs are used between AAW units to report on the progress of the air battle. TEMs are not required for self defence weapons.

TEMs are used to:

a. Prevent unnecessary duplication of effort against a target.
b. Prevent simultaneous engagement of the target with incompatible weapons.
c. Provide the earliest practible warning of own ships intention, so that other ships may shape their policies accordingly.
d. Provide feed back of information from the weapon direction teams to the air picture in all AAW units.

313. *TYPE OF TARGET ENGAGEMENT MESSAGES (TEMs).*

(NC)

a. *WEAPONS ASSIGNMENT REPORT (TAKING/TAKE).*

(1) This report should be made to the AAWC as soon as possible after the target has been detected,referably as part of the INITIAL report. A change in assignment must also be reported. The proword TAKING indicates that an assignment has been made. The AAWC can order engagements by using the proword TAKE or by using the prowords BIRD/CAP TARGET (see next paragraphs).

		EXAMPLES OF PROCEDURES (C)
(1)	Taking with fighter.	THIS IS D - TAKING HOSTILE 2226 WITH STATION 2 - OUT
(2)	Taking with missle.	THIS IS D - TAKING HOSTILE 2226 WITH BIRD - OUT
(3)	AAWC orders engagement	THIS IS AW FLASH - ZIPPO 1 KINGFISH - 090 50 STRENGHT 4 - D TAKE EASTERLY TARGETS M TAKE WESTERLY TARGETS

(2) A COUNT DOWN message may be used to indicate in how many seconds the missile will be fired or the fighter will open fire on the target.

	Missle will be fired within 60 seconds.	THIS IS F - TAKING HOSTILE 226 WITH BIRD - COUNT DOWN 60 NOW - OVER

b. *BIRD TARGET.*
Used by the AAWC to designate a target to be engaged by missiles.

	EXAMPLES OF PROCEDURES (C)
Engage target with missles. Weapon restriction orders, for examples: "BIRDS FREE" may be added.	D THIS IS AW - HOSTILE 3216 BIRD TARGET - OVER or: D THIS IS AW - HOSTILE 3216 BIRD TARGET-BIRD FREE - OVER

c. *CAP TARGET.*
Used by the AAWC to indicate that a target is a primary target for CAP (CAP voice callsign may be specified).

1	Target allocated CAP	W THIS IS AW - HOSTILE 4605 CAP TARGET STATION 1 - MISSION IDENTIFY - H OVER
2	After positive identification attack by CAP.	W THIS IS AW - HOSTILE 4605 - CAP TARGET STAION 1 - MISSION ENGAGE - H OVER

d. *BIRDS AFFIRM.*
Used by missile ships to indicate that missile radars are locked on to a particular target and that the target will pass within missile intercept range.

Missile radar locked on.	THIS IS D - BIRDS AFFIRM HOSTILE 3216 - OUT

e. *BIRDS AWAY.*
Used by missile ships to indicate that missile have been fired.

Missile fired	THIS IS M - BIRDS AWAY HOSTILE 3216 - OUT

f. *BIRDS NEGAT.*
Used by missile ships to indicate that is not possible to fire at a designated target (i.e. missile director not locked on, or engaged on other targets or targets did not come within missile range).

	EXAMPLES OF PROCEDURES
Not possible to fire	THIS IS M - BIRDS NEGAT HOSTILE 3216 - OUT

g. *BIRDS TIGHT.*

used by the AAWC to inform missile ships not to fire on a designated track.

Do not fire.	W THIS IS AW - BIRDS TIGHT HOSTILE 4605 - OUT

h. *ROMAN CANDLE.*
Used by the AAWC to direct missile ship to fire nuclear warhead missile at a designated raid.

Fire nuclear warhead missle.	D THIS IS AW - HOSTILE 2227 ROMAN CANDLE - OVER

i. *ROMAN CANDLE (COORDINATES).*
warning transmitted over all voice reporting nets and aircraft guard circuits that a nuclear missile is about to be exploded in the area indicated.

Nuclear explosion in area.	W THIS IS AW - ROMAN CANDLE - RED 190 TACK 095 - 4AB - OVER

j. *AM CANYON.*
Used by a ship fitted with a jammer to indicate that the designated track is being jammed.

Jamming a designated track.	THIS IS E - AM CANYON HOSTILE 6105 - OUT

k. *SPLASHED.*
Used to indicate that the raid designated is (believed to be) destroyed.

Raid destroyed. A drop track report should follow.	THIS IS H - HOSTILE 2227 SPLASHED - 1PD - OVER THIS IS AW - ROGER - DROP HOSTILE 2227 - OUT

l. *HEADS UP.*
Used to indicate that enemy got through (part or all).
Trouble headed your way. May be followed by amplification as to type of threat.

	EXAMPLES OF PROCEDURES
Enemy got through.	THIS IS M - HEADS UP HOSTILE 4605 - OUT

m. *SALVOES.*

1). Means "Am about to engage with BIRDS" and is used by a SAM ship when it is threatened by a target which is already being taken by a fighter and the ship intends to engage the target with missiles. When this occurs it is the responsibility of the ship about to open fire to warn the unit controlling the fighter.

Engage with missiles Unit controlling fighter must be informed.	W THIS IS F - SALVOES HOSTILE 4605 - BIRD TARGET CALLSIGN F- H-OVER

(2). The fighter is to be hauled off in ample time to clear the missile shot and the controller is to pass the fighters disengagement direction.

Fighter disengagement direction.	THIS IS H - ROGER - STATION 2 BREAKING NORTH - OUT

NOTE:

In accordance with ATP 1 and ATP 34 target engagement may also be indicated by ALLOCATED (BIRD, CAP or STATION).

n. *COVER.*

Used by the AAWC to a LRSAM/MRSAM-equipped ship to initiate an engagement on a specified track up to the point of firing. This procedure allows a track to be designated to more than one firing unit without multi-engagement of the track.

314. *CONTROL OF THE AIR BATTLE.*

(NC)

a. *CONTROL BY VETO.*

The AAWC can order an AAW unit break off an engagement.

		EXAMPLES OF PROCEDURES
(1)		THIS IS H - TAKING HOSTILE 2204 WITH STATION 2 - OUT
(2)	Break off engagement.	THIS IS AW - NEGAT HOSTILE 2204 - ALLOCATED STATION 1 - H - OVER

b. *ENGAGEMENT ORDER.*
If the AAWC wishes a unit to engage a particular target, he is to issue an engagement order.
If the weapon to be used is a fighter, he is to state his intention to IDENTIFY or DESTROY the target.

Destroy the target.	W THIS IS AW - HOSTILE 2221-CAP TARGET STATION 3 - MISSION ENGAGE - H - OVER

c. *MORE HELP.*
If the unit detailed to engage a raid cannot identify the target on radar or needs further information, the unit calls for MORE HELP.

Needs further information	THIS IS H - HOSTILE 2221 - MORE HELP - OVER THIS IS D - HOSTILE 221 - 210 050 - OUT

d. *NOCAN.*
Any unit which cannot carry out the order of the AAWC is to say so, stating the reason.

		W THIS IS AW - HOSTILE 2227 BIRD TARGET CALLSIGN F-BIRDS FREE-OVER THIS IS F - BIRD NOCAN - OUT
(1)	Cannot carry out the order, operating pony.	
(2)	Short of ammunition.	W THIS IS AW - HOSTILE 4606 CAP TARGET STATION 3 - H - OVER THIS IS H - STATION 3 NOCAN - STATE MIKE ZERO ZERO MINUS ZERO -OUT

e. *MIX UP.*
This message is used to recommend caution when friendly and enemy aircraft are in the vicinity.

	EXAMPLES OF PROCEDURES
Friendly and enemy aircraft in the vicinity	THIS IS H - MIX UP - HOSTILE 2115 - 220 40 - AND STATION 2 - E - OVER

f. WEAPONS CONTROL.

(1) The AAWC can impose weapon control status by using the order ".....FREE", ".....TIGHT" or .....SAFE" (prefixed by weapon code words).
Weapon control status may be qualified by one or more of the following:
(a) A sector
(b) A safety sector
(c) A particular contact (by track number or position)
(d) A period of time

(2) Weapon control orders ("HOLD FIRE" and "CEASE FIRE") may be qualified by one or more of the following.
(a) A particular unit
(b) A particular contact (track number or position)

(3) A weapon control status is changed by directing another weapon control status

(4) A weapon control order can only be cancelled by the AAWC, using prefix "NEGAT" to weapon control order

(5) A specific weapon control order can exist within a weapon control status, thus: Weapon free; hold fire on neutral 2321

NOTE: for details see ATP 1 Vol I.

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
(a)	Weapon control status.	Do not open fire/cease firing in safety sector 3 or 5 minutes.	THIS IS AW - WEAPONS TIGHT 5 - SAFETY SECTOR 3 - OUT.
(b)	Weapon control order.	Do not open fire/cease firing and destroy missiles in flight at friendly 2327.	THIS IS AW - HOLD FIRE FRIENDLY 2327-HOLD FIRE-OUT.
(c)	Changing weapon control status.	Fire may be opened aon any target in safety sector 3 that have not been identified as friendly.	THIS IS AW - WEAPONS FREE SAFETY SECTOR 3 - OUT.
(d)	Cancelling a weapon control order.	Hold fire on HOSTILE 4115 cancelled	THIS IS AW - NEGAT HOLD FIRE I SAY AGAIN NEGAT FIRE HOSTILE 4114 - 015 40 - OUT.

g. *MISSILE STATE REPORTS.*

In order for the OTC and AAWC to know the number of SAMs available, missile states are reported by means of SUGAR reports, which are passed, without request, whenever the missile availability status of any type of missiles is reduced by 25% of the total missiles carried. The OTC and AAWC may also ask for current SUGAR states, by category or specific type, depending upon the requirement.
For details see ATP 1 Vol. I.

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
(1)	Missile state (upon request).	1. OTC requests the number of long and medium range missiles left in the force 2. First ship to answer, possessing 16 standard 2 (Extended range missiles) and 20 Standard 2 (medium range missiles) reports. 3. Remaining ships report to the OTC (not included in this example). 4. OTC acknowledges (not included in this example).	F THIS IS AW - INTERROGATIVE SUGAR XRAY YANKEE - OVER THIS IS F - SUGAR REPORT DELTA ONE SIX TACK JULIETT TWO ZERO - OVER
(2)	Missile state (without request).	Ship advises the OTC AND AAWC that she has 14 Sea Dart missiles left.	D AW THIS IS M - SUGAR REPORT NOVEMBER ONE FOUR - OVER

h. *AMMUNITION STATE REPORTS.*

Ammunition states are reported by means of CANDY reports, which are passed, without request, to the OTC and AAWC whenever the ammunition availability status of antiair guns or CHAFF is reduced by 50% of the total ammunition carried. The OTC and AAWC may ask for current CANDY states.
For details see ATP 1 Vol. I.

	REPORT (A)	REMARKS (B)	EXAMPLES OF PROCEDURES (C)
(1)	Ammunition state (without Request).	Ship advises the OTC and AAWC that she has 48% of her 100 mm AA ammunition remaining.	D AW THIS IS M-CANDY REPORT FOXTROT 48- OVER
(2)	Ammunition state (upon request).	1. AAWC asks one ship to report its current CHAFF for distraction ammunition state. 2. After checking, ship reports that she has 22% of her CHAFF for distraction ammunition remaining.	E THIS IS AW-INTERROGATIVE CANDY PAPA-OVER AW THIS IS E-CANDY PAPA 22-OVER

SECTION III - PROCEDURE ON THE AAW REPORTING NET (AAWR NET)

320. *GENERAL.*

(NC)

a. The AAWR net is manned by the Air Picture Reporters (APRs) of the AAW units and also by the EW operators of those ship tasked to airborne radar's. It is used for exchanging information concerning the compilation of the General Air Picture (GAP).

b. Long range detection of air contacts is the first principle of AAW; however, detection alone does not ensure success, because individual commands must first make a cursory evaluation of all information prior to reporting an air contact. Position and complete, accurate, amplifying information about all air contacts must be reported to the Force Track Coordinator Air (FTC-A). Air picture reporting will cover all air contacts in the AAW area, with emphasis on early detection and an information flow that is as continuous as possible on FRIENDLIES. However, contacts already being reported by another unit should not be reported, unless the unit desiring to report is in a more advantageous position to track and wishes to assume reporting responsibility for that contact. Ships are to track or watch all air contacts on their radar displays, with emphasis on promulgated watch zones, and are to report in accordance with reporting rules promulgated by the OTC. In any case ships are to report all air contacts not positively identified as friendly, provided they are considered an immediate threat.
All means of detecting air contacts, including lookout reports, are to be exploited to the maximum extent. Visual sighting can be of special value in engaging both high and low contacts, and lookouts should be indoctrinated as to the importance of reporting all sightings, smoke and contrails.

c. For the use of callsigns on the AAWR net see chapter 1.

d. The FTC-A exercises net control and will issue SITREPs as necessary. This duty normally is held by the AAWC, but may be delegated.

321. *TRAFFIC ON THE AAWR NET.*

(NR)

The following information is exchanged on the AAWR net:

a. Information obtained by active and passive detection equipment of ships of the force.

b. Information obtained by AEW aircraft and reports from fighter aircraft.

c. Information about enemy ECM, eg radar jamming.

d. Additional information, eg threat warnings (AIR) and ZIPPO calls.

322. *INFORMATION OBTAINED BY SHIPS DETECTION EQUIPMENT.*

(NC)

The Emission Policy (EP) may be such that initially radar silence is in force and EW equipment is relied upon to give warning.

The OPTASK EW classifies radar's as Threat or Target. On first detection of a radar reports of the following type can be expected:

RADAR (a)	REPORTS (b)	EXAMPLES OF PROCEDURES (c)
Threat	Flash.	THIS IS D - FLASH - AGAVE 2260 CONFIDENCE 4 - BEARING 060 - E OVER
Target	Initial.	W THIS M - NEW MUSHROOM 2261 CONFIDENCE 3 - BEARING 095 - MUSHROOM 2261 - E OVER

Both these reports will be followed by amplifying reports in accordance with chapter 8. These reports provide bearing only, but if several ships obtain a bearing and the disposition of them is such as to render a broad base line, triangulation on the appropriate net will be possible. The resultant position is passed on the AAWR net.

Triangulation position.	THIS IS ANYFACE TANGO - NEW CRISS CROSS 7160- AGAVE 2260 - 180 60 YANKEE - TIME 1251 - CRISSCROSS 7160 - E OVER

323. *Information obtained by AEW aircraft.*

(NR)

Detections by AEW aircraft are collected by their control ships. These ships will pass the information on the AAWR net.

324. *INFORMATION ABOUT RADAR JAMMING.*
(NC)

a. Reporting radar jamming and triangulation is carried out on the AAWR net and is called "jammed radar reporting".

b. The type of radar being jammed is indicated by a GADGET designator from the GADGET list (Annex D).

c. Jamming is designated by the word STATE followed by a number or combination of number and letter (see Annex E).

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)	Jammed radar report	Jamming observed on a D-band radar. Partially effective, self screening achieved in a sector.	W THIS IS F - MUSIC GADGET DP1 - FAN 060 TACK 095 - STATE 3 ALFA - AE - OVER THIS IS AE - ROGER - WATCH - OUT
		Jamming observed in a small sector/bearing on a E-band air surveillance radar, self screening not achieved but false targetting observed.	AE THIS IS M - MUSIC GADGET EP1 - SPOKE 210 - STATE 2C - OVER THIS IS AE ROGER OUT
(2)		FTC-A reports position derived fromtriangulation, indicating the extent of the propability area.	W THIS IS E - CRISS CROSS 4660 ON MUSIC SPOKE - 210 30 - ZULU - TIME 1127 - CRISS CROSS 4660 - AE OVER

SECTION IV - PROCEDURE ON THE LOCAL AAW COORDINATION NET (LAAWC NET)

330. *GENERAL*.

(NC) a. The LAAWC net is used by the LAAWC to provide the ships of his group with information for the compilation of a clear picture of the air situation around the group, so that no ship is in doubt about the identity of any contact. Contacts within 50 miles have priority of reporting, contacts outside 50 miles are reported less often.

Within 25 miles, positions of AIR CONTACTS must be reported very accurately. If the number of contacts becomes too large to report them all accurately, FRIENDLIES must at any rate be reported.

Note: Distances on discretion AAWC/LAAWC.

b. Except positions, mentioned above, the following information must also be passed on this net:

(1) Weapon control instructions.

(2) Threat warnings (Air) and ZIPPO calls.

(3) Information regarding safety sectors including activation and deactivation, missile engagement zones and targets which have been designated to force weapon systems.

(4) Weapon coordination method in force (area/zone).

(5) Warning of the launch or recovery of friendly aircraft including helicopters.

(6) Activation of ship control zones by INTENT message.

(7) Relevant air EW information.

331. *PROCEDURE.*

(NR)

To carry out his duties effectively it is necessary for the LAAWC to provide a running commentary with a minimum of interruptions from other ships.

332. *REPORTS FROM OTHER SHIPS OF THE LAAW GROUP.*

(NC)

A ship detecting a new contact, which represents an immediate threat, must immediately initiate a FLASH report, using break-in procedure if necessary.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Flash report.	1. Radar contact.	THIS IS M - FLASH - BOGEY 7171 - 120-30 - CLOSING-FAST - AW - OVER
	2. Sighting.	THIS IS H - FLASH - HOSTILE 7161 - 120 8 - TALLY HO - CLOSING - E - OVER
	3. Guided missile signal.	THIS IS M - FLASH - VOLCANO 120 - AW - OVER

333. *POSITIONS.*
(NR)

It is usual for the APR (local) to pass all postions in bearing and distance or even distance alone when the contact is closing on a steady bearing. Experience has shown that receiving ships can normally ignore the displacement error and still maintain a clear picture. However if a group is widespread the displacement errors cannot be ignored. When this occurs the Cartesian Coordinate Grid must be used.

An example of the necessity to use GRID instead of bearing and distance is when escorting a convoy. The distance between a ship in station SIERRA or on the beam of a convoy and a medium or long range sonar fitted frigate stationed ahead can exceed 10 miles. An extra difficulty to keep track of all escorts and to plot a FLASH report relative to the originator occurs when escorts often have to leave their station to investigate sonar contacts, carry out attacks and searches, sometimes even through the lanes of the convoy.

334. *SUPPLEMENTARY INSTRUCTIONS.*
(NC)

a. Own aircraft can be referred to by the relevant brevity codeword according to their duty additional track numbers or callsigns may be used to avoid confusion.

b. Although to avoid possible confusion the APR (local) must usually retain the four figure track number allocated within the AAW organization for all HOSTILES, time should not be wasted in trying to correlate track numbers and there is nothing to prevent the number being reduced to even a single digit (usually the last one) if confusion will not be caused by so doing.

c. A ship being ordered to report a contact must immediately report the loss of that contact in order to enable the LAAWC to order another ship to take over reporting.

d. Special attention is paid to HOSTILES engaged by fighters. If the fighter is ordered to break off the attack, the direction to which the fighter is turning must be reported so ships can identify the target.

Example: THIS IS 1PD - STATION 1 BREAKING EAST - HOSTILE 2107 CLOSING - OUT

e. Weapon control instructions may be ordered in accordance with art. 314.f.

335. *SITUATING AND ACTIVATING SAFETY SECTORS.*
(NC)

a. The term safety sector includes what are variously known as:

(1) Safety approach sectors.

(2) Approach corridors.

(3) Safe lanes.

(4) Sanctuary heights.

(5) Airfield appoach zones.

b. A safety sector is defined by the AAWC in terms of length, direction, width, height band and time; it is dormant until activated by the AAWC.

c. Aircraft approach corridors are used whether or not a carrier is present, in order to guarantee the safety of friendly aircraft approaching the force. This type of safety sector is preplanned and promulgated by the OTC/AAWC in terms of origin, width, height, direction and length in the Operation Order/OPTASK AAW and/or in accordance with TOMCAT picket procedures. This type of safety sector is activated by the order:
WEAPONS TIGHT-SAFETY SECTOR 2

and de-activated by the order:
WEAPONS FREE-SAFETY SECTOR 2

d. An aircraft carrier normally requires three safety sectors, one for aircraft departing, one for aircraft returning and one for aircraft in the circuit(s) or proceeding to the department radial (ATP 1 Vol.I). In case of little threat the bearing of the safety sector for departing aircraft will normally be the same as the carrier's flying course, for returning aircraft the reciprocal bearing of the flying course. Some aircraft carriers have standard operating procedures (SOPs) for their safety sectors, which should be passed to ships joining.

336. *CARRIER FLYING OPERATIONS.*
(NC)

a. The presence of a carrier in a LAAW group complicates the picture compilation. Personnel employed in AAW must have a through knowledge of carrier flying operations including the behaviour of the aircraft in her vicinity.

b. The following points are especially important:

(1) After its launch an aircraft will usually maintain the flying course for a few miles, and then turn to the pre-arranged opening vector, which may cause the aircraft to overfly an escort.

(2) Helicopters proceed directly to their destination.

(3) The aircraft carrier will report the launching as follows:

THIS IS G-LAUNCHING TWO .....(PHANTOMS) (encoded)-OPENING VECTOR 350-OUT

The opening vector is the vector used after the aircraft has left the departure radial.

(4) The carrier will initially not be able to report these aircraft, because they are too near. Other ships, warned by the launching report, must look out for these aircraft and report them.

(5) Aircraft belonging to a strike, usually form up before departure. Therefore these aircraft may fly over the formation for several minutes. They may also form up in a pre-arranged "marshalling" or "rendez-vous" position, which must be reported by the parent carrier.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
	Launching aircraft.	THIS IS G - LAUNCHING MISSION 2D4 - CALLSIGN WILDCAT 24 - OPENING VECTOR 270 - HEADING GATE D - CONTROL FREQUENCY BRAVO - F - OVER

(6) The direction from which a friendly is returning should always be reported in time. Friendly aircraft will return via a safety sector/approach corridor.

	Returning friendly aircraft.	THIS IS H - WILDCAT 24 AT CHECKPOINT BRAVO (daily codeword for recover) - STATE EIGHT TACK FOUR - ZERO TWO PLUS TWO - G - OVER

(6) After arriving at the carrier it may again take several minutes before the last aircraft lands on. During the recovery operation the aircraft are in pre-arranged circuits, as laid down in ATP 1 Vol.I.

c. Ships conducting unscheduled launch and recovery operations are to activate ship control zones by INTENT message on the net on which Local Anti Air Warfare Coordination is being conducted. When fixed wing aircraft are present, the LAAWC is to relay the INTENT message to the AC on the net being used for Air Coordination. The control zones around CV/LPH/LHA ships will be permanently in force unless otherwise ordered. If necessary for operational or safety reasons the LAAWC or Air Coordinator may veto or delay the activation.

(1)	ACTIVATION message.	4AB intends to launch her helicopter.	1PD THIS IS 4AB - ZONE CALLSIGN 4AB ACTIVE UNTIL 1435Z - OVER
(2)	VETO message.	1PD vetoes for safety reasons e.g. launch of aircraft from carrier.	4AB THIS IS 1PD - NEGATIVE ZONE CALLSIGN 4AB - OVER
(3)	DELAY message.	Launch of helicopters delayed for 5 minutes by LAAWC for safety reasons.	4AB THIS IS 1PD - NEGATIVE ZONE CALLSIGN 4AB - DELAY 5 - OVER
(4)	EXTENTION message.	Launch of helicopters takes more time than planned.	1PD THIS IS 4AB - ZONE CALLSIGN 4AB EXTENDED UNTIL 1440 - OVER
(5)	DE-ACTIVATION message.	Helicopter launched and vectored to its task.	1PD THIS IS 4AB - ZONE CALLSIGN 4AB - DEACTIVATED - OVER

SECTION V - PROCEDURES ON THE JOINT AAW SHORE COORDINATION NET (JAAWSC NET)

340. *GENERAL.*
(NR)

a. The JAAWSC net is manned by the AAWC, the Sector Operation Center (SOC) and also AEW aircraft when appropriate. It is used whenever a significant naval force with an air defence capability is operating within or adjacent to a SACEUR Air Defence Region.

b. The following callsigns will be used by the agencies involved:

(1) Ships - encrypted callsigns.

(2) Shore stations - either an encrypted callsign or a plain language geographic place name as directed by the local ADC or an airforce assigned callsign (e.g. CRC VEDBACK is "MARKTIME").

c. The SOC will exercise net control.

d. Positions are reported in GEOREF; reports may be made in two letters and two figures GEOREF if the air picture is sufficiently clear so as to cause no ambiguity. For normal purposes air contacts are reported to the nearest five miles.

341. *TRAFFIC ON THE JAAWSC NET.*

(NR)

a. The JAAWSC net normally carries the following types of traffic:

(1) Selective crosstelling of the air picture.

(2) Immediate requests for TASMO AAW tasks and replies to such requests.

(3) Execution messages for TASMO AAW missions.

(4) Inter-controller air defence operational liaison.

(5) Transfer of aircraft.

b. The components and sequence of messages are in accordance with Chapter 1. Amplification of each component and further details are in accordance with ATP 34.

342. *SELECTIVE CROSSTELLING OF THE AIR PICTURE.*

(NC)

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)	INITIAL report.	The Naval Force AAWC reports a recently detected radarcontact to the SOC (Callsign A3N).	A3N THIS IS 1PD - 1234 NEW HOSTILE - PF13 - 1234 - OVER
(2)	AMPLIFYING report.	SOC reports amplifying information on contact reported by 1PD.	1PD THIS IS A3N - 1234 HOSTILE - PF01 - SOUTHWEST - ALLOCATED CAP - 1234 - OVER
(3)	EW report.	RACKET intercept by 1EF passed by AAWC to SOC. Position of the force is considered known to the SOC. If unknown the position should be passed encoded.	A3N THIS IS 1PD - 2265 NEW PUFFBALL BEARING 290 - 2265 - OVER

NOTE: SOC will report tracks utilizing 5 character alfa-numeric track numbers of 2 letters and 3 octal digits.

343. *IMMEDIATE REQUESTS FOR TASMO TASKS.*
(NC)

a. Requesting TASMO. When an urgent need for TASMO arises and time does not allow the request to be processed by the normal preplanned procedure, an immediate request should be passed by the most expeditious means available.

MESSAGE (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
TASMO air request.	AIR REQUEST/TASK (ALWAYS AT START OF MESSAGE). MISSION TYPE IDENTIFIER/ORGINATOR'S DESIGNATOR /SERIAL NO. A. DETAILS OF TASK. Destroy/or harass/or search. Descripe targets to attack/look for and direction of movement, if any locations of targets or of any areas to search. TIME. If required state priority. If photo confirmation required after a visual recce mission add CFM. For AD/AEW tasks include threat preference for aircraft to be on CAP/ALERT/GROUND READINESS. B. TIME ON TARGET/TIME ON CONTROL POINT. Specific time or "as soon as possible" (ASAP) or "not later than" (NLT), time/latest time information of value. Useful date time group if required for clarity. C. POSITION OF RELEVANT FRIENDLY FORCES (at time of TOT/TOCP). Details of number/type/PIM (NIL if appropriate). D. CONTROL ARRANGEMENTS. E. IN - FLIGHT REPORT. Give callsign and the frequency to whom inflight report is to be made if one is required.	1). Example 1 A3N THIS IS 1PD IMMEDIATE AIRREQUEST 08/c/s P1D/002 A. NEUTRALIZE - ONE KYNDA VICINITY NUCO (38N-07E) UNNUCO - TRACKING NUCO (070-20) - TIME 091420Z B. NLT 100100Z C1. THREE FFG - ONE AO - POSITION NUCO (3840N-0550E) - TIME 091420Z C2. NONE NORTH OF NUCO (32N) AND EAST OF NUCO (30E) D. CALL 1PD ON NUCO (242.1) FOR UPDATE TARGET POSITION. E. 1PD - FREAK NUCO (242.1) **J**. TACDI BY ANYFACE TANGO

MESSAGE (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
		(2). example 2 1PD THIS A3N AIRTASK 08/c/s P1D/002
	F. SQUADRON (OR WING).	F. EGQS NUCO (105) UNNUCO SQUADRON - 4 F3
	G. NUMBER AND TYPE OF AIRCRAFT.	
	H. ARMAMENT.	
	I. ROUTE.	I. VIA HANDOVERGATE BRAVO
	J. OTHER INFORNMATION/INSTRUCTIONS. Include cross-reference for coordinating aircraft of AEW, AAR, MPA.	J. AAR-SUPPORT FROM EGQS FROM 101830Z ONWARDS

b. Reply to TASMO air request.

TASMO accept/refuse.	ACCEPT/REFUSE. (Always at start of message). MISSION TYPE IDENTIFIER/ORGINATOR'S DESIGNATOR/SERIAL NO. (Quote number of TASMO AIR request/Task Message being answered).	1PD THIS IS A3N TASMO ACCEPT 07/1PD/015
	A. ACCEPT OR REFUSE. Give reasons for refusal.	A. ACCEPTED
	B. TOT/TOCP (if known) (Time Z).	B. TOT 102300Z - 102310Z
	C. Number and type of aircraft.	C. 2 F111 (encoded)
	D. ARMAMENT (if accepted).	
	E. CONTROL ARRANGEMENTS. Callsign: Designated Tactical Control Authority Amendments to arrangements specified in the TASMO AIR request/task message, if necessary.	E. TACON BUCHAN/TACDI BY MAGIC 39 OVER

344 (NC) *EXECUTION MESSAGES FOR TASMO MISSIONS.*

The TASMO Execution Message is used when aircraft are held at ground readiness for an OTC's TACON in accordance with a TASMO AIR ALLOTMENT MESSAGE.
It is used specifically to:
a. Initiate the scramble of the immediate execution of the task.
b. Order a required TOT/TOCP.
c. Alter alert state of aircraft held at ground readiness.

MESSAGE (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
TASMO execution message	The OTC/AAWC tells the SOC/CRC a. Air task number b. Number and aircraft on alert that have to be scrambled c. Target information d. Naval control agency (callsign and frequency) e. TOT/TOCP	A3N THIS IS 1PD A. AIRTASK 07/1PD/015 B. SCRAMBLE 2 F4 (encoded) C. ONE FERRET - TYPE BADGER J (encoded) TO THE NORTH D. CALL 3TD ON TAD 17 A3N THIS IS 1PD A. AIRTASK 08/1PD/003 B. LAUNCH 2 F3 C. 4 PM - POSITION NUCO (52-22N 10-10W) - TRACKING NUCO (110 - 15) D. CALL ANYFACE TANGO FOR TACDI ON TAD 8 E. TOCP BRAVO 1325Z

345. (NC) *INTER-CONTROLLER AIR DEFENCE OPERATIONAL LIAISON.*

On request by the SOC additional information of aircraft, fuel state, weapon state, result of engagements etc.....and TASMO Executing Messages can be passed via the JAAWSC net.

Fuel state message	6DC THIS IS 1PD-REQUEST CAP STATE OVER	1PD THIS IS 6DC - CHICK BU 112 - STATE TIGER SLOW - OUT

346. *TRANSFER OF AIRCRAFT.*
(NC)

The force marshaller has access to the JAAWSC net, in order to pass or assume control over aircraft leaving or joining the force. The AIRMOVE Message system may be used to determine and confirm which agency has tactical control when aircraft are being transferred between ships and between ships and shore to enable overdure action to be initiated at the earliest opportunity.

	MESSAGE (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)	Warning to take control message	Giving callsign, frequency task and encoded mode 2 SIF setting	6DC THIS IS 1PD - STANDBY TO TAKE CONTROL 2DM - ON BUTTON EIGHT - LOWCAP - LINO THREE TWO FIVE - OVER [3] THIS IS 6DC - READY TO ASSUMED CONTROL - OVER
(2)		Giving information of aircraft	6DC THIS IS 1PD - CHICK 2DM - NK 24 - HEADING 040 - ANGELS 30 - OVER 1PD THIS IS 6DC - I HAVE CONTROL OF 2DM - OVER
(3)	AIRMOVE Departure	AIRMOVE DEPARTURE A. AIRCRAFT CALLSIGN B. POINT OF DEPARTURE/TIME (Z) C. DESTINATION/TIME (Z)	1PD THIS IS 60C AIRMOVE DEPARTURE A. LION 1 AND 2 B. EGQS 091500Z C. c/s 1PD 091615Z
	Delay	AIRMOVE DELAY A. DTG OF AIRMOVE DEP (Z) B. AIRCRAFT CALLSIGN (S) C. REVISED ETD (Z) D. REASON FOR DELAY (BRIEF)	1PD THIS IS 60C AIRMOVE DELAY A. 091200Z B. LION 1 AND 2 C. 091530 D. UNSERVICEABLE OVER
	Cancellation	AIRMOVE CANCELLATION A. DTG OF AIRMOVE DEP (Z) B. AIRCRAFT CALLSIGN (S) C. REASON FOR CANCELLATION	1PD THIS IS 60C AIRMOVE CANCELLATION A. 091200 B. LION 1 AND 2 C. WEATHER OVER
	Arrival	AIRMOVE ARRIVAL A. AIRCRAFT CALLSIGN (S) B. ACTUAL TIME OF ARRIVAL (ATA) (Z) C. AGENCY/FACILITY ASSUMING CONTROL D. FUEL STATE	60C THIS IS 1PD AIRMOVE ARRIVAL A. LION 1 AND 2 B. 091645Z C. 7 DE D. STATE TIGER 60

347. *REPORTING OF TIME ON TARGET (TOT)/TIME ON CONTROL POINT (TOCP).*

(NC)

The SOC/CRC or aircraft carrier/AREC can inform the requesting unit of the final details of a mission being dispatched to meet a TASMO Air Request/Task. The TOT/TOCP-report also acknowledges acceptance of the task by the tasking agency. The TOT/TOCP-report must arrive in time to be of any use; therefore dispatch should not be delayed if certain components (eg. callsign, IFF-codes) are not available. Those details can be passed on JAAWSC as soon as they become available.

MESSAGE (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
TIME ON TARGET (TOT) TIME ON CONTROL POINT (TOCP)	TOT/TOCP. (Always at start of message). MISSION TYPE IDENTIFIER/ORIGINATOR'S DESIGNATOR/ SERIAL NO A. TIME ON TARGET (OR TOCP) Z B. NUMBER AND TYPE OF AIRCRAFT (if known) callsign IFF (SIF) mode 2 code setting (as LINO or encrypted version of code armament; special sensor/ electronic equipment). C. CONTROL ARRANGEMENT Confirmation of arrangements in Confirmation of arrangements in task messages: brief details of route with heights and timings Brief details of any cooperation forces, eg Tactical Direction; Target details (PCS) and area of operations if not under OTC TACON	1PD THIS IS A3N TIME ON TARGET AIRTASK 08/1PD/015 A. 191610 B. TWO F4-UNNUCO BLACKJACK 1 AND 2 - SQUAWKING MODE 2 NUCO (3579) - UNNUCO - WEAPONS FOUR - FOUR - PLUS C. TACON 1PD ETD ENVA 1410 ETD HANDOVERGATE BRAVO 1510 RECOVER ENBO OVER.

348. *IN-FLIGHT REPORT.*

(NC)

The TASMO-inflightrep is a report whereby crews report mission results while in flight. This report is also to be used for reporting any other tactical information sighted of such importance and urgency that the delay, if reported by normal mission report to the requesting agency, would negate the usefulness of the information.

IN-FLIGHT REPORT (INFLIGHTREP)	INFLIGHTREP. (always at start of message). AIR TASK/MISSION NUMBER/ORIGINATOR'S REQUEST/ SERIAL NUMBER. A. LOCATION IDENTIFIER (only if necessary for clarification). B. TIME ON TARGET/TIME OF SIGHTING. C. RESULTS. Results of mission. brief description of observation, recommendation for attack/reattack if necessary. (Weather conditions if significant)	1PD THIS IS LION 1 INFLIGHTREP 08/1PD/006 A. 5432N0300E B. 231150Z C. ONE FPB SUNK TWO BADLY DAMAGED NO REATTACK OVER

349. *FRIENDLY AIR MOVEMENTS REPORT.*

(NC)

The purpose of the FAM-report is to inform the OTC/AAWC of civil and military aircraft which are not part of the operation but which are likely to enter ships' radar cover. This message should not be used for information on movements of those military aircraft for which TASMO Accept (Refuse and/or TASMO TOT/TOCP) - reports have been originated movements of these aircraft will be told to the AAWC by the SOC/CRC.

MESSAGE (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
FRIENDLY AIRMOVE	FAM (Always at start of message). Serial no____ A. Movement number. Separate movements are to be numbered for ease of reference. B. Number and type of aircraft. C. Callsign and IFF (SIF) (MILITARY) or SSR mode A (CIVIL) D. Route-Quote position from enroute documents E. Height-As FLIGHT-LEVEL. F. DTG: (1) Of departure-or first reporting point in area (Z) (2) At destination-or last reporting point in area (Z) G. Ground Speed in Knots (if known)	1 PD THIS IS A3N FRIENDLY AIRMOVE 27 A. 1 B. ONE HERCULES C. RAFAIR/SQUAWKING NUCO(7127) D. EGXC VIA CONTROLPOINT LION E. FLIGHTLEVEL 170 F. (1) 171010 (2) 171055 G. 270

SECTION VI - PROCEDURES OF THE SINGLE NET INFORMATION AND POSITION (SNIP).

350. *GENERAL.*

(NR)

This is the primary HF net used by Sector Anti Air Warfare Commanders (SAAWs) to coordinate AAW measures. The SNIP is controlled by the AAWC. SAAWCs will use other nets to effect tracking and weapon control functions within their respective sectors of responsibility.

351. *PROCEDURE.*
(NR)

Procedure on this net is in accordance with the procedure used on the AAWC/AAWR net.

SECTION VII - ASMD PROCEDURES ON TACTICAL AAW NETS.

360. *GENERAL.*
(NC)

a. ASMD preplanned responses are initiated by using the codeword ZIPPO on any available tactical AAW net. In addition, all ZIPPO calls should be immediatley passed on Tactical UHF and TF/TG Command nets.

b. If a task group/force is not using an AAW net, ZIPPO's will be passed on any net that will ensure the widest dissemination.

361. *CONTROL OF ZIPPO's.*
(NC)

a. ZIPPO's are controlled on the appropriate circuit by the OTC/delegated authority. The OTC/delegated authority:

(1) May order or prohibit specific reactions at the instant an individual ZIPPO is called.

(2) May negate or issue corrected ZIPPO's if the original is considered inappropriate, with the reason for doing so.

(3) Should negate appropriate ZIPPO's and/or give a SITREP of outstanding ZIPPO's after a missile attack is over and/or reactions are no longer required.

(4) Should exercise vigorous control in multiple attacks, where individual ZIPPO's are to be ordered for each attack, ensuring that the ZIPPO's in force reflect the desired reactions.

b. The originator may only negate a ZIPPO when one is called in error and this must be done as soon as it is recognised. The reason must also be stated and transmission authenticated.

c. Callsigns. The callsigns in use on the appropriate net are also to be used when calling ZIPPO's.

d. Authentication. ZIPPO's should be authenticated:
(1) As dictated by the authentication policy.

(2) When negated or modified.

(3) When ordering ZIPPO restrictions.

(4) When ZIPPO reactions are changed from the reaction table.

362. *EXAMPLES OF ZIPPO REPORTS.*
(NC)

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)	Initiation preplanned responses	1. There are indications of imminent missile attack. (Zippo C can be called only by OTC/delegated authority). 2. A unit detects an AS-4 missile homing head. 3. A unit detects an unknown fast closing contact. 4. Multiple attack by identified missiles (AS4/AS6).	1. THIS IS AW - ZIPPO C - DOWNBEAT 180 OUT 2. THIS IS N - FLASH - ZIPPO 1 - KITCHEN - 180 - OUT 3. THIS IS N - FLASH - ZIPPO U - VAMPIRE - 240 40 - OUT 4. THIS IS D - FLASH - ZIPPO 1 - KITCHEN 200 KINGFISH 240 - OUT
(2)	Zippo restriction	1. Due to ROE restriction, the OTC/AAWC desires to prevent the implementation of preplanned responses. 2. OTC/AAWC desires to release zippo tight.	1. W THIS IS AW - ZIPPO TIGHT -(authentication) M - OVER 2. W THIS IS AW - ZIPPO LOOSE -(authentication) M - OVER
(3)	Negation or cancellation	1. Zippo cancellation by originator. 2. Zippo cancellation by OTC.	1. W THIS IS D - NEGAT ZIPPO 1 - KINGFISH RECLASSIFIED FRIENDLY 4621 (authentication) AW - OVER 2. W THIS IS AW NEGAT ZIPPO C AND ZIPPO 1 - GRANDSLAM DROP HOSITLE 2411 2412 AIRWARNING YELLOW WEAPONS TIGHT (authentication) D-OVER
(4)	Change to reactions	1. OTC/AAWC amends the AMSD reaction table. 2. OTC/AAWC changes the reaction to a particular attack.	1. W THIS IS AW AMEND REACTION TABLE - ADD 1 CHARLIE, 2 DELTA, DELETE 3 NOVEMBER - (authentication) D - OVER 2. W THIS IS AW - ZIPPO 2 NEGAT LINE DELTA - SHIPWRECK 340 - (authentication) M - OVER

CHAPTER 4

A S W A I R C O O R D I N A T I O N N E T (ASWAC NET)

SECTION I - INTRODUCTION

401. (NC) *Procedure on the ASWAC net.*

The OTC informs the force of the number, type, ETA and the IFF/SIF setting of approaching aircraft.
This duty may be delegated to an Aircraft Control Unit.
MPA will make raid reports when on Direct Support.

SECTION II - JOINING PROCEDURE

410. (NC) *Joining procedure.*

Joining procedure for ASW aircraft is described in ATP 1 Vol. I and APP 4. Joining is defined as the procedure where by an aircraft commander transfers tactical control of his aircraft to the OTC. The aircraft is normally directed in the FORM GREEN to establish communications with a specific callsign on a designated RATT or voice circuit. If RATT communication is used, this normally occurs before the gate. If voice communication is used, this normally occurs at the gate.

	ACTION UNIT (a)	ACTION (b)	EXAMPLES OF PROCEDURES (c)
(1)	Aircraft.	Transit under tactical control of Sector Operations Centre (SOC) or MHQ.	
(2)	Aircraft.	Select assigned IFF/SIF codes as ordered in the FORM GREEN. Communication should be attempted with the force before the aircraft reaches the gate.	

	ACTION UNIT (a)	ACTION (b)	EXAMPLES OF PROCEDURES (c)
(3)	Aircraft.	a. If SOC handover expected, monitor handover on promulgated handover circuit and establish communications with the Force Marshaller/Nominated Controller/OTC.(see notes 1 and 2)	5CU THIS IS 1ZH - OVER (Authentication procedure) 5CU THIS IS 1ZH - 1 PELICAN AT GATE ALFA AT FLIGHTLEVEL NUCO (250)-OVER
		b. If no SOC handover expected, establish communications with Force Marshaller/Nominated Controller/OTC on RATT or voice on ASW/Marshalling circuits as promulgated. Pass: type of aircraft, time at ISR, direction of approach and altitude (see notes 1 and 2).	5CU THIS IS 1ZH - OVER (Authentication procedure) 5CU THIS IS 1ZH - 1 (CP140) ECHO TANGO ALFA INDIA SIERRA ROMEO 0755- APPROACHING FROM THE NUCO (WEST) UNNUCO AT FLIGHTLEVEL NUCO (250) OVER (A/C type will normally be given in NUCO or NAMAT).
(4)	Force Marshaller/ Nominated Controller/ OTC.	Respond to A/C (see notes 1 and 3); challenge aircraft IFF or pass identity procedure to be done, if required.	1ZH THIS IS 5CU - PERFORM IDENTITY BRAVO - OVER 1ZH THIS IS 5CU - YOU ARE IDENTIFIED AS FRIEND - SERIAL 7 -
		Pass: a. C/S and position of ACU;	ALFA - C/S 4AB MOST SOUTHERLY COWBOY -
		b. Direction and distance to patrol area;	BRAVO - 060 YY 25 MILES -
		c. Altimeter setting (QNH);	CHARLIE - QNH - 1032 -
		d. CSP aspects of EMCON plan; (see note 3)	DELTA - ROMEO 82 MIKE - 84 SIERRA -
		e. Inform A/C if ACU has received the FORM GREEN	ECHO - NOT RECEIVED -
		f. Time check;	FOXTROT - STANDBY TIMECHECK AT 0756- 15 SECONDS 10 SECONDS-5-4-3-2-1-TIME 0756 -
		g. Clearance to descend and proceed to patrol area, as required; and	GOLF - CLEARED TO PROCEED TO PATROL AREA AND COMMENCE DESCENT - REPORT PASSING ANGELS 10 -
		h. If required, new control RATT or VOICE frequency, and control of aircraft to ACU.	HOTEL - LINE NUCO(222C) UNNUCO POGO LINE NUCO (222A) UNNUCO - REPORT TO CALLSIGN 4AB FOR CONTROL - OVER

		i. Gridlock	INDIA - THIS IS 5CU - STANDBY RONSON FRIENDLY 2332 IN 1 MINUTE OVER THIS IS 5CU - STANDBY RONSON - NOW - NOW - NOW NUCO (WHITE 242 - 083) - OVER 5CU THIS IS 1ZH - RONSON POSITIVE - OUT (MORE EXAMPLES ON PAGE 1-20)
(5)	Aircraft.	Call ACU and pass :	4AB THIS IS 1ZH - (Authentication procedures) -
		a. Sortie number;	SERIAL 8 - ALFA GREEN WHISKEY LIMA 001
		b. Restrictions to role (See note 4)	BRAVO - NEGATIVE -
		c. Has joining message been received and serial number of OPGEN and/or OPTASKs ASW, AAW, LINK, COMMS and NUC received;	CHARLIE - OPGEN 002 - OPTASK AAW 001 - ASW 002 - COMMS 006 - LINK 005 - NUC 001 -
		d. ON/OFF task times;	DELTA - NUCO (0800 TACK 1200) UNNUCO
		e. Serial numbers of latest WSM message received	ECHO - JULIETT TANGO ALFA ALFA OO1 SIERRA PAPA ALFA 012 -
		f. A/C data link coordination information.	FOXTROT - 5000 TO 5077
		If no form GREEN received by ACU be prepared to add:	
		g. Aircraft type;	GOLF - 1 PAPA 3 CHARLIE -
		h. weapon load;	HOTEL - 6 GOLF CHARLIE 4 -
		i. IFF setting mode;	INDIA- NUCO (3-2146) UNNUCO - OVER
(6)	ACU.	ACU passes following joining message (see note 5). a. Identity manoeuver if no previous voice communication established. Pass ships's position and clearance to close/descend.	1ZH THIS IS 4AB SERIAL 9 - ALFA - PERFORM IDENTITY BRAVO - OVER 1ZH THIS IS 4AB - YOU ARE IDENTIFIED AS FRIEND - FREDDIE 4AB MOST SOUTHERLY COWBOY - 085 YY 40 MILES - CLEARED TO CLOSE AND DESCEND - OVER

ACTION UNIT (a)	ACTION (b)	EXAMPLES OF PROCEDURES (c)
	b. Threat assessment, mission designator and employment/air plan,	BRAVO - PANTHER TYPE 2 - MISSION JULIETT

	grid lock, master/watcher, controller grade, tactical control method in force.	KILO - EXECUTE AIRPLAN 4 ALFA - SECTOR 1 SQUARE 100 BRAVO 0600 - NUCO (070-10) - GRID ORIGIN NUCO (54 03) UNNUCO STANDBY RONSON IN 2 MINUTES -
	c. EMCON	CHARLIE - HUSH DELTA - ROMEO 60 - UNIFORM - ROMEO 82 MIKE - ROMEO 84 SIERRA -
	d. EW task	DELTA - SPOT 03206 03207 03210 -
	e. PIM if different	ECHO - 0800 NUCO (54N 07E - 090-10) - UNNUCO
	f. Update important data from OPGEN/OPTASKs if different	FOXTROT - OPTASK LINK 005 IN FORCE- IN PARA BRAVO 3 AMEND TO READ CALLSIGN R6F IS DUTY 62 -
	g. Update important data from JTAA or SAA if different	
	h. Update air safety information not previously transmitted, including other aircraft activity	
	i. Lost communication procedures	INDIA - SHIFT LINE NUCO (EL214A) - UNNUCO
	j. Weapon restrictions and rules of engagement	JULIETT - WITHIN 30 MILES OF ZZ ATTACK ON POSSUB HIGH - OUTSIDE 30 MILES ATTACK CERTSUB OR PROBSUB
	k. Spare	
	m. Sitrep including in TA operations current contact acoustic data (i.e. target sources, frequencies, source levels, aspect dependencies and advice or sensor depth)	MIKE - NO SIGNIFICANT CONTACT LAST 6 HOURS - AIR WARNING WHITE - SURFACE WARNING YELLOW - SUBMARINE WARNING YELLOW -
	n. 1. Bathy and active acoustic information if different from predicted range 2. In TA operations: ambient noise levels, requesting MPA to advise when significant changes are observed	

ACTION UNIT (a)	ACTION (b)	EXAMPLES OF PROCEDURES (c)
	p. Weather, QNH, water depth and tidal stream	PAPA - QUEBEC NOVEMBER HOTEL 1032 -

ACTION UNIT (a)	ACTION (b)	EXAMPLES OF PROCEDURES (c)
	p. Weather, QNH, water depth and tidal stream	PAPA - QUEBEC NOVEMBER HOTEL 1032 -
	q. Callsign and position of important and detached units	
	r. Times of ship/air RATT schedules (if applicable)	
	s. Data link coordination info	SIERRA -
	1. Link type	1. LINK 11 -
	2. Data link reference point (time in force if necessary)	2. 4430 NORTH 6230 WEST -
	3. Link duties	3. 4AB 83 - 1PD 84 -
	4. PU details (callsign/terminal address PU address/track block)	4. 1ZH/022/022/5000-5077 -
	5. Mode	5. ROLL CALL -
	6. Speed	6. 1 -
	7. Doppler	7. OFF -
	8. Link data frequency (prim/sec)	8. 6071.0/8365.6 KILOHERTZ -
	9. Link coordination frequency (prim/sec)	9. 347.0 MEGAHERTZ/5520 KILOHERTZ
	10. Encryption	10. AMSK 1215/A2
	Note 1 : These details to be sent only when aircraft do not hold OPTASK LINK. These details should be passed on a secure net. If this is not available, information must be encoded.	
	Note 2 : Only information required need be sent	OVER

	ACTION UNIT (a)	ACTION (b)	EXAMPLES OF PROCEDURES (c)
(7)	Aircraft.	Report to ACU when in patrol area	4AB THIS IS 1ZH - ON PATROL - TIME 0820 1ZH THIS IS 4AB - ROGER OUT

Notes:

1. Whenever joining an unsecure voice circuit, proper authentication must be used.
2. Helicopters are to close at altitudes that will allow early radar detection by the force being joined and at speeds below 140 knots.
3. The CSP aspects of an EMCON plan are RSI K, L, M and N.
4. Restrictions should include any significant change in standard weapon load or any unserviceabilities.
5. ACU should not duplicate any information already held by aircraft.

411. *ABBREVIATED JOINING PROCEDURE.*

(NC)

It is sometimes necessary to expedite joining procedures; for example, when action is in progress during arrival of aircraft. Such a procedure should include only the following items:

(1) From aircraft :

1. Authentication,
2. Number and type of aircraft/helicopter, identity of senior aircraft/helicopter, POB,
3. Joining from,
4. Joining for/request employment.

(2) From ship :

1. Authentication,
2. Identity and ships position,
3. Employment/airplan - including PIM, master/watcher, controller grade, tactical control method in force,
4. Clearance to close/descend,
5. Weapon control restrictions if appropriate,
6. Gridlock,
7. Data link information if appropriate.

Supplementary information can be passed when the tactical situation permits.

Note: POB = Persons On Board.

SECTION III - THE SEARCH AND CONTACT PHASE PRIMARY SENSOR PASSIVE ACOUSTICS

420. *THE SEARCH AND CONTACT PHASE OF THE AIRCRAFT, PRIMARY SENSOR PASSIVE ACOUSTICS.*
(NC)

	PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
(1)	Searching.	1. Commences search. 2. Informs ASWACU of height. 3. Shows correct IFF code setting.	1. Tracks the aircraft on the radar display. 2. Interrogates on correct IFF code setting	4AB THIS IS 1ZH-ON PATROL-ANGELS 5-TIME 1025-OVER
(2)	Aircraft in contact.	Gains contact on buoy. Estimates range from buoy is less than 10 miles.	Plots report.	4AB THIS IS 1ZH-NEW POSSUB HIGH 4 5036-RED 215 TACK 010-RADIUS 10-TIME 1027-OSCAR-POSSUB 5036-OVER

NOTE: Due to the low height at which the aircraft is working it may disappear from the radar and UHF communication may be temporarily lost.

(3)	Localization.	Refines position to within 1 mile. Analyses signature as type II or III Nuclear.	Plots report.	4AB THIS IS 1ZH-POSSUB HIGH 4 5036 NOW PROBSUB 5036-RED 217 TACK 012-TIME 1041-FOXTROT 1 -PANTHER TYPE 2/3-PROBSUB 5036-OVER

NOTES:

1. The JEZEBEL system is described in ATP 28.
2. For acoustic designators see chapter 6.

SECTION IV - THE SEARCH AND CONTACT PHASE PRIMARY SENSOR RADAR

430. (NC) *THE SEARCH AND CONTACT PHASE OF THE AIRCRAFT, PRIMARY SENSOR RADAR.*

	PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
(1)	Searching.	1. Commences search. 2. Reports height to the ASWACU.	1. Tracks aircraft on the radar display.	4AB THIS IS 1ZH-ON PATROL-ANGELS 1-TIME 1025-OVER
(2)	Aircraft in contact.	1. Detects disappearing RADAR contact (establishes DATUM if appropriate). 2. Investigates contact. 3. Gains contact relative to KINGPIN; bearing 130 true range 1800 yards. 4. The contact on the sono-buoys is confirmed by MAD, the aircraft starts cloverleaf procedures and transmits AMPLIFYING reports.	1. Plots the aircraft reports. 2. Plots the report on a plot diagram. 3. Plots position of KINGPIN.	4AB THIS IS 1ZH-NEW SINKER 5036-350 QQ 21-TIME 1040-INVESTIGATING-SINKER 5036-OVER THIS IS 4AB-ROGER-OUT 4AB THIS IS 1ZH-SINKER 5036-RED 220 TACK 017-TIME 1045-SPITTING -PATTERN CENTRE KINGPIN-SINKER 5036-OVER 4AB THIS IS 1ZH-SINKER NOW POSSUB LOW 2 5036-130 KINGPIN RANGE 18-TIME 1049-POSSUB 5036-OVER THIS IS 1ZH-MADMAN MARKED WITH SMOKE-OVER 4AB THIS IS 1ZH-POSSUB 5036 NOW PROBSUB 5036-RED 221 TACK 018-TRACKING SOUTHEAST SPEED 5-TIME 1051-BASED ON MAD-PROBSUB 5036-OVER

NOTE: Due to low height at which the aircraft is working it may disappear from the radar and UHF communication may be temporarily lost.

	PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
(3)	Attack by aircraft.	1. Passes tracking reports and attacks. 2. Promulgates dog box (not included in this example) (see chapter 6)	Notes expiry time.	4AB THIS IS 1ZH-PROBSUB 5036-RED 220 TACK 019-ATTACKING-BLOODHOUNDS LOOSE-EXPIRY TIME 1056-PROBSUB 5036-OVER
(4)	Aircraft has lost contact.	1. Reports loss of contact. 2. Gives radar on top lost contact position. 3. Starts MAD trapping and/or active tactics around lost contact position.	1. In this case the OTC establishes and designates DATUM which is reported by ASWACU. 2. OTC detaches SAU, ASWACU reports.	4AB THIS IS 1ZH-PROBSUB 5036-350 QQ 10-TRACKING SOUTHEAST SPEED 5-COLD-TIME 1056-PROBSUB 5036-OVER THIS IS 1ZH-STANDBY RADAR ON TOP LOST CONTACT POSITION-ON TOP-NOW-NOW-NOW-ENTERING 2000 YARDS MADTRAP-OVER 3YZ THIS IS 4AB-DATUM 5036 ESTABLISHED-RED 220 TACK 006-ERROR 1 MILE-TRACKING SOUTHEAST SPEED 5-DATUM TIME 1056-BASED ON CALLSIGN 1ZH PROBSUB 5036-OVER THIS IS 5CU-2 COWBOYS APPROACHING YOU FROM THE WEST - CALLSIGN 4GH SAU COMMANDER - OVER

NOTE : If the "on top" has been missed, the centre of the circle flown by the aircraft obtainable from the radar display, can be considered as the correct position of the DATUM. During this phase it is undesirable to request another "on top".

SECTION V - SHIPS AND MPA COORDINATED ACTION

440. *SHIPS AND MPA COORDINATED ACTION.*
(NC)

	PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
(1)	Approach of SAU.	1. Gives SITREP prior to SWAP (example not included).	1. The SAU commander transmits his approach message to the aircraft.	1ZH THIS IS 4GH-2 COWBOYS APPROACHING FROM THE SOUTHWEST -CALLSIGN 4GH AND CALLSIGN J4T -CALLSIGN 4GH SAU COMMANDER AND NORTHWESTERN SHIP-CALLSIGN J4T PONY AT ALERT 5-ECHO TANGO ALFA TORPEDO DANGER AREA 1130-TIME 1102-OVER
			2. Reports type of approach.	1ZH J4T THIS IS 4GH-INTEND INTERCEPT APPROACH-PLAN RED GEOGRAPHIC SECTORS-PELICAN AND PONY VECTACS-PLAN BLACK OAKTREE-PELICAN MAD SEARCH-INTEND SWAP 1115-OVER
		2. Reports number and type of weapons remaining. NOTE: MPA may request authentication when establishing communication with SAU commander.		THIS IS 1ZH-ROGER-CAKE HOTEL SIX - OVER

	PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
(2)	Taking over SAC.		1. Takes over SAC from the aircraft.	1ZH THIS IS 4GH-SWAP-I SAY AGAIN SWAP-TIME 1115-OVER THIS IS 1ZH-ROGER-SWAP-TIME 1115-OUT
			2. Issues orders providing height separations, if required.	1ZH THIS IS 4GH-LOOSE ADVISORY CONTROL (MAINTAIN ANGELS DECIMAL 5 AND BELOW)-MAINTAIN MAD TRAPPING-OVER
		Has changed over to 4000 yards MAD trapping circles and reports this after the order SWAP.		THIS IS 1ZH-ROGER-CARRYING OUT 4000 YARDS MAD TRAPPING CIRCLE - OUT
(3)	Ship in sonar contact.	1. Carries out MADVEC.	1. Gains sonar contact at 6800 yards and directs the aircraft to confirm by MAD.	1ZH THIS IS 4GH-POSSUB LOW 2 5036-045 TT RANGE 68-POSSUB 5036-BREAK-CLOSE ADVISORY CONTROL VECTOR 360-STANDBY MADVEC-ALL VECTORS TRUE-OVER THIS IS 1ZH-ROGER-CLOSE ADVISORY CONTROL-STEADY 360 TRUE-OUT THIS IS 4GH VECTOR STARBOARD 005-STANDBY ON TOP-NOW-NOW-NOW-OVER THIS IS 1ZH-MADMAN-OUT
		2. Marks MADMAN.	2. Issues higher classification.	1ZH THIS IS 4GH-POSSUB 5036-NOW PROBSUB 5036-OVER
(4)	Ship's attack.	1. Pony carries out RADAR VECTAC.	1. Launches PONY for RADAR VECTAC	1ZH THIS IS 4GH-CALLSIGN J4T LAUNCHING PONY CALLSIGN J4T2 FOR VECTAC-OVER

PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
	2. MPA stand by to carry out RADAR VECTAC.	2. Orders height separation between aircraft and ensures they are ready for a RADAR VECTAC.	1ZH THIS IS 4GH-CLIMB TO ANGELS DECIMAL 7-ORBIT SCENE OF ACTION-PREPARE FOR RADAR VECTAC-LOOSE ADVISORY CONTROL-OVER THIS IS 1ZH-ROGER-ANGELS DECIMAL 7-READY FOR RADAR VECTAC-LOOSE ADVISORY CONTROL-OUT
	3. MPA resumes patrol.	3. Reports results of attack and orders MPA to resume patrol if attack was successfull. FTC-SS makes a drop track report. or: If results of attack are not known and contact lost, considers laying barrier between contact and mainbody/convoy. 4. SAUC promulgates DATUM. 5. Promulgates DOG BOX on ASW net.	1ZH THIS IS 4GH-PONY ATTACK COMPLETED-ASSESSMENT ALFA-RESUME-TIME 1115-OVER 3YZ THIS IS 4AB-DROP TRACK 5036-OUT or: 1ZH THIS IS 4GH-ATTACK COMPLETED-COLD-150TT RANGE 58-TIME 1115-OVER THIS IS 1ZH-STANDBY-OUT 1ZH THIS IS 4GH-DATUM 5036 ESTABLISHED-RED 211 TACK 006-ERROR 1 MILE-TRACKING 140 SPEED 5-DATUM TIME 1125-BASED ON 1ZH PROBSUB 5036 OVER

	PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
			6. Orders barrier patrol.	1ZH THIS IS 4GH-EXECUTE AIRPLAN 3-ALPHA-GEOGRAPHIC-BRAVO-350 TRUE DATUM 5036 10-CHARLIE-NUCO (015 TRUE 12) UNNUCO-DELTA-UNTIL FURTHER ORDERS-ECHO-COMMANDERS DISCRETION-OVER
(5)	The departure procedure.	1. Reports time of departure 30 minutes before off task time (may be encoded). 2. Report prudent limit of endurance (PLE) if relieving aircraft does not arrive.	Gives permission for departure.	4AB THIS IS 1ZH-I GO 30-OVER THIS IS 4AB-ROGER-CLEARED TO LEAVE AT 1200-OVER

SECTION VI - USE OF MP AIRCRAFT FOR THE RELAY OF SURFACE FORCE MESSAGES

450. (NR) *WHEN TO USE MP AIRCRAFT AS RELAY.*

When an HF silence policy is in force it is sometimes necessary to use maritime patrol aircraft for communication relay:

(1) Between a naval force and a shore authority.

(2) Between two naval forces out of UHF range of each other.

(3) Between a surface force and other reconnaissance or strike aircraft out of UHF range of each other.

NOTE: In this context "naval forces" and "surface forces" include submarines.

451. *PRECEDENCE TO MESSAGES.*

(NC)

To meet the above requirement the following Standard Operational Procedure (SOP) is to be issued. Messages transmitted to aircraft by surface force commanders for relay to shore authorities are to include the procedure sign "PASS TO" following the words :

(1) INSTANT - If the signal is to be retransmitted by the aircraft as soon as possible on HF.

(2) DELAY - If the signal is to be retransmitted by the aircraft on HF as soon as the aircraft is 100 or more nautical miles away from the surface force.

(3) VOICE - If the signal is to be retransmitted as soon as the aircraft is in UHF/VHF contact with its shore base.

(4) SHORE- If the signal is to be retransmitted on operational point-to-point circuits as soon as ossible after landing.

452. *MESSAGE LIMITATIONS.*

(NR)

The maritime patrol aircraft may be used as a relay between two surface forces or a surface force and another reconnaissance/strike aircraft out of UHF range of each other.
This SOP is subject to the following limitations:

(1) Messages relayed by HF are not to be less than immediate or FLASH precedence.

(2) This SOP is to be restricted to short operational messages.

(3) This SOP is not to be used when the maritime patrol aircraft is investigating a contact, tracking or attacking.

(4) The aircraft captain may refuse to relay a message if doing so would involve contravening orders given to him by his operating authority ashore.

453. *EXAMPLE OF MESSAGE.*

(NC)

The OTC (callsign 5CU) orders the ASWACU (callsign 4AB) to relay the following message to a shore authority (callsign A3N) by using the aircraft (callsign 1ZH) as relay.

Immediate

Time : 101201Z

From : 5CU

To : A3N

= 9 HOURS DELAY - 4955N - 1951W - 070-15 =

The ASWACU must prepare the message in a format easily copied and easily relayed by the aircrew. In this example the message was coded using HIGH GRADE CRYPTO e.g. CEROFF. (PIM should always be encrypted in a high grade system).
Finally the following CODRESS - message is transmitted to the MP aircraft.

1ZH THIS IS 4AB-MESSAGE-OVER

THIS IS 1ZH-SEND YOUR MESSAGE-OVER

1ZH THIS IS 4AB-DELAY-PASS TO A3N-IMMEDIATE-TIME 101201Z GROUPS 18 BREAK ABC DEF GHI JKL MNO PWR STU VWX KME PSR EFJ KLM EAB GMJ UVW AAZ HJE ABC BREAK-OVER

THIS IS 1ZH-ROGER-OUT

As soon as the aircraft is 100nm, or more away from the surface force it will retransmit the message on HF.

NOTE: The aircraft must relay the message exactly as it is received.

CHAPTER 5

H E L I C O P T E R C O N T R O L P R O C E D U R E S

SECTION I - GENERAL

501. *HELICOPTER CONTROL.*
(NR)

Helicopter control may only be carried out by qualified personnel according to national rules.

502. *NETS ON WHICH PROCEDURES ARE USED.*
(NC)

The procedures described hereafter are used on:

(1) ASW helicopter control net (ASW helo net).

(2) ASW Air Coordination net (ASWAC net).

(3) Land Launch Control net (LLC net).

503. *MP AIRCRAFT AT SCENE OF ACTION.*
(NR)

If an MP aircraft is operating in the same area as the helicopters (scene of action) it is recommended that control of helicopters and the MP aircraft is carried out on the same frequency.

NOTE: In the following examples of procedures encrypted callsigns from AMSH 1707 are used.
There are occasions when it may be more suitable to use helicopter side numbers, however when AMSH 1707 callsigns are used no other callsigns are authorized.

SECTION II - HELICOPTER JOINING PROCEDURE

510. *HELICOPTER JOINING PROCEDURE (ASW HELO NET).*
(NR)

When cooperating with "shore based" helicopters and when joining/departing other surface forces beyond UHF range, "arrival" and "departure" messages must be sent via the appropriate communication channels.

511. *FULL PROCEDURE.*
(NC)

a. The procedure is to be used when helicopters approach from shore or from ships not in the immediate vicinity, and from senior helicopter to HCU, as soon as communications are established.

	PHASE (a)	ACTION BY HELO (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
(1)	Establishing communications and authentication.	1. Call force. 2. Authenticates.	1. Answer call. 2. Authenticates.	4AB THIS IS A5Y - OVER A5Y THIS IS 4AB - OVER
(2)	Initial approach message.	1. Number of H/C type. 2. Directions of approach (NUCO may be used). 3. Height. 4. Identity senior helicopter. 5. ETA. 6. Off-task time and/or Charlie time (time of recovery). (NUCO may be used).		4AB THIS IS A5Y-2BIG DIPPERS JOINING FROM THE EAST AT ANGELS DECIMAL 5 - A5Y DIP BOSS - ECHO TANGO ALFA 1215 - CHARLIE TIME NUCO (1414)-OVER

	PHASE (a)	ACTION BY HELO (b)	ACTION BY SHIP(c)	EXAMPLES OF PROCEDURES (d)
(3)	Weapons/equipment state, operational readiness, amplifying information.	1. Weapons. 2. IFF state. 3. Radar state (radar fitted h/c only) 4. Controller grade (radar fitted h/c only). 5. Number of persons aboard. 6. Extra.		4AB THIS IS A5Y - BOTH DIPPERS 2 BLOODHOUNDS - PARROT LAZY - GADGET LAZY - A5Y GRADE ALFA CONTROLLER - B9S GRADE BRAVO CONTROLLER - PERSONS ON BOARD 4 - CALLSIGN A5Y B9S WINCH FITTED - OVER

b. The reply from the HCU is to include.

(1)	Identification/location.	Answers call.	1. Control ship(s) position and callsigns, dipwatcher. 2. Identification/location. 3. Homing (ifrequired).	A5Y THIS IS 4AB DIPMASTER IN CENTRE POSITION OF SCREEN - 7BF DIPWATCHER IN MOST SOUTH- ERN SHIP-4GH DIPWATCHER IN MOST NORTHERN SHIP - OVER A5Y THIS 4AB-PERFORM IDENTITY NUCO (ECHO) - OVER A5Y THIS IS 4AB-YOU ARE POSITIVELY IDENTIFIED AND CLEARED TO ENTER THE INDIA SIERRA ROMEO-HOLD YOU 090 TT 15 - OVER

NOTE: I.S.R. = Identification Safety Range

	PHASE (a)	ACTION BY HELO (b)	ACTION BY SHIP(c)	EXAMPLES OF PROCEDURES (d)
(2)	Operational conditions.		1. Ships controller grade.	A5Y THIS IS 4AB-4AB IS GRADE BRAVO CONTROLLER-7BF AND 4GH GRADE CHARLIE CONTROLLERS -
			2. Control method/ transit.	LOOSE ADVISORY CONTROL-TRANSIT 270-15 MILES -
			3. Intended employment, MLA (encoded).	EXECUTE SECTOR SCREEN DESIG 0814-1215 CALLSIGN A5Y DESIG 0208-1215 CALLSIGN B9S-MIKE LIMA ALFA NUCO(085)-SPEED NUCO (16) UNNUCO-7BF DIPWATCHER A5Y-4GH DIPWATCHER B9S -
			4. GRIDLOCK (if required).	
			5. EMCON plan.	HUSH BRAVO-PUPPIES Q15A-Q80N-OVER
(3)	Environmental conditions.		1. QNH	A5Y THIS IS 4AB-QUEBEC NOVEMBER HOTEL 1016-
			2. Bathy (if required).	BATHY-00540-05545-10550-20540-1200-
			3. Weather.	VISIBILITY 6 MILES-WIND 270-12KNOTS-SEA WEST-MODERATE-
			4. Tide and water depth.	TIDE 270-3 KNOTS-WATER DEPTH 600 FEET -OVER
(4)	SITREP own force.		Info about other a/c in the area (including alert state).	A5Y THIS IS 4AB-SITREP-1ZH-AIRPLAN 5-ANGELS 1-CALLSIGN 4AB PONY ALERT 5-2BLOODHOUNDS-OVER
(5)	Height restrictions.		1. Gives height restrictions.	A5Y THIS IS 4AB-DIPPERS CLEARED ANGELS DECIMAL 4 AND BELOW-1ZH CLEARED ANGELS DECIMAL 7 AND ABOVE-A5Y AND B9S CLEARED TO DESCEND TO JUMPS HEIGHT ON PRESENT HEADING
			2. Clearance to descend to jump height.	

	PHASE (a)	ACTION BY HELO(b)	ACTION BY SHIP(c)	EXAMPLES OF PROCEDURES (d)
(6)	SITREP enemy.		1. SITREP enemy (if applicable). 2. Surface/sub- marine threat warning (air).	NO SONAR CONTACT LAST 6 HOURS- AIR WARNING YELLOW - OVER
(7)	Attack policy (if applicable)		Weapon restrictions	A5Y THIS IS 4AB - FREE ATTACK ON POSSUB 3 - OVER
(8)	Intentions (initial approach (if required).		1. Promulgates attack and support plans. 2. Promulgates search plans.	DIP BOSS THIS IS 4AB-PLAN RED-COWBOYS GEOGRAPHIC SECTOR-DIPPERS BEAR-COWBOYS AND DIPPERS CORDON-VECTAC WITH PONY OR DIPPERS-PELICAN PREPARE FOR MADVEC AND VECTAC- PLAN BLACK-COWBOYS ACORN OR CORDON-DIPPERS CORDON OR AIRPLAN 45-PELICAN MAD TRAPPING OR MAD BARRIER-OVER

NOTE:

1. Authentication may be employed.
2. Helicopters must get clearance to descent to jump height.
3. Plan RED/BLACK is ordered only when SAU operations are in progress.
4. Helicopters joining from outside I.S.R. should be required to perform identification procedure in full.
5. Much of the preceding information from ship to helicopter should already have been passed by the OTC in MTMS messages or OTC's intentions signals and it will only require to be updated/amended.
6. The word callsign may be used when necessary for clarity.
7. Attack method sectors, if applicable, may be promulgated if time permits in the initial approach phase.

512. *ABBREVIATED PROCEDURE.*
(NR)

See chapter 4.

513. *JOINING THE SCENE OF ACTION COMMANDER.*
(NR)

a. From the DIP BOSS to the SAC

(1) Composition of airborne SAU, identity senior helicopter

(2) Direction of approach.

(3) Height.

(4) ETA.

(5) Off task time.

(6) Weapons.

(7) Controller grade (radar fitted helicopters only).

b. The reply from the SAC should include:

(1) Latest classification and confidence level of contact.

(2) Position, course and speed of submarine.

(3) Number of attacks made, type of weapons used and results.

(4) Frequent information to enable the helicopters to close the DATUM.

(5) Action being taken to regain contact if contact has been lost including DATUM and DATUM time.

(6) Intended employment of the helicopters.

SECTION III - TAKING OVER CONTROL.

520. *TRANSFER OF CONTROL.*
(NC)

ACTION BY HELO (a)	ACTION BY DISPATCHING UNIT (b)	ACTION BY CONTROLLERS (c)	EXAMPLES OF PROCEDURES (d)
Answer call.	Seeks information that receiving controller is prepared to take over control. Passes position of helicopters and tactical control method in force to the new controller.	Makes final checks. Ensures that he has helicopter positively identified before accepting control.	7BF THIS IS 4AB-ARE YOU READY TO TAKE CONTROL OF A5Y (POSITION) 100 ZZ 7 AND B9S (POSITIION)040 ZZ 7-BOTH IN THE DIP-LOOSE ADVISORY CONTROL - OVER THIS IS 7BF - AFFIRMATIVE - BREAK - DIP GANG THIS 7BF - RADIO CHECK - OVER
	NOTE: When the receiving controller is not yet familiar with the situation the following data should be passed by the dispatching controller: 1. Helicopter type and callsign. 2. Position, height, course and speed. 3. Method of control. 4. Endurance. 5. Weapon load. 6. Any other relevant information.		THIS IS A5Y - ROGER - OVER THIS IS B9S - ROGER - OVER THIS IS 7BF - ROGER - OUT 7BF THIS 4AB - TAKE CONTROL OF A5Y AND B9S - OVER THIS IS 7BF - ROGER I HAVE CONTROL - OUT

SECTION IV - SCREENING OPERATIONS.

(On ASW helo or ASWAC net, for methods of control see ATP 1 Vol.I).

530. *SAFETY RELATED TERMS.*
(NC)

Safety related control will be indicated by the control terms POSITIVE or ADVISORY.

531. *SCREENING OPERATIONS UNDER LOOSE CONTROL.*
(NC)

Helicopter commences "marking dip".

PHASE (a)	ACTION BY HELO (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
Loose control	1. Reports marking dip.	Gives position of dipper.	4AB THIS IS A5Y - MARKING DIP - OVER THIS IS 4AB-ROGER-160 QQ RANGE 45 - OUT
	2. Reports sweep completed; informs ACU of next jump.		4AB THIS IS A5Y-SWEEP COMPLETED-REQUEST TO JUMPS 170 RANGE 50 - OVER

Remarks:

1. The helicopter position may be passed relative to QQ, ZZ, centre of its sector or other appropriate reference ponts.

2. When the helicopter reports MARKING DIP and BREAKING DIP its position is not passed.

532. *SCREENING OPERATIONS UNDER CLOSE CONTROL.*
(NR)

This rarely occurs. With modern radar fitted helicopters LOOSE CONTROL is the usual way of operating. Nevertheless under CLOSE CONTROL conditions, vectors, MARK DIP and BREAK DIP should be used to direct the helicopter from one dip position to the other.

SECTION V - INVESTIGATING SONAR CONTACTS.

540. (NC) DIRECTING HELICOPTER TO INVESTIGATE A SHIP'S SONAR CONTACT (ON ASW or ASWAC net).

PHASE (a)	ACTION BY HELO (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
Investigating sonar contact.		1. Order H/C to break dip and investigate sonar contact.	A5Y THIS IS 4AB-INVESTIGATE SONAR CONTACT 4643-090 YY RANGE 45 - LOOSE ADVISORY CONTROL - BREAK DIP - JUMP 100 RANGE 60 - OVER
	1. Breaks dip and jumps.		THIS IS A5Y - ROGER - LOOSE ADVISORY CONTROL - BREAKING DIP - OUT
		2. Contact information.	THIS IS 4AB - POSSUB 3 4643 - TRACKING 180 - SPEED 6 - OUT
	2. Marking dip.		THIS IS A5Y - MARKING DIP - OUT
		3. Reports contacts position.	THIS IS 4AB - POSSUB 3 4643 - 270 YY RANGE 21 - OVER
	3. Reports contact.		THIS IS A5Y-HOT-260 RANGE 20-OUT
			4AB THIS IS A5Y-POSSUB 3 4643-OVER
			THIS IS 4AB-AGREE-OUT

SECTION VI - RADAR VECTAC.

550. (NC) RADAR VECTAC (on ASW or ASWAC net).

PHASE (a)	ACTION BY HELO (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
Radar VECTAC		1. Takes h/c under positive control.	A5Y THIS IS 4AB-CLOSE ADVISORY CONTROL - BREAK DIP-EXECUTE RADAR VECTAC - OVER THIS IS A5Y-ROGER-CLOSE ADVISORY CONTROL - BREAKING DIP - OVER THIS IS 4AB-VECTOR 240-ANGELS DECIMAL 15 - SPEED 90 - OVER THIS IS A5Y-ROGER-STEADY 240-OUT THIS IS 4AB-4 MILES TO GO-VECTOR PORT 230 - OVER THIS IS A5Y-ROGER-PORT 230-OUT
		2. Torpedo settings.	THIS IS 4AB-SELECT 2 BLOODHOUNDS SETTING 50-450 AND 450-900-OVER THIS IS A5Y-SETTINGS 50-450-450-900 SET-OUT THIS IS 4AB-POSSUB 3-TRACKING 180 SPEED 8 - OVER THIS IS A5Y-ROGER-180 SPEED 8-OUT THIS IS 4AB-VECTOR PORT 225-3MILES TO GO - OVER THIS IS A5Y-ROGER-PORT 225-OUT THIS IS 4AB-2 MILES TO GO-CHECK SWITHCES AND SETTINGS-OVER

PHASE (a)	ACTION BY HELO (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
	1. Checks switches and settings (for two torpedoes).		THIS IS A5Y - SWITCHES AND SETTINGS CHECKED - OUT
	2. Checks height and speed.		THIS IS 4AB - 1 MILE TO GO - CHECK HEIGHT AND SPEED - OVER
			THIS IS A5Y - ANGELS DECIMAL 15 SPEED 90 - OVER
			THIS IS 4AB - HALF A MILE TO GO - STANDBY TO DROP - OUT
		3. Orders to drop torpedoes.	THIS IS 4AB - DROP-NOW-NOW-NOW - OVER
	3. Drops torpedoes.		
			THIS IS A5Y - BLOODHOUNDS LOOSE - OVER
			THIS IS 4AB-ROGER - LOOSE ADVISORY CONTROL - SWEEP - OVER
		4. Promulgates DOG BOX.	
			THIS IS 4AB - DOG BOX EXTABLISHED - 210 TT RANGE 46 - EXPIRY TIME 1237 - OUT

551. *REVERSE RADAR (VECTAC)*

(NC)

PHASE (a)	ACTION BY HELO(b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
REVTAC		Establish broadcast control and order REVTAC	A5Y THIS IS 4AB DO YOU HOLD ME ON YOUR GADGET- OVER 4AB THIS IS A5Y - AFFIRM OVER A5Y THIS IS 4AB - BROADCAST CONTROL - JOIN ME - EXECUTE REVTAC ON POSSUB HIGH 3 6001 OVER (A): A5Y THIS IS 4AB - SELECT ONE BLOODHOUND - SETTINGS AS BRIEFED 4AB THIS IS A5Y - ONE BLOODHOUND SELECTED - OUT OR (B): A5Y THIS IS 4AB - SELECT ONE BLOODHOUND - SPECIFIC SETTINGS NUCO A 50 275 UNNUCO OVER 4AB THIS IS A5Y - ONE BLOODHOUND SELECTED - OUT 4AB THIS IS A5Y - ROGER EXECUTE REVTAC ON POSSUB HIGH 3 6001 - OVER
		Action by unit in contact - frequent reporting of contact, bearing and range, course and speed, and depth (if known).	A5Y THIS IS 4AB - CHECK HEIGHT, SPEED, SWITCHES SET - OVER 4AB THIS IS A5Y - HEIGHT, SPEED SWITHCES SET, REPORT YOUR CONTACT - OVER A5Y THIS IS 4AB - STANDBY - MARK 272 RANGE 75 - TRACKING 090 SPEED 10 A5Y THIS IS 4AB - STANDBY - MARK 275 RANGE 76 - TRACKING 090 SPEED 10 A5Y THIS IS 4AB - STANDBY - MARK 277 RANGE 75 - CONTACT ALTERING PORT - TRACKING 070 SPEED 12
	Action by aircraft - Drop tropedo		4AB THIS IS A5Y - BLOODHOUND LOOSE, TIME---- A5Y THIS IS 4AB - ROGER DOGBOX ESTABLISHED, EXPIRY TIME -----
		Action by unit in contact switch sonar to setting for non-interference mode to avoid torpedo interference.	

SECTION VII - COORDINATED ASW ACTIONS

560. COORDINATED ASW ACTIONS (FOR RADAR FITTED HELICOPTERS).

(NC)

a. Although there are many occasions for the control of helicopters in coordinated actions using PLANS RED and BLACK all voice procedures are basically the same.
The helicopter(s) should be made aware of the following:
(1) tactical control method in force (if changed);
(2) the order to execute a particular plan; and
(3) specific information required to implement the plan (for particulars, see ATP 1, Vol.I).

b. The example below shows the procedure of two ways of ordering plan OAK TREE.

	PHASE (a)	ACTION BY HELO (b)	ACTION BY SHIP (c)	EXAMPLES OF PROCEDURES (d)
(1)	Ordering searchplan OAK TREE (1SH).	Carries out plan OAK TREE.	Orders plan OAK TREE.	DIP GANG THIS IS 4AB - LOOSE ADVISORY CONTROL - EXECUTE PLAN OAK TREE - A5Y STATION 360 CALLSIGN 4AB RANGE 50-B9S STATION 180 CALLSIGN 4AB RANGE 50-MIKE LIMA ALFA 090 - SPEED 15 - OVER or: DIP GANG THIS IS 4AB - LOOSE ADVISORY CONTROL - EXECUTE PLAN OAK TREE - A5Y STATION PORT BEAM CALLSIGN 4AB RANGE 50 - B9S STATION STARBOARD BEAM CALLSIGN 4AB RANGE 50 - MIKE LIMA ALFA 090 - SPEED 15 - OVER
(2)	Datum investigation by helicopters as SAU.	Forms SAU and investigates DATUM.	Orders to form SAU, gives DATUM position. Passes DATUM info if necessary.	DIP GANG THIS IS 4AB - INVESTIGATE DATUM 4643 - 165 CALLSIGN 4AB 12 - ERROR 3 MILES DATUM TIME 1255 - BASED ON CRISS CROSS - BREAK - TIME 1303 - OVER THIS IS A5Y - ROGER - BREAK - B9S BREAK DIP - JOIN ME - OVER THIS IS B9S - ROGER - BREAKING DIP - OUT

NOTE: Radar fitted helicopters are given the information on a DATUM but the choice of DATUM search (airplan) should normally be left to the senior helicopter.

561. *HELICOPTER AIRPLANS.*
(NC) To order airplanes 41 through 48 the formats contained in ATP 1 Vol. I must be used.

SECTION VIII - SHIP CONTROLLED APPROACH PROCEDURES

570. *CARRYING OUT SHIP CONTROLLED APPROACH PROCEDURES.*
(NR)

When carrying out ship controlled approach procedures the HCU should provide the following information:

a. Flying course and speed.

b. Relative wind.

c. Altimeter setting.

d. Direction of approach.

e. Continuous distances from deck during approach.

f. Deck height if required.

g. Missed approach instructions.

NOTE: Ship controlled approaches vary from nation to nation. APP 2 (HOSTAC RESUME) refers.

CHAPTER 6

THE ASW CONTROL NET (ASW NET)

SECTION I - USE OF THE ASW NET.

601. *TRAFFIC ON THE ASW NET.*
(NR)

Traffic on the ASW net can be divided as follows:

a. General ASW information and manoeuvring signals.

b. Promulgation of SAU approach intentions.

c. Information about the movement of enemy submarines.

d. Orders concerning attack/support and search plans.

e. Information concerning own units.

f. Orders and information concerning equipment and weapons.

g. Promulgation of DATUMS and DOG BOXES.

602. *COORDINATION OF TRAFFIC ON ASW AMD TACTICAL NETS.*
(NR)

Orders concerning ASW degrees of readiness, course, speed, formation, time check, zig zag plan, fanfare, etc. ..... are passed on ASW net, after units have been formed or detached as a SAU. Prior to the formation of a SAU, orders should be passed on TF/TG TACTICAL UHF net. The operations room officer co-ordinates the traffic by the operators on these nets. TF/TG TACTICAL UHF net must not be used by ships of a SAU after detachment for traffic concerning the SAU only, because they will interfere with the remainder of the force (ACP 176 refers).

SECTION II - GENERAL ASW INFORMATION

610. *MANNING ASW NET AND ACTION PLOT.*
(NR)

Timely manning of the ASW net and the action plot is important to enable personnel as well as the command to become conversant with the situation in areas of high submarine probability. ASW CONTROL UHF will appear high in the OTC's order of circuit to be manned and, depending on the availability of UHF equipment, may be manned the whole time.

611. *USE OF CALLSIGNS.*

(NC)

a. In a multi-unit ASW action misunderstanding can easily arise over the identity of transmitting and receiving stations.

b. In order to eliminate this, all messages should bear the callsign of the originator as well as of the addressee(s). When calling several units and when communications are good it is advisable to order only one of the addressees to answer the call (See also chapter 9).

EXAMPLE:

1 EF 2CD THIS IS 4GH-INTEND INTERCEPT APPROACH-1EF OVER

c. The receipt of a message is always preceded by the callsign of the sender. Using "I" and "YOU" is not allowed.

d. The word CALLSIGN may be omitted between bearing and distance if there is no risk of confusion.

612. *USE OF CODEWORDS.*

(NR)

The use of signal groups of ATP 1 Vol.II for information signals should be avoided. The use and knowledge of operational brevity codes is essential. However all manoeuvring orders e.g.: "Form loose line abreast", "Guide proceed at speed .....", "Carry out zig zag plan.....", should be passed as groups (FORM Y ..... SPEED""" TURN Z""") preceded by the proword SIGNALS.
Other orders e.g.: SHINE FANFARE, OPERATE FOXER, EXECUTE CORDON, may be passed by either procedure.

613. *ASW REPORTS(ASREP).*

(NR)

The ASW report (operational brevity codeword publication) may be used to pass some of the reports given in this chapter if considered more appropriate.

614. *STANDARD REFERENCE POSITIONS AND ACCURACY SUFFIXES.*

(NR)

The ATP 1 Vol.I Standard Reference Positions and accuracy suffixes may be used to pass information on ASW nets.

615. *ABBREVIATED PROCEDURES.*

(NR)

For abbreviated procedures see Chapter 9 Section IV.

616. *PASSIVE ACOUSTIC DESIGNATORS.*
(NR)

The method in which contact was obtained, maintained, or localised may be of assistance in assessing a passive acoustic contact report. In order to readily describe the method, single letter designators may be included in a raid report (see chapter 4).

Area of Probability (AOP) F ( )		Acoustic/Doppler/TMA derived Area of Probability (accuracy estimate in miles)
	M ( )	Closest Point of Approach (CPA) (range in yards)
Line of bearing	P	Bearing from single sensor
Omni-directional	L ( )	Convergence zone contact (1st CZ range in miles)
	O	Non-convergence zone contact

SECTION III - PROMULGATION OF SAU APPROACH INTENTIONS

640. *THE SAUC INTENTIONS.*
(NC)

The SAUC should transmit his intentions as soon as possible to all units expected to participate in the action. This may include helicopters and other aircraft as well as ships (ATP 1 Vol.I). These intentions will usually be passed on ASW - ASW helo, and ASWAC net.

(1)

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
	1. Formation, course and speed for initial approach.	4AB THIS IS 4GH-SIGNALS-EXECUTE TO FOLLOW-FORMATION YANKEE 030 TACK 50 TACK SPEED 25-1EF OVER 4AU THIS IS 4GH-SIGNALS-FORMATION YANKEE-030 TACK 50 STANDBY-EXECUTE-1EF OVER 4AU THIS IS 4GH-SIGNALS-TURN WISKEY 1 TACK 4-TANGO 1005-2CD OVER
	2. Narrow weave.	

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(2)		1. ASW degree of readiness. 2. SAU Commander informs SAU of PONY alert states.	4AU THIS IS 4GH-ALFA SIERRA WHISKEY READINESS 1-1EF OVER 4AU THIS IS 4GH-PONY CALLSIGN 4GH AND PONY CALLSIGN 1EF ALERT 2-1EF OVER
(3)		1. Contact or DATUM information. Position report on ASW net in bearing and distance and DATUM info if necessary. 2. SAUC establishes and designates DATUM.	4AU THIS IS 4GH-POSSUB LOW 2 5036-070 CALLSIGN 4AB 10 DECIMAL 5-TRACKING SOUTHEAST SPEED 5-PELICAN AND DIPPERS HOT-POSSUB 5036-2CD OVER or : 4AU THIS IS 4GH-POSSUB LOW 2 5036-085 CALLSIGN 2CD 10 DECIMAL 5-TIME 1015-PELICAN AND DIP GANG COLD-POSSUB 5036-2CD OVER 4AU THIS IS 4GH-DATUM 5036 ESTABLISHED -085 CALLSIGN 2CD 10 DECIMAL 5-ERROR 1 MILE-TRACKING SOUTHEAST SPEED 5-DATUM TIME 1015-BASED ON 4GH POSSUB 2-DATUM 5036-2CD OVER
(4)		SAUC promulgates the INITIAL approach intentions: 1. Type of approach to be used. 2. Attack and Support Plans. 3. Search Plans. 4. Estimated time of commencement of the FINAL approach.	4AU THIS IS 4GH-INTEND DIRECT APPROACH TO DATUM 5036-PLANS RED-GEOGRAPHIC-CORDON-PLANS BLACK-OAK TREE-ACORN-CORDON-ECHO TANGO ALFA TANGO DELTA ALFA 1115-OVER

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(5)		Adjusts approach course as required.	4AU THIS IS 4GH-SIGNALS-EXECUTE TO FOLLOW-CORPEN JULIETT 040-2CD OVER 4AU THIS IS 4GH-SIGNALS-CORPEN JULIETT-STANDBY-EXECUTE-2CD OVER
(6)		SAUC carries out a Time Check.	4AU THIS IS 4GH-SIGNALS-EXECUTE TO FOLLOW-TANGO 1100-1EF OVER 4AU THIS IS 4GH-SIGNALS-TANGO 1100-STANDBY-EXECUTE-2CD OVER
(7)		The SAUC states the Weapon Priorities and Helicopter alert states. 1. Frequent information about position of DATUM. 2. Start Final approach (just before entering TDA).	4AU THIS IS 4GH-PRIORITY OF ATTACK-BASSET-PONY-COBRA-RINGER-PONY STATE-CALLSIGN 1EF ALERT 2-CALLSIGN 2CD ALERT 2-OVER 4AU THIS IS 4GH-DATUM 5036-155 CALLSIGN 4GH 11-2CD OVER 4AU THIS IS 4GH-SIGNALS-EXECUTE TO FOLLOW-TURN ZULU DESIG YANKEE 040-SPEED 18-1EF OVER 4AU THIS IS 4GH-SHINE FANFARE-1EF OVER
(8)	SWAP.	When the SAUC considers he is in possession of sufficient data to assume the duty of Scene of Action Commander (SAC), the order SWAP will be executed.	1ZH 4AU THIS IS 4GH-INTEND SWAP ONE MINUTE-1EF OVER 1ZH 4AU THIS IS 4GH-SWAP-I SAY AGAIN SWAP-TIME 1115-1EF OVER

SECTION IV - INFORMATION ABOUT THE MOVEMENTS OF ENEMY SUBMARINES

650. *TYPE OF INFORMATION.*
(NR)

1. (NR) Reports about the movements of a submarine are initially made by the ship gaining contact and subsequently by the attacking ship. As long as there is no disagreement about the submarine information, the other ships keep silent. Occasionally the assisting ship reports that her information is in accordance with the attacking ship, by using the word AGREE. In case of disagreement the SAUC/SAC settles this agreement.

2. (NR) The initial contact report should provide assisting ships and aircraft with the information needed to gain contact, correlate, and quickly generate a reduced area of probability. Upon gaining an initial towed array contact, the information available to the detecting unit is limited to the following:

   A. Contact type
   B. Contact classification
   C. Track number
   D. Frequency(ies) held
   E. Array depth (tens of metres)
   F. Bearing (true and ambiguous)
   G. Bearing error (degrees)
   H. Bearing movement (left, right, or steady)
   I. Time
   J. Amplification

3. (NR) TAS information passed in a voice report shall not be repeated in subsequent reports, unless it has changed. However a full report should be passed to new units joining a TAS prosecution.

4. (NR) Whenever a TAS contact is localized to attack criteria by an assisting unit, TAS voice reports shall automatically cease. Reporting responsibility for the contact shall be passed to the localizing unit, and the linked subsurface track shall be dropped or updated as appropriate. The TAS bearing and AOP shall however, continue to be reported via link. Verbal TAS contact reporting shall automatically resume should the localizing unit lose contact.

5. (NR) Any TAS contact passed as a voice report is to be sent and updated via link, EMCON permitting. When automatic updating is not available link contacts shall be manually updated at intervals not greater than one minute.

6. (NR) Unless otherwise directed by the ASWC or SAU commander, the unit gaining initial contact shall establish and maintain an area of probability (AOP) for their TAS contact based on all available information. The location and dimensions of the AOP shall be passed in the TAS report as amplifying information. The AOP shall also be sent via link (EMCON permitting), along with a subsurface contact symbology denoting the centre of the AOP. This will allow the AOP to be received by all link fitted units and will enable the movement/tracking of the AOP centre to be easily represented on tactical displays. Using a subsurface contact symbol to denote the centre of the AOP will also overcome any picture compilation problems caused by the tendency of linked AOPS to drift/jump out of position.

651. *TYPE OF INITIAL SONAR CONTACT.*

651. *TYPE OF INITIAL SONAR CONTACT.*
(NR)

When reporting a new sonar contact the type of sonar by which the contact has been detected must be mentioned as amplifying data. The word CONTACT is used, until this contact has been classified.

EXAMPLE:

LANCE SEARCHER CONTACT - LANCE ATTACKER CONTACT - LANCE DIVER CONTACT - LANCE SOUNDER CONTACT

652. *POSITIONS.*
(NR)

a. Unlike the ASWAC net, on which positions are passed in GRID, positions on the ASW net are passed in bearing and distance/range.

b. Distances less than 5 miles, are passed in hundreds of yards prefixed RANGE. Distances more than or equal to 5 miles, are passed in miles.

c. In principle reports are made by and relative to the attacking ship or the directing ship. If one of the ships is not in contact, the position is also frequently reported relative to the ship not in contact. In ASW actions carried out by 2 units the standard position TT and YY are used. In ASW actions carried out by more than 2 units callsigns shall be used to avoid misunderstanding.

653. *CLASSIFICATION AND CONFIDENCE LEVEL.*
(NR)

a. The command is responsible for the classification of the sonar contact, which can differ from the initial classification of the sonar control room.

b. Classification is carried out according to ATP 1 Vol.I.

c. The initial classification POSSUB should always be suffixed by a confidence level. Subsequent AMPLIFYING reports are made when the confidence level is changed. designator is assigned and the contact is referred to as POSSUB ..... (track number).

654. *COURSE, SPEED, DEPTH, RELATIVE MOVEMENT.*
(NR)

a. The estimated course of the submarine is as soon as possible reported in cardinal or half cardinal points (N, SE, W, etc. . . .). As soon as it is defined by the plot, it is reported using a 3 figure group.

b. The speed of the submarine is reported in knots. If it is observed that the submarine is cavitating (CLANKING) this must be reported immediately, as it is important for classification purposes. The depth of the submarine is passed in meters (DEMONS) or in tens of feet (DEVILS). Finally it is reported whether the submarine is approaching or withdrawing.

655. *SONAR CONTACT REPORTS.*
(NC)

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)	INITIAL report.	Sonar contact	4AU THIS IS 1EF - NEW SONAR CONTACT 2236 - 070 CALLSIGN 1EF RANGE 55 - LANCE SEARCHER CONTACT 2236 - 4GH OVER
(2)	AMPLIFYING report.	1. Classification.	THIS IS 1EF - LANCE SEARCHER 2236 - 070 CALLSIGN 1EF RANGE 52 - NOW POSSUB LOW 2-INTEND VECTAC - POSSUB 2236 - 4GH OVER or : THIS IS 4GH - LANCE SEARCHER CONTACT 2236 - CLASSIFIED AS WRECK - NOW NON-SUB 2236 - 1EF OVER
		2. Course, speed, depth.	THIS IS 1EF - POSSUB 2236 - 070 CALLSIGN 1EF RANGE 50 - TRACKING 315 - SPEED 10 - DEVILS 13 - CLOSING POSSUB 2236 - 2CD OVER THIS IS 2CD ROGER - HOT - AGREE - I MAKE DEVILS 12 - COMING RIGHT 060 - 1EF OVER
		3. Submarine changing course, speed and depth.	THIS IS 1EF - POSSUB 2236 - 070 CALLSIGN 1EF RANGE 44 - CHANGING STARBOARD SPEED 12 - DEVILS 13 - POSSUB 2236 - 2CD OVER

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
	4. New classification course, speed, depth	THIS IS 1EF-POSSUB 2236 NOW PROBSUB 2236-075 CALLSIGN 1EF RANGE 40-TRACKING 085 SPEED 14-CLANKING-GOING DEEP-PROBSUB 2236-4GH OVER

656. *TAS VOICE REPORTS.*
(NC)

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)	TAS contact	Contact type Contact classification Track number Frequency(ies) held Array depth (metres) Bearing (true ambiguous) Bearing error (degrees) Bearing movement (left, right or steady) Time Amplification	3YZ THIS IS 4AB NEW SERPENT CONTACT POSSUB LOW 1 TRACK 1234 HOLDING 567.8, 432.1 DEMONS 240 BEARING 120 TACK 240 ERROR 5 STEADY TIME 1930 ASSESSED POSSIBLE TYPE SIX NUC
(2)	TAS AMPLIFYING report.	The unit gaining initial contact shall establish and maintain an area of probability (AOP) for their TAS contact based on all available information. The location and dimensions of the AOP shall be passed in the TAS report as amplifying information	3YZ THIS IS 4AB SERPENT CONTACT 1234 BEARING 122 ERROR 6 DRAWING RIGHT TIME AMBIGUITY RESOLVED BASED ON CRISS CROSS. AOP ESTABLISHED BEARING 122 C/S RANGE 12 NM ERROR 1.2 NM

SECTION V - ORDERS CONCERNING ATTACK/SUPPORT AND SEARCH PLANS

658. *PROCEDURAL EXAMPLES FOR THE DISSEMENATION OF PLANS.*
(NC)

	METHOD (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)	Lock-on (1A)	1. Ordering attack method, lock-on range, manoeuvring method, attacking ship and assisting ship. 2. Reporting when in station. 3. Reporting when in contact and in good attack position. 4. Reverting to GEOGRAPHICAL SECTOR attack method.	4AU THIS IS 4GH-EXECUTE PLAN RED LOCK-ON-RANGE 30 - METHOD BRAVO - 2CD BROTHER STATION WEST - 4GH SISTER STATION SOUTH - 1EF STATION NORTH - OVER THIS IS 2CD-ROGER-STATION WEST-OUT THIS IS 1EF-ROGER-STATION NORTH-OUT 4GH THIS IS 1EF - LOCKED ON - OVER 4GH THIS IS 1EF - READY - OUT 4AU THIS IS 4GH - UNLOCK - EXECUTE GEOGRAPHIC SECTOR ATTACK - 1EF BROTHER NORTH - 4GH SISTER SECTOR SOUTH - 2CD EXECUTE BEAR 270 - 1EF OVER THIS IS 1EF - ROGER - SECTOR NORTH - OUT

	METHOD (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(2)	Deep creep (2A)	1. Ordering attack method and attacking ship. 2. Vectoring attacking ship to attack position. 3. Ordering to attack. 4. Reporting completion of attack.	2CD THIS IS 4GH - EXECUTE PLAN RED DEEP CREEP - 2CD BROTHER - OVER 2CD THIS IS 4GH - STEER 080 - SPEED 10 - 50 YARDS TO GO - OVER 4GH THIS IS 2CD - ROGER - O8O - SPEED 10 - OUT 2CD THIS IS 4GH - FIRE - OUT 4GH THIS IS 2CD - WEAPON FIRED - OUT
(3)	Geographic sector attack (3A).	1. Ordering attack method, attacking ship and sectors	2CD THIS IS 4GH - EXECUTE PLAN RED GEOGRAPHIC SECTOR ATTACK - 4GH BROTHER SECTOR NORTHWEST - OVER 4GH THIS IS 2CD - ROGER - 2CD SISTER SECTOR SOUTHEAST - OUT
(4)	Modified geographic sector attack (3A MOD).	1. Ordering attack method. 2. Preparing the attack.	see method (3A) 2CD THIS IS 4GH - STANDBY RINGER STARBOARD - WITHDRAWAL SECTOR IS WEST - OVER
(5)	Bear (11AH).	1. Ordering attack-/support method.	2CD THIS IS 4GH - EXECUTE PLAN RED BEAR - BEARING 045 - RANGE 50 - OVER
(6)	Cordon (14AH, 14SH).	1. Ordering attack-/support-/search method.	4AU THIS IS 4GH - EXECUTE PLAN RED (BLACK) CORDON - CALLSIGN 4GH SECTOR 1 AND 2, BROTHER - CALLSIGN 1EF SECTOR 5 AND 6 - CALLSIGN A5Y SECTOR 3 - CALLSIGN B9S SECTOR 4 - DIP GANG SECTOR ZERO - 1EF OVER

	METHOD (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(7)	Oak tree (1S)	1. Ordering the search plan.	4AU THIS IS 4GH - EXECUTE PLAN BLACK OAK TREE - SIGNALS - EXECUTE TO FOLLOW - FORMATION YANKEE 060 TACK 50 TACK SPEED 18 - 1EF OVER 4AU THIS IS 4GH - SIGNALS - FORMATION YANKEE - STANDBY - EXECUTE - 1EF OVER
(8)	Acorn (2S).	1. Ordering the search plan, direction, datum information, axis and speed. 2. Passing the starting point.	2CD THIS IS 4GH - EXECUTE PLAN BLACK ACORN RIGHT - CALLSIGN 4GH DIRECTING SHIP - DATUM 2236 - 060 RANGE 30 - DATUM TIME 1125 - AXIS 180 - SPEED 15 - OVER 2CD THSI IS 4GH - PASSING POINT DELTA - COMING RIGHT 270 - FIRST LEG - OVER THIS IS 2CD - PASSING POINT ALFA - OVER THIS IS 4GH - ROGER OUT

SECTION VI - INFORMATION CONCERNING THE MOVEMENTS AND SAFETY OF OWN UNITS

660. *REPORTING AND REPEATING COURSES AND SPEEDS.*

(NC)

Ships engaged in a multi-unit ASW action pass individual changes of courses, directions of the turn and the new course to all other ships, making the nearest ship acknowledge. This ship will then repeat said course in order to avoid misunderstanding. The same applies to changes of speed.

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)		1. Course and speed.	4AU THIS IS 1EF-COMING LEFT 070-2CD OVER THIS IS2CD-ROGER-LEFT 070-OUT 4AU THIS IS 2CD-MY SPEED 18-1EF OVER THIS IS 1EF-ROGER-SPEED 18-OUT or : 4AU THIS IS 2CD-MY COURSE 120 SPEED 20-1EF OVER THIS IS 1EF-ROGER-COURSE 120 SPEED 20-OUT
		2. Course and speed alterations.	2CD THIS IS 1EF-COMING HARD RIGHT 010-OVER THIS IS 2CD-ROGER-HARD RIGHT 010-OUT
		3. BREAK OFF procedures.	2CD THIS IS 1EF-BREAK OFF-I SAY AGAIN- BREAK OFF-OVER THIS IS 2CD-ROGER-BREAKING OFF-COMING HARD RIGHT 180-OVER THIS IS 1EF-ROGER-HARD RIGHT 180-OUT 1EF THIS IS 2CD-MY SPEED 6-OVER THIS IS 1EF-ROGER-SPEED 6-OUT

661. *TORPEDO INTERFERENCE AREA (DOG BOX).*

(NC)

a. The dimensions of the DOG BOX area and the expire time depend on the type of torpedo and delivery method. Particulars can be found in ATP 29.

b. *Establishing a DOG BOX.*
The unit controlling the dropping of the torpedoes has the most accurate information about the splashpoint. This unit therefore establishes the DOG BOX.

(1)	DOG BOX established.		4AU THIS IS 1EF - DOG BOX ESTABLISHED - CALLSIGN 1EF - RANGE 35 - EXPIRY TIME 1131 - 4GH - OVER

SECTION VII - ORDERS AND INFORMATION CONCERNING WEAPONS AND EQUIPMENT

670. *ORDERS AND INFORMATION CONCERNING WEAPONS.*

(NC)

Orders and information concerning the operational readiness of weapons should be passed in a clear and concise manner, using operational brevity code words.

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)		1. Launch PONY for VECTAC. 2. Recovery of PONY. 3. VECTAC. Inform PELICAN and DIPPERS.	1EF THIS IS 4GH LAUNCH PONY FOR VECTAC - PROBSUB 2236 - OVER 1EF THIS IS 4GH - RECOVER PONY - OVER 1EF THIS IS 4GH - TAKE 4GH PONY FOR VECTAC - OVER 1EF THIS IS 4GH - EXECUTE VECTAC - OVER
(2)		Weapon type and firing side, weapon danger area. (sector and range from firing unit).	THIS IS 1EF - COMING LEFT 070 SPEED 18 - ATTACKING RINGER PORT - DANGER AREA 320 TACK 350 RANGE 15 - 2CD - OVER
(3)	READY.		THIS IS 2CD - READY - 1EF - OVER

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(4)	MARK ATTACK.		THIS IS 1EF - STANDBY RINGER STARBOARD - STANDBY - MARK RINGER FIRST 037 RANGE 9 - MARK RINGER SECOND 029 RANGE 8 - MARK RINGER THIRD 025 RANGE 7 - .....
(5)		Attack by SHIP/HELO launched Electric Torpedo in the Gyro Angled SnakeSearch Mode.	4AU THIS IS 4GH - STANDBY COBRA 035 RANGE 20 - 1EF OVER
(6)		Weapon discharged.	4AU THIS IS 4GH - COBRA LOOSE - DOGBOX ESTABLISHED 025 CALLSIGN 4GH RANGE 20 - EXPIRY TIME 0635 - 1EF OVER
(7)		Attack by SHIP/HELO launched Electric Torpedo in the Circular Search mode.	4AU THIS 4GH - STANDBY BLOODHOUND - 1EF OVER
(8)		Weapon discharged.	4AU THIS IS 4GH - BLOODHOUND LOOSE -DOGBOX ESTABLISHED 035 CALLSIGN 4GH RANGE 05 - EXPIRY TIME 0635 - 1EF OVER
(9)		Attack by SHIP launched ASROC.	4AU THIS IS 2CD - INTEND BASSET POSSUB 1349 - 4AU THIS IS 2CD - STANDBY BASSET POSSUB 1349 - 052 TT RANGE 61 - THIS IS 2CD - STANDBY BASSET - ONE MINUTE - POSSUB 1349 - 052 CALLSIGN 2CD - RANGE 61 - THIS IS 2CD STANDBY BASSET - THIRTY SECONDS - WEAPON BEARING 050 -
(10)		Weapon discharged.	THIS IS 2CD - BASSET AWAY - DOGBOX ESTABLISHED 050 CALLSIGN 2CD RANGE 61 - EXPIRY TIME 1355 - 1EF OVER
(11)		SAU Cdr's Attack intentions.	4AU THIS IS 4GH - ATTACK INTENTIONS - ON COMPLETION OF COBRA ATTACK BY J4T TAKE A5Y FOR VECTAC - 1EF OVER

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(12)		Exchange of duty. The attacking ship passes the duties of attacking ship to another ship as circumstances requires	THIS IS 1EF ATTACK COMPLETED - 2CD BROTHER - OVER THIS IS 2CD - ROGER - 2CD BROTHER SECTOR NORTH - OVER THIS IS 1EF - ROGER - 1EF SISTER SECTOR SOUTH - OVER
(13)		1. Results of attack. 2. Inform OTC; a DROP TRACK report should follow. 3. Exchange of duty (callsign 2CD reports ready RINGER with range)	THIS IS 2CD - PROBSUB 2236 - 275 CALLSIGN 1EF RANGE 40 - TRACKING 330 SPEED 14 - NO JOY - 4GH OVER or : 4AU THIS IS 1EF - PROBSUB 2236 - DAMAGE ASSESSMENT ALFA - 4GH OVER THIS IS 4GH - ROGER - 4GH BROTHER - SECTOR NORTH - OVER THIS IS 2CD - ROGER - SISTER - SECTOR SOUTH READY - OUT 4AU THIS IS 4GH - COMING LEFT 030-OVER THIS IS 2CD - ROGER - LEFT 030 - OUT
(14)	LOST CONTACT report.		4GH THIS IS 1EF - COLD - PROBSUB 2236- 065 CALLSIGN 1EF RANGE 14 - TIME 1115- OVER
(15)	ASW WEAPON STATE report.	A unit advises the SAU CDR that it has torpedoes and depth charges remaining	4GH THIS IS 2CD - CAKE CHARLIE TWO FOUR - HOTEL THREE - JULIETT NINE - OVER

675. *ORDERS AND INFORMATION CONCERNING EQUIPMENT.*
(NC)

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)		Readiness of equipment.	4GH THIS IS 1EF - LANCE ATTACKER BENT- ESTIMATED TIME FOR REPAIRS NUCO (2) HOURS - OVER
(2)		Switch on equipment.	1EF THIS IS 4GH - SHINE LANCE DIVER - OVER THIS IS 1EF - ROGER - LANCE DIVER SHINING - OUT
(3)			1EF THIS IS 4GH - RETRIEVE LANCE DIVER
(4)		Readiness of underwater telephone.	4GH THIS IS 2CD - GERTRUD OKAY - OVER
(5)		Orders to set attack sonar to standby for message on underwater telephone.	4AU THIS IS 4GH - LANCE ATTACKER LAZY - MESSAGE ON GERTRUDE - 2CD OVER
(6)		SAU Commanders hears submarine on underwater telephone and informs SAU.	4AU THIS IS 4GH - PLAYMATE CALLSIGN OSS ON GERTRUDE - 1EF OVER 1EF THIS IS 4GH - DID YOU RECEIVE 0SS MESSAGE ON GERTRUDE - OVER THIS IS 1EF AFFIRMATIVE - OUT
(7)		Stream noisemaker.	4AU THIS IS 4GH - STREAM FOXERS/FANFARE - 1EF OVER 4AU THIS IS 4GH - SHINE FANFARE - 2CD OVER

SECTION VIII - ESTABLISHING DATUM.

680. *ESTABLISHING A DATUM.*
(NR)

For the definition of DATUM see ATP 1 Vol 1 (Glossary).
Datum's may be established by the OTC, ASW commander, Screen commander, SAU commander, SAC, or the unit losing contact.

681. *DATUM COMPONENTS.*
(NC)

a. DATUM reports consist of components in the following sequence:

(1) DATUM established (including DATUM designator).
(2) DATUM position.
(3) DATUM error.
(4) Last known course and speed of contact.
(5) DATUM time.
(6) Source of information.
(7) Classification of contact on which datum was established.
(8) Link management codeword (as required).
(9) DATUM designator (repeated).

NOTE: Subparas (6), (7) and (8) are part of the amplifying data component - See chapter 1.

b. The DATUM designator will be a four figure octal track number. When a DATUM is established on a lost contact the track designator is retained unchanged. (i.e. POSSUB 5036 on loss of contact becomes DATUM 5036). New Datum's established subsequently on the same contact retain the original track designator.

	REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)	DATUM.	1. DATUM established.	4AU THIS IS 4GH - DATUM 2236 ESTABLISHED - 065 CALLSIGN 4GH RANGE 14 - ERROR 1 MILE - TRACKING 085 SPEED 14 - DATUM TIME 1414 - LOST CONTACT CALLSIGN 4GH - CLASSIFICATION PROBSUB - DATUM 2236 - 4AU OVER

690. *CALL FOR ASSISTANCE OR CONTACT HANDOVER.*

(NC)

The submarine is to establish communications with the aircraft (direct or via ECB/SLOT buoy) and pass the call for assistance message. The message is also to be used for contact handovers.

REPORT (a)	REMARKS (b) (NOTE 1)	EXAMPLES OF PROCEDURES (c)
Call for assistance or contact handover.	A. Locating (number) serial.	A. LOCATING ONE SERIAL TWO
	B. Target classification (and confidence level if POSSUB).	B. POSSUB HIGH THREE
	C. Type and operating mode.	C. TYPE II NUCLEAR
	D. Contact or Datum position (note 2) If HOT - True bearing/bearing accuracy If COLD - Last bearing/accuracy/position of origin (to include ambiguous bearing if unresolved) TMA range bracket/confidence level (good, moderate, poor).	D. HOT/060 DEG/+4 DEG COLD/060 DEG/+4 DEG/6255N8 00958W2 TMA 20 TO 40 MILES/GOOD
	E. Contact course/speed or direction of movement (e.g. south, southeast, north etc.).	E. 350/8
	F. Additional contact information (e.g. target signature in Hz in order of signal strength).	F. 100.3/300.5/200.7/FADING/TARGET SHALLOW/SINGLE SHAFT
	G. Time of contact/datum position (Zulu).	G. 1000Z
	H. Instructions/remarks (if applicable) 1. Submarine intentions (note 3) 2. Aircraft action (note 4) 3. (additional information as required).	H. 1. INTEND SPRINT TO NEW LOCATION/STANDBY NOTACK 2. LOCALIZE/TRACK/REPORT EVERY 30 MINUTES
	I. Own position/course/speed/time (submarine only).	I. 6345N8 01003W4/350/5/

Notes: 1. Transmission authentication is to be used.
2. For aircraft handover to a submarine, contact position is given by bearing/range from the co-operating submarine or by LAT/LONG.
3. SGSA and/or NOTACK intentions should be included in paragraph H.
4. In general, the aircraft should be left free to prosecute the contact datum created by the call for assistance. Paragraph H should be used, however, when the submarine requires a specific form of tactical assistance.

691. *RENDEZ - VOUS.*

(NC)

Rendezvous messages should be used to ensure thorough and rapid exchange of tactical information between co-operating units. Messages should be compiled and ready for transmission prior to rendezvous, blank lines should not be transmitted.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
A. Air to sub rendezvous message.	A. Contact summary (within 100nm or as directed).	A. HOT/POSSUB LOW 2/NUCLEAR TYPE TWO/6250N3/01000W1/ 0429Z5
	B. Tactical intentions (note 1).	B. INVESTIGATE AND LOCALIZE
	C. Off task time (note 2).	C. 1200Z3
	D. Number of airmail messages	D. TWO
	E. Remarks (note 3).	E. REQUEST SUNLAMP

Notes: 1. Sensor policy/search intentions etc.
2. The aircraft may be requested to extend the on task time until its prudent limit of endurance (PLE). The time during which an aircraft can remain airborne and retain a given safety margin of fuel.
3. Bathythermograph request if necessary, alteration of communication lines/homing aids, etc.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
B. Sub to air rendezvous message.	A. Contact summary.	A. COLD/060 DEGREES 6/PLUS OR MINUS 5 DEGREES/6255N8 01100W2/0413Z8
	B. Submarine current position/MLA/SOA.	B. 62300N8/01030W4/050 DEGREES5/6KNOTS6
	C. Tactical intentions (include SGSA plan) (note 1)	C. REGAIN CONTACT
	D. Alert policy (note 2).	D. SUB NEGATIVE
	E. Expendable communications buoy CB)/SLOT buoy channels available.	E. CHANNELS 27 AND 29
	F. Numbers of Postbox messages with relay instructions.	F. DELAY 1/SHORE 2
	G. Next rendezvous (position/time/method).	G. 6210N9 01035W9/1000Z1/SUNLAMP
	H. Remarks (note 3).	H. ZID 084/16 CHECKSUM 7 MARK 48/4 CHECKSUM 4 HARPOON

Notes: 1. Search intentions, comms policy, SGSA plan etc. (SGSA establishment as in extac 513(a).
2. Air negative or positive Sub negative or positive
3. These should include ZID number and weapon status at the initial RDV and at the subsequent RDV's if changed. The aircraft is to relay to the subopauth.

CHAPTER 7

FIGHTER CONTROL PROCEDURES AND DIRECTION OF ATTACK AIRCRAFT

SECTION I - FIGHTER CONTROL PROCEDURES.

NOTE: The list of commonly used transmissions involving the intercept of radiotelephony (RT) is by no means complete. Local operating procedures. Existing doctrine, Controller Qualification and Control Method, the aircraft performance and common sense between all participants and aircrew will normally provide guidance for other transmissions.

701. *TRANSFERRING CONTROL OF CAP (RADAR HANDOVER/TAKEOVER).*
(NR)

a. Shore to ship/Ship to ship.

Prerequisites for Radar Handover:
(1) Overlapping radar cover
(2) Two way communications
(3) Clear of conflicting traffic

Once the next intended controlling unit (ACU) has advised readiness to assume control, the following Handover-Information is mandatory:

(1) (WHAT)	Number and type of aircraft plus callsign.
(2) (WHERE)	Bearing and range related to a commonly known reference (e.g. Landmark, geographical pos. or navigational aid, reference position).
(3) (WHITHER)	Heading and height.

Additional information when necessary:

(4) Control Frequency/Channel assignment.
(5) IFF/SIF Mode and Code setting.
(6) Intentions, task, recovery information, endurance etc.
(7) Emergencies/Incidents affecting the aircraft safety.

Note: The handover is not achieved if the future controller cannot identify the aircraft by means of positions and/or IFF. Control remains with the original controller.

Handover achieved:
The new controller confirms identification and tells both the aircraft and the original controller that he has control.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Shore Station (SOC/CRC)	c/s to c/s	Scrambled two F16 at 1030Z callsign AJ15 and 16 - TAD 593 Primary - TAD 594 secondary - Standby for handover
ACU	c/s to c/s	Standing by
Shore Station	c/s to c/s	AJ15 flight (or cap) airborne - position 220 Lima Lima 30 - heading 340 speed point 8 - Angels 20 confirm radar contact
ACU	c/s to c/s	Radar contact on AJ15 flight - ready to take control - standing by on TAD 593
Shore Station	c/s to c/s	AJ15 flight (or cap) switching TAD 593
ACU	c/s to c/s	Radio contact with AJ15 flight (or cap) - 1RD controlling unit
Shore Station	c/s to c/s	Roger - 1RD controlling unit

TAD = Tactical Air Designator (frequency designator)

Note: The use of an abbreviated handover is not encouraged as long as handovers between shore and ships take place on HF frequencies.

702. *ASSIGNMENT OF CAP STATIONS.*
(NR)

CAP stations will be assigned with reference to:
a. APP 4 Volume 1 - OPTASK AAW Para C
b. AXP 5 EXTAC 416
c. SACEUR SUPPLAN 10001 D App 3/GEOREF Positioning matrix
d. TRI-MNC Maritime Air Defence Handbook Chapt. 4
e. ATP 34 ACBA Supp-1 Chapt. 6 Annex c

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
CAP Station assignment	ACU TO CAP	AJ15 FLIGHT THIS IS 1DE YOUR STATION OSCAR PAPA
	or ACU TO CAP	AJ15 FLIGHT THIS IS 1DE - SET CAP 04 ALFA - ORIENTATION NORTHEAST -SOUTHWEST - HOTLEG NORTHEAST ANGLES 15

703. *AIR INTERCEPT CONTROL COMMUNICATIONS.*
(NC)

a. The types and contents of transmissions depend generally on controller qualification and the control method (i.a.w. STANAG 1183/3993). The following basic guidelines should be kept in mind.

(1) Transmissions should be made in a short and concise manner.

(2) Pronunciation should be clear and distinct.

(3) Unnecessarily long periods of silence should be avoided so that communications failures become immediately apparent.

(4) Transmissions should not contain more than two instructions or two items of information or one of each. When both an instruction and information are to be passed, the instruction should always be given first.

(5) When a quick succession of transmissions is passed between stations that have already established radio contact, the callsign may be abbreviated or omitted provided that there is no risk of confusion.

(6) Pilot responses. The pilot shall acknowledge receipt of a message by transmitting his own callsign or squawking ident. Confirmation of an instruction is always to be obtained. Orders to change squawk or altimeter setting and orders affecting the movement of the aircraft (heading, speed, altitude) have to be read back word for word.

b. Typical transmissions are:

(1) Initial heading to target
(2) Target position
(3) Target heading and speed
(4) Target composition and altitude
(5) CAP parameters and mission
(6) Breakaway instructions
(7) Flight safety
(8) CAP in contact
(9) Contact confirmed or negated
(10) CAP takes control of intercept
(11) Missile/Gun release of CAP
(12) Ammo/Fuel-state of CAP

c. The following procedures are a guideline to above mentioned transmissions.

(1) *Initial heading to target.*

The initial heading to the target(s) will depend on the type of control provided. Under close control conditions a calculated Target Crossing Angle will determine the approach - heading to the Target. Under Loose control conditions CAP will select their own heading and speed to achieve an intercept. The controller gives advice providing all available target info. Under both control methods the controller can give a SNAP VECTOR (true/relative bearing CAP to an initial position most suitable for conducting an interception). Under broadcast control conditions the aircrew selects initial approach parameters as necessary based on available target information. The controller however should be prepared to assist the aircrew as much as possible.

Following rules for the transmission of headings apply:
a. CAP heading known : LEFT/RIGHT followed by three digits.
Cardinal headings may be transmitted e.g. RIGHT SOUTH.
b. CAP heading unknown : (SNAP) VECTOR followed by three digits or a cardinal heading.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
INITIAL HEADING TO TARGET	CAP HEADING KNOWN	21 - TARGET SW - 25 - LEFT 220
	CAP HEADING UNKNOWN	21 - SNAP 180 - TARGET SOUTH 30

(2) *Target position*

When intercept controllers wish to inform aircrews of the position of other aircraft/targets they have to do so in one of three ways:

a. **Bearing and range.**
This method is used when the interceptor's heading is unknown or changing (in the turn). The position of the other aircraft is given by its true bearing from the interceptor's position and the range in NM.

b. **Cardinal/Intercardinal bearing and range.**
This method is used whenever the other aircraft is too far off to be detected by the interceptor crew. The position of the other aircraft is stated as the cardinal/intercardinal direction relative to the interceptor e.g. NORTH/SOUTHEAST etc. together with the range in NM.

c. **Clock reference and range.**
This method is mainly used for passing warnings on other aircraft. The position of other aircraft is expressed in clock - code relative to the interceptor's heading followed by the range in NM. This method can also be used when making a visual interception.

d. **Angle off and range**.
Angle off in degrees rounded to 5 degree increments followed by left or right and range in nauticalmiles.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Target position	Para 2 a.	- TARGET 270 - 30
	Para 2 b.	- TARGET SOUTH 85 -
	Para 2 c.	- TARGET 8 O'CLOCK 10 -
	Para 2 d.	- TARGET 30 RIGHT 20 -

(3) *Target heading and speed*

During the intercept the controller will be responsible for keeping the CAP informed about the targets heading/speed and any relevant changes which may result in adjusting the intercept.

a. **Heading and speed**
The controller will transmit target's track or its present behaviour. Speed is indicated in MACH or in knots (groundspeed).

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Target heading and speed		- TARGET HEADING 160 - SPEED POINT 95 - CROSSING RIGHT TO LEFT
	Abrupt change	- TARGET JINKING RIGHT -
	New track	- TARGET'S NEW HEADING 150 -

Note: Speed - changes of the target are reported as necessary e.g. ACCELERATING/DECELERATING followed by the speed in MACH or knots. In certain cases the speed of action requires quick calculation. The time taken to calculate the full and precise target information could result in a missed intercept. Therefore an estimate will often fit the situation. According to APP 7 following codewords apply: (SLOW -FAST - SUPER).

(4) *Target composition and altitude*

a. **Number and height of targets**

The number of contacts/targets will be reported using the actual or estimated number of contacts. The altitude of the closing raid will be provided as measured by height finding equipment. Subsequent height information can be given as relative height compared to the fighter. An estimated height is given i.a.w. APP 7.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Number and height of	Number of targets known	- TARGET STRENGTH 3 - TEN-THOUSAND
	Number and height estimated	- ESTIMATE FEW - PROBABLY HIGH -
	Number and relative height	- SINGLE TARGET-TWO-THOUSAND ABOVE(1)

Note: (1) Target is e.g. actually 2000 ft above CAP - Level

b. **Target formation and separation**

In addition to the number and height of targets, information about formation and separation of the closing raid will determine the aircrews attack tactics. Therefore it is of vital importance that the controlling unit provides the CAP with the correct information regarding the composition of the formation.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Target formation and separation	Line astern	- TARGET STRENGTH TWO - ECHELON LEFT - WEST ONE TWENTY-THOUSAND-EAST STACKED LOW TEN-THOUSAND
	Trailer	- TARGET STRENGTH TWO - LINE ASTERN 4 MILES - LEADER TEN-THOUSAND - RAILER FOURTEEN-THOUSAND-

(5) *CAP parameters and mission*

Extensive training is required to acquaint the pilot/crew with the full potential of his particular weapon system. Accordingly, the pilot should normally determine the speed and height for run-out and terminal phases of the intercept based on weapons available, aircraft configuration, type of control and the information received.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Speed and height assignment	Close Control: Controller selects speed and height	- COBRA FLIGHT SET SPEED POINT 9 - - CLIMB ANGELS 20
	Pilot reply	- ROGER - SETTING POINT 9 - CLIMBING TO ANGELS 20
	Loose Control: Pilots selects speed and height	- ACCELERATING POINT 95 - DESCENDING ANGELS 5 -

(6) *BREAK AWAY - instructions*

The BREAK AWAY - instruction is used to ensure a cardinal or intercardinal course to fly after completion of attack and should ideally ensure a heading back to the CAP-Station or towards a new threat. The BREAK AWAY - instructions are given before the pilots statement that he has AI - or Visual Contact and wants to take over control of the intercept (JUDY).

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Break away	Break away instructions	- BREAK AWAY WILL BE SOUTH
	Pilot reply	- ROGER - BREAK AWAY WILL BE SOUTH
	Pilot wants to take control of intercept	- JUDY
	After attack the pilot reports weapon release/attack completed	- FOX 2 - TARGET SPLASHED BREAKING SOUTH
	Controller orders suitable roll-out	- ROGER - VECTOR 200 FOR CAP -

(7) *flight safety*

a. Stranger warnings. The controller will normally use the codeword stranger to call out unidentified contact (s) closing the CAP within 10 nm and 10.000ft. Information on that contact is to continue to be passed until the CAP obtains contact or until the STRANGER passes clear.

REPORT (a)	REMARKS (b)	EXAMPLES (c)
Stranger	CAP heading known	21 - STRANGER - 3 O'CLOCK 9 HEADING 270 - 10000FT - CROSSING RIGHT TO LEFT
	CAP heading unknown	21 - STRANGER 060 - 9 HEADING 270 - 10000FT - CROSSING RIGHT TO LEFT
	Pilot reply	- ROGER-IN SIGHT-HAPPY TO CONTINUE - 21
	Conflicting traffic. Controller advises pilot heading for deconfliction.	21-STRANGER 020 - 6 - 10000 FT IF NOT IN SIGHT - LEFT 250
	Pilot response	- TURNING LEFT 25- - 21
	POP - UP stranger Controller initiates avoid. Action	21 - PORT 220 - CONFLICTING TRAFFIC...
	Pilot reply	21 - TURNING LEFT 220 - NOT VISUAL -
	Controller continues	21 - CLEAR OF CONFLICTING TRAFFIC - CONTINUE MISSION

b. Base.
Weather information for diversion airfields should be passed about 15 minutes before OFF TASK time of CAP.

c. Pigeons
The ACU is responsible for passing pigeons to aircraft under control:
- on taking control
- on completion of an intercept or attack
- on request
- periodically depending on the aircraft flight pattern
- before departure.

Transmissions of PIGEONS to A/C with good navigational facilities may be omitted or reduced in frequency by mutual agreement between ACU and the pilot.

If PIGEONS are not to base, the destination must be specified. Periodically the ACU is to pass to aircraft using AIR to AIR Refuelling (AAR) but not accompanied by the tanker, their magnetic or true heading and distance to the AAR rendezvous (RV).

PIGEONS may also be passed on request to aircraft not under control, after positive identification.

(8) *CAP in contact*

a. During the approach phase and usually before CAP gains contact the MISSION has to be ordered to the CAP e.g. mission interrogate - intervene, sim. engage - engage.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
MISSION		- MISSION - INTERROGATE -

b. When a CAP gains contact with the target, it will report the position of the target. If the composition is different from that reported by the controller, the new composition is reported.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
In contact	Visual	- TALLY HO - 090 - 52 RATFINKS
	AI-Contact	- Contact 30 RANGE 10 -

(9) *Contact confirmed or negated*

In a busy combat environment the CAP may pick up the wrong target either visually or by AI-Radar. The controller therefore, should be prepared, by comparison, to confirm or negate the contact being reported.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Confirm Target	After contact has been reported by CAP	- ROGER - YOUR TARGET - ENGAGE -
	CAP picked up wrong target	- NEGATIVE - YOUR TARGET 10 LEFT 15 -

(10) *CAP takes control of intercept.*

a. When the CAP wishes to assume control of the intercept, it transmits the codeword JUDY or TALLY HO to the controller. The controller will acknowledge this transmission and continue to monitor the intercept.

b. Should the CAP lose contact with the target or for any reason desire further control after JUDY (e.g. lock-on broken, jamming etc.) it will report that contact is lost and further help is required.

c. The controller will immediately resume control of the intercept, and give frequent target position as long as necessary to enable the CAP to re-acquire contact. Further vectors may be given to complete the attack.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Lost contact/More help	1. From CAP	1. - LOST CONTACT - 2. - MORE HELP -
	2. Controller reports	- TARGET 090 - 18 - TARGET 100 - 17 -
	3. Controller gives vector for intercept CAP heading known	- RIGHT 190 -
	4. CAP re-aquires contact and wishes control of intercept	- JUDY -
	5. Controller gives BREAK AWAY instructions	- ROGER - JUDY - BREAK AWAY WILL BE LEFT -

(11) *Missile/Gun release.*

The CAP reports AIR - TO - AIR - Missile release with the codeword FOX AWAY.

Note: Apart from the meaning stated in APP 7, aircrews are to use the following:

- FOX ONE : The launch of radar homing missile
- FOX TWO : The launch of heat seeking missile

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Missile firing by CAP		- FOX TWO AWAY - FOX TWO KILL -
Gun firing by CAP		- GUNS - KILL

(12) *FUEL AND WEAPON STATES*

a. The accepted methods and calls for passing **FUEL STATES** are:

(1) STATE TIGER. I have sufficient fuel to complete my mission as assigned (See note).

(2) STATE TIGER SLOW. I have sufficient fuel to complete a subsonic interception and return to base (See note).

(3) STATE LAMB. I do not have enough fuel for an intercept plus reserve required for carrier recovery.

(4) STATE CHICKEN. I am at a fuel state requiring recovery, tanker service or diversion to an airfield.

Note: The phrases STATE TIGER and STATE TIGER SLOW may be suffixed by a time figure indicating the number of minutes remaining at the specified state e.g. "STATE TIGER 20".

b. **WEAPON STATES** of fighter aircraft are passed in the form of a four character code:

(1) The first character is a figure to indicate the number of radar guided missiles.

(2) The second character is a figure to indicate the number of IR-missiles available.

(3) The third character indicates the gun fit and ammunition state as follows:
PLUS - gun(s) fitted and sufficient ammunition for a gun attack.
MINUS - gun(s) fitted but not sufficient ammunition for a gun attack.
ZERO - no gun(s) fitted.

(4) The fourth character is a figure to indicate the number of front hemisphere capable missiles available. The character is to be used at individual aircrew's discretion based on their judgement as to whether any of the missiles carried gives them a head-on capability, taking radar serviceability into account.

EXAMPLE.
An aircraft with a serviceable radar, loaded with 2 Sparrows, 2 Phoenix, 2 Sidewinder AIM9L and fully loaded gun would report its state as: " 4-2-PLUS-6 ".

SECTION II - PROCEDURES FOR TACTICAL DIRECTION OF ATTACK AIRCRAFT ON THE AIR CONTROL NET.

731. *TACTICAL DIRECTION.*

(NR)

Tactical direction applies to situations where full air control unit (ACU) requirements can not be met and may be used when ordered.

732. *ORGANISATION.*

(NR)

Detailed procedures, formats and communications for requests of aircraft are laid down in ATP 34. Tactical air support to maritime operations (TASMO), supported by the different area supplements.

733. *NETS ON WHICH PROCEDURES ARE USED.*

(NR)

The procedures described hereafter are used on the Fighter Control net.

734. *CALLSIGN.*

(NR)

In the following examples of procedures the mission number is used as callsign for aircraft. ACU is using the encrypted callsign of the period.

735. *OTC.*

(NC)

OTC is informed of the callsign, number, type, ETA Control Point (CP) of the supporting aircraft, by the TASMO Accept/Refuse Message. OTC may delegate the duty as ACU.

	PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY ACU (c)	EXAMPLES OF PROCEDURES (d)
(1)	Prior to contact.. Base to control point (CP).	1. Flies as ordered by the tasking Agency. 2. Display IFF code according to standing operational procedure	1. Guards allocated fighter control net. 2. Detects aircraft. 3. Interrogates on correct IFF code as appropriate.	
(2)	Establishing initial contact.	1. Calls the ACU and reports ETA CP.	1. ACU replies.	R6F THIS IS MISSION 8130 - OVER MISSION 8130 THIS IS R6F - ROGER - OVER

PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY ACU (c)	EXAMPLES OF PROCEDURES (d)
	Note: Exchange of callsigns serves as authorisation.		THIS IS MISSION 8130 - ESTIMATE CONTROL POINT IN 5 MINUTES - OVER
	2. Notes and acknowledges CP-information.	2. Informs aircraft of: a. When to leave CP. b. Initial vector/heading Note: The order to leave CP can be given in 4 different ways (see examples).	MISSION 8130 THIS IS R6F - LEAVE CONTROL POINT AS SOON AS POSSIBLE -INITIAL VECTOR 090 FOR 1 MINUTE (or INITIAL HEADING 090 - OVER) or : MISSION 8130 THIS IS R6F - LEAVE CONTROL POINT AT 1510 - INITIAL VECTOR 090 FOR 1 MINUTE (or INITIAL HEADING 090) - OVER or : MISSION 8130 - THIS IS R6F - LEAVE CONTROL POINT NOT LATER THAN/NOT BEFORE 1510 - INITIAL VECTOR 090 FOR 1 MINUTE (or INITIAL HEADING 090) - OVER
		3. Use of waiting area if appropriate. If aircraft is ordered to remain in waiting area a later leaving order must be issued.	MISSION 8130 THIS IS R6F - REMAIN IN WAITING AREA FOR ABOUT 10 MINUTES - OVER
	4. Gives full mission line-up on request.	4. Request full mission line-up (if necessary).	MISSION 8130 THIS IS R6F - REQUEST FULL MISSION LINE UP - OVER THIS IS MISSION 8130 - 2 TOMCATS WITH MISSILES - GROUND SPEED 450 KNOTS - REMAINING TIME 20 MINUTES - OVER

	PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY ACU (c)	EXAMPLES OF PROCEDURES (d)
(3)	Exchange of attack information.	Gives following:		
		1. Planned ground speed control point to initial point.	1. Time check, performed at controllers discretion.	
		2. Any changes to: a. Number and type of aircraft. b. Armament from TASMO accept/ refuse message.	2. Tactical control method.	MISSION 8130 THIS IS R6F - LOOSE ADVISORY CONTROL - OVER
			3. Provides following target information: a. Target description, and distance from CP, and tracking.	MISSION 8130 THIS IS R6F - TARGET INFO - YOUR TARGET 1FS MIRKA CLASS AND 3 OSA CLASS - TARGET POSITION 045 PURPLE TOWER 20 - TARGET TRACKING EAST SPEED HIGH -
			b. Hazards en route i.e. position of own friendly forces, hostile air, danger areas (peacetime).	MY POSITION 115 PURPLE TOWER 15 - 2 FRIENDLY DD - 160 PURPLE TOWER 20 - NO HOSTILE AIR -
			c. Weather, QNH, visibility, surface wind, sea state, cloud base.	WEATHER - QUEBEC NOVMBER HOTEL 990 - VISIBILITY 10 MILES - SURFACE WIND FROM 220 SPEED 10 KNOTS - SEA STATE 3 - CLOUD BASE 3000 FEET - OVER

NOTE: If the exact position of target is not available the following terminology should be used:

a. *Spot target* - If target position is known to be within a square of 1 nautical mile.
b. *Area target* - When within 3 nautical miles.

	PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY ACU (c)	EXAMPLES OF PROCEDURES (d)
(4)	Flight from Control Point (CP) to IP (see note).	Leaving CP (the A/C maintains silence from CP until detection of target).	Starts watches.	R6F THIS IS MISSION 8130 - LEAVING CONTROL POINT NOW - OVER
(5)	Aircraft under full radar surveillance from ACU.	1. Aircraft is coasting out on previously ordered heading (090).	1. Detects aircraft on radar, checks heading.	THIS IS R6F - ON MY GADGET-OUT
			2. Informs mission of next heading.	THIS IS R6F - NEXT HEADING WILL BE 360- OUT
			3. Updates target information.	THIS IS R6F - TARGET 10 O'CLOCK 15 MILES - OUT
		2. Turns to new heading.	4. Turns aircraft to new heading.	THIS IS R6F - TURN LEFT 360 - NOW - OUT
			5. Gives target information.	THIS IS R6F - TARGET 12 O'CLOCK 9 MILES - OUT
		3. Turns to new heading.	6. Corrects heading.	THIS IS R6F - TURN RIGHT HEADING 010 - NOW - THIS IS FINAL HEADING - OUT
			7. Informs that aircraft is in CP.	THIS IS R6F - YOU ARE AT INITIAL POINT - LOOK OUT - TARGET DEAD AHEAD 5 MILES - TARGET TRACKING 090 SPEED 28 - OUT

NOTE: IP (Initial Point) is a point from where the mission commences the final run-in for attack. It is established by the ACU according to local orders and it is based on the tactical situation/aircraft weapons.

(6)	Aircraft *not* under full radar surveillance from ACU (note).	1. Aircraft is coasting out on previously ordered heading (090 for one minute).	1. Gives target information.	THIS IS R6F - TARGET 10 O'CLOCK 15 MILES - OUT
			2. Informs mission of next heading.	THIS IS R6F - NEXT HEADING 360 - FOR 1 MINUTE - OUT

	PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY ACU (c)	EXAMPLES OF PROCEDURES (d)
			3. Updates target information.	THIS IS R6F - TARGET 9 O'CLOCK 14 MILES - TARGET NOW TRACKING 100 SPEED 28 - OUT
		2. Turns to new heading.	4. After 1 minute turns aircraft to new heading.	THIS IS R6F - TURN LEFT 360 - NOW - OUT
			5. Gives target information.	THIS IS R6F - TARGET 12 O'CLOCK 9 MILES - OUT
			6. Updates target information.	THIS IS R6F - TARGET 12 O'CLOCK 7 MILES - OUT
			7. After 2 minutes ACU informs that aircraft is in IP.	THIS IS R6F - YOU ARE AT INITIAL POINT - LOOK OUT - TARGET DEAD AHEAD 5 MILES - OUT
(7)	Run in from IP to target.	Detects target.	ACU maintains radio silence during attack.	R6F THIS IS MISSION 8130 - TALLY HO 12 O'CLOCK - OUT

NOTE: When aircraft is not under full radar surveillance the tactical direction is carried out as a preplanned dead-reckoning run. Exact knowledge of turning rates and speed of the controlled aircraft is essential.

Control after attack.	1. Reports attack completed.	1. Guide the mission back to CP. (ACU is to ensure safe passage for the mission back to CP or other suitable position outside weapon-range of enemy and/or friendly forces).	R6F THIS IS MISSION 8130 - ATTACK COMPLETED - OVER THIS IS R6F-ROGER-PIGEONS CONTROL POINT 215 - 19 MILES - OUT
	2. Observes friendly FF.	2. Reports friendly FF and guides A/C outside weapon range.	MISSION 8130 THIS IS R6F - FRIENDLY FF 2 O'CLOCK 8 MILES - STEER 200 - OVER
	3. Turns as directed.	3. Takes aircraft back to track.	THIS IS R6F - STEER 230 FOR CONTROL POINT - OVER

	PHASE (a)	ACTION BY AIRCRAFT (b)	ACTION BY ACU (c)	EXAMPLES OF PROCEDURES (d)
(9)	Reporting.	1. Coasting in and prepares INFLIGHT report. 2. Transmit INFLIGHT report	 Acknowledges INFLIGHT report.	R6F THIS IS MISSION 8130 - COASTING IN STANDBY FOR INFLIGHT REPORT - OVER THIS IS R6F - ROGER-SEND YOUR INFLIGHT REPORT - OVER R6F THIS IS MISSION 8130 - INFLIGHT REPORT: A. 045 PURPLE TOWER 20 B. 1509 C. 1FS MIRKA CLASS - 3 OSA CLASS ATTACKED - FS SERIOUSLY DAMAGED - 1 OSA SUNK - 1 AIRCRAFT LOST - OVER
(10)	Return to base.	Passes CP and commence flight from CP to base as directed by tasking agency for recovery.	ACU looses radar contact.	R6F THIS IS MISSION 8130 - RETURNING TO BASE - LEAVING YOUR FREQUENCY - OVER

CHAPTER 8

E L E C T R O N I C W A R F A R E C O O R D I N A T I O N S

SECTION I - GENERAL

801. *INTRODUCTION.*

(NC)

ATP-1 Vol.I and Vol.II, ACP 125 and APP-7 contain source material for this chapter, see also chapters 2 and 3 for other related reports.

802. *ELECTRONIC WARFARE INFORMATION.*

(NC)

Electronic Warfare information is passed on the reporting circuit appropriate to the platform of the target emitter. On some occasions it may be also convenient to have a dedicated EW co-ordination net (EW COORD) if sufficient equipment is available.

Circuit	E.W. information passed:	Circuit	E.W. information passed:
TG AAWC	A. ESM reports on airborne rackets	TG reporting	A. Surface/Sub surface ESM reports
UHF/HF	B. Zippo reports	UHF/HF	B. Surface/Sub surface data link management
	C. Control of ECM		
	D. AIR data link management.	ASW 'A'/'B'	A. All EW information between units on a SAG
			B. Data link management on a SAG
TACTICAL	A. EW equipment defects and failures		
	B. Signalled changes to the EMCON plan		

803. *USE OF CALLSIGNS.*

(NR)

The normal callsigns, as used on other nets, are to be used for EW reports on all circuits.

804. *TRAFFIC PASSED ON EW COORDINATION NET.*

(NR)

a. Reports on intercepts of electronic emissions.
b. Changes to the tasking of EW equipment's.
c. Control of triangulation.
d. Control of jammer and jamming procedures.
e. EW data link management

805. *ABBREVIATED PROCEDURES.*
(NR)

For abbreviated procedures see chapter 9 section IV.

SECTION II - TYPES OF EW REPORTS

820. *FLASH REPORT.*
(NR)

If an intercept is identified as an emitter from a platform which requires immediate action to be taken, a FLASH report is to be passed on the appropriate net. TDS fitted units may not be able to allocate a racket number immediately, to prevent any delay the following sequence of reports should be made:

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
FLASH report.	Known threat emitter. This followed by the allocation of a racket number:	THIS IS N - FLASH - DOWNBEAT - 025 OUT
Allocating a racket number to a FLASH report.	Four figure number taken from ship's tactical data system.	THIS IS N - DOWNBEAT 025 - IS DOWNBEAT 2260 - OUT

Only the first detecting unit makes a voice report on air rackets. All units are to report surface/sub surface, only the first reporting unit is to allocate the intercept a racket number, the remaining units make an "I hold report". If a missile head is detected and a ZIPPO is already in force then a "FLASH VOLCANO" report is made:

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Flash volcano report.	Missile head detected and a ZIPPO is already in force.	THIS IS N - FLASH - VOLCANO ACQUISITION - 025 - OUT

821. *INITIAL REPORT.*
(NC)

If an intercept (radar or communication) is identified as an emitter from a threat platform and does not require immediate action an "INITIAL REPORT" is to be passed on the appropriate net.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Initial report.	1. Report on a threat emitter not requiring immediate action. 2. Reported to the EWC.	1PD THIS 2CD - NEW PALMFROND 2261 - CONFIDENCE 2 - 045 - PALMFROND 2261 - OVER

Note: A confidence level is not required unless it is below three.

822. *ASSOCIATION REPORT.*
(NR)

This report is used to associate an EW racket to a track number. In doing so it will cease all EW reports on that racket until there is a change in that racket.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
ASSOCIATION report.	1. The associating unit calls all ships to change racket 2260 to 2344.	3YZ THIS IS 1PD - PALMFROND 2261 ASSOCIATES TRACK 2344 - NOW HOSTILE 2344 -DROP PALMFROND 2261 - OVER

823. *MISCELLANEOUS REPORTS.*
(NC)

The reports listed below are used to enable all units to compile or clarify the EW picture.

(Note: Reports must be encoded in a suitable tactical code (e.g. nuco) on uncovered nets.)

a. *I HOLD / I MAKE REPORT.*

1. When a unit, other than the one which has originated the FLASH/INITIAL REPORT of an electronic emission, has also intercepted the surface or sub-surface emission, an I HOLD REPORT is passed.

REPORT (a)	REMARKS (a)	EXAMPLES OF PROCEDURES (c)
I hold report.	Another unit reporting the same racket.	THIS IS 4RS - I HOLD RACKET 2261 - 270 -OUT

2. When a station disagrees with data of an electronic emission reported by another unit, an I MAKE report is passed.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
I make report.	PRF (codeword slope) 1600 Hz (racket 2261).	2CP THIS IS 4RS - I MAKE RACKET 2261 - SLOPE 1600 - OVER

b. *NEGATIVE REPORT.*

A station failing to intercept an emission after being ordered to report, is to pass a "NEGATIVE" report.

REPORT (a)	remarks (B)	EXAMPLES OF PROCEDURES (c)
Negative report.	Callsign 4AB ordered to report racket 2261.	THIS IS 4AB - RACKET 2261 - NEGATIVE - OUT

c. *CEASED/RESUMED REPORT.*

When a station no longer holds an emission, a ceased report with the last bearing is to be passed. If a previous identified emission resumes, a RESUMED report is to be passed.

REPORT (a)	REMARKS (b)	EXAMPLE OF PROCEDURES (c)
Ceased report.	Racket 2261 ceased.	1PD THIS IS 4AB - RACKET 2261 - CEASED - 182 - OVER
Resumed report.	If a radar resumes and is identified as a previous intercept.	1PD THIS IS 4AB - RACKET 2261 - RESUMED - 186 - OVER

If link is not available within a force for triangulation, the trout procedure should be used. To obtain an accurate racket cross fix of a surface/sub-surface emission it is necessary to collect two or more simultaneous bearings of the same intercept. The EWC activates this reporting procedure by the use of the codeword "TROUT". If the procedure involves the use of an aircraft then the aircraft should initiate the "TROUT". This allows for the aircraft to prepare and accurately work out its position.

REPORT (a)	REMARKS (b)	EXAMPLE OF PROCEDURES (c)
Trout report.	The EWC calls all ships to initiate the procedure.	S5W THIS IS 2CP - STANDBY TROUT RACKET 2261 - STANDBY - STANDBY - TROUT - OVER

All units should now report racket 2261 in callsign sequence, i.e. in alphabetical then numerical order. If unit does not hold the racket then a "NEGATIVE" report is made.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
	All station take a bearing at the instant, then.	THIS IS R4T - 130 - OUT THIS IS N4C - 141 - OUT THIS IS 2CP - NEGATIVE - OUT

e. *CRISSCROSS REPORT.*

When the bearings of a TROUT procedure have been plotted the EWC should report the racket area. The position when reported in latitude and longitude, GRID or a reference position should always be encoded in a suitable tactical code on an uncovered net.

REPORT (a)	REMARKS (b)	EXAMPLE OF PROCEDURES (c)
Crisscross report		S5W THIS IS 2CP - RACKET 2261 - NOW CRISSCROSS 2261 - 225 ZZ 100 - DROP RACKET 2261 - N4C - OVER

f. *RENT REPORT.*

A RENT report contains characteristics of an intercepted signal and may be asked for by the EWC if no identification can be found after analysis.

REPORT (a)	REMARKS (b)	EXAMPLE OF PROCEDURES (c)
Rent report.	EWC calls for RENT report. UNIT PASSES HIS RENT REPORT.	R5W THIS IS J5C - RACKET 2261 - GIVE RENT - OVER J5C THIS IS R5W - RACKET 2261 - RENT 9430/840/1.0/4.0A - OVER

Note: 1. The RENT always follows this sequence: RF/PRF/PW/SP.
2. Any unknown portion of the sequence must be represented by the word "UNKNOWN".

g. *DROP RACKET REPORT.*

When the EWC considers that an EW racket has ceased or identified as friendly or a unit made an ASSOCIATION report, the order to DROP a reported electronic emission will be issued in order to reduce the number of EW rackets.

REPORT (a)	REMARKS (b)	EXAMPLE OF PROCEDURES (c)
Drop racket report.	EWC calls all ships to drop.	3YZ THIS IS 1PD - DROP RACKET 2260 - I5C - OVER

The EWC may drop rackets by making a racket sitrep, in which he will only report the rackets in force.

h. *RACKET SITREP REPORT*

The EWC issues racket sitreps on all outstanding intercepts. A sitrep report should be made after every raid, on the return of SAG units and periodically when in an heavy environment.

REPORT (a)	REMARKS (b)	EXAMPLE OF PROCEDURES (c)
EW sitrep.	EWC passes sitrep to all ships. (Two interceptions are identified and one interception 3320 is still under investigation).	3YZ THIS IS 1PD - RACKET SITREP - DOWNBEAT 2260 - HEADNET 3320 - RACKET 3320 - REMAIN IN FORCE - J4T - OVER

There should be no requirement to state the identity or the bearing of the racket, units should already be in possession of that information in their racket totes. Rackets not included in the sitrep are automatically dropped. However, units returning from a SAG will not be in possession of an accurate EW picture, therefore the EWC will have to pass a RACKET SITREP in full to the returning SAG units, after receiving a full SITREP from the returning SAG EWC.

REPORT (a)	REMARKS (b)	EXAMPLE OF PROCEDURES (c)
Full racket sitrep.		1PD THIS IS F2U - RACKET SITREP - TOP PLATE 2262 - 136 - OVER

SECTION III - JAMMING PROCEDURES

830. *JAMMING REPORT.*
(NC)

a. Jamming reports should be used outside ZIPPO calls. This is to reduce the number of reports made during raids. Should the EWC have to order jamming, the following report is made:

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
JAMMING.	EWC calls unit to jam racket 2263.	2CD THIS IS 1PD - CANYON RACKET 2263 - OVER

b. Unit(s) should then JAM the racket indicated using the recommended mode of jamming until told otherwise or it ceases. Any preplanned jamming response laid down in the OPGEN/OPTASK EW should be initiated by the codeword "POND", APP-7 refers.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
	EWC calls unit to stop jamming racket 2263.	2CD THIS IS 1PD - CEASE CANYON RACKET 2263 - OVER

SECTION IV - ANTI JAM COUNTERMEASURES

840. *METHODS.*

(NC)

Standard anti jam countermeasures are listed in ATP-1. All shift orders are to be ordered with the "I SAY AGAIN" method on voice nets. All shift orders are to be acknowledged by the addressees either by coming up on the new frequencies which can be considered as an implied acknowledgement, or by separate signal. On completion of the shift all units are to report into the net formally.

841. *ORDERING CIRCUIT SHIFT BY TACSIG/VISUAL SIGNALLING.*

(NC)

When it is impossible to promulgate a frequency shift on voice nets due to the level of ECM, it will be ordered by TACSIG or by visual signalling, also following the form in the examples below.

COUNTERMEASURE (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
1. One.	Shift indicated circuit to indicated frequency.	1EF THIS IS 1PD - KICK ALFA (line identifier) 3 (column identifier) - I SAY AGAIN .....(AUTHENTICATION) - OVER
2. Two.	Units addressed shift indicated circuit to indicated frequency and unit(s) indicated by codeword WALTZ, start(s) parallel keying by continuing to transmit on the current frequency.	1EF THIS IS 1PD-KICK ALFA (line identifier) 8 (column identifier) - 1PD WALTZ I SAY AGAIN ..... (AUTHENTICATION) - OVER
3. Three.	Change from the current frequencies to indicated column on all nets mentioned in the current EPM complan. Change from the current frequencies to indicated column from complan ROMEO on all nets.	1EF THIS IS 1PD - DANCE 3 (column identifier) - I SAY AGAIN ..... (AUTHENTICATION) - OVER 1EF THIS IS 1PD - DANCE ROMEO (complan designator) 3 (column identifier) - I SAY AGAIN ..... (AUTHENTICATION) - OVER
4. One/Four.	Frequency shift to columns nominated i.e. change from day to night frequencies from different columns for two circuits. Frequency shift for three circuits to frequencies from one column.	1EF THIS IS 1PD - KICK ALFA (line identifier) 3 (column identifier)- KICK BRAVO (line identifier) 8 (column identifier) - I SAY AGAIN ..... (AUTHENTICATION) - OVER 1EF THIS IS 1PD - KICK ALFA - BRAVO - CHARLIE (line identifiers) 8 (column identifier) - I SAY AGAIN ..... (AUTHENTICATION) - OVER

COUNTERMEASURE (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
5. Five.	Frequency shift to part of radiospectrum clear of jamming (Column 3 provides for frequencies in a specific part of radio spectrum).	1EF THIS IS 1PD - DANCE 3 (column identifier) - I SAY AGAIN ..... (AUTHENTICATION) - OVER
6. Six.	Frequency shift to TF/TG MF.	1EF THIS IS 1PD - KICK ECHO (line identifier) 8 (column identifier) - I SAY AGAIN ..... (AUTHENTICATION) - OVER
7. Seven.	Set watch on underwater telephone.	1EF THIS IS 1PD - SET WATCH ON GERTRUDE - I SAY AGAIN ..... (AUTHENTICATION) - OVER
8. Eight.	Revert to morse on this circuit.	1EF THIS IS 1PD - SIGNALS - CHARLIE MIKE 6 TACK 10 - I SAY AGAIN ..... (AUTHENTICATION) - OVER.

NOTE: The orders to shift frequencies can also be given using the executive method.

CHAPTER 9

MISCELLANEOUS PROCEDURES

SECTION I - DELAY OF CALLSIGNS

901. *MISFIT procedure.*
(NC)

a. The MISFIT procedure is used by the OTC to extend the effective period of encrypted callsigns.

b. MISFIT is effective over all voice radio circuits using encrypted callsigns. MISFIT procedures may also apply to other circuits, using encrypted callsigns, if specified by the OTC. Upon receipt of the codeword MISFIT the force will continue to use current encrypted callsigns until further notice.

c. Transmission authentication must be included in any MISFIT message.

NOTE: The MISFIT procedure is also used to delay Block allocation and PU number changes when a force is engaged in action at a time when such changes should normally take place.

EXAMPLE: 3YZ THIS IS 5CU - EXECUTE MISFIT - (AUTHENTICATION) - OVER

902. *CHARTER procedure.*
(NC)

a. The CHARTER procedure is used by the OTC to terminate the MISFIT procedure. Upon receipt of the codeword CHARTER the force is to adopt the encrypted callsigns listed for the current period at the time given. (The time element of the CHARTER procedure is to be encoded).

EXAMPLE:
3YZ THIS IS 5CU - EXECUTE CHARTER - NUCO (0100) UNNUCO - (AUTHENTICATION) - OVER

SECTION II - SPOOFING ON RADIO CIRCUITS (GINGERBREAD)

920. *SPOOFING.*
(NC)

a. Spoofing is a means of disrupting and confusing radio circuits by passing false messages or orders using the callsign of a friendly unit within the task group. If the friendly unit does not recognise that another unit is using its callsign to pass messages or orders, other units of the task group may believe the false message or orders and act upon them.

b. The codeword GINGERBREAD is used to alert operators to spoofing on the net. Spoofing can be countered by authentication (see ACP 122 Section IV) and strict adherence to circuit discipline.

c. This procedure may be initiated as follows:
GINGERBREAD GINGERBREAD - THIS IS 7BF (AUTHENTICATION) - OUT

SECTION III - COMMUNICATIONS SECURITY/BEADWINDOW PROCEDURE

930. *INTRODUCTION AND PROCEDURES.*
(NR)

a. *Introduction.*
To assist in the development of good COMSEC procedures, the use of BEADWINDOW procedures is encouraged. A properly executed BEADWINDOW procedure provides increased circuit discipline and operators awareness, and can provide commanders with a feedback mechanism which can be readily integrated into the overall communications security assessment. BEADWINDOW procedures provide a quick means of identifying the disclosure of an Essential Element of Friendly Information (EEFI) on specific types of information which would help a real or potential enemy in his intelligence collection.

b. *Procedures.*
When any station on the net discloses an EEFI, the Net Control Station is to call the station making the disclosure and say BEADWINDOW, followed by the appropriate number of the EEFI disclosed. In the event of in-action by the Net Control Station, any station on the net may initiate a BEADWINDOW report. The only correct reply to a BEADWINDOW message is ROGER - OUT.
The defaulting station should not try to correct his fault by means of a further transmission.

Example:
2VT THIS IS 4GH - BEADWINDOW ZERO ONE - OVER

c. Each unit is to post the list of EEFI's listed in ACP 125 at all voice communication positions.

SECTION IV - ABBREVIATED PROCEDURES

940. *INTRODUCTION.*

(NC) When all stations are in good communication and participating operators are experienced, a Net Control Station (NCS) may authorise abbreviated procedures to be used on a specific net. In this event the following rules apply:

a. *Addressees callsign.*
All messages are automatically taken as being addressed to all units unless otherwise indicated. Addressees callsign may therefore be omitted.

EXAMPLE: THIS IS 7BF - MY PONY ALERT 5 - OUT

b. *Preliminary calls.*
A preliminary call is only to be used when the risk of a missed message warrants it or in other cases where the importance of the message makes it desirable.

c. *Message end.*
Whenever possible transmissions on the net should en with "OUT".

d. *Receipt.*
Stations may receipt for a message simply by transmitting their callsign.

e. *Acknowledgement.*
Acknowledgement requests should only be made to one station and are only mandatory for FLASH-messages, initial contact reports or when manoeuvring in close ASW action. Additionally an acknowledgement should always be sought from MPA and helicopters when the chances of a missed transmission are at all likely, or when changing task control rules or for any other vital message.

f. *Positional data.*
In order to ensure correct receipt of FLASH- and INITIAL reports which contain bearing and distance positional data and to associate those reports with the correct originator, units are to use the following form:

EXAMPLE: THIS IS 4AB - FLASH - SINKER - 135 CALLSIGN 4AB RANGE 63 - 5CU OVER

NOTE: If the position is given in GRID, the identity of the reporting unit is less important. For this type of message "I say again" could very well be used, in itself being no abbreviation but greatly to the chances of initial receipt.

g. *Radio checks.*
Radio checks are not allowed when abbreviated procedures are in force.

h. When abbreviated procedures are being used, abbreviation of callsigns in accordance with para 104(8) will be in force automatically.

i. After frequency shifts adequate authentication of vital information is preferred over the necessity for all units to report into net formally.

941. *USE OF THE ABBREVIATED ALARM PROCEDURE ON TF/TG TACTICAL NET*
(NC)

a. *Introduction*

This procedure may be used when there is a requirement to reduce the length of transmission and so improve reaction times of those Main Body units who are unable to monitor AAWC or any circuit other than TF/TG TACTICAL.

b. *Alarm reports*

The following Alarm Reports, as used on other tactical circuits, may be used on TF/TG TACTICAL to ensure the rapid dissemination of urgent information.

1. Reporting enemy radar intercepts.
   Use the radar nickname (or Racket) followed by the bearing (plus the track number if required).(Para 322)

2. Reporting air contacts.
   Use the relevant brevity words as authorised for the use on the AAWC net, followed by the bearing and distance (plus track number if required) (Para 130)

3. Reporting missiles.
   Use the relevant brevity words as authorised for the use on the AAWC net, followed by the bearing and distance (plus track number if required). (Para 322)

4. Reporting surface contacts.
   Use the relevant brevity words as authorised for the use on the Reporting and ASW nets, followed by the bearing and distance (plus track number if required). (Para 210)

5. Reporting imminent danger.
   Use "Heads Up" followed by any other information available. (Para 313)

6. Reporting Sub-surface contacts.
   Use the relevant brevity words as authorised for the use on the Reporting and ASW nets followed by the bearing and range (plus track number if required). (Para 655)

7. Zippo's.
   These should be repeated on TF/TG TACTICAL in accordance with current instructions using abbreviated alarm procedure. (Para 362)

c. *Procedure*

1. Precedence.
All alarm reports on TF/TG TACTICAL are to be of FLASH precedence and preceded by the proword "FLASH" in place of the station called component. The prowords "FLASH, FLASH, FLASH" are to be employed if the circuit is already in used by another station and Break-in procedure is required.

2. Originator's identity.
The proword "THIS IS" followed by the callsign of the transmitting station.

3. Text.
The text is to consist of a brevity word/nickname together with the bearing, distance/range (and track number if required). All bearings and distances/range are to be measured from the transmitting unit unless otherwise indicated. If necessary, an Emergency Alarm/Action signal may be added. (ATP 1 Vol2 Ch3)

4. Ending.
The transmission should normally be ended with the proword "OUT". Authentication is normally to be used adopting the abbreviated form (Policy A) when required, but time groups are not to be added.

SECTION V - OVER THE HORIZON TARGETING (OTHT)

950. *INTRODUCTION*

Surface target data from the TRU can be transferred to his controlling unit by "GREYHOUND/BULLDOG/SURPIC" voice reports.
The COVEC procedure can be used to disguise ranges and bearings passed on uncovered radio nets.

951. *OTHT - PROCEDURES.*

(NC)

a. Any unit recognising where OTHT procedures should be used may initiate a request for assistance using the procedure GREYHOUND. This request is made to the OTC or delegated authority.

b. After deciding to commit assets to OTHT, the OTC or delegated authority orders the execution of GREYHOUND to both the Target Reporting Unit (TRU) and the assigned firing unit(s).

c. The attack phase requires an exchange of information between the firing unit(s) and the TRU to co-ordinate reports of target, target position and movement.

	PHASE (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(1)	GREYHOUND request.	1. TRU reports: a. Target(s) track identity and/or classification and track number. b. Target(s) position. c. Target(s) course, speed and time. d. TRU position. e. Intentions.	5CU THIS IS 1ZH - REQUEST GREYHOUND - ALFA - HOSTILE 5012 - 1 KRESTA - BRAVO - NUCO (RED 275 TACK 010) UNNUCO - CHARLIE - NUCO (020-20) UNNUCO - 1230 - DELTA - NUCO (RED 200 TACK 010)-ORBITTING- ECHO - WILL MAINTAIN CONTACT - OVER
		2. OTC/delegated authority orders the execution, giving: a. Target(s) track number. b. Firing unit(s) callsign and position. c. TRU callsign and position. d. 1. Link net. 2. Voice net. e. Reference position. f. Amplifying information (if required).	1EF 1ZH THIS IS 5CU EXECUTE GREYHOUND - ALFA - HOSTILE 5012 - BRAVO - 1EF NUCO (RED 212 TACK 012) - CHARLIE - 1ZH - NUCO (RED 200 TACK 012) - ORBITTING - DELTA 1 - NUCO (SF 600) UNNUCO - 2 - NUCO (SF 328) UNNUCO - ECHO - NUCO (RED 198 TACK 023) UNNUCO - FOXTROT - NIL - OVER

	PHASE (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
(2)	attack (BULLDOG).	1. Firing unit orders to commence targeting, giving the method of reporting target(s) position.	1ZH THIS IS 1EF - REPORT FOR BULLDOG - METHOD ALFA - HOSTILE 5012 (AUTHENTICATION) - OUT
		2. TRU replies giving target(s) updated position (in this case using method ALFA from TT) and the target(s) and speed. or: Reports position using COVEC procedure.	THIS IS 1ZH - REPORTING FOR BULLDOG - ALFA - HOSTILE 5012 - STANDBY - ... - MARK - 230TT75 - RADIUS 1000 YARDS - TRACKING 120 -SPEED 20 - NO OTHER CONTACTS IN AREA - OVER ....-MARK-COVEC 290TT85 X-RAY-TRACKING...
		3. TRU reports attack results.	1EF 5CU THIS IS 1ZH - HOSTILE 5012 - DAMCAT GOLF TWELVE FOXTROT- OVER (See ATP 1 VOL II RE-6)

NOTE: Although this procedure can be used on any net, depending on the type of TRU, it normally shall be done on REPORTING or ACTION net.

952. *SURPIC.*

Surpic is a voice message procedure for reporting the position and disposition of a contact or group of surface contacts during targeting operations. It is used primarily to provide a surface picture. Radar contacts in the target group are reported by bearing and range from the high value unit (HVU). If the HVU cannot be recognised, the contact nearest to the centre of the group is used. SURPIC messages are time authenticated. The abbreviated SURPIC message is an update of the target's position, time and MLA.

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Surpic.		THIS IS J9G SURPIC
	A - HVU geographic position	ALFA - 5913N8 01410W6
	B - Position accuracy	BRAVO - XRAY
	C - Data time	CHARLIE - 1500Z
	D - Reporting	DELTA - 03 PROB CHARLIE GOLF (note 1) 01-350-4 POSS JULIET VICTOR (note 2) 02-355-5 POSS JULIET VICTOR
	E - MLA of HVU	ECHO - 210-20
	F - as required F1- Changes to MTOT F2- Changes to gates F3- Significant low-level weather F4- B52 egress left or right F5- Organic air gate assignment F6- Any other information	FOXTROT -THREE-70-15 -5-8 OCTALS 100FT-3MM FIVE-XRAY TWO MIKE COVEC 150-180
	G - HVU geographic position(repeat of para A)	GOLF - 5913N8 01410W6
	Transmission authentication	AUTHENTICATION PAPA DELTA

REPORT (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Abbreviated Surpic.		THIS IS A4X SURPIC
	A - HVU geographic position	ALFA - 6208N6 01055W1
	C - Data time	CHARLIE - 1506Z
	E - MLA of HVU	ECHO - 090-15
	Authentication	AUTHENTICATION XRAY ALFA

Note 1: Bearing/range field will always be 000/00 and is therefore not transmitted.
Note 2: Contact serial numbers (1-99), once allocated, are to remain with that designated contact throughout the period of support. If it is determined that the HVU is other than DELTA 01, the new HVU position will be reported in blocks ALFA and GOLF and will be reported first in block DELTA (i.e. DELTA 03 PROBCG,01 350-4 POSS LOW JV, 02 355-5 POSS LOW JV).

953. *COVEC VALUE.*

COVEC is used to disguise ranges and bearings passed on non-secure radio nets. If The enemy bears 210 (degrees) at 22 nm, the reported position with a COVEC correction of +40 is 250 (degrees) at 62 nm.
The COVEC value is always the same for bearing and distance and is always positive to obviate a negative resultant distance. The COVEC value is a multiple of 10 with a minimum of 40 and a maximum value of 100.
To ensure it is appreciated that this procedure is in use, the word COVEC precedes range and bearing.

The following example illustrates the above:

6DC THIS IS 1ZH - HOSTILE 2110 STANDBY MARK - COVEC 250 TACK 62 - OVER

SECTION VI SUB/AIR AND SUB/SURF COORDINATION/COOPERATION

960. *RENDEZ VOUS*

Rendezvous messages should be used to ensure thorough and rapid exchange of tactical information between co-operating units. Messages should be compiled and ready for transmission prior to rendezvous. Blank lines should not be transmitted.

Message (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
AIR to SUB rendezvous message.	Addressees: Submarine Originator: Aircraft Classification as appropriate Subject indicator as appropriate Exercise or operation identification Message identifier ALFA - Contact summary (within 100nm or as directed) BRAVO - Tactical intentions (Note 1) CHARLIE- Off task time (Note 2) DELTA - Number of Airmail messages ECHO - Remarks (Note 3)	C7E This is K2R RENDEZVOUS ALFA HOT/POSSUB LOW/NUCLEAR TYPE TWO/SIX TWO FIVE ZERO NORTH THREE/ZERO ONE ZERO ZERO WEST ONE BRAVO INVESTIGATE AND LOCALIZE CHARLIE ONE TWO ZERO ZERO ZULU THREE DELTA TWO ECHO REQUEST SUNLAMP

Notes:
1. Sensor policy/search intentions, etc.
2. The aircraft may be requested to extend the On Task Time until its Prudent Limit Of Endurance (PLE)- the time during which an aircraft can remain airborne and still retain a given safety margin of Fuel.
3. Bathy request if necessary/alteration of comms lines/homing aid, etc.

RENDEZVOUS PROCEDURE
- SUBMARINE CALL - STANDBY/READY FOR RENDEZVOUS MESSAGE
- SUBMARINE ACKNOWLEDGEMENT OF THE MESSAGE
- SUBMARINE INITIATES TIMECHECK
- ESTABLISHMENT OF RELATIVE POSITIONS DIKE, SIDEWALL, GLOBAL

Message (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
SUB to AIR rendezvous message.	Addressees: Aircraft Originator: Submarine Classification as appropriate Subject indicator as appropriate Exercise or operation identification Message identifier ALFA - Contact summary BRAVO - Submarine current position MLA/SOA CHARLIE - Tactical intentions/Search Plan/Comm Policy DELTA - Expendable Communication Buoy (ECB).SLOT buoy channels available. ECHO - Number of POSTBOX messages with relay instructions FOXTROT- Next rendezvous, POSN/time/ method (using the Flushing Message Format) GOLF - Remarks: These should include ZID number and weapon status at the initial rendezvous and at subsequent rendezvous if changed. The aircraft is to relay to SUBOPAUTH.	K2R This is C7E RENDEZVOUS ALFA COLD/ZERO SIX ZERO DEGREES SIX/PLUS OR MINUS FIVE DEGREES/SIX TWO FIVE FIVE NORTH EIGHT/ZERO ONE ONE ZERO ZERO WEST TWO/ZERO FOUR ONE THREE ZULU EIGHT BRAVO SIX TWO ZERO ZERO NORTH EIGHT/ZERO ONE ZERO THREE ZERO WEST FOUR/ZERO FIVE ZERO DEGREES FIVE/SIX KNOTS SIX CHARLIE REGAIN CONTACT DELTA CHANNELS TWO SEVEN AND TWO NINE ECHO DELAY ONE/SHORE TWO FOXTROT FLUSHING ONE ZERO ZERO ZERO ZULU ONE GOLF ZID ZERO EIGHT FOUR/ONE SIX CHECKSUM SEVEN MARK FOUR EIGHT/FOUR CHECKSUM FOUR HARPOON

961. *PRE-RECORDED SLOT BUOY INITIAL CONTACT REPORT*

a. This message permits a support submarine gaining contact to pass an initial contact report to the OTC/ASWC via aircraft relay without leaving search depth. For brevity, the call-up consists of only submarine identification. All initial SLOT buoy messages are transmitted uncovered in plain language.

b. No date-time reference is included in the initial report. The unit that copies the SLOT buoy shall note time-of-receipt and channel number of the SLOT buoy and include that information in the relay transmission (see example).
Initial contact reports are to be relayed as quickly as possible. Aircraft should not delay the relay transmission until it can mark-on-top of the SLOT buoy. After the relay unit locates the position of the buoy an additional report with this information is sent.

c. *EXAMPLE*

A friendly submarine, call sign C7E, has gained contact on a possible submarine contact, confidence level THREE, estimated to be within weapons range. The contact is reported on a pre-recorded SLOT buoy on the designated alertment channel 27. This submarine has previously reported three other possible submarine contacts.

Message (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Pre-recorded SLOT buoy initial contact report.	Addressees: Not used (OTC/ASWC is implied) Originator: Support submarine making contact Initial contact report Locating (number) serial (number) Distant or Near (as appropriate)	 THIS IS C7E INITIAL CONTACT REPORT LOCATING FOUR SERIAL ONE NEAR

d *EXAMPLE:*

A P3C aircraft, call sign K2R, has copied the SLOT buoy message from example para c at 131220z and is relaying to the ASWC (call sign L8P) on a secure voice UHF net. The aircraft is proceeding to mark on top the SLOT buoy. At that time, it will relay the buoy position.

Message (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
Relay of SLOT buoy report.		L8P THIS IS K2R I RELAY SLOT BUOY CHANNEL TWO SEVEN BREAK FROM C7E INITIAL CONTACT REPORT LOCATING FOUR SERIAL ONE NEAR BREAK TIME OF RECEIPT ONE THREE ONE TWO TWO ZERO ZULU NINE PROCEEDING TO MARK ON TOP SLOT BUOY OVER

962. *CALL FOR ASSISTANCE/CONTACT HANDOVER PROCEDURE*

- Air response NOCOP, WORKING, NEGATIVE
- Aircraft co-ordination message (iaw ATP-28), Aircraft co-operation message
- Submarine acknowledgement of the co-ordination/co-operation message
- Submarine reply to contact handover negative handover, handover accepted, delay handover until

a. This message is used to pass contact from one ASW platform to another for the submarine to request assistance from an ASW aircraft. The following procedure are applicable;

(1) Handover from submarine to aircraft will be initiated by an exchange of call signs followed by the words "CONTACT HANDOVER". The aircraft will answer by indicating readiness for handover and the latest amplifying report received or advise if it is unable to accept the handover. The submarine will then transmit the Contact Handover message. Information and its line item identifier (e.g. CHARLIE) which the aircraft has already received via amplifying report may be omitted.

(2) Contact position may be given in any of the following.
(The radius of the area of probability in which the contact is located may be included).
a. Geographic co-ordinates.
b. True bearing and distance in nautical miles from a standard reference position.
c. Cartesian Co-ordinate Grid or in reference to the Data Link Reference Point (DLRP).

(3) The unit assuming responsibility for prosecution of a contact shall make a positive statement to the unit relinquishing contact that it has assumed prosecution duties. Handover will be reported by the new SAC to operation controlling authority.

b. *EXAMPLE: call for Assistance*
A submarine, callsign K2R, is requesting assistance from an aircraft, call sign C7E. The submarine is passing its location and best estimate of target position to the aircraft. The submarine intends to reposition and re-establish communications with the aircraft in approximately two hours.

	Remarks (a)	Examples (b)
(a)	Addressee: Aircraft providing assistance/unit (submarine or aircraft) receiving contact handover. Aircraft (call for assistance or contact handover message.	C7E THIS IS
	Originator: Submarine requesting assistance/unit (aircraft or submarine) handing over contact.	K2R
	Message ID: Call for assistance or contact handover	CALL FOR ASSISTANCE

	Remarks (a)	Examples (b)
(b)	Alfa : Locating (number) serial (number) Bravo : Target classification (and confidence level) Charlie : Type and operating mode Delta : Contact or Datum Position If HOT - True bearing/bearing accuracy or latitude/longitude If COLD Last bearing/accuracy/position of origin (to include ambiguous bearing if unresolved) or last latitude/longitude TMA range bracket/confidence level (Good, Moderate, Poor) (for reported bearings only)	ALFA LOCATING TWO SERIAL TWO BRAVO POSSUB THREE CHARLIE TYPE II NUCLEAR DELTA COLD/060/5/6255N8/00958W2 TMA 20 TO 40 MILES/MODERATE

	Echo : Contact course/speed or direction of movement (e.g. south, south-east, north, etc.)	ECHO 350/8
	Foxtrot :: Additional contact information (e.g. target signature in Hz in order of signal strength)	FOXTROT (TARGET TONALS)/FADING/SHALLOW/SINGLE SHAFT
	Golf : Time of contact/datum position (ZULU)	GOLF 1000Z
	Hotel : Instructions/remarks (if applicable) 1. Submarine intentions 2. Aircraft action 3. (Additional information as required. e.g. SGSA or NOTACK established)	HOTEL ONE INTEND TO SPRINT TO NEW LOCATION AND REESTABLISH COMMUNICATIONS IN TWO HOURS: STANBY FOR NOTACK TWO LOCALIZE AND TRCK TARGET. REPORT SITUATION AT NEXT COMMUNIATION PERIOD
	India : Own position/course/speed/time (submarine only)	INDIA 6345N8/01003W/350/5/1020Z

c. *EXAMPLE CONTACT HANDOVER*

An aircraft, callsign C7E, is handing over a contact to a submarine, callsign K2R. The aircraft is passing the target's current position, course and speed to allow the submarine to intercept. The aircraft is remaining on station to provide additional location information to the submarine as required.

	Remarks (a)	Examples (b)
(c)	Alfa : Locating (number) serial (number) Bravo : Target classification (and confidence level) Charlie : Type and operating mode Delta : Contact or Datum Position If HOT - True bearing/bearing accuracy or latitude/longitude If COLD - Last bearing/accuracy/position of origin (to include ambiguous bearing if unresolved) or last latitude/longitude TMA range bracket/confidence level (Good, Moderate, Poor) (for reported bearings only)	K2R THIS IS C7E CONTACT HANDOVER ALFA LOCATING ONE SERIAL ONE BRAVO POSSUB CHARLIE TYPE II NUCLEAR DELTA HOT/6405N5/01112W5

	Echo : Contact course/speed or direction of movement (e.g. south, south-east, north, etc.) Foxtrot : Additional contact information (e.g. target signature in Hz in order of signal strength) Golf : Time of contact/datum position (ZULU) Hotel : Instructions/remarks (if applicable) 1. Submarine intentions 2. Aircraft action 3. (Additional information as required. e.g. SGSA or NOTACK established) India : Own position/course/speed/time (submarine only)	ECHO 150/8 FOXTROT (TARGET TONALS)/DEEP GOLF 1145Z HOTEL ONE INTERCEPT TARGET TWO MAINTAIN TRACK PROVIDE CONTACT REPORTS ON REQUEST

963. *SUBMARINE GENERATED SEARCH (SGSA) ESTABLISHMENT*

This message establishes an SGSA with an SGSA co-ordinating authority or unit. Transmission may be via two-way communications (voice, LDR or HDR) or SLOT buoy.

Times are indicated as date-time-groups, each with a checksum digit.

When the SGSA establishment message is transmitted by two-voice, the message must be read back for verification. Any incorrect checksum digit invalidates the SGSA establishment message and a new SGSA establishment message must be transmitted.

If sent by SLOT buoy, the message must be copied independently by two separate aircrew members and match exactly.

The submarine may use any of the following to establish the SGSA:

(1) Lat/Long: defined by Lat/Long,
e.g. LAT-LONG/5630N4/02230W7/5700N2/02300W5

(2) Grid: defined by pre-established ASW gird assignments,
e.g. GRID/GENEVA FIVE

(3) Circle: defined by centre point and radius (nm),
e.g. CIRCLE/5700N2/02299W4/30NM3

(4) Line: defined by side of a line/reference point,
e.g. LINE/EAST OF 03700W0 WITHIN JTAA

Precedence is not indicated. All SGSA establishment messages are handled as immediate execute tactical signals.

EXAMPLE

USS Baltimore is establishing an SGSA with ASWC (who is functioning as the SGSA co-ordinating authority). The SGSA could also be established in the periodic situation report (SITREP).

	Remarks (a)	Examples (b)
		O 191657Z APR XX
(a)	Originator: Submarine establishing the SGSA	FM USS BALTIMORE
	Addressee : SGSA Co-ordinating authority/unit	TO CTU 21.01.02
		NATO CONFIDENTIAL
		SIC AIB/LGQ
		EXER/TEAMWORK
	BULLPEN BULLPEN BULLPEN	BULLPEN BULLPEN BULLPEN
	Serial : (Date - #)	SERIAL (19-3)
	Start : SGSA start time (DTG)	START 191700Z8 APR
	Stop : SGSA stop time (DTG)	STOP 200300Z5 APR
	Area : Geographic reference co-ordinates within which the submarine shall remain (encoded).	AREA GENEVA FOUR CHARLIE, FIVE DELTA

964. *SGSA CANCELLATION*

These messages are used to cancel an SGSA before its expiration time.

The submarine must remain within the SGSA until receiving cancellation concurrence (code word: FREEWHEEL) from the SGSA co-ordinating authority/unit.

The SGSA co-ordinating authority/unit shall not concur with the submarine cancellation request until he has verified that no ASW attacks have been authorised in the portion of the JTAA outside the SGSA.

If attacks have been authorised, the SGSA co-ordinating authority shall advise the submarine that ASW attacks may be in progress outside the SGSA and deny the cancellation request. If desired, the SGSA co-ordinating authority may conduct those units which received attack authorisation and cancel the authorisation. Once all attack authorisations have been cancelled, the SGSA co-ordination authority may send the SGSA Cancellation Concurrence message to the requesting submarine.

EXAMPLE's

- A submarine, callsign C7E, has requested to cancel its SGSA serial 20-1. The ASWC is functioning as SGSA co-ordinating authority.

Message (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
SGSA cancellation request	DTG : (Omit is sent by voice)	
	Addressee : SGSA co-ordinating authority/unit	AX THIS IS
	Originator: Submarine	C7E
	CANCEL BULLPEN REPEAT CANCEL BULLPEN	CANCEL BULLPEN REPEAT CANCEL BULLPEN
	MY SERIAL (Date #)	MY SERIAL TWO ZERO TACK ONE CHECKSUM THREE

The ASWC (functioning as SGSA co-ordinating authority) has verified that no attacks have been authorised in the portion of the JTAA outside the SGSA and is granting SGSA cancellation concurrence to a submarine, callsign C7E.

Message (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
SGSA cancellation concurrence	Addressee : Submarine Originator: SGSA co-ordinating authority/unit YOUR DTG (or SGSA serial - #) FREEWHEEL FREEWHEEL FREEWHEEL	C7E THIS IS AX YOUR TWO ZERO TACK ONE CHECKSUM THREE FREEWHEEL FREEWHEEL FREEWHEEL

965. *JTAA ATTACK AUTHORIZATION*

These messages are used to authorise attacks within a JTAA but outside an established SGSA. Attack authorisation must provide SGSA location in latitude/longitude co-ordinates. If the co-ordinates along with the serial number of the SGSA currently in effect have already been passed to the attacking platform, only the serial number / code name and STOP time need to be transmitted. The SGSA co-ordinating authority must verify that the target is outside the SGSA (and inside either the remainder of the JTAA) before authorising the attack. The attacking unit must do likewise before conducting its ASW attack.

EXAMPLE'S:

- An MPA with callsign K2R is requesting authorisation from the ASWC (functioning as the SGSA co-ordinating authority) to attack an assumed enemy submarine.

Message (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
JTAA attack request	Addressee : SGSA co-ordinating authority/unit Originator: Attacking unit (Surface or Air) Request take (track #) Classified (_____) Posit (lat/long/time (DTG))	AX THIS IS K2R REQUEST TAKE GOBLIN TWO EIGHT CLASSIFIED PROBABLE KILO POSIT SIX THREE TACK FIVE TWO NORTH SIX SLANT

		ZERO ONE ZERO TACK TWO FIVE WEST EIGHT SLANT TWO ZERO ZERO ONE ZERO THREE ZULU SIX
	With (weapon)	WITH BLOODHOUND

The ASWC (functioning as the SGSA co-ordinating authority) is authorising an MPA with callsign K2R to conduct an attack on an assumed enemy submarine. In this example, the ASWC has defined the SGSA location by latitude and longitude.
Alternatively, if the SGSA co-ordinates and serial number had already been passed to the attacking platform, the SGSA location could be defined by the SGSA serial number,

e.g. "BULLPEN AREA SERIAL ONE NINE TACK THREE CHECKSUM THREE".

An attack authorisation time must always be passed regardless of the method used to define the SGSA location.

Message (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
JTAA attack authorisation	Addressee : Attacking unit (Surface or Air) Originator: SGSA co-ordinating authority/unit Take (track #) with (weapon) Bullpen area (SGSA location (lat/long) or SGSA serial #) Until (SGSA expiration DTG or earlier DTG)	K2R THIS IS AX TAKE GOBLIN TWO EIGHT WITH BLOODHOUND BULLPEN AREA SIX THREE TACK ZERO ZERO NORTH NINE SLANT ZERO ONE ZERO TACK ZERO ZERO WEST ONE SLANT SIX TWO TACK ZERO ZERO NORTH EIGHT SLANT ZERO ONE ONE TACK ZERO ZERO WEST TWO UNTIL TWO ZERO ZERO THREE ZERO ZERO ZULU FIVE

966. *NOTACK AREA ESTABLISHED*

This message establishes a NOTACK area with a co-ordinating unit. Transmission may be via two-way communications (voice or LDR) or SLOT buoy. When the NOTACK area messages is transmitted by two way voice, the message must be read back for verification. Any incorrect check-sum digit invalidates the NOTACK area message and a new request must be initiated.
Precedence is not indicated as date-time-group (with a checksum digit) as the time the NOTACK area becomes effective. If not otherwise indicated in the message, the NOTACK area (of radius 10NM) is established for a period of two hours from the date-time-group given.

EXAMPLE

A P3 aircraft, call sign K2R has requested the support submarine, call sign C7E to establish a NOTACK Area. The support submarine is responding to this request, indicating its intention to go deep following the NOTACK Area establishment. The aircraft then reads back the message for confirmation. If readback is correct, no further transmissions are required. If an error is made, the submarine must respond with NEGAT/NEGAT/NEGAT and retransmit the entire message.

Message (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
NOTACK area establishment	Addressees: Unit requesting the NOTACK area Originator: Submarine establishing the NOTACK area	K2R THIS IS C7E
		READ BACK BREAK
	NOTACK NOTACK NOTACK	NOTACK NOTACK NOTACK
	Time _____Z_	TIME ONE THREE ONE TWO TWO ONE ZULU ZERO
	Posit (lat/long)	POSIT THREE THREE TACK FOUR ZERO NORTH ZERO SLANT ZERO SEVEN ONE TACK THREE THREE WEST FOUR
	Other comments (for example, time of next rendezvous)	FLUSHING FLUSHING
	NOTACK NOTACK NOTACK	NOTACK NOTACK NOTACK
		BREAK OUT

967. *JEZEBEL HANDOVER AND CONTACT REPORTING PROCEDURE*

a. These procedures are methods for handing over free-floating Jezebel patterns or barriers from one aircraft to another and for reporting Jezebel contacts to a MHQ or OTC.

b. Jezebel handover procedure.
(1) The Jezebel handover procedure consists of the following components:
(a) SITREP
(b) POSTREP INDIA.

c. Situation report (SITREP)
(1) To ensure that the relieving aircraft is given the most up-to-date Jezebel submarine contact information, the crew being relieved is to pass a SITREP as soon as possible after exchanging callsigns and authenticating, but before passing the POSTREP message. The SITREP is to include the following information:
(a) Whether contact is being held, or has been obtained and subsequently lost.
(b) The channel number(s) of the buoy(s) on which contact was gained.
(c) The time(s) the contact was gained (or lost).
(d) The frequency band(s) in which the contact is/was printing. (Low indicating 10-160 Hz or High indicating 150-300 Hz).
(e) The target's position with accuracy suffix and MLA and MSA if known (encoded iaw COMSECPOL).

(f) The observed LOFAR detection rangen (encoded iaw COMSECPOL) if available.

(2) Hot Contact
If contact is held, the word HOT is to be used, followed by:
(a) Six-figure group(s) giving the channel number(s) of the buoy(s) in contact and the time(s) contact was gained.
(b) The frequency band(s) (High or Low) in which the target is printing. If the target is printing in both bands, the band in which the strongest signature is printing should be passed first.
(c) Position of the contact if known (encoded iaw COMSECPOL) with accuracy suffix and time. Position should be the bearing and distance from the buoy which is in strongest contact.
(d) Target MLA and MSA if known (encoded iaw COMSECPOL).
(e) The observed LOFAR detection range if available (encoded iaw COMSECPOL).

(3) Cold Contact
If contact was held but subsequently lost, the word COLD is to be used, followed by:

(a) Six-figure group(s) giving the channel number(s) of the buoy(s) in contact and the time(s) contact was lost.
(b) The frequency band(s) (High or Low) in which the contact was printing. If the target was printing in both bands, then the band in which the signature was strongest should be passed first.
(c) Last known position of the contact (if any) and time. Position should be bearing and distance from the buoy which was in strongest contact.
(d) Target MLA and MSA if known (encoded iaw COMSECPOL).
(e) The observed LOFAR detection range if available (encoded iaw COMSECPOL).

(4) *EXAMPLE*

Message (a)	REMARKS (b)	EXAMPLES OF PROCEDURES (c)
SITREP		CALLSIGN THIS IS CALLSIGN SITREP HOT (or COLD) (see NOTE) ALFA 031940 SLANT 151940 SLANT 231946 BRAVO HIGH SLANT LOW CHARLIE 0802515 YANKEE 1950 DELTA 170 SLANT O8 (ENCODED IAW COMSECPOL) ECHO 15

Note: During a HOT handover, only those buoys in current contact should be passed; buoys which had previously been in contact but on which contact was subsequently lost should not be passed.

Meaning:

(a) For HOT Handover. Hot contact on buoy channel numbers 03 at 1940Z, 15 at 1940Z and 23 at 1946Z, strongest signature in High band but also printing in Low band, estimated position 080°T from buoy 25, range 15 nm, accurate to within 10 nm, at 1950z, MLA and MSA 170/08 knots, observed LOFAR detection range is 15 nm. or:

(b) For COLD handover. Contact gained but subsequently lost on buoy channel numbers 03 at 1940Z, 15 at 1940z and 23 at 1946z, contact was printing strongest in High band but was also printing in Low band, last estimated position was 080°T from buoy 25, range 15 nm, accurate to within 10 nm, at 1950z, MLA and MSA was 170/08 knots, observed LOFAR detection range was 15 nm.

d. POSTREP INDIA procedure

(1) Principle. POSTREP INDIA is based on the selection of one Jezebel buoy in the pattern as the master post and the passing of its encoded position, in latitude and longitude, to the receiving aircraft. The positions of all other buoys are passed as a bearing (in °T) and distance (in nm) from the master post.

(2 Message format

Callsign this is Callsign

SITREP — Sent only when a submarine contact is/was held. (see sub-para e(1)).

POSTREP INDIA — Master post's latitude and longitude.

ALFA Channel number and ZULU time of expire (in decimal hours).

BRAVO Other buoy positions (as bearing and distance from the master post), channel numbers and ZULU time of expire (in decimal hours).

CHARLIE Buoy type and hydrophone depth selected. If the pattern consists of more than one type of buoy, the type of the majority of buoys should be included in paragraph CHARLIE, other types being indicated in paragraph ECHO by a group giving channel numbers, buoy type and depth of hydrophone.

DELTA Buoys on which non-submarine contacts are held.

ECHO Any relevant remarks or observations, e.g. buoy types not included in paragraph CHARLIE, buoy drift, weather, sea state, actual QNH etc.

(3) Action by relief aircraft. The relieving aircraft should on-top any buoy in the pattern and then plot the position of the master post, either directly or back-plotting. The remaining buoys should then be plotted from the master post using the bearing and distance given in the POSTREP message. If an on-top is not possible, the master post and all other buoys can be plotted to a lesser degree of accuracy.

e. General instructions for Jezebel handover procedure.
The major points to be observed when originating a SITREP and a POSTREP INDIA message are summarised below:

(1) If submarine contact has been gained, the SITREP is to precede the POSTREP. If submarine contact has not been gained throughout the sortie, the SITREP is to be omitted.

(2) POSTREP INDIA is to be used only for handing over a freefloating Jezebel pattern.

(3) When passed by voice, both the SITREP and the POSTREP INDIA are to be transmitted only on V/UHF. However, when permitted by the EMCON plan and equipment capability, preformed handover messages may be sent via HF RATT at 100 wpm.

(4) The SITREP and POSTREP INDIA are to be passed as soon as possible after initial contact has been established with the relief aircraft so that the crew may develop an appreciation of the tactical situation and plan accordingly.

(5) One of the buoys in the Jezebel pattern is to be designated the master post and is always to be listed in paragraph ALFA of the POSTREP message.

(6) The position of the master post is to be passed in latitude and longitude; the positions of all other buoys are to be passed as a bearing (in °T) and distance (in nm) from the master post.

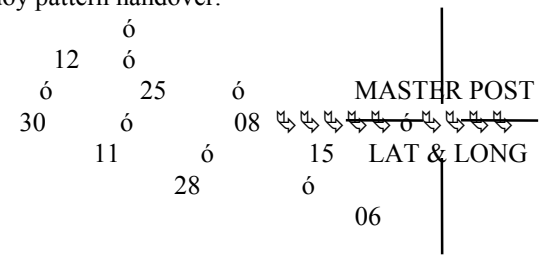
(7) All times are to be ZULU (no suffix required).

(8) Sections of the POSTREP not required are to be omitted.

(9) The remarks section (para ECHO) of the POSTREP should be kept as brief as possible; however, information which will assist the relieving aircraft such as buoy-drift, weather, sea state and actual QNH should be passed in this section.

EXAMPLE'S

a.. Buoy pattern handover.

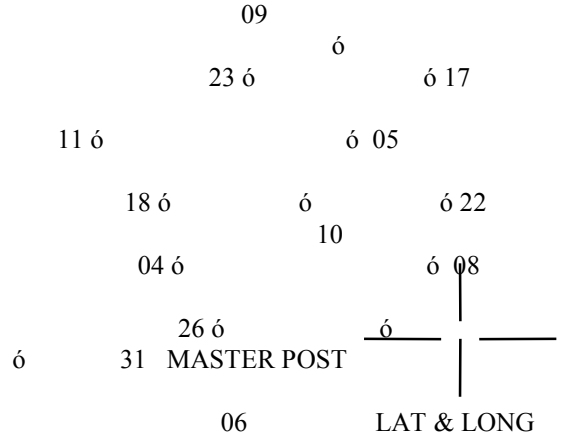


(4) *EXAMPLE: A*

MESSAGE (a)	EXAMPLES OF PROCEDURES (b)	REMARKS (C)
POSTREP INDIA	CALLSIGN THIS IS CALLSIGN SITREP POSTREP INDIA ALFA 5630N4 01015W7 15 140 (ENCODED IAW COMSECPOL) BRAVO 288 09 08 141 288 20 25 141 288 30 12 142 275 36 30 142 269 26 11 143 259 17 28 143 231 10 06 144 CHARLIE 24953 SLANT 60 DELTA 12 SLANT 30 ECHO BUOY DRIFT NORTHERLY AT 3 KNOTS	Sent only if submarine contact is/was held. Master post's latitude, longitude, channel number and ZULU expire time Other buoy's bearing/distance from master post, channel number and ZULU expire time. All buoys are type 24953 with hydrophone at 60 ft. Non-submarine contacts held on buoys 12 and 30.

4

EXAMPLE: B



MESSAGE (a)	EXAMPLES OF PROCEDURES (b)	REMARKS (C)
POSTREP INDIA	CALLSIGN THIS IS CALLSIGN SITREP POSTREP INDIA ALFA 5830N6 01222W7 31 100 (ENCODED IAW COMSECPOL) BRAVO 255 12 06 100 270 23 26 100 295 32 04 101 300 39 18 101 315 44 11 102 330 46 23 102 345 44 09 103 001 39 17 103 330 23 10 098 015 32 05 104 030 22 22 104 045 12 08 105 CHARLIE 41A SLANT 300 ECHO 10 SLANT 518 SLANT 100	- Sent only if submarine contact is/was held. - Master post's latitude, longitude, channel number and ZULU expiry time - Other buoy's bearing/distance from master post, channel number and ZULU expiry time. - All buoys are SSQ 41As with hydrophone at 300ft. - Buoy 10 is an SSQ 518 with hydrophone at 100ft.

968. *GUERRILLA PROCEDURE.*

The brevity word -GUERILLA- indicates a priority call of a submarine, that has high precedence traffic for the SOCA or designated commander/unit in a task group. Any unit receiving the call is to reply, authenticate if necessary and relay. The brevity word is used to break into a circuit being used for other high precedence traffic

EXAMPLE

GUERILLA GUERILLA GUERILLA - C/S (ADDRESSEE) THIS IS C/S (SUBMARINE)

SECTION VII - EXCHANGE OF DUTIES

970. *INTRODUCTION AND PROCEDURES.*

a. The exchange of duties may be ordered by the OTC directly or by pre-planned instruction (e.g. OPGEN, OPTASK, etc.). Units wishing to relinquish or assume a duty shall request the transfer from the OTC or delegated authority.

b. The unit handing over the duty should ask the receiving unit if it is prepared to accept the duty, particularly when the exchange is not pre-scheduled.

c. This voice report is optional if the transfer of duty is in accordance to an authorised and scheduled instruction (e.g. OPORD, OPTASK, etc.).

d. The exchange of duties shall normally be authenticated when conducted on non-secure circuits.

UNIT (a)	ACTION (b)	EXAMPLES OF PROCEDURES (c)
Unit requesting	Request for transfer of duty	7YC THIS IS B2P - REQUEST M6F TAKE DUTY 87-OVER
OTC	OTC orders transfer	B2P M6F THIS IS 7YC-M6F ASSUME DUTY 87 OVER
Unit holding duty	Confirms receiving unit is prepared to accept duty	M6F THIS IS B2P-ARE YOU READY TO TAKE DUTY 87-OVER
	Transfers duty	
Receiving unit	Accepts duty	(COLL. CALLSIGN) THIS IS M6F- I HOLD DUTY 87 - B2P OVER

ANNEX ALFA TO APP-1(A)

UNITS OF REFERENCE

Where in the examples reference is made to numbers, distances, heights, depths, or weights, the unit of reference is as indicated below, unless otherwise stated.

Altitude	-	Hundreds of feet
Flight level	-	Hundreds of feet
Angels	-	Thousands of feet
Height	-	Feet
Distance	-	Nautical miles (2000 yards)
Range	-	Hundreds of yards
Depth	-	Meters (Feet)
Devils	-	Tens of feet
Demons	-	Meters
Speed surface tracks (including helicopters)	-	Knots
Speed air tracks	-	Tens of knots
Weight	-	Tons (2000 pounds)
Sector bounderies	-	Tens of degrees
Sector limits	-	Thousands of yards

ANNEX BRAVO TO APP-1(A)

STANDARD IDENTITY DEFINITIONS

STANDARD IDENTITY		DEFINITION
UNKNOWN	-	An evaluated track which has not been identified.
ASSUMED FRIEND	-	A track which is assumed to be a friend because of its characteristics, behaviour, or origin.
FRIEND	-	A track belonging to a declared friendly nation.
NEUTRAL	-	A track whose characteristics, behaviour, origin or nationality indicate that it is neither supporting nor opposing friendly forces.
SUSPECT	-	A track which is potentially hostile because of its characteristics, behaviour, origin or nationality.
HOSTILE	-	A track declared to belong to any opposing nation, party, group or entity which by virtue of its behaviour or information collected on it such as characteristics, origin or nationality contributes to the threat to friendly forces.

NOTE: PENDING: Tracks which have not been subject to the identification process but are available for reporting may be reported with a status of PENDING.

DEFINITION OF IDENTITY MODIFYING DESCRIPTIONS

MODIFYING DESCRIPTORS		DEFINITION
FAKER	-	A friendly track acting as a HOSTILE for exercise purpose.
JOKER	-	A friendly track acting as a SUSPECT for exercise purpose.
KILO	-	A friendly track of special interest.
TRAVELLER	-	A SUSPECT surface track following a recognised traffic route.
ZOMBIE	-	A SUSPECT air track conforming to ATC rules or following a recognised traffic pattern.

ANNEX CHARLIE TO APP-1(A)

LINK MANAGEMENT CODES

Data compilation and link terms and definitions can be found in ATP 1 and various ADatPs. This annex gives a listing of link management codes being used in conjunction with data links

X-RAY CODES:	ALFA CODES:	
XAA	ATA	Start/repeat NET SYNC.
XAB	ATA 1	NET SYNC succesful.
XAC	ATB	Start NET test.
XAD	ATB 1	NET TEST succesful.
XAE	ASA	Act as NCS.
XAF	ASB	Act as PICKET.
XAG	ANA 1,2	Switch to ROLL CALL
XAH 1	ANA 3	Switch to BROADCAST.
2	ANA 5	Use SHORT BROADCAST mode.
XAI	ANA 6	Switch to SILENCE.
XAJ 1	ATC 1	Switch DATA RATE 13/9 (2250).
2	ATC 2	Switch DATA RATE 22/9 (1364/9.09).
3	ATC 3	Switch DATA RATE 22/18 (1364/18.18).
XAK 1	ATF 1	Switch DOPPLER ON.
2	ATF 2	Switch DOPPLER OFF.
XAL 1	ATD 2	Switch STORED TIMING.
2	ATD 1	Switch CORRECTED TIMING.
XAM	AAA	Switch dummy TN between all addresses.
XAN	AAB	Address .....not activated.
XAO	ADA 3	Do not receive data (from PU.....).
XAP	ADA 1	Am receiving good data (from PU.....).
XAQ	ADB 3	Am receiving CODE ERROR (from PU.....).
XAR	ADB 1	Am receiving DATA ERROR (from PU.....).
XAS	ADB 4	Am transmitting CODE ERROR.
XAT	ADB 2	Am transmitting DATA ERROR.
XAU		Transmit CONTROL CODES only.
XAV	ADC 1	Am receiving CONTROL CODES only (from PU.....).
XAW	ADC 4	Am missing CALL-UP.
XAX	ADC 3	Am missing STOP CODE.
XAY		Spare.
XAZ		Spare.

CODEWORD/CODE		MEANING
X-RAY CODES:	ALFA CODES:	
XBA	ARA	Shift frequency to line No.
XBB	TILL	Do not receive you on line No.
XBC	ARB 3	Am calling you on line No.
XBD	ARC 1	Switch to double sideband/auto diversity.
XBE	ARC 2	Switch to upper sideband.
XBF	ARC 3	Switch to lower sideband.
XBG	ARD 1	Transmit Link 11 with maximum power.
XBH	ARD 2	Transmit Link 11 with minimum power.
XBI	ARD 4	Switch transmitter/receiver to DATA. *)
XBJ	ARD 3	Switch transmitter/receiver to VOICE. *)
XBK	ARD 5	Switch transmitter/receiver to CW. *)
		*) When same frequency is used for link 11 and coordination.
XBL	ARE 3	HF-transceiver breakdown.
XBM	ARE 2	UHF-transceiver breakdown.
XBN	ADE	Data terminal set breakdown.
XBO	ABD	Computer breakdown.
XBP	ACE	Crypto device breakdown.
XBQ	ACB	Check crypto key/equipment.
XBR	ACB 2	Crypto period extended until.....
XBS	ACA 5	Switch KG 40 to POFA test.
XBT 1	ACA 1	Switch KG 40 to crypto mode A1.
2	ACA 2	Switch KG 40 to crypto mode A2.
3	ACA 3	Switch KG 40 to crypto mode B.
XBU	ACA 4	Switch KG 40 to PLAIN TEXT.
XBV	ABF	Reported defect is now cleared.
XBW		Spare.
XBX		Spare.
XBY		Spare.
XBZ		Spare.
0XCA	AGA 1	(New) DLRP is .....
XCB	AGB	GRID REFERENCE UNIT is ..... (TN)
XCC	AGB 1	Carry out a GRIDLOCK on TN.....
XCD	ABE	RELOAD programme ..... with exact tape indicator resp.
XCE		RECEIVE Link 11 formatted message M.....
XCF	ABC 2	Put in following PATCH...
XCG	ANA 6	Switch LINK SILENCE.
XCH	ANA 4	Transmit BROADCAST (every .....minutes)

CODEWORD/CODE		MEANING
X-RAY CODES:	ALFA CODES:	
XCI	ANA 5	Transmit SHORT BROADCAST (every.....minutes).
XCJ	AOB	DROP TRACK TN .....
XCK		CORRELATE TN ..... WITH TN .....
XCL	AWD 1	Initiate CATEGORY CONFLICT for TN.....
XCM	AWD 2	Solve CATEGORY CONFLICT for TN.....
XCN	AWC 1	Initiate ID CONFLICT for TN.....
XCO	AWC 2	Solve ID CONFLICT for TN.....
XCP	APF	Transmit POINTER to PU.....
XCQ	AYA	Assign weapon to TN.....
1	AYA 1	Assign GUNs to TN.....
2	AYA 2	Assign SAM to TN.....
3	AYA 4	Assign SSM to TN.....
4	AYA 5	Assign Torpedo to TN.....
XCR	AYA	Received engagement/weapon assignment data on TN.
XCS	AZA	ESM data transmitted on TN.....
XCT	AZA 1	ESM data received on TN.....
XCV	APA	Take R^2 for TN.....Report when ready
XCW	APA	Am holding R^2 for TN.....
XCX		Spare.
XCY	ADD 5	Can you receive M messages?
XCZ	ADD 4	Can you send M messages?
XDA	ABD	System breakdown, wait (appr.....minutes).
XDB	AXC	Break off/terminate exercise.
XDC	AXD	Next exercise at .....(GMT).
XDD	AEA	Request permission to leave net.
XDE	AEB	Permission granted to leave net.
XDF	ABA	I require your link Technician on this link Coordination Circuit.
XDG-XDZ		Spare.

CODEWORD/CODE	MEANING
XYM	I am updating my geographical position ("zeroing" the PADS)(PADS: geographical difference between OTCs reference position and own ships internal reference position.
XYN TACK (TN)	I am not receiving (TN).
XYO	Check crypto equipment.
XYP	Gridlock achieved, dual designations resolved, request permission to join the net.
XYQ-XYZ	Spare.

ANNEX DELTA TO APP-1(A)

GADGET LIST

ALFA	.. ..	Radars in Alfa band
BRAVO	.. ..	Radars in Bravo band
CHARLIE	.. ..	Radars in Charlie band
DELTA	.. ..	Radars in Delta band
ECHO	.. ..	Radars in Echo band
FOXTRO	.. ..	Radars in Foxtrot band
GOLF	.. ..	Radars in Golf band
HOTEL	.. ..	Radars in Hotel band
INDIA	.. ..	Radars in India band
JULIETT	.. ..	Radars in Juliett band
KILO	.. ..	Radars in Kilo band
LIMA	.. ..	Radars in Lima band
MIKE	.. ..	Radars in Mike band
NOVEMBER	.. ..	Navigational radar
OSCAR	.. ..	Beacon
PAPA	.. ..	1. Air surveillance radar 2. Height finding radar 3. Carrier controlled approach radar
QUEBEC	.. ..	1. Surface surveillance radar 2. Target indication radar
ROMEO	.. ..	1. Gunnery fire control radar 2. Short range missile radar 3. Medium range missile control radar

GADGET LIST-*continued*

SIERRA	.. ..	1. Short range sonar 2. Medium range sonar 3. Long range sonar 4. Variable depth sonar 5. Bottom classification sounder 6. Helicopter short range sonar 7. Helicopter medium range sonar 8. Torpedo Decoy sonar 9. Torpedo detection sonar
TANGO	.. ..	1. MF and HF communications equipment 2. UHF communications equipment 3. Special Transmission equipment
UNIFORM	.. ..	Underwater telephone
VICTOR	.. ..	1. IFF Interrogator 2. IFF Transponder
WHISKEY	.. ..	(Spare) OTC USE
X-RAY	.. ..	(Spare) OTC USE
YANKEE	.. ..	1. Airborne surveillance radar (Airborne Early Warning) 2. Airborne Intercept Radar 3. Special Transmission equipment
ZULU	.. ..	1. Noise jammer 2. CW repeater jammer 3. Pulse repeater jammer 4. Communications jammer-noise 5. Communications jammer-deceptive

Notes: 1. Two letters may be used to indicate function and frequency band, e.g., Gadget INDIA PAPA ONE-INDIA BAND AIR SURVEILLANCE RADAR.
2. Gadget followed by spot number may be used when precise definition of a friendly equipment is required.

ANNEX ECHO TO APP-1(A)

JAMMING STATES Use the word STATE followed by a number or combination of a number and letter.

STATE MEANING

1. Jamming not observed.

2. Jamming observed, but ineffective.

   a. Self screening not achieved.
   b. Range lock held, target tracked.
   c. False targets seen, target tracked.
   d. Gate stealing observed. Lock held. Target tracked automatically.

3. Jamming observed. Partially effective.

   a. Self screening achieved.
   b. Range lock held, target tracked intermittently.
   c. False targets send. target tracked intermittently.
   d. Gate stealing observed. Lock held. Target tracked manually.

4. Jamming observed. Fully effective.

   a. Screening achieved over wide arc.
   b. Target completely obscured, tracking impossible.
   c. Numerous false targets, true target not identified.
   d. Gate stealing observed. Lock broken. Unable to track target.

ANNEX FOXTROT TO APP 1(A)

WEAPON STATE REPORT	LETTERS IAW REFERENCE PUBLICATION
BITTER	ATP 1 VOL I
SUGGAR	ATP 1 VOL I
CANDY	ATP 1 VOL I
CANDY S	ATP 1 VOL I
CAKE	ATP 1 VOL I

EFFECTIVE PAGE	PAGE NUMBERS		EFFECTIVE PAGES	PAGE NUMBERS	
CHANGE 10	I	(Reverse Blank)	CHANGE 10	7-1 to 7-16	
CHANGE 10	III	(Reverse Blank)	CHANGE 10	7-17	(Reverse Blank)
CHANGE 10	V to VI		CHANGE 10	8-1 to 8-8	
CHANGE 10	VII	(Reverse Blank)	CHANGE 10	8-9	(Reverse Blank)
CHANGE 10	IX	(Reverse Blank)	CHANGE 10	9-1 to 9-26	
CHANGE 10	XI to XIV		CHANGE 10	9-27	(Reverse Blank)
CHANGE 10	XV	(Reverse Blank)	CHANGE 10	A-1	(Reverse Blank)
CHANGE 10	XVII		CHANGE 10	B-1 to B-2	
CHANGE 10	XVIII		CHANGE 10	C-1 to C4	
CHANGE 10	XIX	(Reverse Blank)	CHANGE 10	D-1 to D-2	
CHANGE 10	1-1 to 1-26		CHANGE 10	E-1	(Reverse Blank)
CHANGE 10	2-1 to 2-6		CHANGE 10	F-1	(Reverse Blank)
CHANGE 10	2-7	(Reverse Blank)	CHANGE 10	LEP - 1	(Reverse Blank)
CHANGE 10	3-1 to 3-28				
CHANGE 10	4-1 to 4-14				
CHANGE 10	4-15	(Reverse Blank)			
CHANGE 10	5-1 to 5-14				
CHANGE 10	6-1 to 6-20				
CHANGE 10	6-21	(Reverse Blank)			

APP-1(A) (NAVY) (AIR)
THRU CHANGE 10