AAC
INSTRUCTOR HANDBOOK
RADIOTELEPHONE PROCEDURE

This Pamphlet is adapted from LWP-G 6-1-4 Radio Communications Procedures (All Corps), 1999

PREFACE

Aim

The aim of this publication is to provide Cadet Instructors current and accessible doctrine. It details the procedures used for radiotelephone communications throughout the Army and provides a concise language whereby radiotelephone communications may be conducted efficiently and accurately by all users of all ranks.

Level

This publication is not the source document however it is to be used as the reference for Cadet communications training.

Scope

This publication is a guide and was correct at the time of publication. The source for this is LWP-G 6-1-4 Radio Communications Procedures (All Corps). Any questions or suggestions should be directed to the Training Development Cell ARTC.

AMENDMENTS

1. The following promulgated amendments have been made to this publication.

Amendment List		***Amended By (Print Name and Initials)***	***Date of Amending***
Number	***Date***		

GLOSSARY

The terms listed below are used in this pamphlet. Definitions which appear in *Australian Defence Force Publication 101 Glossary* or other joint force and allied communications publications are shown verbatim in normal type. The definitions or portions of definitions shown below in italics have not been accepted for joint Services use.

Action Addressee. *The activity or individual to whom a message is directed by the originator for action.*

Address Group. A group of four letters assigned to represent command(s), authority(ies), activity(ies), unit(s), or geographic location(s) used primarily for the addressing of communications.

Address Indicator Group. An address group which represents a specific set of action and/or information addressees. The identity of the originator may also be included.

Addressee. *The activity or individual to whom a message is directed by the originator. Addressees are indicated as either action or information.*

Alternate Frequency. *The spare frequency which is used when the primary frequency becomes unusable for any reason.*

Antenna. *Any structure or device used to collect or radiate electromagnetic waves.*

Call. A transmission made for the purpose of identifying the transmitting station and the station for which the transmission is intended.

Call-sign. Any combination of characters or pronounceable words which identify a communication facility, a command, an authority, *Radio Communications RESTRICTED Procedures (All Corps), 1999* an activity, or a unit; used primarily for establishing and maintaining communications.

Called Station. *The station to which a transmission is directed.*

Calling Station. *The station initiating a transmission.*

Challenge. Any process carried out by one unit or person with the objective of ascertaining the friendly or hostile character or identity of another. *The answer to a challenge is a reply.*

Circuit Discipline. *The component of transmission security which includes the proper use of communications equipment, the adherence to the prescribed frequencies and operation procedure, remedial action, net control, monitoring and training.*

Clear Text. *Text or language which conveys an intelligible meaning in the language in which it is written with no hidden meaning: clear text is the intelligible text underlying encrypted text.*

Code-word. A word which has been assigned a classification and a classified meaning to safeguard intentions and information regarding a classified plan or operation. A cryptonym is used to identify sensitive intelligence data.

Communications Security. The protection resulting from the application of cryptographic security, transmission security and emission security measures to telecommunications and from the application of physical security measures to communications security (comsec) information. These measures are taken to deny information of value to unauthorised persons which might be derived from the possession and study of such telecommunications, or to ensure the authenticity of such telecommunications.

Deception. *In electronic warfare, the deliberate radiation, reradiation, alteration, or reflection of electromagnetic energy in a manner intended to mislead an enemy in the interpretation or use of information received by electronic systems.*

Decode. *To convert encoded text into its equivalent plain text by means of a code. (This does not include solution by cryptanalysis.)*

Decrypt. To convert a cryptogram into plain text by a reversal of the encryption process.

Directed Net. *In a directed net, stations obtain permission from the net control station prior to communicating with other stations in the net.*

Drill. *Drill messages are those intended for training communications personnel. Drill messages are identified by the inclusion of the word DRILL at the beginning and end of the text.*

Dummy Load. *A dissipative impedance-matched network used at the end of a transmission line to absorb all incident power, usually converted to heat.*

Electronic Silence. A period during which all or certain equipment which is capable of electromagnetic radiation are kept inoperative. The following equipment may be affected:

a. communication equipment,
b. radars and surveillance devices,
c. infra-red and electronic countermeasure equipment, and
d. beacons.

ElectronicWarfare. *Any military action involving the use of electromagnetic and directed energy, to control the electromagnetic spectrum or to attack the enemy*.

Emergency Silence. *A measure imposed to enforce transmission security.*

Encode. T*o convert a plain text message into its coded form. That section of the code book in which the plain text equivalents of the code groups are in alphabetical, numerical or systematic order.*

Encrypt. *To convert a plain text message into disguised form by means of a cryptosystem.*
NOTE: The term encrypt covers the meanings of encipher and encode.

Exercise. *Messages sent during and relating to training exercises are exercise messages and are prepared and handled in the same manner as normal traffic except that the exercise identification, preceded by the word EXERCISE, is to be inserted by the originator as the first word of the message.*

Formal Message. *A registered message written on a message form.*

Free Net. *The net control station authorises sub-stations to transmit traffic to other stations in the net without obtaining prior permission.*

Frequency Designator. *A frequency designator is a random group comprising a combination of three characters which changes daily.*

Informal Message. *A short, unregistered message, either verbal or consisting only of written text, of which no file copy is kept.*

Listening Watch. A continuous receiver watch established for the reception of traffic addressed to, or of interest to, own unit, with complete log optional.

Message. Any thought or idea expressed briefly in a plain, coded or secret language, prepared in a form suitable for transmission by any means of communication.

Message Text. *That part of a message which contains the thoughts or ideas which the originator intends to convey to the addressee. It may also contain instructions for the receiving agency to ensure special handling or disposal of the message.*

Net Call-sign. A call-sign which represents all stations within a net.

Net (Communications). *An organisation of stations capable of direct communications on a common channel or frequency.*

Net Control Station. A station designated to control traffic and enforce circuit discipline within a given communications net.

Nickname. Words assigned formally or informally by any appropriate authority to an event, project, maneuver, exercise, test or other activity for purposes other than to provide security.

NODUF. The term used during exercises and training to denote a real incident rather than exercise play.

Operators Log. (See Radio Log.)

Originator. *The command by whose authority a message is sent. The originator is also responsible for the functions of the drafter and releasing officer.*

Precedence. A designation assigned to a message by the originator to indicate to communications personnel the relative order of handling and to the addressee the order in which the message is to be noted.

Primary Frequency. *A frequency assigned for normal use on a particular net on which the net control station is operating and on which the net would operate if retransmission were not in use.*

Procedure Word (Proword). *A word or phrase limited to radiotelephone procedure.*

Radio Log. *A chronological record of events relating to the operation of a particular circuit.*

Radio Silence. A condition in which all or certain radio equipment capable of radiation is kept inoperative.

Radio Telephony. The transmission of speech by means of modulated radio waves.

Retransmission. Signals received at a station are retransmitted simultaneously, on a different frequency, in a retransmission system. The connection between the receiver and the transmitter, at the retransmission location, is by line and may be automatically or manually controlled.

Security Classification. A category or grade assigned to Defence information or materiel to indicate the degree of danger to NATO/national security that would result from its unauthorized disclosure and the standard of protection required to guard against unauthorised disclosure.

Signal Operating Instructions (SOI). Signal operating instructions contain frequently changing information of interest to operators and users of communication systems. Signal operating instructions include current call-signs, frequency assignments (including frequency designators), address groups and voice codes.

Simplex Operation. This involves communication between two points in both directions on the same frequency, but not simultaneously.

Standard Interference and Jamming Warning Report. *A report to higher headquarters of an incident of interference in the reception of radio signals.*

Standard Signal Instructions. *A series of instructions explaining the use of items included in the signal operating instructions. This also includes the technical instructions required to coordinate and control the operation of signal communication equipment, agencies and means of command. Standard signal instruction information is generally of a permanent nature.*

Station Authentication. *A security measure designed to establish the authenticity of a transmitting or receiving station, either by challenge and reply or transmission authentication method.*

Subordinate Station (sub-station). *This term refers to any station on a link which is controlled by a control station.*

Transmission Authentication. *A collective term which includes self authentication, station authentication, and message authentication. Under this procedure a station may establish the authenticity of its own transmission.*

Transmission Security. *This refers to that component of communications security which results from all measures designed to protect transmissions from unauthorised interception, traffic analysis and imitative deception.*

User. *A person, organisation or other entity, who/that employs the services provided by a telecommunication system for transfer of information to others.*

ABBREVIATIONS

The following abbreviations are used in this publication. Their sources are as indicated:

ADFP 103

ACP	Allied Communications Publication
AD	Air Defence
ADF	Australian Defence Force
ADFP	Australian Defence Force Publication
AIG	address indicator group
AM	amplitude modulated
Arty	Artillery
BDE	Brigade
BN	Battalion
CO	Commanding Officer
COMD	Commander
comsec	communications security
CPL	corporal
C/S	call-sign
CW	continuous wave
DF	direction finding
DIV	Division
DTG	date time group
ECM	electronic countermeasures
FM	frequency modulated
FO	forward observer
freq	frequency
hr	hour(s)
helo	helicopter
HF	high frequency
HQ	headquarters
ICD	imitative communications deception
Inf	Infantry
LO	liaison officer
loc	location
NATO	North Atlantic Treaty Organisation
OC	Officer Commanding
opord	operation order
RAAF	Royal Australian Air Force
RAN	Royal Australian Navy
ratel	radio telephone
regt	regiment
RF	radio frequency
RSI	radiation status indicator
SDS	signals dispatch service
SIC	subject indicator code
sitrep	situation report
SOI	signal operating instructions

SOP	standing operating procedures
SSI	standing signal instructions
unclas	unclassified
VHF	very high frequency

Common Military Usage

bty	battery
CC	collective call-sign
DR	dispatch rider
EA	electronic attack
EEFI	essential element of friendly information
EMS	electromagnetic spectrum
EP	electronic protection
ES	electronic support
ESM	electronic support measures
FCS	frequency calling schedule
INFO	information
LCD	liquid crystal display
MLW	Manual of Land Warfare
msg	message
NCS	net control station
NIC	net identification call-sign
1 RAR	1st Battalion, Royal Australian Regiment
prosigns	procedure signs
prowords	procedure words
retrans	retransmission
RSVP	rhythm, speed, volume and pitch
SIG REGT	Signal Regiment
TI	transmission identification

CHAPTER 1.

INTRODUCTION

Aim

101. The aim of this pamphlet is to standardise the radiotelephone (RATEL) procedure for operators throughout the AAC, in a form which provides compatibility with procedures used by other services such as NAVY and RAAF.

Phonetic Alphabet

102. The standard phonetic alphabet is to be used. Difficult words or groups within the text of messages may be spelled using the phonetic alphabet and preceded by the proword I SPELL. If the operator can pronounce the word to be spelled, he will do so before and after the spelling to identify the word.

Example A: (a pronounceable word)
"Dipole - I SPELL Delta India Papa etc - Dipole"

Example B: (an unpronounceable abbreviation)
"Move to Umbagarra HQ" is transmitted as:
"Move to - I SPELL – Uniform mike etc - HQ - I SPELL - Hotel Quebec"

Numerals

103. To distinguish numerals from words which may be similarly pronounced, the proword FIGURES may be used before such numbers.

104. When transmitting numerals the following rules should be observed:

Numeral	Spoken as	Numeral	Spoken as
∅	Zero	5	Fi-yiv
1	Wun	6	Six
2	Too	7	Seven
3	Thuh-ree	8	Ate
4	Fow-er	9	Niner

105. Numbers should be transmitted digit by digit. Exact multiples of hundreds and thousands may be spoken.

Number Spoken as Number Spoken as

66	Six Six	1278	Wun Too Seven Ate
70	Seven Zero	8000	Ate Thousand
137	Wun Thuh-ree Seven	15000	Wun Fi-yiv Thousand
900	Niner Hundred		

104. The figure Zero is written as ∅.

105. The decimal point is spoken as DAY-SEE-MAL.

Mixed Groups

106. When giving a mixed group of letters and figures the prowords FIGURES and I SPELL are used as in the example:

31XB2 is sent as:

FIGURES - Three One - I SPELL - Xray Bravo - FIGURES - Two.

Punctuation

107. Punctuation is sent as:

Symbol	Spoken as
Comma	COMMA
Full Stop	FULL STOP
Brackets	OPEN BRACKETS/CLOSE BRACKETS
Oblique stroke	SLANT
Hyphen	HYPHEN

Prowords

108. Pronounceable words, or prowords, are words and phrases, which have a meaning to enable the efficient and accurate passage of information between radio users. Users should adhere to prowords used in this booklet and avoid inventing their own.

109. A list of prowords with their meanings is in annex A.

Abbreviations

110. In good conditions common abbreviations can be spoken as in normal conversation, eg, Recon as recon rather than I SPELL Romeo Echo Charlie Oscar November. If however conditions are bad, abbreviations should only be used if they save considerable transmitting time, eg, HQ should be spoken as headquarters rather than being spelt out.

111. Care must be exercised if working with technical jargon especially if you are unfamiliar with it. Remember, IF IN DOUBT, SPELL IT OUT.

ANNEX A TO
CHAPTER 1

RATEL PROWORDS

Proword

1. The following prowords and meanings are an abbreviated list.

PROWORD	**MEANING**
ACKNOWLEDGE	Instruction to a station to acknowledge that it has heard a message.
ALL AFTER ALL BEFORE	Used for making repetitions.
CANCEL	Cancel a message or part of a message or transmission.
CLOSE DOWN	Stations called are to close down when indicated.
CLOSING DOWN	This station is closing down.
CORRECT	You are correct or what you have transmitted is correct.
CORRECTION	An error has been made in transmission. The correct version follows.
FETCH	Used in conjunction with a name or appointment.
FIGURES	Used before sending figures digit by digit in difficult conditions. Not used for Callsigns, grid references, times or date time groups.
GRID	Used before a grid reference.
SAY AGAIN	Used for repetitions.
I SAY AGAIN I SPELL	Used when spelling out a word.
MESSAGE	Used when a message is to be written down.
NOTHING HEARD	Indication that no signals have been heard from a particular station.

OUT	This is the end of my transmission. No reply is expected.
OUT TO YOU	This is the end of my transmission to you and a call to another station follows immediately.
OVER	This is the end of my transmission to you and a reply is expected.
RADIO CHECK	Report how you receive my transmissions.
READ BACK	Repeat this entire transmission back to me exactly as you received it.
RELAY TO	Instruction to a station to relay a message
ROGER	I have received your last transmission satisfactorily.
SEND	I am ready to receive your message.
VERIFY	Verify portion indicated with originator and send correct version.
WAIT	I must pause for up to five seconds. No other station is to transmit even though I am not.
WAIT OUT	Your transmission is received. A further transmission on the same subject will follow later. Other stations may transmit as normal.
WORD AFTER WORD BEFORE	Used to identify part of a message.
WORDS TWICE	Communication is difficult. Transmit each phrase twice.
WRONG	What you have said is wrong. Correct version is...

CHAPTER 2

RADIO NETS AND CALLS

Definition

201. A radio net is a group of radio stations operating on the same frequency for the purpose of communicating with each other.

202. A net consists of:

a. A net control station (NCS)
b. Two or more sub-stations

NCS

203. The NCS is responsible for radio discipline and the efficient running of the net. Any station which can efficiently carry out the duties can be an NCS.

Callsigns

204. Callsigns are used to establish communications and seniority between two or more sub-stations. They are also used to replace the plain language names of headquarters and units in messages. When used for reference purposes the callsign is preceded by the proword CALLSIGN.

205. The following is an example:

'Meet CALLSIGN 32 at GRID one five three etc'

206. The following types of callsigns are authorised from use in cadets:

a. Tactical,
b. Net, and
c. Fixed

Tactical Callsigns

207. A tactical callsign consists of three letters or numbers, eg, U6M, RBN, 34F. These callsigns are changed daily and are classified. They can be shortened to the first two letters/numbers.

Net Identification Callsigns

208. A net identification callsign (NIC) is a tactical callsign, which represents all stations on the net. The NIC can be used when a response from every callsign on the net is required.

Fixed Callsign

209. Fixed callsigns may be used at unit and sub-unit level at the commander's discretion. Examples are, ØA, ØB, 11, 12, 13.

Sequence of Callsigns

210. When called, answer in alphabetic then numeric order.

Calling and Answering

211. A call consists of the following parts:

Callsign - THIS IS - Callsign - Text - OVER.

Example A: 11 - THIS IS - ∅A - Move now - OUT.
Note. An answer is not required.

Example B: 11 - THIS IS - ∅A - Are you ready to move - OVER.
Note. An answer is required.

212. An answer consists of the following parts:

Callsign - THIS IS - Callsign - Text - Ending Sign.

Note: An ending sign may be:

a. OVER or OUT. (But not together. They are contradictory)

b. WAIT I must pause for up to 5 seconds. No other station may transmit.

c. WAIT OUT I must pause for more than 5 seconds. Another station may transmit.

Example:

11 - THIS IS ∅A - Are you ready to move - OVER.

THIS IS - 11 - WAIT - (pause of 5 secs max) ROGER - OUT.

Signal Strength and Readability

213. A station is understood to have good signal strength and readability unless otherwise advised. A station that wishes to inform another of their signal strength is to do so by means of a short and concise report such as "weak but readable". The following prowords are for use when initiating and answering queries concerning signal strength and readability:

a. ROGER	means loud and clear
b. READABLE	means satisfactory
c. WEAK	means with difficulty
d. WITH INTERFERENCE	means with interference
e. UNREADABLE	means unreadable

214. Any combination of the above may be used.

215. A station requiring to know its signal strength will use the proword RADIO CHECK.

32 - THIS IS - ∅A - RADIO CHECK - OVER.

THIS IS - 32 - WEAK BUT READABLE - OVER.

THIS IS - ∅A - You are LOUD AND CLEAR - OUT.

Types of Calls

216. The three main types of calls are:

a. the single call,
b. the multiple call, and
c. the net call.

217. *The Single Call* - The single call is made by one station to another station on the same net.

The Multiple Call - the multiple call is a call to two or more stations, but not all stations on the net. The individual callsigns are separated by a distinct pause.

The following is an example:

11 - 12 - 13 - THIS IS - ∅A - I am moving - OVER

THIS IS - 11 - ROGER - OUT

THIS IS - 12 - ROGER - OUT

THIS IS - 13 - ROGER - OUT

The Net Call - A net call is a call to all stations on the net from either the NCS or a substation. The NIC, MB, is used. The following is an example:

MB - THIS IS – ∅A - I am moving - OVER.
All stations would then respond in the correct order. Failure to adhere to the order of calling will create confusion.

Order of Answering

218. Answering in the correct sequence is important to reduce confusion on the net. The correct order is:

a. in alphabetical order; then

b. in numerical order, or

c. as detailed in a briefing or by the NCS

219. If any substation does not answer, the next station waits five seconds and then responds. The substation that failed to answer must wait until all stations have responded before answering. If a substation does not respond, the NCS may initiate a single call to that substation.

Free Nets

220. Once a net has been established it is FREE, unless directed otherwise, and the NCS will not usually intervene in communications between substations.

Directed Nets

221. When conditions are difficult or when the flow of traffic is heavy, the NCS may order the net to be DIRECTED. Thereafter, all messages between substations must be offered. The NCS is the first to answer these offers and is therefore able to regulate all traffic on the net.

222. The use of directed net procedure should be kept to a minimum as it slows down net working.

Abbreviated Procedure

223. Under normal working conditions, use is made of abbreviated procedure to save on-air time by omitting the callsign of the called station other than in the initial call, and any non-essential proword. In a single call, all callsigns may be omitted after the initial call and reply.

224. **Those parts of a call or prowords which may be omitted are shown in brackets through the remainder of this pamphlet**. The following example illustrates abbreviated procedure:

13 - THIS IS - ∅A - Move now - OVER.

(THIS IS) - 13 - I cannot move at this stage - OVER.

(THIS IS) - (∅A) - When can you move - OVER.

(THIS IS) - (13) - In ten minutes - OVER.

(THIS IS) - (∅A) - ROGER - OUT.

Full Procedure

225. If conditions deteriorate to such a state that the use of abbreviated procedure is causing unnecessary repetitions, stations should use full procedure. The use of callsigns and prowords that were previously optional, then become mandatory.

13 - THIS IS ∅A - Move now - OVER.

∅A - THIS IS - 13 - I cannot move at this stage - OVER.

13 - THIS IS - ∅A - When can you move - OVER.

∅A - THIS IS - 13 - In FIGURES one zero minutes - OVER.

13 - THIS IS - ∅A - ROGER - OUT.

CHAPTER 3.

NORMAL PROCEDURE

Arranging a Radiotelephone Conversation

301. A person may wish to speak with a specific individual at another station. The operator can arrange this by asking for the name or title of the person.

Someone says to you, *"I want to speak to the medic"*. You call saying:

∅A - THIS IS - 12 - FETCH starlight - OVER.
Assuming the person is not at the set, the operator would say:

(THIS IS) - ∅A - WAIT - OUT.

When the person is available the operator would say:

12 - THIS IS - ∅A - Starlight SPEAKING - OVER.

Transmission of Messages

302. An offer is a call made to warn a station that a message follows. The offer will indicate that:

a. it is necessary to be written down;

b. in difficult conditions it is necessary for the sender to be satisfied that communications are adequate for the message to be received; or

c. a net is directed.

303. Messages may be offered by means of:

a. The abbreviated offer which uses no proword, or

b. The proword MESSAGE or LONG MESSAGE.

a. *Abbreviated Offer*.

11 - THIS IS - ∅A - OVER.

(THIS IS) - 11 - OVER.

(THIS IS) - (∅A) - The aircraft has departed - OVER.
(THIS IS) - (11) - ROGER - OUT.

b. *Use of proword.*

11 - THIS IS - ∅A - MESSAGE - OVER.

(THIS IS) - 11 - SEND - OVER.

(THIS IS) - (∅A) - Move to etc - OVER.

(THIS IS) - (11) - ROGER - OUT.

The use of the proword simply means the message is to be written down.

Long Message Procedure

304. If a message will take more than half a minute to send, the following procedure is to be used.

a. Use the proword LONG MESSAGE.

b. The message is sent in parts each lasting about 30 seconds and ending with the proword MORE TO FOLLOW.

c. Receiving stations are to acknowledge each part and if necessary request repeats.

d. After receiving an acknowledgment, the sender is to pause for several seconds to allow any other station to transmit urgent traffic.

e. If there is no interruption, the next part is sent by using the proword ALL AFTER followed by the last word or phrase of the part previously transmitted.

f. The procedure is used until the complete message has been received.

Corrections During Transmission

305. When an error is made by the transmitting operator, the proword CORRECTION is to be transmitted followed by the last word or phrase correctly transmitted.

11 - THIS IS - ∅A - Convey will arrive - CORRECTION - will depart at noon - OVER.

(THIS IS) - 11 - ROGER - OUT.

306. When an error in transmission is made and is not discovered immediately, but is discovered before the ending sign is transmitted, a correction is to be transmitted before the ending sign. When making a correction, the word or group to be corrected is to be properly identified as follows:

13 - THIS IS - ∅A - Move to Brown Street and report arrival - CORRECTION - WORD BEFORE street - Blue - OVER.

(THIS IS) - 13 - ROGER - OUT.

307. If a station has sent a message and later realises that a mistake has been made, a further message identifying the message and the portion to be corrected is transmitted as shown below:

13 - THIS IS - ∅A - Reference move - CORRECTION - Blue Avenue - OVER.

(THIS IS) - 13 - ROGER - OUT.

Repetitions

308. When words are missed or are in doubt, repetitions are to be requested and given before receipting of the message. The proword SAY AGAIN used alone or with ALL AFTER, ALL BEFORE, FROM... TO..., WORD AFTER, WORD BEFORE or other suitable word (eg CALLSIGN, TIME, GRID) is to be used for this purpose. In complying with requests for repetitions, the transmitting station is to identify that portion which is being repeated. It is normal with short messages to use the proword SAY AGAIN rather than ask for one or two words to be repeated.

∅A - THIS IS - 11 - we require a resupply of batteries at headquarters before tomorrow morning- OVER

(THIS IS) - ∅A - SAY AGAIN ALL AFTER headquarters - OVER.

(THIS IS) - (11) - I SAY AGAIN ALL AFTER - headquarters - before tomorrow morning - OVER.

(∅A) - ROGER - OUT.

Speed of Transmission

309. If a receiving station has difficulty in recording a written message because the operator is speaking too rapidly, the receiving operator may request a reduction in the speed of the transmission by the use of the proword SPEAK SLOWER.

Verifications

310. When verification of all or part of a message has been requested, the originating station is to verify the accuracy with the originator and send the correct version. An example of verification is as follows:

11 - THIS IS - ∅A - reference locstat - VERIFY - OVER.

(THIS IS) - 11 - WAIT - OUT.
The operator checks and establishes that the grid reference previously sent was incorrect, then transmits:

∅A - THIS IS - 11 - reference my locstat CORRECTION GRID 147857 - OVER.

(THIS IS) - (∅A) - ROGER - OUT.

Acknowledgment of Messages

311. An acknowledgment is a message from the addressee informing the originator that the message has been received. An acknowledgment should not be confused with a reply or receipt. A prompt reply referring to the message may serve in lieu of an acknowledgment. It is the prerogative of the originator to request an ACKNOWLEDGEMENT to a message. This request is usually included in the text of that message.

11 - THIS IS - ∅A - search area to the south - ACKNOWLEDGE - OVER.

(THIS IS) - 11 - WAIT - OUT.

The operator shows the message to the addressee who authorises him to acknowledge.

∅A - THIS IS - 11 - Reference your last - ACKNOWLEDGED - OUT.

Canceling Transmissions and Messages

312. During the transmission of a message and prior to the transmission of the proword OVER or OUT, it may be cancelled by the use of the prowords DISREGARD THIS TRANSMISSION - OUT.

313. A message that has already been sent may only be cancelled by another message.

11 - THIS IS - ∅A - CANCEL my movement instruction - OVER.

(THIS IS) - 11 - ROGER - OUT.

Unknown Station

314. If the callsign of the calling station is lost whether due to interference or other causes, the proword UNKNOWN STATION is used in the reply.

∅A - THIS IS - *crackle static* - OVER.

UNKNOWN STATION - THIS IS - ∅A - Say again callsign - OVER.

∅A - THIS IS - 11 - OVER.

(THIS IS) - ∅A - ROGER - OVER.
11 then continues with message.

Delegating Control

315. There may be occasions when the NCS is not able to maintain effective control over the net. Control of the net can be given to a substation who has communications with all station on that net by using the proword ASSUME CONTROL.

13 - THIS IS - ∅A - ASSUME CONTROL - OVER.

(THIS IS) - (13) - WILCO - OUT.
13 should then advise all stations that he is the NCS.

316. There may also be occasions when nothing has been heard from the NCS for an unusual amount of time. Any substation may then assume control by using the following procedure.

MB - THIS IS – 13 - have you heard callsign ∅A recently - OVER.

(THIS IS) - 11 - no - OVER.

(THIS IS) – 12 - no - OVER.

(THIS IS) - 13 - ROGER - I AM ASSUMING CONTROL - OVER.

(THIS IS) - 11 - ROGER - OUT.

(THIS IS) - 12 - ROGER - OUT.

Resuming Control

317. When the NCS does come back on the net it says:

MB - THIS IS - ∅A - reporting into net - I AM ASSUMING CONTROL - OVER.

All stations would then answer in turn - ROGER - OUT.

CHAPTER 4

BAD WORKING CONDITIONS

Relay Procedure

401. If conditions between any two substations prevent traffic being passed, a third substation who has contact with both substations may be used to relay the traffic. Prowords used are THROUGH ME, RELAY THROUGH, RELAY TO and RELAY FROM.

∅A *has established that it has no contact with 13.*

11 - THIS IS - ∅A - RELAY TO callsign 13 - move now - OVER.

(THIS IS) - 11 - WAIT - OUT TO YOU - 13 - THIS IS 11 - RELAY FROM callsign ∅A - move now - OVER.

It is assumed that there is contact between the two substations, otherwise a radio check would be necessary.

(THIS IS) - 13 - WILCO - OUT.

∅A - THIS IS - 11 - callsign 13 acknowledges your message - OVER.

(THIS IS) - ∅A - ROGER - OUT.

402. The following is an example of a substation offering to relay by using the prowords THROUGH ME.

13 - THIS IS - ∅A - MESSAGE - OVER.

No contact is made but 11 hears and, knowing there is contact with 13, offers to relay…

∅A - THIS IS - 11 - THROUGH ME - OVER.

(THIS IS) - ∅A - RELAY TO - callsign 13 - move now - OVER.

(THIS IS) - 11 - WAIT - OUT TO YOU - 13 - THIS IS - 11 - RELAY FROM callsign ∅A - move now - OVER.

(THIS IS) – 13 - WILCO - OUT.

∅A - THIS IS – 11 - callsign 13 acknowledges your message - OVER.

(THIS IS) - ∅A - ROGER - OUT.

Read Back

403. Read back procedure is used when the transmitting station wishes to ensure that the message was received correctly or when the receiving station wishes to ensure that it was received correctly. This is important when the text is complicated, technical or when conditions are poor. The proword READ BACK is sent just prior to the message together with I READ BACK, CORRECT or WRONG..

12 - THIS IS ∅A - READ BACK - take only the marked stores to GRID 486934 - OVER.

(THIS IS) - 12 - I READ BACK - take only the marked stores to GRID 486934 - OVER.

(THIS IS) - (∅A) - CORRECT - OUT.

Words Twice

404. When conditions, particularly on HF are poor, callsigns, words, phrases may have to be transmitted twice. A station may do this knowing conditions are bad or it may be requested by the receiving station. The proword WORDS TWICE is used.

13 - THIS IS - ∅A - do you have any apples - OVER.

Conditions are poor so 13 requests words twice procedure.

∅A - THIS IS - 13 - say again - say again - WORDS TWICE - WORDS TWICE - OVER - OVER.

13 - 13 - THIS IS ∅A - THIS IS ∅A - I SAY AGAIN WORDS TWICE - I SAY AGAIN WORDS TWICE - do you have - do you have - any apples - any apples - OVER - OVER.

∅A - ∅A - THIS IS 13 - THIS IS 13 - ROGER - ROGER - OUT - OUT.

405. Depending upon conditions it may only be necessary to repeat the text of the message in the interests of brevity.

CHAPTER 5

COMMUNICATIONS DRILLS

Changing Frequency

501. Frequency changes may be ordered because of deteriorating conditions or to keep a frequency or channel free for other purposes. The following procedure is to be used. Note that the change does not occur until the executive command 'change now' is given.

11 - THIS IS - ∅A - change to alternate frequency - OVER.

(THIS IS) - 11 - change to alternate - OVER.

(THIS IS) - ∅A - change now - OUT.

Note: Nicknames or Frequency Designators can also be used to indicate which frequency to change to.

Location Reports

502. When it is necessary to ascertain the location of a station the proword LOCSTAT is used.

11 - THIS IS - ∅A - send LOCSTAT - OVER.

(THIS IS) - 11 - LOCSTAT - turn off to Brindle Mountain - OVER.

(THIS IS) - ∅A - ROGER - OUT.

503. A station may wish to report a position without being asked.

∅A - THIS IS - 11 - LOCSTAT - OVER.

(THIS IS) - ∅A - SEND - OVER.

(THIS IS) - (11) - turn off to Brindle Mountain - OVER.

(THIS IS) - (∅A) - ROGER - OUT.

Grid References

504. When transmitting a grid reference the proword GRID is used. The proword *FIGURES* is not used together with GRID.

∅A - THIS IS - 11 - LOCSTAT - OVER.

(THIS IS) - ∅A - SEND - OVER.

(THIS IS) - (11) - GRID 123456 - OVER.

5-2

(THIS IS) - (∅A) - ROGER - OUT.

Times

505. Whenever a time is transmitted it must be preceded by the proword TIME. The proword *FIGURES* is not used together with TIME.

∅A - THIS IS - 12 - I will be moving at TIME zero seven hundred - OVER.

Radio Silence

506. Emergencies or other situations may require complete use of a net frequency and have radio silence imposed on all but the stations involved. It is imposed by saying SILENCE, SILENCE, SILENCE. SILENCE is pronounced SEE-LONCE.

MB - THIS IS - ∅A – SILENCE - SILENCE - SILENCE - OUT.

507. Radio silence is lifted by using the prowords SILENCE LIFTED.

MB - THIS IS - ∅A - SILENCE LIFTED - OUT.

Joining a Working Net

508. When joining a working net use the prowords REPORTING INTO NET.

∅A - THIS IS – 14 - REPORTING INTO NET - OVER.

(THIS IS) - ∅A - ROGER - OUT.

Closing Down

509. Closing down a substation should only be done with the permission of the NCS. It is necessary to obtain permission whenever a substation will not be able to be contacted for any length of time.

The approximate time for the close down should be indicated in the request if applicable. The prowords CLOSE DOWN, CLOSE DOWN NOW and CLOSING DOWN are used.

A *substation requests a close down:*
∅A - THIS IS – 11 - CLOSING DOWN for twenty minutes - OVER.

(THIS IS) - ∅A - CLOSE DOWN NOW - OUT.

A substation is instructed to close down:
13 - THIS IS - ∅A - CLOSE DOWN - OVER.

(THIS IS) - 13 - CLOSE DOWN - OVER.

(THIS IS) - (∅A) - CLOSE DOWN NOW - OUT.

Using a Nickname:
11 – THIS is - ∅A – BONGO DOG – OVER

(THIS IS) – 11 – BONGO DOG – OVER

(THIS IS) - ∅A – BONGO DOG - OUT

Note that the receiving station repeats the instruction. This is a common procedure and is similar to frequency changes.

Lost Contact Procedure

510. Lost contact procedures will vary between units and will be detailed in any communications briefings or standing signals instructions. It will depend on how many frequencies are available for use, ie primary, alternate 1, alternate 2 etc.

511. Communications may be lost due to changing ionospheric conditions with HF or terrain changes in the case of VHF. Interference, whether man-made or natural, will also cause communications to be lost.

512. Generally, if communications are lost, all stations should return to the last workable frequency where communications were possible or move location to higher ground for VHF. There may also be frequency-time schedules listed in operating instructions.

Time Checks

513. Normally time checks are given in local time unless requested otherwise. A short period of time is given as a warning to allow operators to prepare their watches. This can be done by using the proword TIME CHECK AT …

514. Time checks can be given at intervals by the NCS or when requested by a substation. The proword used is REQUEST TIME CHECK and TIME.

∅A - THIS IS - 11 - REQUEST TIME CHECK - OVER.

(THIS IS) - ∅A - TIME CHECK one five three seven (pause) - one five seconds - one zero seconds - five - four - three - two - one - TIME one five three seven - OVER.

(THIS IS) - 11 - (ROGER) - OUT

CHAPTER 6

FORMAL MESSAGE PROCEDURE

General

601. Information requiring expeditious delivery is prepared for transmission in the form of a brief and concise message. Tactical radio nets are primarily used for the transmission of informal messages and voice conversations, while logistic and administrative nets are often used for passing formal messages.

Types of Messages

602. There are three types of messages:

a. *Conversations.* These are a series of transmissions between users where subjects are discussed, questions answered and information passed.

b. *Informal Messages*. A user may wish to send information or ask questions without discussing it. This is done by verbally giving a message to the operator or by writing it down for transmission. They are generally short and consist of the addressee and text.

c. *Formal Messages.* These are formal messages written down on a message form (OC 33), signed by a releasing officer and registered for transmission and filing.

Parts of a Message

603. Formal messages consist of three parts:

a. the heading,

b. the text or body, and

c. the ending.

604. Reserved.

Precedence

605. Each message is given a precedence to indicate the speed with which the message should be handles. The degrees of precedence are:

Flash – used for operational messages of extreme urgency such as initial enemy contact reports, warning of imminent large scale attacks and extremely urgent intelligence messages.

Immediate – used for very urgent reports, messages relating to attacks, grave natural disasters, NOTICAS.

Priority – messages concerning the conduct of operations in progress and other important and urgent matters when routine does not suffice and does not justify a higher precedence.

Routine – for all other messages of day-to-day matters.

Security Classification

606. Any message which contains information which may be of value to an enemy must be classified under one of the following categories:

a. TOP SECRET
b. SECRET
c. CONFIDENTIAL
d. RESTRICTED

607. All other messages are unclassified (UNCLAS).

608. The originator is responsible for this classification. Classified messages are not normally sent in clear.

Date Time Group

609. This consists of 6 numbers, one or two letters and the month and year. The first two numbers are the date, the next four the time and then the time zone, eg 051400 IK MAY 01 is 1400 h on the 5 May 2001.

610. Time zones are:

a.	Z (GMT)	London time (UK) 10 hours behind Eastern Standard Time 9 1/2 hours behind Central Standard Time 8 hours behind Western Aust Time
b.	IK	Central Aust Time (SA / NT)
c.	K	Eastern Standard time (QLD / NSW / VIC / TAS)
d.	H	Western Australia time (WA)

Sic/Originators Number

611. This is a registration number allocated by the originator. If it is there, send it.

Message Transmission

612. Some of the common prowords used in the transmission of messages include:

MESSAGE
LONG MESSAGE
WAIT
WAIT OUT
SEND
FULL STOP
BREAK
TIME
READ BACK TEXT
CORRECT
WRONG
MESSAGE ENDS

613. The following is an example of a transmitted message.

∅A - THIS IS - 11 - MESSAGE - OVER

(THIS IS) - ∅A - SEND - OVER.

(THIS IS) – 11 - MESSAGE NUMBER ZERO FIVE SLANT ONE FIVE - ROUTINE - TIME ONE FIVE ONE ONE THREE ZERO INDIA KILO - FROM BIRELLA HQ - TO I SPELL CHARLIE ECHO SIERRA - BREAK - I SPELL BRAVO SIERRA FIGURES 7 - PARA ONE FULL STOP - SEARCH CONTINUES AS PLANNED FULL STOP –

PARA TWO FULL STOP - RESUPPLY REQUIREMENTS FOR NEXT FIGURES TWO FOUR HOURS FOLLOWS FULL STOP - I SPELL ALPHA STOP - MEALS FOR FIGURES TWO FIVE SEARCHERS TO BE DELIVERED TO THIS HQ IN SEPARATE HOT BOXES FULL STOP - MORE TO FOLLOW - OVER

(THIS IS) - ∅A - SEND - OVER

(THIS IS) - 11 - ALL AFTER BOXES FULL STOP - I SPELL BRAVO STOP - WATER COMMA FIGURES ONE ZERO PLASTIC JERRY CANS FULL - STOP - CHARLIE STOP - PETROL COMMA - FIGURES FOUR FOUR GALLONS WITH PUMP - FULL STOP - PARA TWO - FULL STOP - IF HIKERS NOT FOUND BY TIME TWO EIGHT ONE TWO ZERO ZERO WILL NEED TO ROTATE SEARCHERS - FULL STOP – END OF MESSAGE - OVER

(THIS IS) - ∅A - ROGER - OUT.

R and D Blocks

614. One of the two blocks at the bottom of a message form must be filled in depending upon whether a message is received (R) or transmitted (D).
eg,

FOR OPS USE	**R**	DATE	TIME	SYSTEM	OPR	**D**	DATE	TIME	SYSTEM	OPR
		20/05	1400	VHF	TC					

Radio Operators Log

615. Radio operators' logs are to be maintained, when practicable, by operators or users on all radio nets. Instructions for maintaining a radio operators log are shown in annex A.

616. Operators in the field may use a small note book.

Log Data

617. The log is to include the following data:

a. the hand over of the radio to another operator;
b. the time of opening or closing the station;
c. all transmissions;
d. causes of delays in sending or receiving messages;

e. any difficulties experienced;
f. frequency changes;
g. callsigns of stations causing interference;

Annexes: A. Radio Appointment Titles
B. Instructions for Maintaining a Radio Operators Log
C. Sample Operators Log entries.

ANNEX A TO
CHAPTER 6

RADIO APPOINTMENT TITLES

Serial	Appointment	Title
1	Administrative staff	MANHOLE
2	Armour	IRONSIDE
3	Engineers	HOLDFAST
4	Chaplain	SHEPHERD
5	Officer in Command	SUNRAY
6	Deputy Commander	SUNRAY MINOR
7	Transport	PLAYTIME
8	Artillery	SHELLDRAKE
9	Intelligence Staff	ACORN
10	Infantry	FOXHOUND
11	Logistics	MOLAR
12	Medical	STARLIGHT
13	Operations staff	SEAGULL
14	Quartermaster	NUTSHELL
15	Army Aviation	HAWNEYE
16	Military Police	WATCHDOG
17	Signals	PRONTO

ANNEX B TO
CHAPTER 6

INSTRUCTIONS FOR MAINTAINING A RADIO OPERATORS LOG

1. All entries should be in pencil.

2. Log entries must not be erased. Any changes are made by drawing a single line through the original entry and indicating the changed version adjacent to the lined-out entry. Such changes must be initialed by the radio operator.

3. The log must show a continuous record of transmitted and received traffic.

4. Long messages should be written on a Message Form. The log should be brief and concise requiring only sufficient detail to identify the message.

5. Occurrences other than transmissions that are important to the continuous operation of the radio net are to be logged under the heading 'ENTRY'. Examples are:

   a. handover/takeover of radio including SO's, and
   b. changes to antennas.

6. Signal strengths of each station should be logged at the first opportunity.

7. When starting a now net for the day, the operator is to write his/her full name and rank in the log. When changing over, the oncoming operator is to do the same.

ANNEX C TO
CHAPTER 6

SAMPLE OPERATOR'S LOG ENTRIES