ADMIRALTY FLEET ORDER

("S" SERIES)

S.15.—Voice Procedure and Technique

(R.N. Supplement No. 1 to A.C.P. 125 (B))

RESTRICTED

ADMIRALTY FLEET ORDER
("S" SERIES)

ADMIRALTY, S.W.1.

30th October, 1959.

The following Order having been approved by My Lords Commissioners of the Admiralty is hereby promulgated.

Copies of this Order are supplied to Commonwealth Navies but only for official use by these Navies and such of their contractors, under seal of secrecy, as may be engaged on a defence project. Disclosure to any other authority or release to the Press or in any other way is forbidden. The information should be safeguarded under rules designed to give the same standard of security as maintained by Her Majesty's Government in the United Kingdom.

By Command of their Lordships,

To all Commanders-in-Chief, Flag
Officers, Senior Naval Officers,
Captains and Commanding Officers
of H.M. Ships and Vessels.

NOTE :—A note on the Fleet Order System and the scale of distribution of issues is given in " Admiralty Fleet Orders—Instructions and Quarterly Index."

CORRECTION SHEET

Printed Corrections.				Signalled Amendments		
Correction No.	Authority.	Date.	Initials.	Message No.	Date.	Initials.

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INTRODUCTION

1. This Order contains an Abbreviated Voice Procedure for Intra-R.N. use, designed to increase the speed and efficiency of voice communications.

2. It also contains instructions on Voice Technique, and the procedure for the reporting of signals over internal communication systems.

3. In Chapter 1, the numbers in brackets after the paragraph numbers refer to the equivalent instructions in A.C.P. 125B.

4. S.15/59 is effective on receipt. A.F.O.s S.23/58, 24/58 and 25/58 are cancelled.

CHAPTER 1

ABBREVIATED VOICE PROCEDURE

101 (102a). Communication Security

a. " Read Back " procedure should not be used when the reading back would permit the message being intercepted at greater ranges than the original transmission (e.g. aircraft reading back to a ship), unless it is essential to ensure correct reception.

102 (103a). Circuit Logs

a. Logs need not be kept on Co-ordination and Air Control nets, except when specially ordered. On such occasions, tape recorders may be more suitable than logging.

b. On Surface Tactical, Command and Reporting and General Intercommunication nets, only the control station need keep a complete log. Other stations need only log the address, text (date) time group, and time of receipt and or time of execution, of messages addressed to them, except manoeuvring signals which are always to be logged whether the ship is included in the address or not.

103 (108). Logging Equivalents

a. The signs and letters shown under the " Equivalent To " column may be used for logging purposes. In addition the following may also be used :

Spoken	Logged	Spoken	Logged
Acknowledge	Ack	Number	NR
Answer	Ans	Out	--
Authentication	Aut	Pennant	PT
Black Pennant	Black Pennant	Port	Port or /$\overline{PO}$
	or /$\overline{BP}$	Prep	Prep or /$\overline{PP}$
Break		Readable	RDL
Code	Code	Read Back	RB
Corpen	Corpen or /$\overline{CO}$	Relay	RY
Desig	Desig	Relay to	RYT
Disregard this trans	Disr	Relay via	RYV
Distorted	Dtr	Say Again	SA
Div	Div	Silence	HM
Do Not Answer	Dna	Silence Lifted	$\overline{NO}$ HM
Emergency (Flag)	Emerg or /MG	Speak slower	SSL
Exercise	X	Speed	Speed or /$\overline{SP}$
Flot	Flot or /FT	Spell	SP
Formation	Form or /$\overline{FR}$	Squad	Squad or /$\overline{SQ}$
How do you hear me	HR?	Standby	SB
Immediate Execute	Rix	Starboard	Stbd or /$\overline{ST}$
Interference heavy	Ih	Station	Station or /$\overline{SN}$
Interference slight	Is	Subdiv	Subdiv or /$\overline{SV}$
Interrogative	Int	Tack	Tack
I say again	ISA	Time	TM
I spell	ISP	Turn	Turn or /$\overline{TU}$
I verify	IVY	Verify	VY
Loud and clear	LC	Very weak	VWK
Loud and distorted	LD	Wilco	WC
Message for	MF	Words Twice	WDT
Negat	Negat or /NO	Wrong	WG
Nothing Heard	NH		

104 (108). Prowords

a. For intra-R.N. use, the explanation of the proword " TIME " is amended to read :

> " That which immediately follows is the time or date time group of the message. In manoeuvring signals when the executive method is not used, the inclusion of a time group in the message indicates that the purport of the message is to be carried out on receipt."

b. (Para. 208a (2).) Operators should indicate the requirement for a pad by use of the proword " Message Follows ".

105 (208a (1)). The Call

a (Para. 208a (1) *b*.) The abbreviated call may be further shortened by the omission of the proword " This is ".

b. (Para. 208a (1) *c*.) The call may be abbreviated by the Control Station to the callsign of the station called on any net at any time.

c. When only two stations are using a net, the call may be omitted altogether once communications have been established.

Examples of the above are :-

Full Procedure	*May be Abbreviated to :—*
a. SATAN THIS IS BULL DURHAM ROGER OUT	BULL DURHAM ROGER OUT
b. SATAN THIS IS BULL DURHAM JOIN ME TIME 1230Z OUT	SATAN JOIN ME TIME 1230Z OUT
c. APPLE JACK THIS IS DEL RIO ONE LIMA TWO ONE ZERO TACK ONE ZERO	ONE LIMA TWO ONE ZERO TACK ONE ZERO

106 (210). Precedence

The proword " Routine " may be omitted with message of routine precedence.

107 (211). Call Serving as Address

When a message contains action and information addressees and all are in communication with the originator on the same net, the message may be sent using abbreviated plaindress procedure with the call serving as the address. In this case the call must include the information addressees preceded by the word " INFO ".

Example :

> APPLEJACK INFO DEL RIO THIS IS BULL DURHAM........

108 (215). Use of the prowords " SLANT " and " BREAK "

When using the Tactical Callsigns laid down in BRN 01 26, para. 8602, the proword " SLANT " is to prefix callsigns in the text and the proword " BREAK " should be inserted in the message ending to avoid confusion.

Example :

> MOB ONE THIS IS FOREMAN ONE
> EXECUTE TO FOLLOW
> FORMATION ONE SLANT ONE ZERO SLANT TWO ZERO TACK CORPEN TWO
> BREAK TWO ZERO OVER
> TWO ZERO ROGER OUT

If more than one station has the same third and fourth characters, the second character is to be used to decide the sequence of answering of these stations.

109 (302*b*). **Sequence of Callsigns**

When four character callsigns are in use, the third and fourth characters are to be used to determine the sequence of answering. This will eliminate the need for a change in the sequence of answering if, and when, only the last two letters are used as the callsign.

Example :

For callsigns GKYT   the sequence of answering is MWBC
             MWBC   GMWS
             GMWS   GKYS
             GKYS   GKYT

110 (306). **Establishing a Net**

a. The following procedure may be used for crystal controlled nets : —

(i) The control station calls all stations on the net and gives a modulated test transmission in accordance with ACP 125 (B), para. 301F and ends with " OUT ".

(ii) The control station then controls all stations to answer.

(iii) The order in which ships are controlled to answer may be used to establish the sequence of answering on the net, thus eliminating a second lengthy transmission.

Example :

SHOEBLACK THIS IS BULL DURHAM
ONE TWO THREE FOUR FIVE SIX SEVEN EIGHT NINE ZERO BULL DURHAM OUT
SHOEBLACK THIS IS BULL DURHAM (sequence of answering) APPLEJACK OVER
APPLEJACK ROGER OVER
DEL RIO OVER (no response)
DEL RIO NOTHING HEARD OVER (no response)
NIGHTMARE SEVEN OVER
NIGHTMARE SEVEN ROGER OVER
RODEO OVER
RODEO ROGER OVER
SATAN OVER
SATAN ROGER OVER
SHOEBLACK THIS IS BULL DURHAM ROGER NOTHING HEARD OF DEL RIO OUT

111 (311, 318). **Verifications and Repetitions**

a. The required portions may be identified by any self-evident means in addition to the methods described in ACP 125 (B), paras. 311 and 318.

Examples :

SAY AGAIN TEXT
SAY AGAIN TIME
VERIFY ADDRESS ETC.

b. In complying with requests for repetitions, the prowords " I SAY AGAIN " may be omitted if no ambiguity will result.

Example :

RODEO SAY AGAIN TIME OVER
RODEO TIME 1430 ZULU OVER

112 (406). Executive Method (Verifications and Repetitions)

Required portions of messages made by the executive method may be identified by any self-evident means, provided no confusion can arise. Commonsense must be used in both requesting and replying.

Example A :

VERIFY SPEED ONE ZERO
I VERIFY SPEED ONE ZERO

Example B :

SAY AGAIN WORD AFTER CHARLIE BRAVO
WORD AFTER CHARLIE BRAVO ONE

113 (301 *f*). Initiating Test Transmissions

Test transmissions are to consist of the spoken numerals one to zero followed by the callsign of the station transmitting. Requests for test transmissions are to be made as follows : " REQUEST TEST TRANSMISSION ".

114. Abbreviations in the Text

a. Dates. Transmitted as cardinal numbers digit by digit with the month spoken in full.

Example :

20th August spoken as " TWO ZERO AUGUST ".

b. Abbreviations. Spoken phonetically omitting full stops.

Example :

H.E.T. spoken as " HOTEL ECHO TANGO ".

c. Brackets. Single letters or figures written in brackets are to be prefixed by the proword " BRACKETS ". Sentences in brackets are to be preceded by the prowords " OPEN BRACKETS " and ended by the prowords " CLOSE BRACKETS ".

Examples :

(*a*) (i) spoken as " BRACKETS ALPHA BRACKETS ONE ".

(Sequence of answering) spoken as " OPEN BRACKETS SEQUENCE OF ANSWERING CLOSE BRACKETS ".

d. Personal Initials. Transmitted phonetically prefixed by the proword " INITIALS ".

Example :

G. M. Smith P/JX 149985 A.B. spoken as " INITIALS GOLF MIKE SMITH PAPA SLANT JULIETT XRAY ONE FOUR NINE NINE EIGHT FIVE ALFA BRAVO ".

e. Punctuation. Spoken in full.

Example :

" FULLSTOP " " COMMA ".

115. Checking the Group Count

a. When the number of groups received does not correspond with the Group Count transmitted, the receiving station will immediately question the transmitting station using the prowords " INTERROGATIVE GROUPS " followed a by numeral.

Example :

FOREMAN ONE INTERROGATIVE GROUPS EIGHT OVER.

If after rechecking the message the transmitting station finds that the receiving station is correct, the transmitting station sends " THAT IS CORRECT ".

Example :

    ONE ZERO THAT IS CORRECT OUT.

b. Where the group count does not exceed 50 groups and the receiving station is considered to be incorrect, the transmitting station repeats the original group count and transmits the first character of each group in the text in succession.

Example :

    FOREMAN ONE transmits a message to ONE ZERO.

    ONE ZERO THIS IS FOREMAN ONE GROUPS SIX ECHO ALFA BRAVO ROMEO TANGO ECHO LIMA ROMEO XRAY ALFA LIMA ECHO TANGO HOTEL LIMA BRAVO ECHO ALFA TIME ONE FOUR TWO ZERO ZULU OVER.

    ONE ZERO then questions the group count :

    ONE ZERO INTERROGATIVE GROUPS FIVE OVER.

    FOREMAN ONE checks and finds the group count correct as transmitted then transmits :

    ONE ZERO GROUPS SIX ECHO ROMEO LIMA ALFA TANGO BRAVO OVER

    ONE ZERO checks and finds he has missed the third group and transmits :

    ONE ZERO SAY AGAIN THREE OVER.

    FOREMAN ONE transmits :

    ONE ZERO GROUP THREE LIMA ROMEO XRAY OVER.

    ONE ZERO transmits :

    ONE ZERO ROGER OUT.

CHAPTER 2

VOICE TECHNIQUE

201. General

    a. There are two basic considerations in voice communication :

      (1) What is said.

      (2) How it is said.

The first is determined by Voice Procedure.

The second is known as Voice Technique.

    b. This chapter establishes the essentials of voice technique. The necessity for clear speech on Voice communication nets cannot be over stressed.

      (1) If the message to be passed cannot be understood by the listeners, then the message is quite useless.

      (2) Good voice operators are valuable assets, bad voice operators are a nuisance.

      (3) Good voice operators are made not born.

      (4) The vast majority of people have the ability to become good voice operators provided they follow a few simple rules.

202. Limitations of Equipment

The essential information in speech is contained in the frequency range 70 cycles to 7,000 cycles approximately. Transmission by radio inevitably reduces this range very considerably and introduces distortions. It is important therefore that in speaking emphasis should be made on those elements of speech which convey the maximum information, or which can most easily cause confusion.

203. Elements of Speech

The following points are a guide to correct speech on a voice circuit :

    a. Pitch. A low pitched voice suffers badly during radio transmission. The voice should therefore be pitched at a rather higher level than for normal conversation, and the tendency to drop the pitch of voice at the end of words or phrases resisted.

    b. Loudness. Most microphones require a considerable volume of sound to operate them properly. If this is not provided, the full voice range will not be reproduced, and the amplifier will not receive sufficient input signal. The microphone should be held a few inches in front of, and facing the mouth (i.e. not inclined at an angle). The volume of speech should be at least as high as normal conversation and loud enough to overcome any external noises such as shouted orders, aircraft, tele-printers, etc. The tendency to drop the loudness of the voice at the end of words or phrases must be corrected.

    c. Clarity. In normal conversation so much of the spoken word is heard that some short words and syllables can be slurred over without the sense being lost. In the case of radio transmission, with its attendant attenuation and distortion, it is necessary for *all words and syllables* to be clearly spoken. If not, the sense is easily lost and phonetic errors will occur for example, a slurred " Tower " could easily be mistaken for " Tar ". Emphasis must be laid on normally weak syllables, and the sounding of consonants exaggerated.

    d. Unusual dialects and accents are a common cause of confusion on voice nets, operators with a strong accent must endeavour to use as under-standable a pronunciation as possible. In extreme cases there may be occasions when it is inadvisable for such operators to man the net at all (e.g. when communicating with foreign navies with a low standard of English).

e. *Speech Rate.* The rate of speaking should be fast as the conditions of the circuit allows (nothing is more infuriating than an over-deliberate speaker on a busy voice circuit). The speech rate must be steady at the correct speed; an erratic speech rate is confusing. On simplex circuits the pressed switch must be released at intervals to allow breaking in.

(1) With unrecorded messages a deliberate conversational speed is best in good conditions, with pauses of about 2 or 3 seconds between sentences. In poor conditions the rate must be slower.

(2) If the message is to be taken down, as a working rule it will be found best to transmit short self-contained phrases at a deliberate conversational speech rate, punctuated by pauses with the pressed switch released of equal length or more, thus giving an overall speed of transmission which allows writing down. Complicated portions of the messages, such as callsigns, positions, etc., should be transmitted with greater deliberation.

f. Rhythm. Every word or phrase has a natural rhythm which must not be destroyed by the operator, e.g., the natural rhythm of "WINSTON CHURCHILL" is "dah dit dah dit". This natural rhythm is often destroyed in one of two ways; the first by speaking each syllable separately e.g., "WIN STON CHURCH HILL" or "dah dah dah dah"; the second by putting "er" after each word to try to emphasise the word, e.g. "WINSTON-ER CHURCHILL-ER". These are the most common ways of destroying the rhythm, both of which are equally confusing to the listener.

204. Microphone Manner

A good voice operator requires more than just the correct method of speaking. Operating a voice net is an art, in which the personality must play a full part. The operator must know the callsigns and identities of all stations on the net and the sequence of answering. He should take a pride in his snap and precision on the air and use his imagination and initiative, and help by offering to relay in bad conditions. He should endeavour to keep up to date with the general situation (especially when manning a tactical net) and take an interest in the traffic being passed. A smart and intelligent voice operator who uses his initiative and imagination is a boon to his own officers and senior ratings, and the control station. A slovenly operator is a menace to all.

205. The Control Operator

a. All that has been said above applies with particular force to the Control Operator, who must:

(1) Speak correctly.

(2) Know his procedure and use it correctly.

(3) Have an excellent microphone manner.

(4) Exercise a firm but realistic control of the net.

(5) Be completely in touch with the operational situation.

(6) Use his imagination and initiative to ensure traffic is handled expeditiously in order of operational importance.

b. The example he sets will be followed by all stations on the net. It will be found that a sluggish net will become lively and efficient in a matter of minutes when a first class operator takes charge in a determined way. The control operator should regard it as his personal responsibility that the net is a smart one. Inefficient or slovenly operators in other ships must be picked up before bad habits develop. Cases of continuing disobedience or inefficiency should be reported to the Control Station's Signal Communication Officer.

206. Text of Messages

Texts of messages are transmitted as written or as decided by the originator. However, in spite of the limitations of voice equipment the listener can frequently interpret a message under difficult conditions when he knows what to expect. Originators should therefore always use standard phraseology when possible.

207. Training in Voice Technique

a. The simple facts of voice technique must be taught at the very beginning of voice training, and illustrated by recordings or examples. Students must hear their own voices before they begin to transmit in the trainer, and regularly thereafter during practical instruction. Their faults, and success in overcoming them, should be explained to them constantly throughout their training.

b. All voice trainers should therefore be fitted with recording apparatus, and it should be normal practice to use this for short periods every practical session.

c. Voice trainers should also be fitted with a source of interference, usually a receiver, so that realistic interference can be injected into the circuit to enable pupils to be trained under conditions they are liable to meet on a live net.

CHAPTER 3

SIGNAL REPORTING PROCEDURE

301. General

a. The purpose of this chapter is to provide a standard procedure for the reporting of messages and signals via internal communication systems to the Command.

b. Internal communications are the means of passing messages and signals to and from the positions at which they are transmitted and received (e.g. Wireless Offices, Flagdeck, etc.) and to and from the positions at which action is to be taken on them, or where they are originated (e.g. Compass Platform, Admiral's Bridge, Operations Room, etc.).

c. The aims of such reporting procedures must be threefold :—

    (1) Speed.

    (2) Reliability.

    (3) Avoiding unnecessary distraction to all concerned.

302. Means of Delivery

a. The current means of internal delivery in the Royal Navy is either verbal reporting via intercoms, telephones, or voicepipes ; or physical delivery of a written copy by pneumatic tube, carrier pipe or messenger. Detailed instructions on the use of these systems are laid down in BR.1938 (Naval Ratings Handbook).

    (1) Verbal reporting is quicker, but less reliable, owing to the possibility of phonetic errors. It involves at least two persons in the case of telephone, and a number of persons in the case of an intercom system. Furthermore loudspeakers are an unnecessary distraction if the traffic on them is superfluous.

    (2) Physical delivery is reliable, but slow, especially if the message has to be re-written, or typed and duplicated. It causes least distraction.

b. Messages should therefore be delivered as follows :—

    (1) By Intercom :

        IN Messages :

            (*a*) All messages made by the Executive Method (including executive signals).

            (*b*) Important Flag Signals (both hoisting and executing).

            (*c*) Other short tactical messages and manoeuvring signals.

        OUT Messages :

            (*d*) All short messages or manoeuvring signals which require rapid clearance.

            (*e*) Important Flag Signals (both hoisting and executing).

    (2) By Telephone or Voicepipe :

        Any message which would otherwise be reported by intercom, but for which no intercom is available, plus :—

        IN and OUT messages :

            Messages which require early reporting to the command, or early clearance but which do not justify the distraction caused by reporting via an intercom.

(3) By Pneumatic Tube, Carrier Pipe or Messenger :

All messages reported by intercom, telephone or voicepipe may be followed up by a written copy in due course, called the " follow up " copy. In addition :

IN and OUT Messages :

Any message which can await delivery by written copy, or which for any reason is better reported in this way (e.g. encrypted messages, or those with long or complicated texts).

303. Shortening the Content of Reported Messages

It is not always necessary or desirable to report by voice the full detail of messages as received in the ship, providing that a " follow up " copy is delivered. In particular, reporting in full by intercom tends to distract the command :

a. Task Organisations

Numerical designations can be shortened or omitted providing no confusion can arise (e.g. One's own CTE whose full title would be " Commander Task Element Fifty One Point One Point Two Point One " could be shortened to " CTE ". Similarly, " T.U. 52.1.2 could be reported as " TU One Point Two ").

b. Addressees

With IN messages addressed to all ships from the O.T.C., or to one's own unit from the Unit Commander, the address may be abbreviated to " From OTC, From Captain (D) ", etc. This cannot be done when the message is not addressed to one's own ship, or if there are information addressees.

Similarly with OUT messages, addresses may be abbreviated to " To the Squadron," " To the Task Group," etc., providing the Wireless Office or Flagdeck will appreciate who the originator is to be.

c. Long Lists

Instead of quoting long lists of names, stores, positions, etc., the gist of the message may be reported verbally, indicating broadly what the list contains, and the full message reported by follow up copy.

d. (Date) Time Groups

The (date) time group of a message received on a tactical net is not normally of direct interest to the command other than the fact that the message carries one (except in the case of enemy reports). The phrase " Time Group " or " D.T.G." may be used instead :—

Example :

FROM CAPTAIN (D), ZULU JULIETT ONE, TIME GROUP.

304. Callsigns in the Message

a. Identities of ships and authorities in the *Heading* should normally be passed over internal communications as names or titles. The office of despatch or receipt is to append or remove call signs and address groups.

Example :

FROM SCREEN COMMANDER, TO BARROSA AND ST. KITTS, etc.

b. Identities of ships and authorities in the *Texts of messages coded in a signal or brevity code* (e.g., A.C.P. 175, A.C.P. 165) should normally be passed over internal communications in the form received or ready for transmission (i.e., as callsigns or address groups encrypted as necessary).

Example :

STATION JULIETT TACK ROMEO PENNANT ZERO PENNANT SIX TACK ROMEO PENNANT ZERO PENNANT SEVEN.

c. Identities in the *Texts of other messages* are to follow the rules in 304a above.

Example :

TAKE GAMBIA UNDER YOUR ORDERS AND PROCEED, etc.

305. Executive Signals

a. OUT Messages

(1) When a manoeuvring signal or flag signal made by the Executive Method has been cleared to or answered close up by all addressees, the Wireless Office or Flag Deck is to report the fact to the Command in the form : –

" READY TO EXECUTE ......"

or "...... ANSWERED CLOSE UP ".

(2) When the Command requires the signal executed, the order is to be passed in the form :––

" MAKE THE EXECUTIVE SIGNAL (FOR ......) ".

or " ...... DOWN ".

(3) The Wireless Office is to report at the actual time that the executive signal is transmitted : –

" EXECUTIVE SIGNAL (FOR ......) ".

(No report is normally needed from the Flag Deck.)

Note.—This report may be dispensed with if local arrangements are made for own ship's transmission to be monitored at the Command position.

(4) If the executive signal has been cleared to some but not all addressees (owing to circuit difficulties) this must be reported to the originating position, and when finally cleared this is to be indicated in the form :—

" EXECUTIVE SIGNAL (FOR ......) CLEARED TO ALL".

b. IN Messages

The executive signal is to be reported at the actual time of receipt in the form :—

" EXECUTIVE SIGNAL (FOR ......) ".

c. Immediate Executive Method

The reports described in paragraphs 305*a* (3) and (4) and 305*b* above are to be made, as applicable, with the Immediate Executive Method in addition to the normal reporting of the remainder of the message.

306. Enemy Contact Reports

The Wireless Office is to report to the Command by intercom, voicepipe, or telephone when an enemy report originated onboard has been cleared and again if appropriate when it has been rebroadcast.

307. Flagships

a. Co-operation between the Admiral's Bridge and Compass Platform is most important. The following rules should normally apply :—

(1) IN Messages.

Those of a general nature, or addressed to both Ship and Flag, must be reported to both positions.

(2) OUT Messages.

Arrangements must be made to ensure that messages originated by the Flag addressed to a unit including the Ship are received by the Compass Platform at the same time as they are passed to the Wireless Office or Flag Deck for transmission. The Compass Platform must be careful not to carry out the purport of a message until it has been cleared externally.