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FIELD P.

PROCEDURE

JULY 17th 1941

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"The dark green vegetation that always
surrounds a shaggy backbone... giving to the
roof itself a peculiar green light."

PROCEDURE

REMARKS

SIGNAL OFFICE ORGANISATION

A Signal Office is a centre at which messages are dealt with by the signal personnel of the unit. All messages transmitted or received by the unit must pass through this office. It may be located in a building or shelter or may be mobile - eg, a tender.

Accommodation ① Where a wireless station exists, the operating room should be included in the signal office building. The following accommodation should be provided:—

(a) Traffic office for the handling in and issue of messages, and the storage of messages, records, etc.

(b) Operating room [when a wireless station is being operated.]

(c) Telephone exchange.

(d) Signal officer's office.

(e) Code & Cipher rooms.

(f) Small Store.

Note: At stations with limited accommodation the above is to be provided as far as practicable:—

② At stations where more than one transmitter is employed, the transmitters are housed some distance from the operating room, and are remotely controlled.

③ The Signal Office, which should be as near the CO's office as possible, must be sited in a quiet spot, and well away from power-houses or workshops. If possible, direct access to the registry should be provided. The rooms must be well lighted by day and night, and must also be adequately heated, as it is impossible for a wireless operator to work efficiently if his hands are cold.

④ No unauthorised person will be permitted to enter the signal office at any time. Only R A F personnel whose duty takes them to the Signal Office

Larchmont
Felixstone
Calshot
Mount Batten
Pembroke
Cromwell

[Faint, mostly illegible handwriting follows, appearing to be a list or series of notes.]

should be in the building. A notice [Form 85] will be prominently displayed outside all signal offices.

⑤ As far as possible, arrangements will be made for the repair and overhaul of any signal instrument or equipment to be done elsewhere than in the signal office.

⑥ At units at coastal stations, co-operating with the Navy, the signal office will be situated as conveniently as possible with relation to the mast used for hoisting signal flags.

⑦ When, for any reason, it is impossible to site the Wireless Operating room adjacent to the signal office, a certain amount of duplication will be unavoidable, but it should be reduced to a minimum.

Miscellaneous equipment:

Every signal office must be

- a equipped with:
 - a frequency meter, for maintaining frequency accuracy.
 - b fine appliances.
 - c Card of instructions for action in case of severe electric shocks.
 - d A set of wireless stamps which, in addition to the Signal Office Date Stamp bearing the unit's name, consists of the following:

Emergency	Immediate
Important	Nodecs
Personal	For exercise
Secret Not WT	To be acknowledged
Not WT [any reply to this message is to be endorsed - Not WT.]	

- e A safe, or an iron chest, secured to the structure of the building, for secret and confidential books and documents.

July 18 1941

July 9 1942

W/T Failure

Group or
Squadron

Date

Noting of
Type of Failure
and type of
instrument

159

7.5.42

: ~ R155 ~ failed to receive
Diversion signal.

Cause of Failure : Bad Operating.

Class of Failure : "C"

Remarks by Station : Lack of experience on part of W/T
operator. Use of wrong procedure by ground station
operator led him to ~~read~~ read operational message as
procedure signal.

Action taken or comments by Group HQ : Nil

Action taken or comments by Command HQ : Group
instructed to take Disciplinary action
against ground station operators.

DUTIES

The duties of the signal personnel described below, are applicable to large W/T Stations. At other W/T Stations, the signal officer is to be guided by these instructions, according to the number of signal personnel available, and conform to them as far as is practicable.

Signal Warrant Officer

The Signal WO is responsible to the signal officer for:

- ① The general efficiency of the station.
- ② The discipline of the signal personnel.
- ③ The general maintenance of signal equipment, and material; he will carry out a periodic check of stores authorised to be held on the charge of the station.
- ④ The proper use of machinery and technical equipment of the station.
- ⑤ The daily roster of duties.
- ⑥ The signal discipline of the station, eg. the correct use of signalling procedure as laid down in C.D. 28, the suppression of all unauthorised wireless and telephone communications, etc.

Signal Office Superintendent

responsible for:—

- ① Correct handling of all signal traffic—
 - ⓐ Sorting all messages
 - ⓑ Allotting series nos. to "out" messages
 - ⓒ Code or decode the Call, orig. instructions, the delivery instructions, and the address as necessary.
 - ⓓ Initial & datestamp all "IN" messages, & initial all "OUT" messages after transmission.
 - ⓔ Sign for & datestamp all messages delivered by hand for transmission.

- ② The upkeep of the Signal Office Diary.
- ③ All Watches and clocks of the Signal Office being set by Time Signals.
- ④ Periodically examining the message log during his tour of duty.
- ⑤ Check files to see all messages correctly dealt with before going off duty.

✓ Signal Office Traffic Clerk

responsible for:—

- ① Upkeep of the Message log.
- ② Allotment of office serial numbers to messages.
- ③ The despatch to the addressee [out of office hours], or the collection by the Central Registry [during office hours], of all "IN" messages, except Cypher messages.
- ④ The despatch to the Cypher Office of all "IN" Cypher messages.
- ⑤ The retention, for filing purposes, of one copy of each message dealt with, after all action has been taken.

NOTE: In certain inter-command W/T Stations an additional traffic clerk is employed in the despatch office, and is responsible for the duties shown under 1 @ [Supervising] & ⑤ & ④ above.

In dealing with an "OUT" message, the T.C. fills in Message log up to thick black line, passes to operator; receives it back after transmission, & fills in rest of the log. "No. of Groups" column is divided into "IN" & "OUT" group, for purpose of summarising.

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2. The ... of the ...
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The ... of the ...

Operators

- ① In the normal course of their duties, operators are required to work during hours when other personnel are free. C.O.'s should, ∴, avoid detailing operators for other duties.
- ② The efficiency of signalling in any form depends primarily on the intelligent co-operation of operators and their careful observance of regulations.
- ③ No unauthorised form of procedure is to be employed. No message other than an operating signal marked # is to be originated or transmitted by Wireless on the authority of the operator of the watch. Any other communication which may be necessary must be passed in the form of an operating signal or a S. Service message on the authority of the Signal Officer or W.O. in charge.
- ④ Wireless Silence, when ordered, must be strictly observed.
- ⑤ Operators must treat all messages as confidential, and must on no account discuss their contents outside the signal office.
- ⑥ Operators will at once report to the signal office superintendent, any occurrence such as:-
 - Ⓐ A call for W. Silence.
 - Ⓑ An order from a control station.
 - Ⓒ Any failure of instruments.
 - Ⓓ Any distress or emergency signal.
 - Ⓔ Any cause of inability to read incoming signals.
 - Ⓕ Any improper transmissions from a station with which the operator is in communication, or whose signals he receives.

The operator on a w/T watch is responsible for everything on his frequency. He has w/T log book, check-sheet [station names, ~~not~~ Call Signs], FORMS 96 & 96A, carbon papers, [set above thick black line], & a set of confidential signal books. The operator opens watch,

{ E GFF GFA GFT x714(-1043)-2-7128-5-4107+
 [x714 message to Heer: "message you have (or have)
 first formation was incorrectly trans-acted;
 correct version is:" }

notes signal books correct, logs a time for every "R" & "C" given, and received, & logs time at least every 5 minutes. All hours are noted. All P/L Messages in & out, have all before ~~sent~~ in log, P/L, & T.O.O. All Code & Cypher messages to have A.B.I. & including GR No., Messages in portions have a note, such as "last portion".

Abbreviations allowed:

TM 6+
"given":

"Given" Given or received T.M.s, [but all heard T.M.s to be logged in full]; In "C" Messages, check this Message, & write "Repeated back", in log. Initial checks are checked on form, & 1/c logged.

Everything else received or sent, is logged in full. As "X" inserted for interference.

Responsibilities regarding the handling of Messages.

- ① The responsibility for a message for transmission, [i.e. "OUT", or "THROUGH"], rests with the transmitting station, from the time of handing in, or time of receipt, till the time that the "Message received" signal, [R], is made by the receiving station. If, however, in the case of a message for transmission this link, an earlier transmitting station should notice an inaccuracy in the handing of the message by a later linking station, it's the duty of that transmitting station to take all possible steps to rectify the error.
- ② The responsibility for a received message, [IN or THROUGH], rests with the receiving station from the time the "R" is given by that station, until:—
 - (a) in the case of an "IN" Message, the message is collected & signed for by 'Central Registry', or the

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message is delivered to, & signed for, by the addressee/s for whom the receiving station is responsible.

(b) In the case of a "THROUGH" message, the responsibility is passed on to the next receiving station.

DELAYS

Signal officers may use their discretion in regard to the instructions in this paragraph, when it is known that greater delay will not cause any inconvenience.

① In the case of RAF Signal offices which remain open during normal working hours, all messages are to be cleared within the following times:-

Emergency : 15 mins

Immediate : 30 mins

Important : 45 mins

No Priority : 1 hour, or longer, if greater delay will cause no inconvenience.

Letels : 72 hours.

The time allowance will be calculated as commencing from the time of handing in, or T of receipt in the station concerned.

The total time occupied in forwarding a message to its destination will depend on the number of signal links through which it has to be passed.

The above instructions are not to apply to communications with airborne aircraft. Messages to or from airborne aircraft are to be cleared immediately in their order of priority. Failure to establish immediate communication with airborne aircraft, or the inability to clear a message within 10 minutes from the time the message was received

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is to be reported to the originator, during which time, efforts to establish communications with the aircraft, or to clear the message are to be continued.

② In the case of stations owing to short notice periods, the permissible delays are:

Priority Messages: End of 1st period after TOR or TH.

No Priority: End of 2nd ..

③ If a message is delayed for longer than the specified time the originator will, if possible, be informed. If the message is given priority, & it is obvious that further delay will ensue, it will be despatched by telegram or telephone, [whichever is the cheaper], the originator's prior authority being obtained, if possible.

④ When the delay occurs on a signal link, that station will inform the signal office of origin by operating signal. In the case of signal links whose communication with the previous link has become interrupted since the receipt of a through message, the message will be despatched by telegram or telephone [whichever is the cheaper], if bearing degree of priority, but not otherwise.

⑤ (a) An operating signal meaning "Cannot pass your message (identity.....) at the specified time (or till.....)" has been introduced. If desired, it may be sent when answering a message. The station from which the message is received may reply "Inform me when message has been received by addressee", or "Take no further action with regard to forwarding message". If the does not make either of these operating signals, it will be understood that the message is to be passed as soon as possible.

Date 18 July 1941

"OUT"

Station WARRIDGE

Serial No.	TO	FROM	T. of O.	Originator's Number.	Time of Receipt	Time of Dispatch	Station to which sent.	METHOD IN.	METHOD OUT.	REMARKS. Signature of Addresser.	No. of Groups.
1	MAEE 50 sqds. repeated AUSTAVZ	HQTC	0800	P471	0815	0827	FA4	H	W/T	Y	37
2	442 FLT HQ 26 Gp.	WARRIDGE	0739	com/ADZ	0823	0833	DIG.	H	W/T		159
3	[Particulars entered after passage sent]										P
4	MAEE	HQTC	ACX	0815	0829	0842	FA4	H	W/T		-
5	DIAGY	WARRIDGE	Requ.	Repetition	-	0847	DIG	-	W/T	"IN"	-

NOTES

Particulars are filled in up to & including the "TOR" space, & then despatched to operator. Rest of particulars are filled in after message has been sent. [Encryption is No. 3.]

"T of O", of "Out" message, obtained from "TOR" space, 96 or 964.
 "Time Out",
 "ST. to which sent", from "ADDRESS" space, [first 3 letters of station].
 "Filed in", H, E. [page 11]
 "Method in",

Explanations

- Ordinary messages.
- Com. Adz.
- Priority.
- Acknowledgement. * Orig. Ref. No. can be used in place of T of O.
 [For requesting Ackes, Verifications, Checks, etc., utilize the T of O. & originates No. spaces, using appropriate abbreviations.]
- Request repetitions made out by suptr. [If TNC, -ASL - ~~in~~, it is made similarly. Requ. check.

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The following working system is to be used in the office. The term "Signal Office" is to be used when, headquarters signal office or telephone wire platoon messages, from 398] to be within a point, a length. [Except when otherwise directed.]

[From 797]
 will keep a message log in which details of all messages will be entered. Separate logs will be maintained for each of the following: "EVEN" date, "ODD" date, "Traffic" (including log will be kept in the office).
 The log is for every reference in the Signal Office. It is not to be altered by any message. It is to be maintained, as far as possible, in a permanent manner, as far as possible.

GPO Operators Handbook:

Complete chronological record of everything heard
on the frequency.

Duplicated Page for Army Co-op reference.
during exercise, so that Com. may be
checked.

(b) The operating signal alone may also be employed when traffic is abnormally heavy and the superintendent knows that excessive delay in passing messages will occur; in this case it will be understood that only priority traffic is to be offered. When traffic conditions again become normal, the operating signal must be negatived.

Record of Signal Traffic

The following recording system is to be used in all RAF Signal Offices. The term "Signal Office" is to be read as including W/T Stations, headquarters signal offices, & telephone exchanges dealing with phonogram messages.

W/T log [Form 398] To be written in pencil, & kept in the original only. [Except when ordered otherwise].
 ODD & EVEN

Message Log [Form 797]

- ① Every signal office will keep a message log in which details of all messages transmitted & received will be entered. Separate logs will be kept for "ODD" & "EVEN" dates. ^{Record of all traffic passing through the station}
- ② The column of the message log will be filled in as follows:—
 - (a) Serial No.: This no. is for easy reference in the Signal Office & is not transmitted. A serial no. is allotted to every message. The nos. run from 1 onwards consecutively, a fresh set being commenced for ODD hrs. daily.
 - (b) To As in the "To" space, 96 form. Each addressee in a multiple address message, on a separate line.
 - (c) From As in "From" space.
 - (d) Tofo
 - (e) Originator's No.
 - (f) Time of receipt. "THI" or "Time in".

Date 18 July 1941

"IN"

Station COMPTON GARET

Serial No.	TO	FROM	T. of O.	Originator's Number.	Time of Receipt	Time of Despatch	Station to which sent.	METHOD IN.	METHOD OUT.	REMARKS. Signature of addressee.	No. of Groups.
6	MAEE expanded HQTC	442 FIT.	0820	052	0847	0853	Reg.	W/T	H	A. Jones	IN OUT
7	HQTC	—	0821	CON/ABD 0800	0853	0856	9/0FF	W/T	H	P. Cypher, L.S.M.	112
8	HQTC	MAEE	Regy.	ACK.	0847	0902	RECY.	W/T	H	A. Jones	—
9	WBRIDGE	FACBULE	REQV.	RPTN.	0908	—	—	W/T	—	—	—
<u>Notes</u> "T of R" — <u>of</u> message, from "Time W Space", 96, 964. "T of D" — <u>the</u> that messages are collected by Central Registry, or addressed [Lunn]. Sig. of number is <u>Lyndal - Celine</u> " by <u>Remer</u>. "Station to which sent" depends on the Delivery. Routine messages go to C. Reg. Above - Regy. FLYING — D.P. D/FINOT PERSONAL — Addressed to 801. Addressed CYPER — C. Officer. 801 Cy. OFF. <u>"THROUGH"</u>											
10	MAEE	27 sqm	0812	0149	0907	0914	FAE	W/T	W/T		47 47
"Through" addressed to authority on our station.											
11	MAEE HQTC	27 sqm	0809	P271	0906	0925	FAE	W/T	W/T		52
						0919	REGY	W/T	H	A. Jones.	52
Sgt. signs off his book at end of watch. Summary made up last watch of the day. AUT 1411 after all Y [See Sig. Rtn. Part 1, p. 79] x											

③

The final entry in "log" will include a group for last night.

(a) Flying "in" before 10:00 midnight.

④

- ③ In the case of "OUT" messages [except priority messages], all above entries will be completed before the message is handed to the operator for transmission. In the case of "OUT" message containing a degree of priority, the serial number & remarks column only will be completed before the message is handed to the operator for transmission.

- ④ (a) "Time of Despatch": "OUT" messages, as - "TIME OUT"; 96. "IN" messages for delivery, the time the message was collected by central registry, or the time the message was delivered or telephoned to the addressee.

(b) "Station to which sent": "OUT" messages, abbreviation as on 96. "IN" messages, abbreviation of word "Registry" or "Addressee".

- (c) "System IN", "System OUT". Abbreviations: -

W/T	Wireless Telegraphy	D/R	Despatch Rider
R/T	Wireless Telegraphy	V/S	Visual Signal
L/T	Line Telegraph	H	By hand
Tel.	Line Telephone	E	Envelope

- (d) Remarks & Signature: Any special signature circumstance of which it is desired to keep a record, eg "degree of priority, cipher, etc."

Signature of addressee or Registry messenger. Initials of addressee, in the case of the message being passed by telephone to the addressee.

- (e) No. of Groups: As a message form, for summary.

- ⑤ The final entry in the message log for the last watch of the day, will include a summary of the total number of messages and groups for that day: -

(a) Every "IN" or "OUT" message to which a separate series no. is allotted will be counted as one.

SIGNAL OFFICE DIARY.

DATE 22nd July 1941

STATION Air Ministry

Watch Times.	REMARKS.	Signature.
1300-1700	All correct. S.B.C.	L. Jones LAC Supt.
1700-2330	Intermittent fault on remote control line No. 2 from 1715 till 1923 when cleared by G.P.O. wireman. Work with lanterns impossible from 1935 to 1950 owing to local thunderstorm. Three messages on line for Malta. S.B.C.	S. Wells. Cpl. Supt.

- (b) "Through" messages will be counted in both "IN" & "OUT" totals.
- ⑥ The superintendent of the watch will examine the message log at intervals [frequent], with a view to detecting & rectifying any delays; he will sign the log at the conclusion of his watch. The super. of a watch coming on duty will examine the log and satisfy himself that everything is in order before taking over duty.
- ⑦ Completed "Passage Logs" will be retained for one year from the date of completion, & then burnt.

Signal Office Diary [Form 798]

- ① Every signal office will keep a S.O. Diary, in which will be entered, as they occur, particulars of breakdowns of apparatus or communications, reasons for delays of traffic, the traffic loaded over at the end of a watch, any special orders for the oncoming watch, any unusual occurrences, etc. The diary will be signed by the superintendent of each watch before going off duty, & will contain a statement to the effect that all signal books on loan to the Signal Office have been noted & are correct (SBC). The signal books will be checked, & the diary studied carefully by the oncoming superintendent before taking over.
- ② Specimen page:
- | Date: | Station: |
|-------------|-------------------|
| Watch Times | Remarks |
| 1300-1700 | All correct. SBC. |
| | Signature. |
| | AC Supt. |

Specimen:

RAF Form 801

To:-

Dispatch

Receiver

Serial No. of Copy

Date &

Date & Hr.

Signature

106
215

- ③ S.O.D., when completed, retained one year, burnt.

Delivery of Messages

- ① Incoming messages are to receive immediate attention by all who handle them. All "IN" messages are to be made out in triplicate by the office signal staff.
- ② Divg. office knows two copies of the message will be collected by the central registry, on demand, and signed for in the message log. The central registry is responsible for the delivery of the message to the addressee.
- ③ Outside office knows one copy of the message will be delivered ⁵² to the duty office for necessary action. The message ^{of} will be sent ¹⁰⁸ out ¹⁰⁹ by advising in the envelope, 801; the serial no. of the message & the date & time of sending out will be entered on the "despatch" side. The letter "E" will be entered in the remarks column of the message log. In the case of priority messages, the degree of priority will be stamped in large letters on the front of the envelope. When the receipted envelope is returned to the Signal Office, it will be attached to the office copy of the message.

A copy of all messages delivered to the duty officers, outside office knows, are to be collected by the central registry, on demand, when that office opens.

- ④ Signal personnel are NOT to be employed as messengers for the delivery of messages.
- ⑤ Special arrangements will be made to meet local requirements concerning the delivery of flying messages or meteorological reports to the Duty Pilot or Meteorological Officer.

"Out" Clock
Station receiving
A.M.

Station:
Grosport

VZ 8 4 8 6 7

Date: 12th Feb 1940

- ⑥ Envelope, Form 801, used for messages sent by D/R.

Message Files

- ① Messages on which all action is complete, will be filed.
- ② Before the Superintendent of the watch goes off duty, he will check the files to see that all messages have been correctly dealt with.
- ③ Messages will be made up into packets daily, each packet containing all messages dealt with from midnight to midnight, together with the "in" & "out" check sheets & all delivery envelopes employed.

All Operators keep 2 Check Sheets
While the Superintendent's sheets include
all the Operators.

Check Sheets

- ① In order that stations may keep an efficient check on the series nos. of all messages received & transmitted, every W/T Station will keep 2 check sheets, - "IN" & "OUT".

In small offices, check sheets will be kept by the operator of the watch.

- ② Check Sheets filed daily - with the messages to which they refer.
- ③ Names of stations entered as communication established, stations with whom in direct touch.
- ④ Priorities allotted the most appropriate series no., but transmitted out of sequence with an operating signal.

MESSAGE FORM.

Office Serial No. 17

Call IN
and :—
Preface OUT

GFM VGFA NR12-D-CR15-2-022 V W30-Y

No. of
Groups
GR
15Office Date Stamp.
Date
Stamp

TO*

(Above this line is for Signals use only)

A.O.C., Iraq.

FROM*

Air Operations

Originator's Number

A 72

Date

4/10

Time/Day

You 1207 2/10

Approved

by

Tests

21 Oct

should

be

completed

"IN" Message

Important
To be AcknowledgedThis message must be sent AS WRITTEN
and must be sent by W/T.
SignatureThis message must be sent IN CYPHER
and must be sent by W/T.
Signature

Originator's Instructions.* Degree of Priority.*

Time of
Origin.

1207

* Originator to insert "NOT" if message is not to go by W/T over any part of the route.
(Below this line is for Signals use only.)

(Below this line is for Signals use only.)

T.O.R.

T.M.I.

R.A.F. Form 96.
S 175 (Rev 6)

MESSAGE FORM.

Office Serial No. 29

Call IN
and :—
Preface OUT

GFV VGFA NR12-D-CR15-2-022 V W30-Y

No. of
Groups
GR
15Office Date Stamp.
Date
Stamp

TO*

(Above this line is for Signals use only)

A.O.C., Iraq.

FROM*

Air Operations

Originator's Number

A 72

Date

4/10

Time/Day

You 1207 2/10

Approved

by

Tests

21 Oct

should

be

completed

"OUT" Message

This message must be sent AS WRITTEN
and must be sent by W/T.
SignatureThis message must be sent IN CYPHER
and must be sent by W/T.
Signature

Originator's Instructions.* Degree of Priority.*

Time of
Origin.

1207

* Originator to insert "NOT" if message is not to go by W/T over any part of the route.
(Below this line is for Signals use only.)

(Below this line is for Signals use only.)

T.O.R.

T.M.I.

System	Time	In	Out	Sender	System	Time	In	Out	Sender	System	Time	In	Out	Sender	System	Time	In	Out	Sender
W/T	1217			Hin					PAR.										

* The Signal Office is responsible that these details are transmitted to the appropriate portion of the signals, by inserting or removing their significance from the address, etc., is avoided. Before

of responding, establishing

Delivery of Messages

- ① Personal & High Grade Cypher messages are sent out in an envelope [801], & signal form on envelope. Messages during office hours go to Central Registry with exception of
- (a) Met. reports to that office.
 - (b) Flying messages to DP.
 - (c) Code or Cypher messages to Cypher office.
 - (d) "Personal" to addressee.
 - (e) S.S. Messages to S. Office.

original is sent (Cypher)

S-TC-O-S-TC

"OUT" Messages in by hand for transmission

Supr. Signs for messages, enters TH1 & date stamps it. Ascertains message duly authorized, & reads this for legibility, etc., codes the call & allots the series no., codes originator's instructions, & inserts delivery instructions if necessary. Counts groups, & codes address. Crosses out "TO" & "FROM" spaces. Passes on to Traffic Clerk, then back to Superintendent. Series No. on check sheet crossed off. Reads this twice if fall necessary. Details are filled in, initialed & ~~filled~~. With "OUT" check sheet, Superintendent enters no. when making ABI, & crosses off when message comes back after transmission.

O-S-TC +

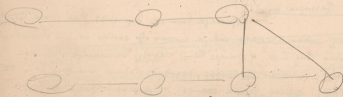
"IN" Messages, by ^{WT}

Message from op. Supr. reads this twice if legibly written. Decodes call, & crosses off series no. on check sheet. Decodes Orig. Inst. & stamps the clearly on message & carbon copies. Checks no. of Groups, decodes address, & enters it in "TO" & "FROM" spaces. Date stamps it, passes message to traffic clerk, ~~fills it in~~ ^{initials it, & ~~fills~~}. Traffic Clerk.
 allots Serial no.
 2 copies to Central Registry.

Priority is stamped angular on the message
else it will not obliterate the text.

Standard of Code for a complete two

MESSAGE FORM



THROUGH Message, IN & OUT by W/T

Sup. proceeds as in "IN" messages, makes new call(s) & series no(s). If addressed to authority at own station, stamps "P/L", Orig. inst., as in "IN" messages. Makes necessary alterations to delivery inst. to cover next transmission, & decodes address, & fills in "OUT" space, & crosses thro' "IN" spaces, also "TO" & "FROM" spaces. In case of W/T Ground, inserts TOR. Proceeds as in "OUT" message. The signals officer signs book at intervals. A Group Captain may, if interested, inspect a sign. Rem.

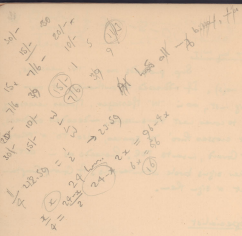
Duties of Unit Signal Specialist

- ① Similar to those laid down for Chief Signal Officer at Command H.Q.
- ② Check all message logs, registers, messages periodically, & enquire into all errors & delays.
- ③ See that all signal failures are entered in S.O.D., & report serious cases thro' his CO to the next higher formation.
- ④ Periodically inspect all signal equipment, giving particular attention to equipment in aircraft, [except ignition system.]
- ⑤ Ensure that Signal Books are kept.
- ⑥ Responsible to his CO for all signal training in the unit.

Duties of Chief Signal Officer

- ① Responsible to AOC for the efficiency of signal organisation & of all signal personnel & equipment, including the electrical equipment of aircraft. Rectify any deficiency or defect, & deal with all signal reports & returns from unit.
- ② Ensure that no departure from standard equipment is made without sanction from higher authority.

Order of Out-Group Species



- ③ Ensure that all transmitting apparatus is accurately tuned to the allotted frequencies, correct signal procedure is employed & that all the unnecessary transmission of signals is prevented.
- ④ He will see that the procedure is followed in regard to land line requirements.
- ⑤ Responsible for organisation & efficiency of the arrangements for cyphering & coding & of the staff detailed for those duties.

CONTROL OF W/T COMMUNICATION

- ① Main Control Station All RAF Commands are placed under general control of M.C. Station.
- ② Control Stations
 - Ⓐ W/T Stations of each Command are organised into groups which different frequencies are allotted. Each section is placed under the control of a control station.
 - Ⓑ The grouping of stations into sections in the RAF Commands in Confidential Communications Orders [CCO's]; each section being indicated by a letter, & the Control Station shown in larger type.
- ③ Sub-Control Station In large sections, sub-controls may be nominated to supervise the work of a smaller no. of stations.
- ④ Inter-Section Communication Stations in different sections wishing to communicate must do so via their respective control stations, except when ordered by control to work on different frequency.

- ① The first thing I noticed when I stepped out of the plane was the cold, crisp air. It felt like a fresh blanket after a long, hot journey.
- ② As we walked through the terminal, I noticed the familiar faces of my friends and family. They were all smiling and waving at me.
- ③ The excitement of the journey was still fresh in my mind. I had heard so much about the trip, and now it was finally here.

CHAPTER 10: THE JOURNEY

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Functions of Control Stations

- ① C.S. will be responsible for efficient conduct of wireless signalling among stations for which Regs are responsible. They will issue all necessary directions for Stations to "GO ON", or "WAIT".
- ② S.C.S. will supervise stations under their immediate control, assisting control station of larger section.
- * ③ C.S. must control the ^{Wireless} Communications of its Section under all circumstances.

IMPORTANT !!

Precedence of Signalling

- ① Control Station is focus of Wireless Communications of the particular section of stations under its control. Messages to & from Control Stations will therefore be given preference over other messages bearing the same degree of priority, sent on same frequency.
- ② Provided that Communication to & from Control is not interfered with, & subject to the latter's orders, stations of a section may intercommunicate as necessary.

Methods of Control

Control S. may regulate the work of their section by:-

- ① Ordering a station to "wait", in which case the station addressed must maintain receiving watch on its normal frequency until ordered by control to "GO ON". A station which has been summoned to wait, & which has on hand a "D" or "P" message for transmission, may make the special preliminary call, but must wait for permission before transmitting its message:-

E D D D V 66R +

E P P P V 66R +

Section of Chapter 2

§ 2.2.1. It is suggested for the purpose of the study that the following factors be taken into consideration:

§ 2.2.2. It is suggested that the following factors be taken into consideration:

§ 2.2.3. It is suggested that the following factors be taken into consideration:

CHAPTER IISection of Chapter II

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§ 2.2.3. It is suggested that the following factors be taken into consideration:

- ⑤ Ordering a station to pass its message on another frequency, in which case the station addressed must shift to frequency ordered, pass its message, & unless orders have been received to the contrary, revert to the normal frequency as soon as its message is cleared.
- ⑥ Ordering the whole section which it is controlling, or certain stations of that section, to shift to the alternative frequencies authorised for the section.
- ⑦ Ordering some degree of priority wireless silence under the priority of its T.C. Station only.

|||| In operations & exercises, the following cases may occur:—

- ① That the C.S. has been instructed that all the information required for the time being from any particular unit has been received, in which case the C.S. will order stations concerned to "WAIT".
- ② That the C.S. has been instructed that no further information regarding the enemy, bearing a time of origin, prior to a time specified, is required. When notification is received to this effect, stations will not transmit enemy reports bearing a T of O prior to that specified.
- ③ That the C.S. has been instructed that no further enemy reports are required. When stations are notified to this effect, any enemy reports on hand for transmission will be cancelled.

WIRELESS SILENCE

- ① May be ordered by T.C.S., or by CS with the prior consent of their T.C., in the event of it being necessary to suspend wireless Comm.
- ② May be ordered in any of the following degrees:—
 - ① Complete suspension of all W/T Signalling on all frequencies.
 - ② Suspension of W/T signalling by certain specified stations of a section.

- © Suspension of W/T signalling on any particular frequencies. The degree of the wireless silence to be observed will be indicated at the time when the "Silence" signal is made.
- ③ As soon as the necessity for Wireless Silence has passed, the C.S. ordering the silence will make the "Neg. Silence" sign, when all stations will resume normal communication.
 - ④ During the time that wireless silence, either complete or partial, is in force, the greatest care is to be taken that no Wireless Signals of any description are allowed to be emitted from the stations concerned in contravention of the Silence order.
 - ⑤ On the relaxation of wireless silence, a considerable rush of messages is likely to be experienced. The only way in which delays & congestion of traffic can be avoided is by the rigorous observance of ③ & "Functions of Control station."

Watch-keeping Routine

- ① Stations are to observe strictly the notice for watchkeeping & interception laid down in CCO's. No departures from this notice are to be made without permission of H.C.S.
- ② Whenever H.C. or Sub-C.S. are using frequencies other than those normally employed, they will maintain an additional watch on the normal frequency if there is any possibility of their being called on that frequency by stations outside their own organisation.
- ③ When stations have to shift frequency for a considerable period, information to this effect must be sent in advance to the A/M at home, & to Command HQ overseas. Following details must be included:—
 - a) Frequency to be employed,
 - b) Probable duration of change,
 - c) Any W/T guards detailed.

".....But, each crawling note
will pale a little your scarlet lips. Your smile,
Tender as always....."

Closing of Stations

② No station will voluntarily close down without informing its C.S. by operating signal. This rule applies equally to stations about to cease watch at the conclusion of their specified watch-keeping periods, to aircraft about to cease watch prior to landing, & to mobile stations which are about to disassemble. The op. sig. will be answered by C.S., & the station concerned will not cease watch until it is clear that the control station has no further messages to transmit to it.

③ An exception to this rule is made in the case of:-

① Stations compelled to close for tactical considerations, when it is impossible to await instructions.

② Stations compelled to close for tactical reasons during a period of wireless silence.

In both these cases, stations must inform their control station at the earliest possible moment by any means available.

Priority Markings in Messages

① The following words are authorised for use in messages to indicate their relative degree of priority in the sequence started:-

Most Immediate

Emergency - Enemy Aircraft

Emergency

Immediate

Important

② Messages so marked are to be given precedence over all other messages, & amongst themselves in the order given.

③ All the above markings are applicable to RAF, Naval, & Army messages.

"The average girl will rather live
being the boss, because she knows
that the average man can see - at
better than he can think."

w.e.f. 0001 1.7.42.

P	- Important	[D loses its meaning]
O-P	- Immediate	
O	- Emergency	
O-A	- Emergency, - En-2 Aircraft	
O-U	- Post immediate.	

w.e.f. 0001 8.7.42

D - Deferred.

④ Messages marked with priority markings are to be handled in accordance with such markings at all stages of their handling, viz. —

(a) in the station of origin.

(b) in transmission.

(c) in the receiving station.

(d) Supplementary messages requesting verification.

(e) By the recipient who may use similar priority in reply.

⑤ It should be noted that the indication "Immediate" is the highest permissible in peacetime, [exceptions provided for local warlike operations overseas, when such messages are of vital importance], & it is essential that its value be preserved.

⑥ The responsibility for deciding what degree of priority is to be employed for any message, rests with the originator, who is to be guided by the following instructions: —

Priority Marking	Application	Authority required
<u>Not Immediate</u> O-U	Messages of vital importance, only to be used in times of strained relations, or war.	Within A.M., — Members of Air Council. Outside A.M., — AOC in Chief, or Air or other officers commanding independent commands. No delegation of this authority. [Total of approx. 8. authority.]
<u>Emergency</u> <u>Aircraft</u> O-A	Reports of formations of enemy aircraft [3 or more]; also used with reports of 1 or more i.e. aircraft seen to be making an attack.	Air or other officers commanding, as to application of this priority as circumstances dictate. Authority for its use may be delegated to anyone whose duty it is to report presence of enemy aircraft.

Priority	Application	Authority required
<u>Emergency</u> ①.	Operational uses of vital importance not coming under (b) above [O-A]; Used in war or warlike operations only.	Staff Officers of HQ, not below rank of W.C., or CO of a Unit. Authority may be delegated for operational purposes to a formation leader, section or half-section commander, [armoured cars], & a captain of an aircraft operating singly. No other delegation.
<u>Immediate</u> P	① For messages of extreme importance. ② Op. messages of less importance than "O". ③ In peace, when life risk, or reporting casualties due to flying accidents.	Staff officers of HQ, [as above], in adjutant [in the absence of the commanding officer]. [as above, also meteorological officer, & the officer in charge of operations room]. No other delegation.
<u>Important</u> D	Important messages, but not "immediate", yet require precedence over ordinary signal traffic. Aircraft messages, weather reports, & requests for same, when necessary.	HQ staff officer, not below rank of S/Ldr, or, in a unit, the CO, adjutant, or duty pilot, also the officer-in-charge of a detachment, or a captain of an aircraft operating singly.
<u>Ordinary</u>		Any officer in a section. [or Ordinary officer.]

Originator's Reference No.

Other than AM originating, consist of a single letter, a number of not more than 3 figures, a date of origin.

Staff, Service, etc.	Letter.	
Accountant	F	
Air [Pin.]	A	
Administrative	{ Organisation Personnel [Officers] Personnel [Airmen]	O P M
Armament	R	
Camp Commandant	K	
Chaplain	L	
Duty Pilot	D	
Educational	E	
Engineer	T	
Equipment	Q	
Medical	H	
Meteorological	X	
Navigation	N	
Photographic	G	
Signals	S	
Stores	W	

July 19 1941

$\bar{E}$ B6R B6R v D2G + $\bar{E}$ D2G v B6R K7 + R3 + K3-DC + K7-K7-G3M-DC + Q-K9-G3M +	Possible Answers	① K ② R ③ Q	10 secs 1 minute 5 minutes
---	--------------------------------	--------------------------------	---

Handing Over C/s

ARM	Arm	$\bar{E}$ ARM ARM v A7F + [calling any army station].
RN	R. Navy	$\bar{E}$ A7F v AS7 [Army] K7 +
A7F	RAF	$\bar{E}$ AS7 v B6R NAI +

GE2AA } Any British aircraft
GEZ } Any British aviation station.

- ③ $\bar{E}$ K60 K60 K6W K6W L90 L90 v D4B +
- ② $\bar{E}$ W8P W8P v D4P + * [if the C/s addresses an aircraft formation, the OC the formation will answer first.]
- ④ B3N & W8P are collective C/s.
D4B H8Y L90 are individual C/s
(a) $\bar{E}$ B3N B3N W8P W8P v D4B +
(b) $\bar{E}$ B3N H8Y v D4B +
(c) $\bar{E}$ Z3D Z3D v D4B + [Z3D is Multi-Collective, embracing 3 aircraft squadrons.]

Preliminary Calls

Used to establish Communication:

E G F X G F X V G F T +

When used before a

message bearing a degree of priority, degree is inserted: [only D].

E G F X G F X V G F T D +

Special Preliminary Calls: When a station which is under Q wishes to transmit a D or P message, or believes that the station ignoring Q has forgotten to negative it, Sp. P.C. can be made: [presumed addressed to C.S.]

E D D D V G F T + Answer: E G F T V N 3 C K + }
or Q + }

E G B R V G F T N R 1 - G R 8 = etc

When station wishes to transmit a message of priority O or O-A, or cannot do so owing to frequency interference, the Sp. P.C. —

* E O O O V G F T + — may be transmitted, until other stations have ceased to transmit. * Authority of officer authorizing degree of priority is required.

Types of Pre. Calls

① SIMPLE

1 Call Sign

← Immediate answer.

② COLLECTIVE

1 CS often section

← Answer is under [except aircraft].

③ MULTIPLE

2 or more CS

← Answer is under.

④ MULTIPLE COLLECTIVE

2 or more Collective

(a) ← Wait for 'K' from transmitting station.

1 Coll. & 1 individual.

(b) 1 Multi-Collective.

(c) ← one or more collective CS, 1 or more of which addresses 2 or more persons.

A Multiple-Collective C.S. is not answered until transmitting station gives K to one of the station/s called.

Answers to Pre. Calls:—

E G F T V G F X K 4-9 + [Can't or, you signal strength etc....]

E G F T V G F X R 1-3 + [P.C. received, signal st....]

E G F T V G F X Q + [Wait].

No Preliminary Call is made with P or above.

[IT IS IMPOSSIBLE TO OVER-ESTIMATE THE VALUE OF AN IMMEDIATE ANSWER.

Failure to Answer

10 seconds pause

then 1 minute
agitated at intervals of not
less than 5 minutes.

- ① In multiple, etc., station not answering in its place wait until all stations have answered.

[Less this, when abbreviated procedure is being used]

① fixed station

② point to point [in Section] x

Scale of Notation

- 1 Just Audible
- 2 Very faint, Unreadable
- 3 Just readable
- 4 Faint
- 5 Rather Faint
- 6 Fair
- 7 Good
- 8 Strong
- 9 Very Strong.

"When unable to obtain an answer, a transmitting station may direct any other station which is likely to be able better to attract the attention of the receiving station, to pass on the preliminary call."

Z included.

Preliminary Call passed via Linking Station

$\begin{aligned} & \text{E L6C L6C V D2G-T-Z-B6R V D2G +} \\ & \text{E D2G V L6C R +} \\ & \text{E B6R B6R V L6C-Z-B6R V D2G +} \\ & \text{E L6C V B6R R +} \\ & \text{E D2G V B6R X 667 [transmit you C.S. for 2 minutes] +} \\ & \text{or E D2G V B6R X +} \\ & \text{or E D2G V B6R IMI +} \\ & \text{E B6R V D2G R-X667-D2G.....+} \\ & \text{E D2G V B6R R [or N] +} \\ & \left. \begin{aligned} & \text{R-X7 +} \\ & \text{R-X291-X7 + [usual].} \end{aligned} \right\}
\end{aligned}$

Preliminary Calls: The method by which communication is established between stations.

Multiple P.C.s: 2 or more stations called by their individual C/s ~ called & answered in alphabetical order.

Collective P/Cs: A C/s embracing a number of w/t stations or squadron of planes is used. Answers in alphabetical order except squadron CQ, [in case of aircraft], who answers first.

Multiple Collective P/Cs: 2 or more collective C/s or/or 1 collective & 1 individual or 1 Multi-Collective. Stations don't answer until given X by transmitting station, in order required.

Signals Service Message A message between S. offices, which concern solely the conduct or maintenance of signalling.

Unknown station C/s If a call is heard, but the calling stations C/s is not heard, use the unknown stations C/s, i.e. VE AA V 662 +
 If not sure whether a message was sent ask for repetition, i.e.
 VE AA V 662 1411 +

Confidential Signals Books

Call Sign Book	CD 104
D G Book	CD 112
Signals Manual III	CD 028 ✓
Operating Signals Book	OU 5371/39
Signal Manual I	AP 1083
RATF VR Manual	AP 1713 ✓
W/T Log	398 ✓
Message Log	797 ✓
S.O.D.	798 ✓
Envelope	801 ✓
Message Form	96 & 96A.

USE OF X0, followed by a number or numbers:

Used in place of "T". Op.s.g. may be employed any time in place of "T", & c/s, when the use of the op.s.g. will simplify or abbreviate the procedure.

X00 Pass to all addresses

X01 to X09, X0-10, X0-17, X013, X01-11-16.

W/T Message divided into 2 parts:

- ① Call
- ② Body { Preface

Test { Address
31-
TFO

Preface contains the
signal stuff

Series No: "is a number employed to indicate the sequence of messages passing between a W/T station & each one of the W/T stations in which it is indirect communication in the course of sending, & to enable any particular receiving station to ascertain whether all messages of that series have been received."

Call

Body { Preface { 0
D
N
Test { Address
31-
TFO

- ③ "S" PWD may be used in these messages, between signals officers, solely concerning the conduct or maintenance of signalling.
- ④ "NODSCO" Only to be decoded by a commissioned officer.
- ⑤ "PERSONAL" Messages in this are personal, & should be delivered in envelope 801, direct to the addressee. The officer concerned is usually indicated in the 3/m.
- ⑥ "NOT W/T": Not to be sent by W/T or R/T nor any part of its transmission, or referred to thereby.
- ⑦ "SECRET NOT W/T". To be sent by RAF Teletypewriter only, & that the contents of the message are to be treated as secret.
- ⑧ "XO" Now used by itself, but followed by a figure. "Pass to the addressee indicated."
- ⑨ Op. Sigs - The Delivery Instructions.
 Eg. -M- 362-X419-34T-X212
 ["Pass message to by V/S"]
 362 to pass message to 34T by V/S.

"Op. Sigs. together with any c/s, wave frequencies, etc., amplifying them, giving instructions for the transmission of the message."

T of Origin

not in following passages:

- ①
 - ① Repetitions & corrections of parts of passages.
 - ② Passages to be followed by the executive signal
 - ③ Silence or Neg. Silence sign.
 - ④ Affixes the executive signal.
 - ⑤ Procedure passages.

- ② Never altered, except:

Signal staffs responsible that two passages to the same addressee have the same Time of Origin.

They alter the last figure, & inform the originator.

1500 1501 1502 +

Gen of 14.5.42

Time of Origin

Time and Date indicated by 4 figures followed by Date, [separated by /].

- 1030 / 5

Counts as last group x

② The of Receipt

Four uses: —

- ① To identify a procedure message, — can be used to identify an ordinary message only if NR or TOO are not available.
- ② Passing in W/T Traffic [except messages "P" or alone.]
- ③ Passing in intercepted traffic.
- ④ By linking stations if unable to pass on a message within 30 minutes of receipt. The TOR is only put on by station where message is delayed to the next station.

- ⑪ "VA" No message sign. Used in broadcast Messages. Also used
- ② Station is called in error.
 - ③ Station has answered in error.

- ⑫ Op. Sigs. — final instructions.

Normally used to convey technical instructions regarding frequency, strength of signals, etc. NOTE: Answer should not be delayed to look up the op. sigs.

GR. NO. Not used in (X Series Msgs [except Emergency])

- ① Procedure Messages
- ② Emergency Reports
- ③ D/F Reports
- ④ Distress Messages
- ⑤ Messages made during a W/T exercise, dealing with the conduct of the exercise.

Pseudonyms: WA, WB, AA, AB, Part to Part, P/L
WA, WB, AA, AB, Groups Group, code.

AB 1 - P/L (?)

[The message, or part of a message required, is only made once, notwithstanding that the original message may have been made twice, unless OC is used.

* WA & WB used in code in a long message, then it is easier than counting the groups.

REPETITIONSIMI

✓ Y9A VKGN NZ7-M-A7Q-T-J4L-GR19-Z-C4R R8G-W-
 ASD Z2K V L8P ~~and~~ P279-31/3 Names of officers taking
 course "E" to reach this office not later than 2 April
 = 0900 +

④ Plain Language① Whole message

✓ KGN V Y9A IMI +

Repetition as above, ^{exactly in original} transmission

② AA [All after] AB [All before].

✓ KGN V Y9A IMI AA officer +

✓ KGN V Y9A IMI AB officer +

IMI-X +
if desired x

③ WA, WB. [As above].

④ Word to Word.

✓ KGN V Y9A IMI Names to reach +

✓ Y9A VKGN - Names reach + Use 2 words where

one will not clearly identify the position.

If operator misses any part of ABI ~ except the GR No.,

he must ask for whole of ABI. ~ ✓ KGN V Y9A IMI ABI +

✓ Y9A VKGN-ABI-Y9A VKGN..... +

⑤ Code Messages① Whole Message

✓ Y9A VKGN NZ8-GR15 = P279-31/3 - RONAB BOXAL NRZYP
 XOPNZ BLANZ ACDZP ZARWA ZNOKK ENVRK FNOPY YOLWA
 JNPAB = 0921 +

✓ KGN V Y9A IMI + [as above.]

② ✓ KGN V Y9A IMI ABI +

③ ✓ KGN V Y9A IMI AA7 + Rep: ✓ Y9A VKGN-AA7-ACDZP.. +

✓ KGN V Y9A IMI AA BLANZ +

④ WA or WB can be used as - P/L.

⑤ Group No. to Group No.

✓ KGN V Y9A IMI 3 to 6 + Rep: ✓ Y9A VKGN-3 to 6 - RONAB..... +

$$+ \frac{171}{170} 1020/22/7 - 2 + [\text{preferable}]$$

$$\frac{171}{170} N \& L 22/7 - 2 +$$

or: E KGN VYGA ITT RONAS to KOPNZ +

⑤ E KGN VYGA ITT 6 +

⑦ For TOR, use Group No. or WA, or AA.

To obtain repetitions after it has been given, permission must be obtained from the Signals Officer. Message must be identified when asking for such a repetition, & identity must be given in reply, eg. —

+ ITT NR10 + E KGN KGN VYGA ITT NR7 - WB April +
ITT IEDD GEF VGFJ + E YGA VKGN R + [followed later by...]
E YGA YGA VKGN - NR7 - WB April - May +
E KGN VYGA R +

* When a repetition is given, there is always a short break after the call.

* With procedure messages, repetition of whole message must be requested.
DGS, can split ASD for ITT's.

CALL SIGNS ① One letter one figure DZ

Usually LFL series, ② 2 L. AB - 22

③ LLF AAZ - 29Z

④ LFL A2A - 29Z

⑤ FL L 2AA - 92Z

⑥ 3 L AAA - 22Z

⑦ 3 L IF AAAZ - 2229

⑧ 4 L AAAA - 2222

⑨ 5 L AAAAA - 22222

Special c/s RN - Any RN ship or station

ARM - Any army station

GEZ - Any British aviation station

GEZAA - Any British RAF aircraft.

ATF

ONLY ANSWERS TO INT GR.

AGREE

DISAGREE

Normally:	CWB1[2] - GR10 +	CNR2 - GR11 - i/c +
Messages in Partials:	CAR 19560 - B10 +	CNR2 - GE80 i/c [part in question 1 - B9 +
Butel Working:	CNR2 - WB1[2] - GR 11 +	CNR2 - GR10 - i/c +
Agree given:	As for Butel Working.	

Two 2 July 22
CWB - V. H. H.

Always - " before i/c *

only i/c of other stations entered - log w/r.

- ① (a) To verify the number of words or groups in a message from which the number of words or groups has been omitted.
- (b) To indicate to the transmitting station that the number of words or groups received by the receiving station does not agree with that indicated. Either because
- The message is counted incorrectly by the transmitting station
 - The message counted correctly, but transmitted incorrectly
 - The message received or counted incorrectly by the receiving station
- ② "C" always used - reply.

- ① INT GR { Agree
② INT GR X { Disagree
③ INT Y
④ INT X

Used in Routine Messages in conjunction with:

- ① X (permission to transmit)
② GR (when omitted)
③ Y (ack'g if understood).

EM 16100 1616 - INT GR +
161616161616 - INT GR +

Interrogative SignINT

- ① INT K Used when a station has been told to wait by control, & considers that permission to transmit [K] has been overlooked.
 E Y9A Y9A VY9N Q + [after time, Y9A makes -]
 E N3C VY9A INT K +
 E Y9A VN3C K [or Q] +

② INT Y
 [See p 52, x]

- (a) Where Y = original message. "Hasten acknowledgement"
 (b) not {Request
 "Please acknowledge."

E B6R VD2G INT Y 1030 +
 E D2G V B6R R +

- ③ INT GR (a) INT GR ~ "What is the no. of groups?"
 E B6R VD2G INT GR +
 E D2G V B6R C W32 - GR 20 +
 [Used when GR no. has not been sent; or when a GR no. has not been received.]

(b) INT GR 20 ~ "Should not the no. of groups be 20?"
 E B6R VD2G INT GR 20 +
 Believes. E D2G V B6R C W37 - GR 20 +
 Disbelieves. E D2G V B6R C NR7 - GR 21 - i/c +
 D2G finds he has missed the GR group, -
 E B6R VD2G INT 14 +

[T of O can be used to identify, in this case.]

(c) After R has been given. [requires authority of supervisor.]
 E B6R¹⁰⁴⁰ V D2G NR16 - INT GR 8 +
 E D2G V B6R C1040 NR16 - W32 - GR 8 +
 E D2G V B6R C1040 NR16 - GR 7 - i/c + [Followed by INT using Identity]

use
 TOO
 or NR16

IDENTITIES

Orig. Ref. No.

- ① When necessary to refer to a message, identified by quoting one of following:-

② Series No. ③ T.O. ④ TOR [only when no other, or not to be used for referring to messages made by non-official persons.]
When a message can be identified in more than one way, it is permissible for a signal link to substitute an alternate identity, if this will facilitate the tracing of the message by the receiving station.

- ② (b) or (c) above, may be amplified by addition of whole or part of call & degree of priority, if any. (b) alone may be a. by add. of whole or part of the address [in code or plain], & the degree of priority [if any].

1030 GFW V GFA-D 1030 GFW V GFA 1030 V GFA

- * ③ Usually T.O. method will be employed for identification. Series No. method should be used by stations carrying out inter working & between stations in direct communication.

- ④ If 1/2 of receiving station, or address are included in the identity of the whole or part of a message, they must all be included:

1030 GFW GFW-W-GFW V GFS
or 1030 V GFS

- ⑤ When it is necessary to refer to part of a message, the part required is identified as follows:-

② by quoting no(s) of group required [in code or plain].

③ no. of the group [in code or plain], or the actual groups or words P/L on either side of the part required, separated by the word "to".

④ by using AA BB with BB together with no. of groups, group or word necessary to complete their meaning.

- ⑥ In cases where ambiguity may arise owing to the word or groups quoted appearing more than once in the message, the next word or group should be added to the part identity.

- ⑦ (a) The call & prefix is always identified as a whole, the procedure A31 or AB 1st group being used for this purpose.

(b) Except when correcting the no. of groups or words in P/L in code usage, the call, prefix & address is always indicated identified as a whole, the procedure signal A31 or AB 1st group being used for this purpose.

① NR7

③ 1045

1045/104

1045 G2W V R9T-D

1045 V R9T

1045/104 G2W V R9T-D

1046/104 V R9T

① TOR 1100 V GFA

TOR 1100 GFW V GFA

Counting the Number of Groups

- ① Start after BT or AAA, & count up to TOO, NOT AFTER.
- ② Only punctuation marks to count are
 - Ⓐ full stop
 - Ⓑ comma
 - Ⓒ p. of inverted commas - lqps.
 - Ⓓ p. of brackets - lqps.
- ③ Oblique strokes do not count.
- ④ Hyphens belong to previous group, - thus divide word into 2, eg. Co-operation, [2 groups.]
- ⑤ Recognised abbreviations of valet count as one word, eg. - FLT/LT SGT/PLT A/CPL AVM S/LDR.
- ⑥ Recognised abbreviations, however long, - 1 word, ie. S of NC, S of AC, KR & ACI, AM/1812/7 +
- ⑦ Initials count as one each, & separated by short break, eg. - Sqn/Ldr P - G - MAY [4 groups.]
- ⑧ Dates with oblique strokes. I full, eg 26th Feb 1941 [3]
- ⑨ Any combination of letters & figures sent consecutively, one one group.
- ⑩ Abbreviation of book or publication only, counts as one word. Words, figures, or symbols referring to the paragraph & sub-paragraph are to be counted separately.

Dof T Director of Training
 DWB Director of Works & Buildings
 SABO Senior Air Staff Officer
 DPMO Deputy Principal M.O.
 S of NC School of Naval Co-op.
 E & WS

AMON 24/34 [1]
 1468/AVN/Two [1]

17 MAR 1935 [3]

Casualty report

VE 562 v D2G-P-GR48-Z-

0000

P27-22/7 Casualty KR 2310 (A) Anson KR 214

(B) 12 miles S W Swinton (C) S/Ldr Legman

(D) AC2-Horn (E) Killed (F) Hvs A W Horn-21-Park Lane

S W 2 (G) observe (I) (1) Yes (2) No

} Fire appliances carried (1) used (2)

(3) Penetrates .. (1) .. (2) =

If station receives no answer to its message,

unless:

N - B NR27+

B can be answered by Op. signal - "Passage - was completely received",
or by IM.

USES OF B

"Has message been received?"

1. In subject matter of procedure message① $\text{E B6R VD2G B NR15 [1030]} + \text{"Have you received?"}$ $\text{E D2G VB6R R} + \text{E D2G VB6R R } \left[\sim \bar{N} \right] \left\{ \begin{matrix} 1030 \\ \text{NR15} \end{matrix} \right\} +$ $\text{E B6R VD2G R} +$

[for the procedure message]

② $\text{E B6R VD2G B 1030 A3L HGT V Y3P} +$ $\text{E D2G V B6R R} +$ $\text{E D2G V B6R R 1030 A3L HGT V Y3P} +$ $\text{E B6R VD2G R} +$ Answer is $\frac{R}{N}$ ③ $\text{E B6R VD2G B NR15 - B 1030 V Y3P - B 1040 B7PVCJA} +$ $\text{E D2G VB6R R} +$ $\text{E D2G V B6R R NR15 - } \bar{N} 1030 \text{ V Y3P - R 1040 B7PVCJA} +$ $\text{E B6R VD2G R} +$ $\text{E B6R VD2G B 1030 / 4 / 6} +$ Can insert Priority : $\text{E K2W V D4B B 1200 K2W V K2G - D} +$ 2. In final instructions

"Have a further message [in no. of messages] for you".

① $\text{E B6R VD2G NR1 - GR2} = \text{ACEBT} = 1020 - B + B2 +$ $\text{E D2G VB6R R} + \text{K} + \left\{ \begin{matrix} R - K + \\ R - Q + \end{matrix} \right.$ $\sim \text{E D2G VB6R R} - Q + \left\{ \begin{matrix} R - K + \\ R - Q + \end{matrix} \right.$ ② $\text{E F8A VNZC NR1 NR2 NR3 NR3 - GR2} = \text{BPLR} = 1030 -$ $\text{B6R - B} +$ $\text{E NZC VA3L R} +$ $\text{E NZC V B6R } \underline{R - K} +$ $\text{E NZC VD2G R} +$ $\text{E NZC V HGT R} +$ [When receiving station has a message to transmit,
 $\sim R - B +$ * B is not used in final instructions of a "G" message.
Hst wait until gives C-B.+
 $K + \}$

The first part of the paper is devoted to a discussion of the
 general principles of the theory of the α -decay of heavy nuclei.
 It is shown that the α -decay is a process which is governed by
 the laws of quantum mechanics. The probability of the α -decay is
 determined by the penetration of the α -particle through the
 Coulomb barrier of the nucleus. The theory of the α -decay is
 based on the assumption that the α -particle is formed inside the
 nucleus and then penetrates through the Coulomb barrier. The
 probability of the α -decay is given by the expression

$$P = \exp(-2\pi Z_1 Z_2 e^2 / \hbar v)$$
 where Z_1 and Z_2 are the atomic numbers of the α -particle and
 the nucleus respectively, e is the charge of the electron,
 $\hbar$ is the Planck constant, and v is the velocity of the
 α -particle. The theory of the α -decay is in good agreement
 with the experimental data. The second part of the paper is
 devoted to a discussion of the β -decay of heavy nuclei. It is
 shown that the β -decay is a process which is governed by the
 laws of quantum mechanics. The probability of the β -decay is
 determined by the penetration of the β -particle through the
 Coulomb barrier of the nucleus. The theory of the β -decay is
 based on the assumption that the β -particle is formed inside the
 nucleus and then penetrates through the Coulomb barrier. The
 probability of the β -decay is given by the expression

$$P = \exp(-2\pi Z_1 Z_2 e^2 / \hbar v)$$
 where Z_1 and Z_2 are the atomic numbers of the β -particle and
 the nucleus respectively, e is the charge of the electron,
 $\hbar$ is the Planck constant, and v is the velocity of the
 β -particle. The theory of the β -decay is in good agreement
 with the experimental data.

3. B in Message in Portions

"This includes the portion just transmitted [up to and including word or group no.]"

$$\text{E } A3L \text{ V } B6R \text{ NR2-GR72} = [39 \text{ groups}] 2716 - B40 +$$

$$\left\{ \begin{array}{l} \text{E } B6R \text{ V } A3L \text{ K} + \\ \text{or } \text{E } B6R \text{ V } A3L \text{ INT } 10-14 + \end{array} \right.$$

$$\text{E } B3L \text{ V } B6R - 10 - 1574 - 14 - 1684 - B +$$

$$\text{E } B6R \text{ V } A3L \text{ K} +$$

$$\text{E } A3L \text{ V } B6R - 1456 [\text{remainder of groups}] = 1090 +$$

$$\text{E } B6R \text{ V } A3L \text{ K} +$$

Repetitions are coded for in the usual order after each portion. "B" is given after repetitions :-

$$\text{E } B6R \text{ V } D2G \text{ NR1-GR6} = 1274 \text{ 3123 4162 - B3} +$$

$$\text{E } D2G \text{ V } B6R \text{ INT } 2 +$$

$$\text{E } B6R \text{ V } D2G - 2 - 3123 - B3 +$$

$$\text{E } D2G \text{ V } B6R \text{ K} +$$

To query the Group No. of a message in Portions

$$\text{E } B6R \text{ B6R } \text{VN3C} +$$

$$\text{E } \text{NR6 } \text{V } B6R \text{ K7} +$$

$$\text{E } B6R \text{ V } \text{VN3C } \text{NR1-GR9-2-X24VPR2} = 1381 \text{ 2104 7184 - B3} +$$

$$\text{E } \text{N3C } \text{V } B6R \text{ K} +$$

$$\text{E } B6R \text{ V } \text{N3C} - 2475 \text{ 1923 7921 - B6} +$$

$$\text{E } \text{N3C } \text{V } B6R \text{ INT } \text{GR5} +$$

$$\text{E } B6R \text{ V } \text{N3C } \text{CNR1-GR9-217 - B6} +$$

$$\text{E } \text{N3C } \text{V } B6R \text{ INT } 6 +$$

$$\text{E } B6R \text{ V } \text{N3C} - 6 - 7921 - B +$$

$$\text{E } \text{N3C } \text{V } B6R \text{ K} +$$

[or, if a group had been missed out during transmission, & transmitting station realised this...]

$$\text{E } B6R \text{ V } \text{VN3C } \text{C A A } 1923 - B5 +$$

$$\text{or } \text{E } B6R \text{ V } \text{N3C } \text{C A A } 1923 - 7921 - B6 +$$

July 22 1941

E 56R v N3C Q+
 E N3C v 16R 17TH
 E 56R v N3C Q+
 E 56R v 16R D+
 E 56R v N3C +
 E 56R v N3C K+
 E 16R v 56R K7+
 E 56R v 16R N41.....+
 E 16R v 56R L+
 (16R reacts via Q1)

When a station, which has had us
 order to wait, calls with a P+D
 message, or station which has been
 ordered to wait, by its control, it must
 obtain permission xP

Q answers to a preliminary call, — "I cannot attend to you."

① in 51 - of Procedure Change

* Directs all receiving stations, or those indicated, to wait.

Q

① Q imposed by Control in 9 - of previous message x"Wait"

E WGN WGN V KGN Q + Nostr. - section WGN allowed to transmit except in 3 cases: -

① When str. considers that control has forgotten his order to wait. With an ordinary message to transmit, the station makes

E KGN KGN V A2B WT K + [How I carry on?] KGN - K or Q.

② When str. has message priority D to transmit, or P, it makes special Preliminary call. Answered K or Q.

③ When str. has msga priority O, O-A, O-U, it ignores Q.

In ② & ③, reverts under Q, after clearing message.

④ Called by control x

②

Q in final instructions *

And in Abbr. Method
between 2
stations not
usually using abbr.
procedure x

E WGN WGN V KGN NR1 NR3... GR2 = LOXAB = 0917-03DY9A-Q +

All other stations will answer except these two, until they are controlled to do so.

③

Q in Subject Matter

When it's necessary to break off transmission of a message:

E Y9A V KGN NR7-GR27 = LOXAB PRONT ZARXA BL-Q + *

Queens "I am obliged to wait" & does not order the receiving str. to wait.

(a) leaving Xmission short tie: E Y9A V KGN -3-ZARXA ... = 0927 +

[start with & identify last complete group.]

f/l go back a few words, but don't identify.

(b)

long tie: Message not be identified:

E Y9A V KGN NR3-3-ZARXA R +

[No short break here.]



CANCELLING

Erase sign 8-10 dots. Correct errors in transmission of P/L.
 ~8-10 dots, then repeats last complete word made correctly.

Code or Cypher: same + short break.

E G F X V G F I N 26 - G R 30 = 717 erase - = 7164 8210 etc.... +

Cancelling during transmission: erase + [if before T of O sent.]

The superintendent must ensure that series no. is restored to the check sheet. "Cancelled" is put in w/T & message log.

after transmission: after T of O completed.

Originator must make out a fresh message. P/L or code or cypher.

S/n would be "Cancel - 2 P26 = 0947.

"Cancel - 2 1030"

LONG MESSAGES

Message said to be a long message if it contains

© Over 100 words P/L

© Over 60 groups cypher or code.

Always made in portions 40 groups [not exceeding], & usually 20-40.

P/L divided as convenient, but not more than 60 words, & should be arranged whenever possible to end at the conclusion of sentences.

When $\overline{DC}$ used, each group made twice, portions: P/L 30 code 20.

Messages not containing a sufficient no. of words or groups to be termed a long message, but which are of moderate length, may be made in one transmission, or in portions. Guided by conditions of communications, interference etc. prevailing at the time.

With $\overline{DC}$ F message following call becomes:

E V8H V8H V G8V - F - $\overline{DC}$ ITT V8H V8H V G8V - F - $\overline{DC}$ +

then the message is transmitted as usual by $\overline{DC}$ method.

{ They be used in a following call before a message
made by the omniscient method

Supr.
Op.
Clock Sheets

F MESSAGES

"Method of transmitting to one or more stations without requiring them to answer direct." It is a broadcast method. Used when station not wanted to answer, or if they cannot do so.

① Messages are made through twice, [except P/L concerning the conduct of W/T exercises, (only need be sent once)]. *

② "F" for receiving station only. Is not passed on.

③ If sent by DC, treated as an ordinary message, & is not repeated in its entirety.

④ No preliminary call ordinarily, but if made:

W KGN WGN VY9A - F H H KGN WGN VY9A - F +

⑤ Then passed, - 9's twice. *

W KGN WGN VY9A NET - F - GR2 = 10415 = 0927 M KGN WGN 0927 +

AC N12 becomes TOR = receiving station, & Tof D = transmitting station.

In collective call, F only referring to some stations, key one referred to before "F". Others answer in usual way.

W WGN WGN WGN N12 - C3D Y9A - F - GR2 = 1216 = 0900 M etc.

"Fin portions": 1st W KGN WGN VY9A N17 - F - GR2 = 2176 6219 4779 M KGN WGN VY9A N17 - 4779 - B # +

2nd W KGN WGN VY9A - 7228 8299 M 8299 - B # +

Last. W KGN WGN VY9A - 5021 = 0900 M = 0900 +

[No. not after B, because KGN could not queue it.]

* Permission must be obtained from CO, if repetition is needed.

39 A Batch Working

for routine transmissions, when receiving conditions are good, or when a large number of short messages are awaiting transmission.

- ① Decision rests with the receiving station. [Routine Xmissions.]
- ② Between control & station under its control, now via radio. Consent of receiving station must be obtained, but control station retains the final decision [as to state of w/r comm.]
- ③ 2 stations on a section.

Control relinquishes permission when underway of the batch - working delaying the traffic of the whole section.

X 112 - "Inoperative"
X 100 - "Yes"
X 114 - "No"

In section

E 66R 66R VD2G X269-6+
E D2G V 66R R-X389-3+
E 66R VD2G R+
E N3C VD2G X112 X389-3+
E D2G V N3C R-V100+
E N3C VD2G R+
E 66R VD2G N41 ... E + [Batch]
-G+
E D2G V 66R R TOR 1040 - N41 N41-1-
N42 - N42 G2 +
E 66R VD2G - N41-1 - 15124 - (N42 - N42
- G2 2 H-B+
E D2G V 66R R N41 - R N42 - K+
Control makes f 66R (as R. Re:-
E 66R V N3C B N42 to N45 VD2G

① R

② INT

③ INT GR

BATCH WORKING

"When there are a number of messages to be signalled in one direction, several of these messages may be sent by arrangement in the receiving station, without interrupting the transmission to obtain answers."

- ① Between fixed stations: Time limit for each batch is 15 mins. To adopt this signal use operating signal $\text{V G F x G F x V G F T x 259} - \text{[I have 8 (no more for this?) messages for you]}$.

$$\text{V G F T V G F x R} - \text{x 389} - 4 - \text{[Transmit in groups of 4]}.$$

If conditions not favourable G F x will ask for them to be sent by direct method. He determines whether they shall use batch working or not.

1st Batch:

$$\text{V G F x V G F T N R 1} - \text{G R 2} = \text{L W A B} = 0800 - \bar{E} + [\text{few seconds}].$$

$$\text{V G F x V G F T N R 2} - \text{G R 2} = \text{S 21-17/6 T 2000 completed Results will be sent by post} = 0812 - \bar{E} + [\text{pause}].$$

$$\text{V G F x V G F T N R 3} - \text{G R 2} = 12176 = 0815 - \bar{E} +$$

$$\text{V G F x V G F T N R 4} - \text{G R 2} = \text{Q 189-17/6 Stores despatched by road convey} = 0817 - \bar{B} +$$

Every time a message is referred to, must be identified.

$$\text{V G F T V G F x R N R 1 to N R 4} - \text{K} + [\text{TOR & To D for these messages}].$$

[Repetition of NR 2 & INT NR 4].

$$\text{V G F T V G F x R N R 1} - \text{R N R 3} - \text{INT NR 2 W B be} - \text{N R 4} - \text{INT GR} +$$

$$\text{V G F x V G F T N R 2} - \text{W B be} - \text{W 11} - \text{C N R 4} - \text{W B 1} - \text{G R 2} - \bar{B} +$$

$$\text{V G F T V G F x R N R 2} - \text{R N R 4} - \text{K} +$$

2nd Batch:

$$\text{V G F x V G F T N R 3} - \text{G R 2} = \text{L W N O Y} = 0822 - \bar{E} +$$

$$\text{V G F x V G F T N R 6} - \text{G R 2} = 12239 = 0825 - \bar{E} +$$

$$\text{V G F x V G F T N R 7} - \text{G R 2} = \text{N O X B Z} = 0827 - \bar{E} +$$

$$\text{V G F x V G F T Z} - \text{A 92 V K P Y 0729} +$$

$$\text{V G F T V G F x R N R 1 N R 7} - \text{R T O R 0927} + [\text{proceeding with TOR}].$$

$$\text{V G F x V G F T R} +$$

GFx then sends his batch, etc.

or after

[This would be a possible place to insert to direct method: -ie

ie GFx VGFJ R-X-X342 + [Direct method, (X-interference)]
or GFx VGFJ R-X-X480 + [Transmit messages by 'up & down' working]

Batch Working note use

① Priorities P, O, O-A, O-U.

② F Messages

③ Broadcast Messages

④ DC

⑤ G Messages

E in final instructions Only.

Sending one message, & have another short message for that station handed in, can insert E in final instructions.

ie K6W K6W V D4B NR4-GR20 = 81- = 1130-E + pause

ie K6W VD4B NR5-GR16 = 81- = 1135 +

ie D4B V K6W RNR4-RNR5 +

ie K6W V D4B R +

Not used with DC.

G MESSAGES

Giv delivery instructions - "Repeat back".

E A2B VY9A NR8-G-GR2=2NAV2=1017+

E Y9A VA2B-A2B VY9A 1017+

E A2B VY9A C+ [This is the TOR - receiving stn. & TO D.]

Assume A2B repeats wrongly:

Y9A- E A2B VY9A-1-RNVR+

E Y9A VA2B-1-ENVR+

E A2B VY9A C+

"G" not passed on. Refers only to the receiving station.

If more than one station is called, but only one required to repeat back:

E A2B D2G V X9N NR7NR4-D2G-G-T-ATQ-GR2-Z 1728+

[Note station C's before G].

E X9N VA2B L+

E X9N VD2G-A2B D2G 1728+

E D2G V X9N C+

If X9N had a further message for D2G, he would wait until he had repeated back correctly, & would then make

E D2G V X9N C-B+

When passing on a message that has been read, & a repeat back is required, G cannot be put in Del. Inst., but must be used until with identity after it has been received, eg, if L has been asked for D2G & has received a message for D2G with G in the Delivery Inst., He repeats it back. When passing it on, he wishes D2G to repeat it back. He sends the message -

E D2G V J4L NR16 X391-D2G VA2B NR9-G-GR2=1111=0800-TOR1027+

E J4L V D2G L+

E D2G V J4L G NR16+

- ① i Delivery instruction
- ② i Portion
- ③ i s - of local flange (il identity)

G Message in Portions

E KQV VYQA NZB-G-GRG = BNZXR PABON ZROXP-B3+

E YQA VKQV - KQV VYQA ZROXP-K+

[Ensure that all portions are repeated correctly, before proceeding].

E KQV VYQA - FANZY TXPB-B6+

E YQA VKQV - FANZY TXPB-K+

E KQV VYQA - PNRW BROWK = CG00+

E YQA VKQV - PNRW BROWK = CG00+

E KQV VYQA C+

[Assume KQV repeats back 1st portion wrongly].

VE KQV VYQA - 1-BNZXR-B+

E YQA VKQV - 1-BNZXR-K+

Likewise with all portions except the last, where B & K are dropped, & YQA will give C after the repetition.

* Never give C to a G Message until it has been repeated correctly completely ^{back}

Ex: DAB has P/L message for RBW which he decides to make in portions, RBW it repeat back, & reports 1st portion incorrectly.

E KQV RBW V DAB NZB-G-GRG-Z-KQV VYQA 18-15/6

For A42-30/6 following information required before supplies can be B60+

RBW repeats incorrectly after the word "supplies". DAB corrects:-

E KQV V DAB - AA supplies - can be etc - B60+

RBW repeats back correctly.

E DAB VKQV - AA supplies - can be etc - K+

DAB then proceeds with next portion.

Given Identity

EY9A VK9N NR17-GE4=1217 7216 1217=1016+

E VK9N VY9A C+

If at any time a repetition is required, a procedure message is used:

EY9A Y9A VK9N GNR17+

If -age not handy, Y9A gives R, then repeats back.

E VK9N VK9N VY9A -Y9A VK9N NR17.....1016+

If correct, EY9A VK9N C+

Positive identity may also be requested: eg

EY9A Y9A VK9N GNR17-2+

E VK9N VY9A -2-7216+ [Does not repeat identity obvious, only if -age is to hand.] +2

EY9A VK9N C+

But does repeat
positive identity

PL example:

E VBZ V D4B NR2-GNR17 ~~and~~ D27-1313 After refuelling
regain squadron at herwick ① report eta as soon as possible = 1130+
VBZ has given R, but D4B wishes to make sure that VBZ
has the word herwick correctly.

E VBZ V D4B GNR22 - at to report +

E D4B V VBZ - at herwick ① report +

E VBZ V D4B C+

-NR2-

Procedure Messages:E B6R² VD2G INTY 1020+

R+ short delay

E B6R VD2G G TOR 1100+

E D2G V B6R - TOR 1100 - B6R VD2G INTY 1020+

E B6R VD2G C +

E A2B² V N3C G TOR 1100 B6R VD2G +

same for
long or
short
delay.

* If R is given first, then identify message, - repetition:

E D2G V B6R - NR1-1-1812+

Several days after: E D2G V B6R G 1020/X2M V J2G+ [address]
121/7

Ex. ① G NR1-AB1 + After delay, we need to identify message
during the repetition.

E D2G V B6R R+

E D2G V B6R - B6R VD2G NR1-GR2-2 etc.

NR1-AB1-

② G 1020-5709+

G NR1-1+

[It will be necessary to identify
the message if other traffic
has passed between the T of
request & the reply.]

③ G NR1-AB1+ [in-time reply]

E D2G V B6R - A01 - B6R VD2G NR1 etc.

④ E A2B A2B V N3C G NR1 B6R VD2G - 1 +
E N3C V A2B - 1 - short delay
E N3C² V A2B - NR1 B6R VD2G - 1 - delay }

G ① Parties

② Deliv. Int

③ Procedure Messages

C

⑤ IN FINAL INSTRUCTIONS

Used for correcting group or groups already transmitted, eg
 $\text{E } 66\text{L } v\text{Y9A } \text{NR7-G24} = 1217\ 6279\ 1217 = 0900 - \text{C2-6218} +$

If an originator had missed a group out, the message was in course of transmission. Group No. has to be altered & also the extra group inserted. The group following is also inserted to avoid confusion, eg:

$\text{E } 66\text{L } v\text{Y9A } \text{NR7-G24} = 1217\ 6219\ 1217 = 0900 - \text{CW31-G25-}$
 $2-9206-3-6219 +$

eg. ① Correction of Address $\text{E } \text{K6W } \text{VD4B } \text{NR3-D-T-G23-2-03R } \text{VD4B}$
 $= 872 - \text{AOFIT} = 1260 - \text{C481-K6W } \text{VD4B } \text{NR3-D-T-G23-2-}$
 $\text{K6W } \text{03R } \text{VD4B} +$

② If a message, the correct version is repeated back, not correction.
 $\text{E } \text{K6W } \text{VD4B } \text{NR3-G-G25} = 2899 + 163\ 6148\ 2199 = 1210 - \text{C1-2199} +$
 $\text{E } \text{D4G } \text{V } \text{K6W} - \text{K6W } \text{VD4B } \text{???, } 6148\ 2199 = 1310 +$
 $\text{E } \text{K6W } \text{VD4B } \text{C} +$

⑥ Correction after he received.

Became

- ① Originator discovers an error in the drafting, coding, or cyphering of the message.
- ② The station of origin or a linking station discovering an error in transmission.
- ③ A request for verification or a check.

eg.

$\text{E } 66\text{L } v\text{Y9A } \text{NR7-G24} = 1217\ 6219\ 1217 = 0900 +$
 $\text{E } \text{Y9A } v\text{66L } \text{R} +$
 $\text{E } 66\text{L } v\text{Y9A } \text{CNR7-2-7789} +$
 $\text{E } \text{Y9A } v\text{66L } \text{R} +$

No necessity for delivery inst. to be inserted in a correction, as it is understood that they will be passed along the same route as the message [original]. [cont.]

* Only 1 "c" used: :-..... = 1030-CAG1-..... -3-.....-4-.....+
 = 1020-CAG2 +

eg. E B6R VY9A NR7-M-C3D-T-A7Q-GR2-Z-A3Q C4R-W-R8C V L8P =

AN0AB = 0900 +

E Y9A VB6R R +

correction is: E B6R B6R VY9A CNR7-1-Z0V0X +

4. correcting delivery instructions:

E K6W VDFB NR7-M-03R-T-GR31-Z-84TVDFB ~~2~~ 3/- = 1500 +

correction: E K6W K6W VDFB CNR7-AB1-K6W VDFB NR7-M-K60-T-GR31-Z-84TVDFB +

K6W answers as usual, & directs 03R by op. sig. ["takes no further action regarding as to forwarding message."] K6W passes msg to K60.

N.B. Passage also be identified thus:

E K6W VDFB C1500 84TVDFB-AG1 etc.

Originator's instructions may also be put in corrections,
eg "immediate" message, also "immediate" correction.

eg. E K6W VDFB -P-C1500-WA 8420-1309 +

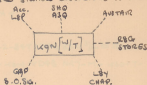
or E GFA VCPY -P-CNR6-Z-2119 +



Automatic Responsibility

W/T station A.R. for the authorities borne on that station. If a message comes into or passes through the station addressed to one of those authorities, it must be delivered to that authority although there are no delivery instructions.

eg. EK9N V49A NR12-GR2-Z-
AZCBZHCAL RBQ-W-A3Q X9PV
F8Y etc.



[Must be delivered, although there are no delivery instructions.]

ADDRESSES

Duty of superintendent to see that all the people in the "TO" space are mentioned in the address of the message. Address never alters.

"Z" - "Addressed". People indicated are required to carry out the purpose of the message.

"W" - "Repeated" for information.

① All C/S Alphabetical order, ie

-Z-A3Q RBQ -W- AELX F9X VESP

② Fixed C/S then P/L addresses [or Abb. Titles] - Block CAPITALS.

-Z-A3Q /^{UK} DPMO /^{UK} -W- F9X /^{UK} TRAINEE /^{UK} VESP

③ All P/L [or Abb. Titles].

"Z" omitted altogether. "W" becomes "Repeated", or "V" - "From".

NO Block Capitals, eg.

- GR27 - Ballrooms Trainee repeated Austrian Corps
for Airgenovch *

Airbus

SSO Basra

FAO [Fleet Airarm Office]

Airbase

US of S [Under Sec.
of State]

Sec. AM [Sec. A. Ministry]

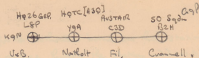
DCA [Director of
Civil Aviation]

Ariston

DPMO

W B6R VNSC N61 - X02 - C67 - Also Basra repeated DCA from US of S and
 [where DCA is an authority at B6R, but using, i.e. B6R is
 not automatically responsible.] [see p. 27 A]

DELIVERY INSTRUCTIONS



- ① Northolt from U.S. None, ~ direct communication. No address [same as call.]
E YQA v KGN NR1-GR27=3/m=0900+
- ② Northolt from 26 Grp. None, but address.
E YQA v KGN NR2-GR4-Z-YQA v LSP = etc.
- ③ Hq TC from 26 Grp. None. [YQA Atr. Resp. for A3Q].
E YQA v KGNZ-A3Q v LSP = etc.
- ④ Filton from 26 Grp.

E YQA v KGN NR4-T-GR12-Z-CSD v LSP = etc.

[When message passed to addressee, v no confusion likely, as C/S after T.]

- ⑤ Filton, repeated Northolt v 26 Grp.
E YQA v KGN NR5-T-GR17-Z-CSD-W-YQA v LSP etc.
- ⑥ To Austin v 26 Grp.
E YQA v KGN NR8-T-CSD-GR29-Z-^{via} Austin ^{via} v LSP etc.
- ⑦ Cranwell from 26 Grp.
E YQA v KGN NR17-M-CSD-T-GR27-Z-B2H v LSP etc.
- ⑧ SO Sqdn from 26 Grp.
E YQA v KGN NR19-M-CSD-T-B2H-GR27-Z-GR9 v LSP etc.
- ⑨ SO Sqdn Filton, repeated Hq TC, Austin, from 26 Grp.
E YQA v KGN NR21-M-CSD-T-B2H-GR27-Z-CSD GRP-W-A3Q ^{via} Austin ^{via} v LSP etc.

NOTE

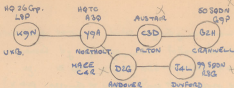
- ① Where authorities are addressed, the stations where they are borne are not again Del. Inst. to pass the messages to their authorities, ~ [Atr. Resp.] - to do so as soon as the message comes into their office.
- ② If a message has to pass through more than one station, the stations are mentioned in order of route, [not alt. order.]

E 362 362 v N3C NE1 - 1 - 29M - x414 - D2G - x318 - G27 47
[Pass to D2G "by V16" v.] (see p 49)
instructions to 29M.

M with il x0 [il not "T"]

July 24

1. The first of these is the fact that the number of cases of the disease is increasing. This is due to the fact that the disease is becoming more common in the population.
2. The second is the fact that the disease is becoming more severe. This is due to the fact that the disease is becoming more common in the population.
3. The third is the fact that the disease is becoming more difficult to treat. This is due to the fact that the disease is becoming more common in the population.
4. The fourth is the fact that the disease is becoming more difficult to prevent. This is due to the fact that the disease is becoming more common in the population.
5. The fifth is the fact that the disease is becoming more difficult to control. This is due to the fact that the disease is becoming more common in the population.
6. The sixth is the fact that the disease is becoming more difficult to cure. This is due to the fact that the disease is becoming more common in the population.
7. The seventh is the fact that the disease is becoming more difficult to manage. This is due to the fact that the disease is becoming more common in the population.
8. The eighth is the fact that the disease is becoming more difficult to live with. This is due to the fact that the disease is becoming more common in the population.
9. The ninth is the fact that the disease is becoming more difficult to deal with. This is due to the fact that the disease is becoming more common in the population.
10. The tenth is the fact that the disease is becoming more difficult to cope with. This is due to the fact that the disease is becoming more common in the population.



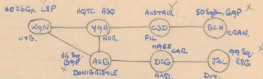
① To MAKE, AUSTAIR, repeated 50 SQDN from HQ 26 Group

E YQA v UKN NR1 - M - CSD - T - BZH - YQA - T - DEG - GR27 - Z -
CAR / ^{UK} AUSTAIR / ^{UK} - W - G9P v LSP etc.

NB. Use receiving station c/s for each route, also each following route.

② MAKE AUSTAIR, repeated 50 SQDN, 99 SQDN from 26 Group

E YQA v UKN NR1 - M - CSD - T - BZH - YQA - M - DEG - T - J4L - GR26 -
Z - CAR / ^{UK} AUSTAIR / ^{UK} - W - G9P RSG v LSP = etc.



③ To 56 Sq. repeated AUSTAIR from HQ 26 Group

E A2B YQA v UKN NR1 NR4 - YQA - T - CSD - GR26 - Z - G9P - W - ^{UK} AUSTAIR / ^{UK} v LSP

NB. First precede stationing with instructions by c/s, when more than one station called up.

④ To 50 SQDN, 99 SQDN, from 26 Group

E A2B YQA v UKN NR2 NR5 - A2B - M - DEG - T - J4L -
YQA - M - CSD - T - BZH - GR27 - Z - G9P RSG v LSP = etc.

When more than one linking station is indicated, "L" refers instructions to all the linking stations, unless otherwise indicated.

Used principally by MC/S for disposing of multiple-address messages or general messages via control stations of sections, it effects a considerable saving over the procedure required with the letter "T" in such circumstances.

Instructions to signal links regarding retention of a message may be expressed by Op. Sigs., which follow the C/S of the link concerned.

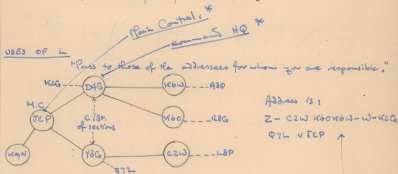
eg. $\text{E Gpx v GPT N6B-M-GEO-X419-S4T-X212 etc}$

[X419 assumed to mean "Pass this message to by"]

X212 - "v/s" (visual signalling)]

When one or more of the addresses concerned in a particular route have no C/S, and are not attached to a W/T station, the instructions to the first signal link of that route are normally expressed by op. sig. Instructions to the same link in another route are not necessarily affected. eg:

$\text{E G8C v V4K N6B-M-T6Q-T-V2H-G8C-M-G7A-X013-G829}$
 $\text{-Z-S4T V8H /^{MS} 880 /^{MS} V T4P etc x}$



Normal Routing: $\text{ED4B Y3G V82P NR1 NR3 - D4B-T-K6C K6W-Y3G-T-C2W-G89 etc.}$

But a W/T control station is responsible for W/T stations in its section. Therefore may replace underlined by "L" [mainly used by Main Control].

$\text{ED4B Y3G V82P NR1 NR3 - L-G829 -Z-C2W}$

D4B & Y3G both give "A". D4B is A.R. for K2G, & calls up K6C & K6W. Y3G similarly A.R. for Q7L, & calls up C2W. If the message was to go to the authorities as well, the procedure

L

GFT has a general P/L Passage from J2P for all stations
w/74 (Multiple Collective C/S)

to all Commands

E GED GFG CFV CFW CFF GFZ VGFT NED - L - GRSS - Z -
w/74 J2P and 3 -

All RAF stations
R7B



would be the same, ~

IE D4B Y8G V T2P NR2 NR8-L-G29-Z-A3Q K60 K6W L8P
R8G-W-C2W Q7L VT2G = 3/m = 0900+

9 } If message was to authorities only, could not use
"L" because D4B & Y8G are not responsible for authorities at stations
under its control, ∴ use X0 eg.

9 } IE D4B Y8G VT2P NR4 NR8-D4B-X013-Y8G-X02-G29-
Z-A3Q L8P R8G-W-K2G Q7L VT2P = 3/m = 0930+

via L

"L" can be used with "T", eg.

Assume K9N originates message:

IE T2P VK9N NR2-T-D4B Y8G-L-G29-Z-C2W K60 K6W
-W-K2G Q7L VK9N = etc.

{ IE N3C
K9N
Y8G V T2G NR1NR1 NR8-L-G27-Z-A2B C3D L8P Z4T L7F
R8G A7F F7A V R9M and

E D4B V 460 Y 1030 + | R+

E D4B V 460 Y 328 + | R+ (orig. No.)

✓ N3C N3C V B6R X496 +

✓ A3L A3L V N3C X491 - B6R +

✓ N3C V A3L R +

✓ B6R B6R V L7S - P +

✓ L7S V A3L S. + K4 +

✓ P5R P5R B6R B6R D3G D3G V L7S - 0 +

✓ L7S V A3L S - B6R + K4 +

✓ L7S V A3L S - 1000

✓ N3C N3C V B6R X505 +

✓ B6R V N3C R +

✓ A3L A3L V N3C X114 X491 - B6R X389 +

✓ N3C V A3L R +

✓ B6R B6R V A3L NR2 - X329 - B6R D3G P5R NR2 - GR4 =

SP1 = 1030/S - TOR 1130 +

✓ B6R B6R V 05N JNR42 +

✓ 05N V A3L S - R +

to

Y "Message ... is understood"

Gives the authorities addressed only. Although it is an orig. msg. it always comes in the address.

IE A7Q VKGN NA7 -GCS-2-A3Q VLSR-Y = etc.

IE KGN V A7Q R+

Superintendent sees that it's stamped "To be ack," before sending it to 1239DN. The orig. of a Y can use the orig. no., in place of TOO to identify it. TOO can be sent with an ack., [one case where TOO can be used in a procedure message.]

IE KGN KGN V A7Q -2-LSP V A3Q Y 0917 +

IE A7Q VKGN R+

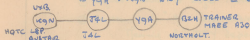
[Starting after W not given by Y] - eg.

IE Y9A VKGN NRE -GR20-2-B9X RBG-W-M92 F9LV LSP-Y = etc.

IE KGN KGN V Y9A -2-LSP V B9X Y0947 + [RBG will send the acknowledgment.] Sometimes originator does not require all the addressees to acknowledge the message, eg.

Assume only B9X:

IE Y9A V KGN NA7 -GR20-2-B9X RBG-W-M92 F9LV LSP-B9X-Y =



① MAEE from VVB IE J4L VKGN NA17-M-Y9A-T-B2H-GR18-2-A3Q VKGN-Y =

Acknow. ~ IE Y9A Y9A V B2H-M-J4L-T-2-KGN V A3Q Y 1129 +

② MAEE from HQTIC

IE J4L VKGN NA26-M-Y9A-T-B2H-GR11-2-A3Q VLSR-Y =

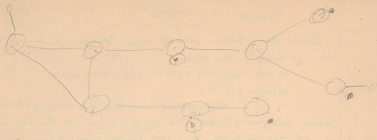
Ack. ~ IE Y9A Y9A V B2H-M-J4L-T-KGN-2-LSP V A3Q Y 1129 +

③ TRAINING from HQTIC

IE J4L VKGN NA11-M-Y9A-T-B2H-GR16-2-^YTRAINING/^YVLSR-Y

IE Y9A Y9A V B2H-M-J4L-T-KGN-2-LSP V ^YTRAINING/^Y =

Y 1547 +



✓ A3L V G3N- M-D60 A7E - T- B6R - Z- H3K ✓ 874

⊖ Y 1030A/4 +

④ TRAINING from AUSTRIA

E 84L VKGN NR29-M-YQA-T-BZH-GEG-Training from Austria
Ack. ~ VE YQA YQA V BZH-M-84L-T-KGN-Austria from Training Y 1500+

[The Super. receives the acknowledgment from authority, & marks:
to be ack.] & puts it on message form.]

⑤ E D4B VK6W Y 1201 = 1330+ [The TOO here, shows when
the acknowledgment was authorized.]

If an authority does not understand that a message, he
will ask for a verification & repeat of P/L message, & v, c, f, d, & r, of
code or cypher message.

Requires the authority of the Originator. *

INT Y [+ identity, ① TOO ② Orig. Ref. No.]

① "Request ack." to message indicated.
 ② "Hasten ack." to message indicated.
 [when the authority was
not directed to acknowledge
in the address of the
original message.]

Meaning of INT Y depends whether Y is original message or not.

① E YQA VKGN NR30-GR27-2-CAR VLSP-Y = etc.

VE KGN V YQA R+

Originator at LSP hastens the ack., ~ P/L message to Super., who makes:

E YQA YQA VKGN-2-CAR VLSP INT Y 1108+

E KGN V YQA R+ [Super. then looks up TOO 1108 to see
meaning of INT Y.]

② E YQA VKGN NR18-GR62-2-CAR VLSP etc.

VE KGN V YQA R+

Orig. requests ack., ~

E YQA² VKGN-2-CAR VLSP INT Y 1217+ [Super. looks for meaning.]

J cannot be used with P/L

*

All verifications ~~must be on address, except when the heading is in doubt~~
are addressed to the originator

14.5.42

Normally a verification or check, etc, of a Concealed Address Message is requested by a cypher message, but in the case of where urgency outweighs the necessity for security it will be sent as follows: ~

On a W/T Link, the request will be made by procedure signal routed by plain address to the W/T Station, which first transmits the original signal and identifying the original message by the time & date of origin and first cypher group.

A or J 1030/24 - 1234 +
- 1234 - 3 +

Signalling of first Cypher group with A or J will only apply to Concealed Address Messages. First Cypher Groups will not be sent when referring to code or P/L Messages.

A & J

"C" always used in reply

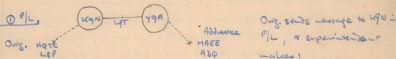
- A ① P/L. When referring to a P/L message, "Verify and repeat".
 ② When referring to a code or cypher message, "Verify, check for dec. resp."
 J ① When referring to 3/4 of code or cypher message "Check for decode & repeat".
 ② Used by Super. referring to A31 "Check from the decode & repeat".

"A" always goes back to originator.*

"J" if the 3/4 of code or cypher message, must go to the cypher staff.
 When referring to A31 goes to the Superintendent.

[Can use A A31 from addressee to verify A31] yes but I doubt it

Ex. A. ① P/L



IE Y9A VKGN NR12-GR11-2-A3Q V LSP 227 16/8

Section 103/2179 fifty cases required by 19 June = 0917 + R+

Sent from Y9A - P/L by Super.

Supra addressee does not understand it, he makes out a message to HQTC, asking for "V or A" [with too identifying] if any doubt about address, then it will not be sent.

EXGN KGN V Y9A [-2-LSP V A3Q] A 0917

Supr. at KGN then looks up 0917 TOO to see if P/L, code, or cypher. Then he changes it to P/L & sends it by runner to HQTC, who sends the correct version; then:

* IE Y9A Y9A VKGN C 0917 - Y9A VKGN NR12 = 0917 +
 ["C" sent, whether message was correct or otherwise.]

Part of message is:

IE Y9A VKGN NR12-GR11 [as in above examples]

Asks verification of no. of cases.

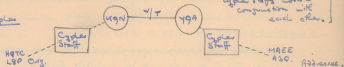
IE KGN KGN V Y9A -2-LSP V A3Q A 0917 - WB cases +

Supra WB cases should have been 15 instead of 50. -

IE Y9A Y9A VKGN C 0917 - WB cases - fifteen +

No address is needed in connection, because it is expected, & the operating
etc., knows where it is coming from.

A ② code or cypher



Message goes to Cypher staff in P/L, & to W/T station - code or cypher.

E Y9A VKGN VE27-GR8-Z-ASQ V LSP = 027-16/6 NAGS

P103N LROXK RNVK ZARXP = 1209 + R+, then to

Supr., sends copy to cypher staff, - addressee in P/L.

Verification wanted for word "fitting"; Addressee, working in conjunction
with cypher staff, finds the group, & codes for that group - P/L on a 96.

Supr. codes: - E KGN KGN V Y9A-Z-LSP V ASQ A 1209-5 +

Verification is: E Y9A VKGN C 1209-5-XN0XB +

I ① S/- of code or cypher message

E Y9A VKGN NR9-GR6-Z-ASQ V LSP = 027-16/8-BNORP RNVKX

BL02Y = 0926 + R+ To Cypher Staff.

If message does not make sense, cypher staff decide not to send
message to addressee, & key code for "C. found. & R.", from cypher
staff of transmitting station, for whole or part message.

E KGN² V Y9A-Z-LSP V ASQ J 0926-4 to 7 + R+

E Y9A² VKGN C 0926-4 to 7-BNORP.....KN0PZ + R+

J ③ AGI, before Supr.

E Y9A VKGN NR12-M-27P KGN-T-A70-GR29-Z-ASQ

C4R X2K-W-B9Z V LSP = S/m = 0927 + R+

Supr. finds there is no such authority as C4R, or that no authority
attached to the station like that C/S. So he makes out a message: -

E KGN KGN V Y9A T NR12-AGI + R+

T1020 [because Series no. in dot.]

Sgt. at VQA checks the ABI, from C's book, & makes out a correct version of ABI:

$$\text{E Y9A V9A VKGN } C \left\{ \begin{matrix} NR12-ABI-V9A VKGN NR12 \dots\dots + \\ 1030 \end{matrix} \right. R +$$

Corrections

① When a correction is passed over the same route as the original message, Del. Inst. need not be included. Each signal link is responsible for forwarding the C to the same station as the orig. message.

The message being corrected, must be sufficiently identified for it to be easily traced in the files of signal links; if some time elapses between transmission of original msg. & C, time may be saved by including Del. Inst. in C.

② When route of C. is different, [different] route of original message, Del. inst. must be included.

③ When a correction is made to the call or preface or address, Del. inst. are not also inserted before the "C".

Also If sent wrongly, & discarded, don't wait for a "J." sq.

$$\text{E Y9A VKGN NR7-GR4-V9A V KGNVT ROTAL=0910+ R+}$$

$$\text{E Y9A}^2 \text{ VKGN C NR7-2-KGNVT + R+}$$

Delivery instructions in Corrections.



$$\begin{aligned} \text{① } & \text{E Y9A VKGN NLS-T-GR3-2-A70 VKGN=BACTO PAPAP=0937+ R+} \\ & \text{E A70 V Y9A NR12-GR3 \dots = 0937 + R+} \end{aligned}$$

Then correction follows:

$$\text{E Y9A}^2 \text{ VKGN C NLS-2-PROP R + R+}$$

$$\text{E A70}^2 \text{ V Y9A C NR12-2-PROP R + R+}$$

[No delivery instructions needed.]

② Whole Message

(D4B) — (K6W) — (03R)

D4B has P/L type for 03R, to be passed via K6W.

∴ K6W² V D4B NR4-T-GR20-Z-03R V D4B....etc. R+ etc.

Later, D4B discovers that connections to whole msg. necessary.

Same route, ∴ ∴ K6W² V D4B C NR4-K6W V D4B....etc. R+

∴ 03R 03R V K6W C NR6-03R V K6W NR6.....+ R+

③ Connection to Address

∴ K6W² V D4B C NR4-AB1-K6W V D4B NR4-T-

GR20-Z-K60 03R V D4B = 3/m = 0910 +

K6W passed on, & appropriate action is taken for the new addresses 03R.

This Linking Stations:

Message sent this all its stages.

last station would receive

{ The route is: V23M V43G-M-D2G-T-06R-Z-RTM V 03R
A 1020-WA letter + R+
V D2G V23M-T-06R-Z.....+ R+
∴ 06R V D2G-Z.....+ R+

Connection V D2G V06R { C 1020-WA letter - 10/2 P3/AR2 +
or C NR6-WA letter -
identity changed as necessary.

① Identity can be changed

② Always C

③ Connections need no address

④ In wartime, Codes Passage.

W/T Silence or Negative Silence

HM five times bonded, directs all stations addressed to keep W/T Silence on all frequencies, or frequency specified.

- ① Used by control station only.
- ② Not to be answered.
- ③ While silence is in force, no station under it is to transmit, except to answer the control station which orders the silence. When that communication completed, the station will revert under W/T silence again.
- ④ [collective], E WGN WGN V KGN HM HM HM HM HM +
E WGN WGN V KGN VOVOVOVOVO +

Stations resume normal communication.

- ⑤ Amplified by figures, eg.
E WGN WGN V KGN HHHHHHHHHH -8430-270 +
[Indicates frequencies under W/T silence].
- ⑥ Control lifts silence on one of Resafreq.
E WGN WGN V KGN VOVOVOVOVO -8430 +
- ⑦ Only 2 stations.
E A3L A3L A6R A6R V KGN HM etc + lifts as before.

NEGATIVE SIGN NO

intended to save unnecessary c/s. In Call or Address.
Used in conjunction with collective or multiple collective calls.

E WGN ~~NO~~ NO G3M WGN NO G3M V DEG +
In call or address, NO c/s come last, eg.
E XGP XGP Z3M Z3M WGN NO G3M WGN NO G3M VT2P + [which
are multiple collective call, ∴ stations don't answer until instructed.]
-Z-RSG X2K D3T NO P4L -W-Q7L VT2P -Y =

- ① E WGN NO A2B G3M V KGN NR... -S-Call etc.
Address here is same as the call.

- ② If there is a different originator, there must be an address.
 E WGN $\overline{N0}$ A2B G3M VUQN -Z-WGN $\overline{N0}$ A2B G3M VJEP etc.

- ③ Passage does not concern A2B G3M, but they are desired to answer.
 W WGN VUQN -Z-WGN $\overline{N0}$ A2B G3M etc ...
 All stations in WGN answer.

Delivery instructions, as affected by $\overline{N0}$



VE KQN VJEP $\overline{N0}$ 10-S-T-Gr11-Z-WGN

$\overline{N0}$ A2B G3M VJEP etc... + [KQN is also included.]

also E KQN V JEP N11-S-T-WGN-Gr11-Z-WGN $\overline{N0}$ A2B G3M etc.
 [KQN receives, with $\overline{N0}$ = address only.]

DC Method

- ② Before adoption, DC sign used in procedure message, or in ending.
- ③ E, BT, QAS, AR once only. Each word or group twice, and ASL, each component part made through twice in its entirety, to the delivery instructions, which may be split into suitable portions.
- ④ Answers to DC messages are made by ordinary full procedure, unless both transmitting & receiving stations are using DC method.
- ⑤ Repetitions, words or groups made twice in succession.
- ⑥ [ab] ① ② once only. TOO twice. Final instructions twice.
- ⑦ Portions. 20 groups. 30 P/L.
- ⑧ Messages normally made twice in their entirety [i.e. every agent, broadcast messages, Fragments,] when DC, are not repeated twice in their entirety, but become ordinary DC method.
- ⑨ 1/3 of receiving station always made twice.

eg. E Y9A Y9A VK9N NE7 - Y9A Y9A VK9N NE7 - D-D- M-A7D - M-A7D -
T-14L - T-14L - G26 - G26 - Z-A3D - W-A9Z V LSP-Y - Z-A3D -
W-A9Z V LSP-Y = A29 - A29 - 16/8 - 16/8 - GRONT GRONT
PROPT PROPT = 0927 - 0927 +

Y9A Y9A 25-23

To initiate DC [Atmospherics].

Towards confusion & put
short break.

E Y9A Y9A VK9N +

E VK9N V Y9A KS-DC +

or E VK9N V Y9A KS-X7-DC + [experiencing interference.]

or E VK9N V Y9A KS-X7-N6C-DC +

Once message is cleared, DC is finished, unless asked for again.

Repetitions

E VK9N V Y9A 1711 5+7 to 10 +

DC Method. E Y9A Y9A VK9N - Y9A Y9A VK9N - 5-5 - 1219 1219 - 7 to 10 -
7 to 10 - 2699 2699 etc 8412 8412 +

R +

Cypher Message

$\nabla \text{B6R B6R VD2G NR1 - NR1 B6R V D2G NR1 - AAB - AAB -}$
 $\text{ADB - ADB - ACL - ACL - GR7 - GR7} = 1812 \ 1812$
 $3725 \ 3725 \ 7818 \ 7818 \ 2971 \ 2971 \ 1812 \ 1812 = 1020 -$
 $1020 +$

$\nabla \text{D2G V B6R INT GR6} +$

Agg: $\nabla \text{B6R B6R VD2G - B6R B6R VD2G - CWB1 - CWB1 - GR6 - GR6} +$

$\nabla \text{D2G V B6R R} +$

Disagg: $\nabla \text{B6R B6R VD2G - B6R B6R VD2G CNR1 - CNR1 - GR7 - GR7 -}$
 $11337722881111 +$

$\nabla \text{D2G V B6R INT 5} +$

$\nabla \text{B6R B6R VD2G - B6R B6R VD2G - 5 - 5 - 8762 \ 8762} +$

$\nabla \text{D2G V B6R R} +$

Procedure Message

$\nabla \text{B6R B6R VD2G - B6R B6R VD2G - Z - X2M V D2G - Z - X2M V D2G}$

$+ 1020 - 1020 +$

$\nabla \text{D2G V B6R R} +$

(see only ~ Verification)
A & S by DC :

$\nabla \text{B6R B6R VD2G} +$

$\nabla \text{D2G V B6R KS-X6-DE} +$

$\nabla \text{B6R B6R VD2G - B6R B6R VD2G A1020 - A1020 - 3 - 3} +$

$\nabla \text{D2G V B6R R} + \nabla \text{D2G D2G V B6R - D2G D2G V B6R R - R} +$

$\nabla \text{B6R B6R VD2G - B6R B6R VD2G C1020 - C1020 - 3 - 3 - 1781 \ 1781} +$

$\nabla \text{D2G D2G V B6R - D2G D2G V B6R R - R} +$

$\nabla (\text{B6R B6R VD2G})^2 \text{INT A61 - INT A61 - you to not - you to not} +$

Suppose atmospheric interference begins during transmission, then:~
 IE KQN VYQA IMI AA6-DC +

DC in Final Instructions

IE Y9A VKQN NR7-GR2 = 1219 = 1210-DC +

E KQN KQN VY9A - KQN KQN VY9A IMI 2-IMI 2-5 to 9-5 to 9 +

E Y9A VKQN - 2-2216-5 to 9-7216 etc 2197 +

E KQN KQN VY9A - KQN KQN VY9A R-R +

If you are using DC, & desire DC to be used by receiving station, must put DC in final instructions.

F Passages by DC : [also Broadcast & Emergency Reports]*

E Y9A Y9A VKQN NR7 - Y9A Y9A VKQN NR7 - F-F - GR2-GR2 =

NOVAB NOVAB = 1725-1725 +

W/T Ground [Op Sig. + part of call]

Passing - by DC.

IE J4L J4L V D2G NR7 X325 - J4L J4L V D2G NR7 X325 - etc.

3/4 5/4 = 1029-1029 - TOR 1117 - TOR 1117 +

Verification required for part of DC message:

IE K6W K6W V L90 - K6W K6W V L90 A 0930 - A 0930 -

WA items - WA items - unit to direct - unit to direct +

IE L90 L90 VK6W - L90 L90 VK6W R-R +

Correction: E L90 L90 VK6W - L90 L90 VK6W C 0930 - C 0930 - WA items -

WA items - not - not - unit unit etc. direct direct +

* [E not used - DC]

* Preliminary Call by DC -

ES6R B6R VDZG-F-DC RTI B6R B6R VDZG-F-DC +

DC : Portions

My My -B3-B3 +

Go Message by DC : Repeats back by ordinary procedure, unless *
DC is being used by both stations.
Repeats once only *

- ② When used thus, it is termed the "executive signal".
- ③ Import of the signals to be carried out simultaneously with receipt of executive sign.
- ④ When employing full procedure, it is always preceded by the conveying sign E, and the call & part of the call, & followed by ATN.
- ⑤ Never answered, unless station(s) are controlled to answer.
- ⑥ One transmitted, cannot be cancelled.
- ⑦ If more than one unexecuted message is outstanding, & it is desired to execute one of them, the message to be executed must be identified by inserting ^{its} ~~the~~ 3- before Executive sign:-
 ie QJN QJN V WZT - QOPX* - Exec +

W/T GUARD

"S" signifies "Am W/T guard on the frequency you are using for the station(s) you have called [or for....]".

If a station wishes to close down for some reason, the station should request permission from control to close down, & control appoints someone to stand guard.

Suppose D2G has requested & received permission to close down on such a day, at such a time: - $\text{E K9N K9N V D2G X991 +}$



[Am closing down]. R+, then

another station detailed for standing guard: - $\text{E B2H B2H V K9N X498-D2G}$ [Stand guard for "I", R+

$\text{E B2H B2H V K9N X498-D2G}$ [Stand guard for "I", R+

E D2G D2G V Y9A +

$\text{E Y9A V B2H 3-K7 +}$ Passage: $\text{E D2G V Y9A N22-.....0930+}$

② Reptions $\text{E Y9A V B2H 3-INT1 +}$

③ Port $\text{E Y9A V B2H 3-INT1 2 +}$ $\text{E D2G V Y9A-2-Porto +}$ E Y9A V B2H 3-R +

④ Comp No. omitted

$\text{E Y9A V B2H 3-INT1 GR2 +}$

$\text{E Y9A V B2H 3-INT1 GR2 4 +}$

$\text{E Y9A V B2H 3-INT1 GR3 +}$ $\text{E D2G V Y9A CME7-GR2 D/C +}$ S-R+
[INT1's afterwards]

⑤ Gr Passages on W/T Guard

$\text{E D2G V Y9A N22-G-GR2=Port2=0857 +}$

$\text{E Y9A V D2G-D2G V Y98 N220857 +}$ C+

⑥ Back Stations called

$\text{E B2H B2H D2G D2G V K9N +}$ $\text{E K9N V B2H 3-K7 +}$

⑦ $\text{E A2G A2G D2G D2G V K9N +}$ $\left\{ \begin{array}{l} \text{E K9N V A2G K6 +} \\ \text{E K9N V B2H 3-D2G-K7 +} \end{array} \right.$?

⑧ Collective 9's E W9N W9N V K9N +

$\text{E K9N V B2H 3-D2G-K7 +}$

$\text{E K9N V B2H 3-D2G-R +}$

The station guard standing, answers the prelim. call in alph. order.

E B6R B6R v N3C x491-D2G +
 E N3C v B6R R +

VE W2N W2N v N3C +
 E A2B N3C v A2B K7 +
 E N3C v B6R S-D2G-K7 +
 E N3C v L6C K7 +
 E N3C v Z4M K7 +
 E W2N v N3C NR1 NR1 - GR2-ZW2N v N3C = 18124 = 1100 +
 E N3C v A2B R
 E N3C v B6R S-D2G - R +

[On viewing: if receiving station considers batch-making undesirable
 E V6W V6W v D4B x257-7 +
 E D4B V6W R-X - x450+ [use up & down working] x

① Standing Guard for more than one station:

Both called: E A2B A2B D2G D2G VKGN+ "I am with Guard for..."
E VKGN V B2H S-K7+ Passage. S-R+

② Guard station, & there is:

as above, [3 NR. nos.]

③ Collective call: E WGN WGN V VKGN+

E VKGN V B2H S-A2B D2G-K7+

[B2H always comes up S-A2B D2G].

Receiving Watch

D2G, inform. control Rattle is ready to receive watch.

Control: E B2H B2H VKGN x114-x491-D2G-x493+ [Cease...]

E VKGN V B2H R+

The Sup^t. must prepare the messages taken under guard for retransmission. He allotted a new call, including an op. sig., meaning "The following Passage has been read," & on Tol on all messages, except priority messages P or above. Passages are sent in as received, with one exception, i.e.

* When there is more than one series no. in message, only one is sent in, [the applicable].

E D2G V B2H VK19 X329-D2G V Y9A NR7-GR 0857-Tol 0907+

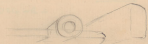
Procedure Passages [Passing in].

E D2G D2G V B2H X329-D2G V Y9A INT NR4-S to 9-Tol 0929+

Receiving Procedure Passage, can only give "R". *

E D2G D2G V VKGN INT NR4-S+ S-R+

E D2G D2G V VKGN-Z-P4L V B2H A 0917+ S-R+



I Method : 'Method of transmitting a message to a station for the sole purpose of its reception by other stations.'

Other station(s) not required to answer.

Use of I method :

(a) By fixed stations organised as a group, working at certain period times, at which times other stations can listen out for messages made by this method.

(b) By any station working with any other station on any frequency on which it is known that the station for which the message is really intended is keeping watch.

3 Types of I method messages :

① Those in which the address is expressed in c/s, i.e. "address".

② Concealed address messages.

③ Those in which the address is understood, & is not included in the message. This method is used in naval co-operation for transmitting enemy reports during the period that W/T silence is in force.

It can always be assumed that enemy reports are transmitted for the information of the admiral, & it is unnecessary to indicate this in the message.

This type of message is transmitted to a receiving ship or aircraft, which, as a rule, is selected by the transmitting ship or aircraft at the time, the following being taken as a general guide.

(a) Reports from reconnaissance aircraft.

These reports should be transmitted to a ship or aircraft, but if only one aircraft is in the air, to a ship about 20 miles from the main body, keeping watch on the reconnaissance frequency.

① Addition in C/S

$$VE GEF \times VGEFV NR7 - GR3 - Z - V8HV R2A = VAPQ$$

$$PRQA = 1030 +$$

② Squads [C/S V8H.]

$$VE GEF \times GEF \times VGEFV + K7 +$$

$$VE GEF \times VGEFV NR9 - GR3 - Z - V8H V82A = \dots = 1030 + 1711$$

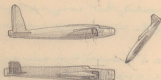
$$R +$$

[CO of squad, deciding a vegetation in country, using
his individual C/S]

* The first Enemy report for each aircraft, furnished by the "E" Method, is to contain "C/S" in the Delivery instructions.



25 July



Preliminary call is always made by fixed & land stations, before commencing to use the I method, in order to test the receiving conditions prevalent at the time.

Insertion of G inserts G in delivery instructions.

Receiving Station is responsible for asking for repetitions of which reception is doubtful, & decoding message, if decode available, & asking for any checks & repetitions which may be necessary.

- * Stations for which message is intended are not allowed to ask for repetitions, except by order of CO. Should CO decide a repetition must be obtained, such a request should take the form of a separate coded message, & is not to be made by procedure signal, except in cases where the address is expressed in C/S - Convention.

On occasions, the state of W/T Communications may make the use of I method & Direct Method unreliable, or the importance of a particular message may make it essential for the originator to know that the addressee has received it.

Under these circumstances, the Direct Method may be resorted to, & an immediate answer obtained. The authority of the air officer or other CO must be obtained before using Direct Method.



① $\text{EGFX}^2 \text{VGF} + \text{V7} + -2\text{-VSH V2G}$
 $\text{EGFX VGF NR27 - G - GR2} = \text{SOLTZ} = 0915 +$
 $\text{EGFT VGFV - GFV VGF NR27 - G - GR2}^2 = \dots \text{etc.} +$
 $\text{EGFX VGF C} +$

VSH obtains permission to ask for a repetition:

$\text{EGFT GFT V}^{\text{R2G}} \text{VSH TMI 0915 VSH V R2G - 1 +}$

GFT sends repetition to GFX in:

$\text{EGFX}^2 \text{VGF} - 0915 \text{V84 V2G} - 1 - \text{NX2OP} + \text{R} +$

Acknowledge
 finished

② Apply under W/T Service, to above, & a message comes through to be sent to it, & it is required to be acknowledged.

PTO

Sept 5

"Shall I compare thee to a summer's day?
 Thou art more lovely and more temperate;
 Rough winds do shake the darling buds of May,
 And Summer's lease hath all too short a date...."

EGFX GPK V GFT + K7+

EGFX V GFT N229-G-GR2-Z S4T VJ2P-7 = etc. Repetition.

E GFK V GFT C +

S4T receives & understands message, will, on arrival at base, acknowledge the message from the base w/T station. [Does not use his own w/T].

① fade time [except DC]

② Not answered

③ Content "F" except General Messages.

④ Special Series No. at General Message

CP [All w/t starting]

"most possible message by broadcast with out start
with the time" w/t RAF stations home

E 26 v 29M NR1 - ~~X~~ 487 - GRT - Z - R7B v 29C ~~see~~ CE7-8/8
This number 4: = 1020 + /RT

The entire broadcast:

[call up 10 min]

also see for
29M

E 29L 29L v ~~29M~~ GFA/2/3 ~~with~~ 29L 29L v GFA/2/3 + [Poli. Call].

E 29M 29M v GFA/2/3 ~~29L~~ ~~29M~~ ~~29M~~

"I have something to communicate"

E 29L 29L v GFA/2/3 NR 126 - GRT - Z - R7B v 29C = 8/-

= 1020 ~~with~~

E 29M 29M v GFA/2/3 NR 126 - GRT - Z - H2TV 29C = 3/- = 1020 ~~with~~

... - VH →

BROADCAST MESSAGES

"A method of transmitting a message without obtaining an answer".

These messages will always contain "F" in the delivery instructions, except those messages which are transmitted by fixed stations at a definite broadcast period, [Broadcast General Messages]. These are broadcast at routine times by a specified station on specified frequencies. They are made to a collective call sign - "All RAF W/T Stations".

They employ a special Series No, comprising the positive signal NR, followed by letter K, and one, 2, or 3 figures. Consecutively from 1-999. Then back to NR K 1.

General Messages will not contain "F" in the Del. inst.

"Made two" twice, except when using DC method.

Broadcast Method may be used when, for any reason, it is not desirable that the receiving station should answer the message, or when it is known that the station is unable to reply for any reason.

It may occur that although a station is not required to answer, a low grade cipher or P/L message, the addressee is required to acknowledge it. Here, "Y" is to be used in address, in addition to "F" in the Delivery instructions, i.e.

EO3L 03L V D2B NR2-F-G22=COSLT=0915 1711 03L 03L V
D2B NR2-F-G22=COSLT=0915+

or EY8C Y8C VC4K NR5-F-G22-Z-Y8CVR2A-Y=20-1415-
FLXDP=1030 1711 etc.

General Messages

The fixed station will make a preliminary call, or then proceed to broadcast awaiting messages. When receiving station conditions are difficult, the P/L in the pre. call, may be made several times, to enable receiving stations to tune in.

Fixed stations which, at notice broadcast periods, have messages to dispense of by broadcast (related to particular stations, will warn each station by an op. sig. at the commencement of the notice periods.

If, at a broadcast period, there are no messages awaiting transmission, the fixed station will transmit the warning op. sig. followed by the special source no. of the last message broadcast.

The fixed station will, at the end of the last broadcast under the "NO MESSAGE" sign, $\overline{VA}$, to indicate that the broadcast period, is ended.

These frequencies, + M L used generally, keyed at the same time, by the A.M. in.

① At period if he has anything to communicate, he comes up:

$$\text{E } 89L89L \text{ V GFA/2/3 } \overline{ITI} \text{ } 89L89L \text{ V GFA/2/3} +$$

$$\text{then } \text{E } 89L89L \text{ V GFA/2/3 NAK } 207 - GR2 - Z - R92 \text{ V } \overline{BTP}$$

$$= \text{PORTZ} = 0917 \overline{ITI} \text{ etc.}$$

$$= 0917 - \overline{VIT} +$$

If he has more than one message to transmit, he waits a few secs., then transmits, but when he comes to last message of that broadcast notice, he puts $\overline{VA}$ in final instructions.

② Suppose at next broadcast, he decides to include a message to a station he is in contact with, he has already sent him 26:

$$\text{E } 89L89L \text{ V GFA/2/3 } \overline{ITI} \text{ } 89L \text{ etc.} +$$

$$\text{E } Y3GY3G \text{ V GFA } X259 \overline{ITI} \text{ etc.} + \text{ ["I have something for you"] } +$$

Then he transmits all the general messages, first, i.e. $\text{E } 89L \text{ V GFA/2/3 NAK } 209 - \text{etc.}$, & then the message to that station: $\text{E } Y3GY3G \text{ V GFA NAK } 27 - F - GR2 = \text{etc. } \overline{ITI}$
 $= 0845 - \overline{VA} +$

③ Sometimes he has nothing to broadcast, & since all stations are waiting, he makes:

$$\text{E } 89L89L \text{ V GFA/2/3 } \overline{ITI} \text{ etc.} + \text{ ["Relin. Call"] } +$$

$$\text{E } 89L89L \text{ V GFA/2/3 } X257 - \text{NAK } 208 \overline{ITI} \text{ NAK } 208 - \overline{VA} +$$

"I have no message to transmit", - X257.

89L

89L repeated several times

FROM CD 28: —

Wire section

① High grade Cycles (concealed address Passages)

Instructions to receiving stations are requests requesting back or not answering, and expressed as in P/L Passages. These instructions precede all other delivery instructions.

② Delivery Groups

③ With the exception of [as given above], the sequence of route instructions & the order of DG's in a Com. Hdb. Passage, corresponds exactly to the sequence of route instructions, & the order of 9's, positive & op. sigs, in the delivery instructions of a P/L Passage.

④ The instructions, "pass to whom you are responsible," or "pass to all addressees" are not to be used in C/A Passes.

⑤ In P/L Passes, the addressees are evident to the signals staff of each receiving station, or signal link. In C/A Passes, certain of the addressees are evident from the instructions given to final signal links, but there may be other addressees not evident in the route instructions, for whom the flgts, is intended, as a result of transmission over the routes indicated. Such addressees are,

⑥ Signal links [or authorities for whom they are Auto. Resp.] who are also addressees.

⑦ Stations who halt intercept the flgt, or authorities for whom such stations are Auto. Resp.

⑧ Addressees for whom any W/T Station, in the route is Auto. Resp.

A list of the above addressees must be included at the end of the delivery instructions. The list is preceded by the DG for "A. i. f.," except when there are no route instructions.

* There is only one exception to the general rule that all C/A Passes, instructions some DG's; when a flgt, addressed to a station (or an authority) is passed direct to that station, & there are no route instructions to that particular station, that addressee need not be indicated in the delivery instructions, as it is clear that the flgt. must be intended to that station. (But if that station has also to forward the flgt,

DELIVERY GROUPS

"Confidential 3-letter groups, used to conceal the del. inst. [route instructions], of a concealed address message (high grade cypher). The groups used by the RAF range from AAB to FZZ, although they may include other letters during war-time. [The more familiar abbreviations are avoided.]

The first & last groups of a con. add. message in the H.G. Cypher message, are identical, & are called "indicator" groups.

There may be 20 delivery groups for any one station. Any one can be used, but if another message comes in, the originator should use another group. The groups are used in the same manner as ordinary del. inst., except that whereas in ordinary messages, pass to station for an authority, in delivery groups, pass to the authority.

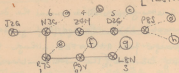
* "Abbreviated form": If the message is for the living station, no authority at the living stations, they will follow immediately after the ordinary del. inst., preceded by the group meaning "AIF".

Concealed address message, is one in which the address is concealed in the 3/4 of the message. The W/T staff do not know the address of the message.*

No particulars to be entered in message log in "From" space.
i. - a r g = 1217 9082 4096 1275 1987 8651 1217 = 1017 +

{ E 24M 24M V J2G +
 E J2G V 24M K7 +
 E 24M V J2G NR 1 -

To a station called direct, or to an authority on that station, where normally there would be no delivery instructions, no DG necessary.



AAY Pass via
 AAG Pass to
 AAC Pass via to
 AAD Aif.

① To ② ③ E N3C V J2G NR 1 - AAG - C2Q - AAD - AAP - GEN =

② To ④ { E N3C V J2G NR 2 - AAY - D4O - DQS - AAG - DEL - GEN =
 or use "pass via ... via ... to ?" }

③ To 2FTS 3FTS E N3C V J2G NR 3 - AAY - AAG - BOM - AAC - C2S - D2O - C2G =
 E 24M V D2G NR 1 - AAC - BOM - D4O - C2S - C2G =
 E D2G V 24M NR 1 - AAG - D2O - C2S - GEN =
 E PS3 V D2G NR 1 - GEN =

* All Concealed Address Messages
 have Delivery Groups as
 routing instructions except
 as above [top of page].

④ Full authorities

E N3C V J2G NR 5 - AAY - AAG - BOM - AAC - C2S - AAT - X
 AAY - ~~CAN~~ C2S - AAG - DEL -

④ To

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Passage to 2 stations, one of whom is
 a signal link, — no routing instructions [DG]
 for the other.



["To" portion of message, will contain names of stations thru which message should be passed.]

① (a) To Northolt EY9AVKGN NR1-GR2 =

(b) To HqTC EY9AVKGN NR1-~~GR2~~-GR2 =

(c) To Filton

EY9AVKGN NR3-DAK-AFZ-GR2 =

(d) To 26 Gp

EY9AVKGN NR4-DAK-BZY-CR2 =

EJ4LVY9A NR8-BZY-CR2 =

(e) To Leuchars

EY9AVKGN NR3-DMZ-AFZ-AMX-

EJ4LVY9A NR4-DAK-AMX-

EP9ZVJ4L NR8-CR2-

(f) To Austair

EY9AVKGN NR4-DMZ-AFX-CFX-

EJ4LVY9A NR9-DAK-CFX-

EP9ZVJ4L NR4-CFX-

(g) To Calve

EY9AVKGN NR5-FRN-AFZ-AMX-DAK-FAB-

(h) To 99 Sqdn

EY9AVKGN NR3-FRN-AFZ-AMX-DAK-FFA-

(i) To Filton, Austair, HqTC

EY9AVKGN NR16-DMZ-AFX-CFX-FZ2-BZY-AFZ-

EJ4LVY9A NR3-DAK-CFX-FZ2-AF2-

EP9ZVJ4L NR4-CFX-

AAB	Northolt
AFZ	Filton
AMX	Leuchars
AZO	Astair
BZ2	Bicester
BRT	Digby
BZ2	HqTC
BZY	Hq 26 Group
CAJ	Hq 19 Group
CFX	Austair
CLM	12 Sqdn
CZP	210 Sqdn
DAK	Pass to ...
DMZ	Pass via ... to
PAB	Calve
FRN	Pass via ...
FFA	99 Sqdn
FZ2	"A I F."

the fact that the station, or an authority, is an addressee, must be indicated to ensure that the message, besides being forwarded, receives proper priority of treatment by the coding & ciphering staff.

When a message is passed to a fixed W/T station, forwarding to an addressee from its A/R, that addressee must be indicated in the Del. list, as the fixed W/T station is A/R for many authorities, & may have no means of decoding the address.

eg. 1. Message passed direct to an addressee:-

E RGM RGM V D48 NR1 - Call (Browne from A/R), GR42 = 1257 etc.

2. Message with single route:-

E GFK VGFT NR12 - Call. Ismailia from A/R) DHS [Pass to] FCO
[AOC Middle East] GR71 = 2164 etc.

3. Message to 2 Signal Lines

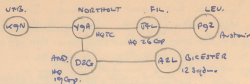
E GFV GFK V GFT NR1 NR7 - Call [Hinaidi Ismailia from A/R] -
P - [Orig. Inst.] - ABC [Hinaidi] - DEF [Pass via ... to] -
CMN [Ambala] - FGO [AOC India] CFU [Ismailia] -
DHS [Pass to] FCO [AOC Middle East] GR30 = 9812 etc.

4. One Receiving Stn. with flow from one route.

E GFK VGFT NR7 - Call [Ismailia from A/R] ABC [Pass to] FED
[Hinaidi] CFU [Ismailia] BCD [Pass via ... to] BGP [Aden]
BPG [Singapore] GR31 = 8142 etc.

5. Message to two fixed stations who are known to be A/R for the addressee concerned in this transmission.

E GFT CRZ V GFK NR7 NR3 - (Call A/R Hatter from Ismailia)
COF - DCAS A/R [Deputy Chief Air Staff]
DUT - AOC Palestine GR47 = 2193 etc.



② Station calls not be shown, in double routes or over.

(a) Totilton & Andover

$$E Y9A VQ9N N11 - DAK - A20 - AF2 - GR =$$

(b) HQ 26 Group, & 19 Gp

$$E Y9A VQ9N N13 - DAK - CAT - BZY - GR =$$

(c) Andover & Lanchous

$$E Y9A VQ9N N15 - DAK - A20 - AAB - DMZ - AF2 - AMX - GR =$$

(d) Lanchous & Bicester

$$E Y9A VQ9N N16 - DMZ - A20 - B2Z - AAB - DMZ - AF2 - AMX - GR =$$

(e) HQTC, Andover, HQ 26 Gp, 123 Gp. Bicester

$$E Y9A VQ9N N15 - DMZ - A20 - CLM - AAB - DMZ - AF2 - CFK - F2Z - B2Z - A20 - BZY - GR =$$



③ (a) Digby & Northolt

$$E K2Y Y9A VQ9N N17 N19 - GR =$$

(b) 210 Gp. & HQTC

$$E K2Y Y9A VQ9N N12 N1Y - CZP - B2Z - GR =$$

(c) Digby & Filton

$$E K2Y Y9A VQ9N N11 N12 - AAB - DAK - AF2 - GR =$$

(d) 210 Gp. & 26 Gp.

$$E K2Y Y9A VQ9N N12 N13 - CZP - AAB - DAK - BZY - GR =$$

(e) Brackets or Leveling

E KZY YQA VKGN N20 N21- BRT-DMZ-A20- B BZ-AAA- DMZ-
AFZ-AMX-GR=

(f) 210 Sq., ROTC, 26 Gp., 128 Sq., Austria

E KZY YQA VKGN N27 N25- BRT-DMZ-A20- CLM- AAG-
DMZ- AFZ- CFK- F22- CZP- BZY- ~~ASZ~~- GR11=

Concealed Address Messages, in delivery groups, are the only type of message in the RAF, in which it is permitted to make for a repetition of part of A01.

The following partial identities only, can be used:

AB, AA, WA, WB, DA to DG, a DA to a group in the S/.

(a) E KGN VKZY IMI AB CLM +

E KZY VKGN - ABCLM - KZY YQA VKGN

(b) E KGN VKZY IMI AA BZY +

E KZY VKGN - AA BZY - ASZ - CAS

(c) E KGN VKZY IMI WA CFK - WB ASZ +

- WA CFK - F22 - WB ASZ - BZY +

(d) E KGN VKZY IMI CLM + CFK +

E KZY VKGN - CLM CFK +

ENEMY REPORTS

"M" "With reference to my message bearing TOO...."

Aircraft H6T has made an enemy report to D4G [TOO 0930],
H6T was asked to make a further report, & to refer to the previous
message.

ie D4G D4G v H6T NR3 - O - A = M0930 - *20196 - M2421A 82

= 0935 TH D4G D4G v H6T NR3 - O - A = M0930 - *20196 -

M2421A 82 = 0935 + /R+

* high my my report group.

"U" "With reference to your message, bearing TOO...."

D4G was to transmit a message to H6T referring to H6T's
previous message.

ie H6T H6T v D4G NR5 - P = U0935 - *GAFO = 0950 TH

H6T H6T v D4G NR5 - P = U0935 - *GAFO = 0950 + /R+

Report

ie B62A62 v D2G - O - AKN1822 B = 1020 - TH ... + /R+

Then refers to it as above :- M1020 - [bear same] x
priority

① Trade this Twice

② No Group No.

③ Always NR no.

④ "G" - first report of the day x

{ E166 K64 v D4G NR2 - O - A - GR3 = 121720 - 075KUM26 = 2110
TH ... +

Messages made two Times:

- ① Evening Report
- ② Discontent Memo
- ③ F Message (except PL w/serVICES)

- { ① The signalling immediately consequent on the transmission of a message by any service procedure, may be abbreviated as described below.

ABBREVIATED PROCEDURE

- ① "The actual transmission of a message cannot be abbreviated."
- ② The normal method for controlling & answering between w/t stations in the same section, for normal point to point traffic, or between aircraft, answered cars, etc., w/t company. Not employed in the "I" method.
- ③ Only suitable when very good w/t conditions exist.

Rules: ① $\bar{E}$ $\bar{A}$ omitted.

- ② Controlling station uses the c/s of the receiving station on the call.
- ③ Receiving station uses "V" with own c/s, when answering.
- ④ Control station, however, will always answer beginning the w/t Company c/s of the transmitting station.

Adoption

- ① Normally used in section, $\therefore$ only necessary to tell them when to adopt full procedure. $\bar{E}$ WSP V DfB K +
- ② Other cases: $\bar{E}$ P3A F3A V N3C Q+
F3A K

Messages always in full procedure *

$\bar{E}$ H8Y H8Y V DfB NR1 - GR4 = Q27 - 19/6 GORAL = 1020 +

~~V 22222222~~ V H8Y R

No preliminary call * Only one c/s used throughout

V H8Y TFI 3 H8Y - 3 - GORAL

V H8Y TWT GR3 H8Y - CNR1 - GR4 - $\frac{1}{2}$

If the controlling station wishes to use abbreviated procedure, unless the latter Q = final instructions then: F3S K

First Starting $\bar{E}$ GFX GFX V GFA NR2 = 1020 - Q +

GFX K

V GFX TFI 2

GFX - 2 - TFI 3

V GFA R

Used in a Control Station

$$\text{E N3C N3C V B6R NR1} \dots = 1030 +$$

$$\text{B6R R} \quad \text{B6R INT3} \quad \text{N3C-3-A0XTR}$$

$$\text{B6R INT GR3} \quad \text{N3C-CWB1-GR3}$$

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SECTION

F3A Q

$$\text{EF3A F3A V N3C K+}$$

Y3G

$$\left. \begin{array}{l} \text{A2B} \\ \text{B6R} \\ \text{D2G} \\ \text{K9N} \end{array} \right\} \text{W2N}$$

$$\text{E W2N W2N V Y3G NR2 NR7 NRS NR9-GR4-2-}$$

$$\text{X2M P8R D9M X3G V J2G = CSNOS RLOTB RMC5R = 1020 +}$$

*

TRANSMITTING STN. does not use his own C/S.

$$\text{VA2B INT AB1}$$

$$\text{V B6R R} \quad \text{V D2G INT 4}$$

$$\text{V K9N R}$$

[Answer] A2B D2G-AB1-WW-4-WW

$$\text{V A2B INT GR3} \quad \text{A2B CWB2-GR4-1/c} \quad \text{VA2B INT 2} \quad \text{etc.}$$
A2B Working with Control:

$$\text{E Y3G Y3G VA2B NR7-GR2} = 18174 = 1020 +$$

$$\text{A2B INT 1} \quad \text{Y3G -1-18174} \quad \text{A2B R}$$
TWO SECTIONS

ALL HOME UNITS

$$\text{E U2R U2R W2N W2N V J2G NR2 NR7 NR9-GR4-2-R J2G =}$$

$$\text{RSNPO PRAET BROSE} = 1020 +$$

$$\left. \begin{array}{l} \text{N3C} \\ \text{L6C} \\ \text{Z4H} \\ \text{H8Y} \end{array} \right\} \text{U2R}$$

$$\text{U2R K}$$

$$\left. \begin{array}{l} \text{V H8Y R} \\ \text{V L6C R} \\ \text{V N3C R} \\ \text{V Z4H R} \end{array} \right\}$$

$$\text{E W2N V J2G K+}$$

$$\left. \begin{array}{l} \text{E J2G VA2B R+} \\ \text{E J2G V B6R R+} \\ \text{E J2G V D2G R+} \\ \text{E J2G V K9N R+} \\ \text{E J2G V Y3G R+} \end{array} \right\}$$

[With aircraft squawks, the leader answers first.]

Gardeners' Punges

"Grant me this punges, oh Lord!
That when I eyes do close
In last long sleep
I may awake
To find my hand upon a garden gate,
And, passing through,
Feel in my face
The scent of fougues.

To wander down a garden path
Beside the flow'rs dew giving eyes
I lived so well in life —
The single lonely flowers —

INTERCEPTED MESSAGES.

- ① New Call
- ② X Signal
- ③ No. number crossed at least appropriate one.
- ④ TOR added.

E Y3G Y3G V D2G NR1-GR2-2-GR2 V 82G = 18124 = 1020 + /R+
 [GR2 has been told to intercept any messages from GR2, by his control - N3C] (B₂ op. sig.)

E RGM RGM V D2G NR3-GR2-2-XRC V 09S = 215TN = 1040 + /R+

Passing in: E N3C N3C V 06R NR1 X329 - Y3G Y3G V D2G NR1-GR2-2-
 58R V 82G = 18124 = 1020 - TOR 1100 - B + /R-K +

E N3C N3C V 06R NR2 X329 - RGM = 1040 - TOR 1115 + /R+

* Procedure Passages notation of Series No.

[X390 assumed to mean: "Following message was incompletely received.
 (Portions missed are indicated by the position of this op. sig. in the message).
 Message intercepted: E K4Z V W2U (if fixed) = 9147 8160 9108
 (if fixed) 4106 = 1055 +

Passing in: E D4B V K6W NR4 X390 - K4Z V W2U - X390 = 9147 8160
 9108 - X390 - 4106 = 1055 - TOR 1100 + /R+

When passing this linking station, Delay instructions are added, but the TOR is not altered.

Passing in: E L6C L6C V 06R NR8-T-Z-N3C V 06R ~~NR1-GR2-2-X2M V 06R~~
~~NR1~~ X329 - Y3G V D2G NR1-GR2-2-X2M V 06R =

Passing on: PSTOC = 1020 - TOR 1100 + /R+.

E N3C N3C V L6C-2-N3C V 06R ~~NR1~~ X329 - Y3G V D2G
 NR1-GR2-2- = 1020 - TOR 1100 + /R+

<u>CN</u>	— · — · — ·	; Semi-colon
<u>DU</u>	— · — · — ·	- Hyphen
<u>EX</u>	· — · — ·	Fraction Separation Sign
<u>FI</u>	· — · — ·	• Decimal Point
<u>HI</u>	· — · — ·	? Note of interrogation
<u>KK</u>	— · — · — ·	Parenthesis
<u>GW</u>	— · — · — ·	! Exclamation
<u>OS</u>	— · — · — ·	: Colon
<u>RR</u>	· — · — ·	" Inverted Commas
<u>UK</u>	· — · — ·	Blocks
<u>WG</u>	· — · — ·	Apostrophe
<u>XE</u>	— · — · — ·	Oblique Stroke

August 16 1941

COMMERCIAL PROCEDURE

Distress procedure: obligation to accept absolute - the case of every Station in that exception. Priority over all other messages. Must be answered & the necessary steps taken. 16 wpm.

Action by R/T W/T Stations: - inform some authority competent to deal with the matter - nearest GPO coast W/T Station, or nearest Naval Base, or nearest coastguard [Board of Trade] authority.

Automatic Alarm Signal: - 12 dashes in 1 minute, 4 secs, 1 sec between.

To activate the automatic device giving alarm.

W/T : SOS R/T : MAYDAY x "Grave & imminent

danger, & requires immediate assistance".

500 K/cs, [600m]. 2 minutes between alarm signal & the call,

- ① Distress Call SOS (distress signal) sent 3 times DE or C/S (3) of station.
"MAYDAY"
- ② Safety Signal "TTT" (3 times) information (urgent) regarding the safety of navigation or meteorological warnings.
"Sécurité" (3 times)
- ③ Urgency Signal "XXX"
"PAN"
- (p120) ④ Service General Wake "DDDT"

1. *...* (1891) ...
2. *...* (1892) ...
3. *...* (1893) ...
4. *...* (1894) ...
5. *...* (1895) ...
6. *...* (1896) ...
7. *...* (1897) ...
8. *...* (1898) ...
9. *...* (1899) ...
10. *...* (1900) ...

...
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...



Abbreviated Title: The authorized abbreviation of an authority which may be used in the address of a message.

DEFINITIONS

Abbreviated Method: A special method of controlling & answering.

Acknowledgment: A message from an addressee informing the originator of a message that it is understood.

- Address:
- Ⓐ Address to: An indication of the authorities to whom the message is addressed and repeated.
 - Ⓑ Address from: An indication of the authority from whom the message originates.
 - Ⓒ The address: Consists of the Address to & the Address from.

Addressed: As opposed to "repeated", denotes that the authority addressed, is required to take all necessary action to carry out the purport of the message.

Addressee: Authorities to whom a message is to be delivered, i.e. those to whom the message is addressed & those to whom it is repeated.

Answer: [As opposed to "reply"] Procedure signal made by a receiving station on receiving a call or message.

Batch Working: When there are a no. of messages to be signalled in one direction, several of these messages may be sent by a change-over of the receiving station, without interrupting the transmission to obtain answers.

Broadcast Method: Method of xrl. a message without obtaining an answer.

Call Sign: Wireless C/S is a special form of distinguishing signals allotted to stations & certain authorities.

Cleared: Message said to be cleared when the responsibility for xrl. or delivering it ceases.

- ③ "IN" & "OUT" flag, may also be "THROUGH" flag.
- ④ "THROUGH" flag, received by linking stn. for re-transmission. Both "in" & "out".
- ⑤ h/t cable, inland telegraph, or telephone. (communications)
- ⑥ sight or sound.

Office of Origin: Signal office or stn. at which msg. originally handed in for transmission.

Op. Stn: Special form of signal designed to expedite communication.

Plain Language: contains any word of P/L.
combination of code & P/L considered P/L.

Postgram: [P/G] Message - official form sent by post.

Procedure: Rules drawn up for conduct of signalling.

Procedural Message: Message, sign of which consists of lamp proc. or op. sigs, together with any words or groups governed by or amplifying such signals.

Procedural Signal: Signal designed to expedite the conduct of signalling.

R/T: Method of passing speech by means of E.M. Waves, which can only be received perceptible by electrical devices.

Receiv: Op. responsible for reception of the message.

* Repeater: Denotes that the message, besides being "addressed" to certain authorities is also sent for information to the addressees indicated.

* Reply: A message originating out of, replying to, or replying to a previous message.

Sender: Op. responsible for transmitting the message.

* Serial No: No. given to every msg. for internal sig. off. use only.

* Series No: No. inserted in call for msg. by the sig. staff of a station in order to identify series of msg. between that station & another stn. or group of stns. Numerical sequence of nos. also serves to show whether all messages of the series have been received.

Signal Office: Centre at which messages are dealt with by the signal personnel.

Sign: consists of words or groups appearing in the P/L component of the message.

Text: of words " " " " text.

Time of Despatch: The time at which the Receiving Station completes the reception of the message. Multiple address, may be more than 1 TOD.

"F" Flagged, TOD is when xpt station completes the transmission of the message.

THI: time received at Sig. Off. for transmission.

Tofo: at which message is authorized, except D/F or Emergency Reports, when, in the absence of a definite statement to the contrary, it is the time at which the occurrence forming the subject of the report was actually observed.

TOR: time at which receiving station completes reception of the message.

Transmitting Station: Station by which a message is actually being sent.

Up or Down Working: Alternate transmission or reception of messages by 2 stations in direct communication, only one message being made at each transmission.

Wireless Station: Station equipped with W/T apparatus for reception of X-¹⁰⁰ messages.

A W/S may be selected ashore, in ship or aircraft.

① Fixed: Not capable of moving, which communicates with one or more stations similarly established.

② Land Station: Station not capable of moving, which performs a mobile service.

③ Mobile Station: A station capable of moving, which ordinarily does move.

④ Aeronautical Station:

⑤ Aircraft Station:

⑥ Radiobeacon station:

⑦ D/F Station: A station provided with special apparatus intended to determine the direction of emissions from stations.

⑧ Multiple Station:

W/T: The method of passing Morse signals by means of E.M. waves, which can only be rendered perceptible by electrical devices.

OUT

	Feltwell.	SWO	WBY	/
x	Dunford.	JED		
	Renfrew.	SAC		x
x	Briggleslade.	JGX		x
x	Hawington.	RLM		
	Holton.	MST		x
x	Eastchurch.	KJG		
	Southport.	BAH		x

