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SIGNAL CENTER AND SCHOOL

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MANUAL TELETYPEWRITER PROCEDURES

OBJECTIVES

The objectives of this information sheet are to --

- a. Familiarize you with what a manual teletypewriter net consists of and the operating functions which operating personnel must know and perform in a working net.
- b. Discuss the basic and particular message formats that are used in manual teletypewriter operations, and how messages are processed.
- c. Present the accepted, general procedures that are used in operating point-to-point, multi-station, and switched manual teletypewriter nets.

* This information sheet supersedes SSTS 56003C, Manual Teletypewriter Procedures.

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Section I. ELEMENTS OF MANUAL TELETYPEWRITER OPERATIONS

1. INTRODUCTION

Each year, there is an increase in the number of teletypewriter equipments being used in tactical commands -- with good reason. For speed and reliability, teletypewriter provides the best means of transmitting and receiving the written-record communications handled at tactical communications centers. The following paragraphs cover the U. S. Army standard procedures for teletypewriter operations.

2. MANUAL TELETYPEWRITER NET DEFINED

a. Net Defined. A manual teletypewriter net consists of two or more teletypewriter stations which are capable of direct communications on a common channel or frequency. Normally there are at least three stations in a net (fig. 1).

Note: A manual teletypewriter network is an organization of stations capable of intercommunication, though not necessarily on the same channel. A typical example of a network is a switched network (fig. 2).

b. Net Control Station. Normally, one station in a net is designated as the net control station (NCS). The NCS determines whether the net shall be free or directed.

c. Free Net. In a free net, each station may transmit messages "at will", subject to interruption under the rules of precedence (Appendix III).

d. Directed Net. In a directed net, each station must obtain permission from the NCS before transmitting a message. Sometimes, however, the NCS will allow any station in a directed net to transmit FLASH messages without prior permission.

3. NET DISCIPLINE

a. NCS Responsibilities. In addition to determining whether the net shall be free or directed, the NCS is also responsible for all procedures used within the net. Other duties of the NCS are to --

- (1) Prevent unofficial communication ("chatter").
- (2) Monitor all radioteletypewriter transmissions to make sure that proper procedure is used in the net.
- (3) Carry out the commander's orders for emergency silence.
- (4) Order frequency changes and shifts, as necessary.
- (5) Establish or enforce authentication criteria.

b. Operator Responsibilities. Each manual teletypewriter operator shares the responsibility for the efficiency of the net. To maintain high efficiency, operators must NOT --

- (1) Have unofficial communication ("chatter").
- (2) Violate emergency silence.
- (3) Perform excessive testing while "on the air".

- (4) Transmit personal signs (operator's initials).
- (5) Make unauthorized use of plain text (clear text).
- (6) Use other than authorized prosigns.
- (7) Use profane, indecent, or obscene language.
- (8) Take excessive time to change frequency (QSY) or to tune (ZRF) in a radioteletype-writer net.

4. MACHINE FUNCTIONS

The teletypewriter keyboard includes six function keys -- BLANK (BLK), LETTERS (LTRS), FIGURES (FIGS), SPACE BAR (SP), CARRIAGE RETURN (CR), and LINE FEED (LF). The function keys are used as follows:

KEYS	When used	Why used
5SP 2CR LF (Note 1 below)	Beginning-of-transmission (BOT)	To synchronize two or more teletypewriters and align their carriages to the left margin.
2CR LF	End-of-line (EOL).	To return carriages to the left margin and advance paper one line.
	End-of-transmission (EOT) in procedure messages, including responses to preliminary calls.	To return carriages to the left margin and advance paper one line.
2CR 8LF NNNN 12 LTRS	End-of-message (EOM).	To return carriages to the left margin and advance paper to separate messages. Provides four letter N's for automatic teletypewriter systems and twelve LTRS functions.
2CR 8LF	After a page of multi-page message.	To separate the pages of a long message.
FIGS JJJJSSSS LTRS	To sound the teletypewriter bell signal.	The bell signal is used to attract the attention of the receiving operator, when required.

- Notes.
1. Interpret as punching the SPACE BAR (SP) five times, the CARRIAGE RETURN (CR) two times, and the LINE FEED (LF) one time.
 2. The upper case J is an apostrophe (') and the upper case S is a bell signal. The receiving operator sees 5 apostrophes (''''') on the page printer or tape and hears the bell sound 5 times.

5. CALL SIGNS

In manual teletypewriter operation, a call sign is a combination of characters (letters and numbers), which identifies a communication facility, command, authority, activity, or unit.

Call signs are categorized as follows:

a. Fixed Call Signs. Fixed call signs are assigned by the International Telecommunications Union (ITU) and are published in ACP 100 (classified). Although these call signs are usually referred to as "radio call signs", they are used in teletypewriter operations. Examples of fixed call signs are listed below.

FIXED CALL SIGNS	
Fixed Call Sign	Identifies
WAR	Department of the Army, Washington, D. C.
AIR	Department of the Air Force, Washington, D. C.
NPM	U.S. Navy Communication Station, Honolulu, Oahu, Hawaii
ADA	U.S. Army Communication Station, Tokyo, Japan

b. Tactical Call Signs.

- (1) Tactical call signs are allocated by Allied authority to each Allied country or force. In the US Army, tactical call signs are further allocated to subordinate commands by the Office of Chief, Communications-Electronics, US Army, Washington, D. C.
- (2) Tactical call signs are listed in the ACP 110 series (Classified). Each call sign is a four-character combination of letters and digits, none of which is all letters or all digits. Tactical call signs may be used for almost all communications except voice and tape relay. Tactical call signs are characterized by type as shown in the chart below.

TACTICAL CALL SIGNS		
TYPE	IDENTIFIES	EXAMPLE*
Single	One command, one communications station, or both.	SALS
Collective	Two or more commands, two or more communications stations, or both.	TC ØF
Net	All of the commands in a net, all communications stations in a net, or both. Although a net call is one type of collective call, it is usually considered as a net call and not as a collective call.	S64O

*Additional examples of tactical call signs are --
G864, S43T, FP22, SS7B, 76S5, 4C54, 39LM, 7HOØ 8JFR, 6G4G.

6. PROSIGNS

a. Definition. A communications prosign (procedure sign) is a group of one or more letters, or one or more letters followed by a digit. Prosigns are used to convey, in a condensed form, certain frequently used instructions, orders, requests, and other information related to communications. Prosigns are sometimes classified as a brevity code but are not to be considered as a security code.

b. Meanings of Prosigns. The exact meaning of a prosign -- and some have more than one meaning -- can be determined by its relationship with other words in a message. For example, in the phrase "R 161419Z", the prosign R means ROUTINE, which is the message precedence. In the phrase "DE FP22 R AR", the prosign R means RECEIVED, in this case by station FP22. Prosigns and their meanings are covered in Appendix I.

7. OPERATING SIGNALS

a. Definition. An operating signal is a group of either three letters or three letters followed by a digit; the first letter is always either Q or Z. Stations use operating signals as a brevity code during all phases of communications. Operating signals that begin with Q may be used by both military and civilian stations; signals that begin with Z are used only by Allied military stations.

b. Meanings of Operating Signals. Each operating signal has one standard meaning which can be used to give an order or advice and to ask a question or give an answer. When an operating signal is used to ask a question, it must be preceded by the prosign INT. The meaning of some frequently used operating signals are covered in Appendix II.

8. CALLING AND ANSWERING

a. Calling and Answering Sequence. Call signs must be transmitted in alpha-numeric order and called stations must answer in alpha-numeric order (from A through Z and from 1 through 0).

Note. The slant (/) is considered as a 27th letter of the alphabet when it is used in a call sign. Allied military stations do not use the slant in their communication operations.

The following is an example of the calling and answering sequence --

Called stations in alpha-numeric order	From	Call sign of calling station	Go ahead; transmit
<div style="border-top: 1px solid black; width: 100%; margin-bottom: 5px;"></div> AB82 A64M ZX2Y 4AB6	<div style="border-top: 1px solid black; width: 100%; margin-bottom: 5px;"></div> DE	<div style="border-top: 1px solid black; width: 100%; margin-bottom: 5px;"></div> 8ALS	<div style="border-top: 1px solid black; width: 100%; margin-bottom: 5px;"></div> K

b. Calling. A calling station first transmits a "preliminary call" to the called station or stations.

(1) Examples of preliminary calls that might be used in the radioteletypewriter (RATT) net of figure 1 are listed below.

Examples of radioteletypewriter net preliminary calls	Type of call
7AAB DE 8ALS K	Single call in a free net.
4AB6 7AAB DE AB82 K	Multiple call in a free net.
S64O DE 4AB6 K	Net call by station 4AB6 in a free net.
S64O XMT A64M DE 8ALS K	Net call by NCS (8ALS) exempting station A64M.
TCØF DE 8ALS K	Collective call by NCS.
S64O XMT TCØF DE 8ALS K	Net call by NCS exempting stations AB82 and A64M.

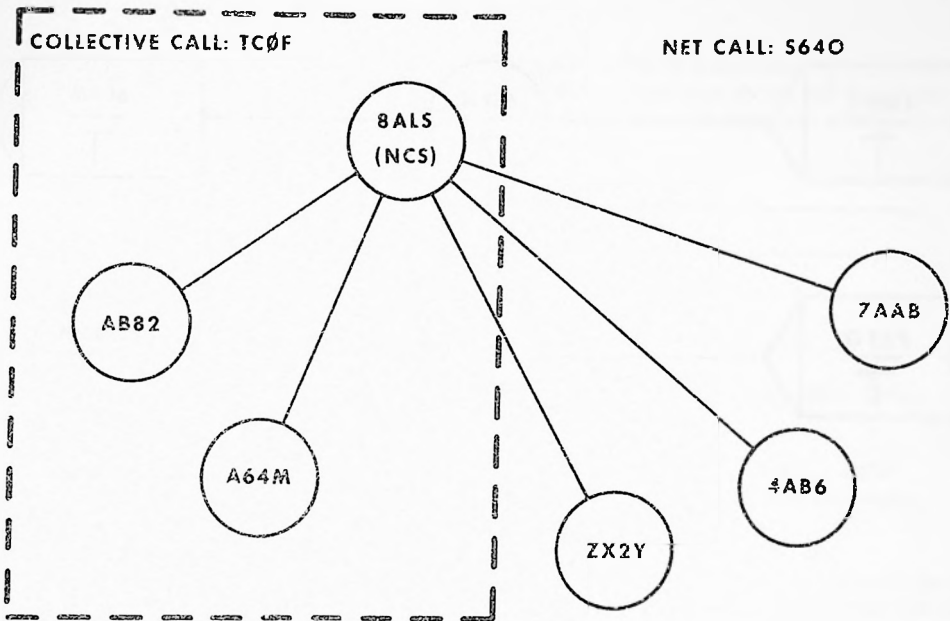


Figure 1. One type of radioteletypewriter net, simplified diagram.

(2) Examples of preliminary calls that might be used in the switched network of figure 2 are listed below:

Examples of switched network preliminary calls	Type of call
6LPM DE 8MUZ P K	Single call, PRIORITY precedence.
ZBO10 6LPM ZBOIR PX70 DE 8MUZ K	Multiple call, dual precedence. Station 8MUZ has one IMMEDIATE message for station 6LPM and one ROUTINE message for station PX70.
JL3X PX70 DE 8MUZ P K	Multiple call. Station 8MUZ has a PRIORITY message for stations JL3X and PX70.
6LPM DE 8MUZ ''''Z'''' K	Single call. Station 8MUZ has a FLASH message for station 6LPM. The bell signal ('''') is always transmitted before and after a FLASH or EMERGENCY precedence prosign in a preliminary call, followed by the prosign K.

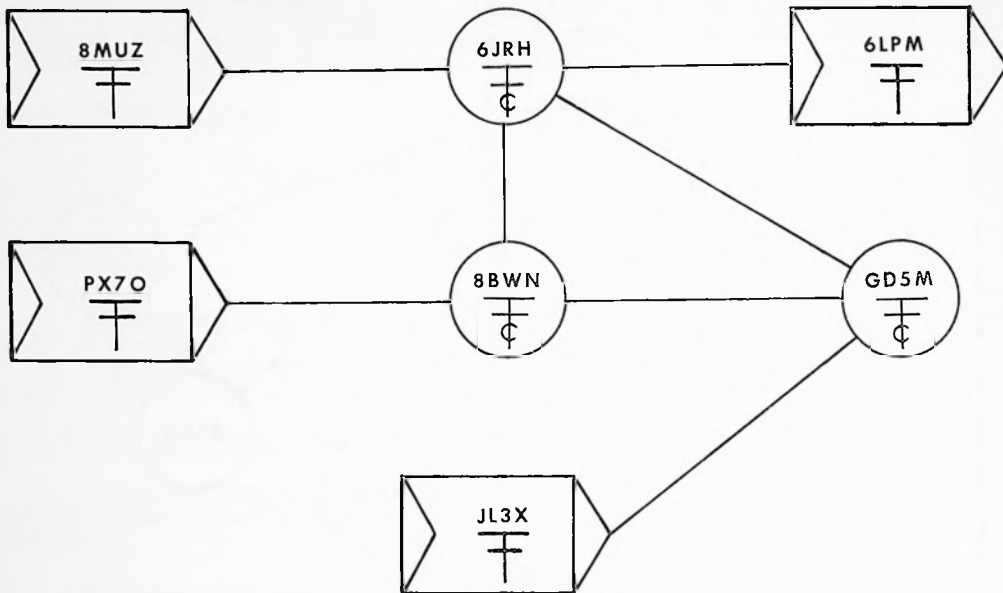


Figure 2. Portion of a manual teletypewriter switched network, simplified diagram.

c. Answering. A called station may use a normal call or an abbreviated call in replying to the calling station. A normal call includes both the calling and called station's call signs. The abbreviated call includes only the call sign of the called station. The normal call, however, is seldom used. Examples of calling and answering in RATT nets and switched networks are listed below.

(1) RATT net.

RATT preliminary call	Abbreviated call reply
7AAB DE 8ALS K	DE 7AAB K (normal call reply is: 8ALS DE 7AAB K).
4AB6 7AAB DE AB82	DE 4AB6 K (1st station) DE 7AAB K (2d station)
S64O DE 8ALS K (from NCS)	DE AB82 K (1st station) DE A64M K (2d station) DE ZX2Y K (3d station) DE 4AB6 K (4th station) DE 7AAB K (5th station)
S64O XMT AB82 DE 8ALS	DE A64M K (1st station) DE ZX2Y K (2d station) DE 4AB6 K (3d station) DE 7AAB K (4th station)

(2) Switched network.

Switched network preliminary call	Abbreviated call reply
6LPM DE 8MUZ R K	DE 6LPM K
JL3X PX7O DE 8MUZ P K	DE JL3X K (1st station) DE PX7O K (2d station)
6LPM DE 8MUZ Z K	DE 6LPM K
ZBO1P PX7O ZBO1R 6LPM DE 8MUZ K	DE PX7O K (1st station) DE 6LPM K (2d station)

9. RECEIPTING FOR MESSAGES

a. General. After a complete message is received, each receiving station sends a receipt. The receipt is visible proof to the transmitting station supervisor that the message was transmitted and received. The receipt is placed in the station's temporary files.

b. Contents of a Receipt. The receipt includes, at minimum, the identity of the receiving station, the prosign R (received), and the end-of-transmission prosign, AR. The receipt may also include the time that the message was received, if required by local Standing Operating Procedures. By using the prosigns B (more to follow) and K (go ahead; transmit) in its receipt, the receiving station can indicate that it has a message for the transmitting station. Examples of receipts are given below.

Receipt	Meaning
DE PX7O R 1332Z AR	This is station PX7O. I acknowledge receipt at 1332Z. End of transmission.
DE AB82 R AR	This is station AB82. I acknowledge receipt. End of transmission.
DE JL3X R 1415Z AR DE PX7O R 1415Z AR	These are receipts by two stations (JL3X and PX7O). Note the alphanumeric sequence.
DE JL3X R 1532Z B K	This is station JL3X. I acknowledge receipt at 1532Z. I have a message to send you. Go ahead, transmit. <u>Note:</u> Assuming that JL3X is receipting to PX7O, after the reply by PX7O -- probably "DE PX7O K" -- JL3X transmits 2CR 8LF, then the message.

NOTE: In teletypewriter operations, the transmitted message and the receipt are printed on the same document (paper page or tape), and are not separated. Thus, each receipt is identified with the message to which it refers.

10. STATION SERIAL NUMBERS FOR MESSAGES

a. General. The station serial numbering system in manual teletypewriter operations permits consecutive numbering of messages by each station in the net. The NCS decides whether or not station serial numbers will be used. Generally, the decision is to use them either all the time or not at all. When they are used, however, they are helpful in identifying messages and receipts.

b. Station Serial Numbering System. A station serial number consists of three items -- the originating station's call sign, the prosign NR, and the number of the transmission. Each station maintains a separate series of numbers, beginning with NR1 at 0001 hours each day, for messages it sends to each other station in the net, as shown below.

Station Serial Number	Remarks
PX70 DE 8MUZ NR1	This is the first transmission today from station 8MUZ to PX70.
PX70 DE 8MUZ NR2	This is the second transmission today from station 8MUZ to PX70.
JL3X PX70 DE 8MUZ NR2 NR3	This is the second transmission today from 8MUZ to JL3X and the third from 8MUZ to PX70.

11. DA FORM 11-53, LOG AND OPERATOR'S NUMBER SHEET

a. Station Log. One side of DA Form 11-53 provides a log for stations in an RATT net. Normally, stations in a switched network do not maintain this portion of DA Form 11-53. Figure 3 is an example of how RATT operators maintain their station log.

LOG		
Enter opening and closing time, frequencies, frequency checks and frequency changes, traffic delays and any incidents or conditions affecting circuit efficiency. Remarks need not be confined to one line.		
STATION-CHANNEL-NET (Strike out words not applicable)		DATE
8ALS (NCS)		25 NOV 1963
TIME	OPERATOR'S SIGN	REMARKS
0001Z	CH	CHANGE OF TRICK--RELIEVED CPL SWABBLE
0005Z	CH	QSY 4130 KC
0056Z	CH	QRM AA
0059Z	CH	QRM AA ZUG
0234Z	CH	QRN
0238Z	CH	QRN ZUG
0800Z	CH	CHANGE OF TRICK--RELIEVED BY PFC F FLINCH
0801Z	FF	CHANGE OF TRICK--RELIEVED CPL HANSON

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Figure 3. Example of RATT station log.

b. Operator's Number Sheet. Manual teletypewriter station operators maintain the Operator's Number Sheet, provided on DA Form 11-53, by making entries which show the number of messages sent and received. Each message is recorded by its station serial number, date-time group, and the personal sign or initials of the operator. The Operator's Number Sheet shown in figure 4 shows that station 8MUZ --

1. Sent 6 messages to station JL3X.
2. Received 2 messages from station JL3X.
3. Sent 4 messages to station PX70.
4. Received 5 messages from station PX70.
5. Sent 2 messages to station 6LPM.
6. Received 3 messages from station 6LPM.

OPERATOR'S NUMBER SHEET (FM 24-13)					
STATION CALL 8MUZ		NET CALL 6HPS		DATE 25 - - - 19 - -	
OTHER STATIONS CALL JL3X		PX70		6LPM	
SENT RECD	SENT RECD	SENT RECD	SENT RECD	SENT RECD	SENT RECD
1 250004CH	1 250006CH	1 250004CH	1 250115MC	1 250004CH	1 250104MC
2 250052CE	2 251003JX	2 250306CH	2 250202MC	2 250310CH	2 250400MC
3 250136CH		3 250325CH	3 250241CH		3 250415JX
4 250300CH		4 250410MC	4 250250JX		
5 250355CH			5 250315CH		
6 250400MC					
7					
8					
9					
0					
0					
0					

DA FORM 11-53
1 JUN 58

REPLACES WD AGO FORM 11-53, 1 JUL 45, WHICH IS OBSOLETE.

Figure 4. Example of Operator's Number Sheet.

Section III. MANUAL TELETYPEWRITER MESSAGE FORMATS AND HANDLING

12. GENERAL

a. The basic message format for manual teletypewriter messages consists of 16 lines, or areas, of information. It provides a guide for arranging information to be transmitted and it also permits speed and ease of handling.

b. Each of the 16 lines provided in the basic format do not necessarily appear in every message. In some cases, the content of the message will govern the number and which lines are used. In other cases, the command may choose to eliminate certain lines.

c. From the basic format (para 13), three standard formats have been derived -- the plaindress, abbreviated plaindress, and codress. These three standard formats are covered in paragraphs 14, 15, and 16, respectively.

13. BASIC FORMAT FOR MANUAL TELETYPEWRITER MESSAGES

a. Basic Format.

<u>Format line number</u>	<u>Contents</u>
<u>HEADING</u>	
1.	Not used in manual teletypewriter procedure except when working with tape relay nets.
*2.	Contains call sign(s) of station(s) called. <u>May</u> contain prosign XMT and call sign of exempted station(s) when collective call is used.
*3.	Contains prosign DE and call sign of calling station. May contain transmission identification (station serial number).
4.	Contains transmission instructions (prosigns T, G, or F) and operating signals.
5.	Contains precedence prosign(s), date-time group, and message instructions in the form of operating signals (ZFH, ZEX, ZFF, or others, as appropriate).
6.	Contains prosign FM, followed by designation of originator, using his call sign or in plain language.
7.	Contains prosign TO, followed by designation of the action addressee(s), using call sign(s) or in plain language.
8.	Contains prosign INFO, followed by designation of the information addressee(s), using call sign(s) or in plain language.
9.	Contains prosign XMT, followed by the designation of the addressee(s) exempted from the collective call, if used in lines 7 and 8.
10.	Contains accounting symbol (as required), group count prosign and group count, or SVC (service message).
11.	Contains separative prosign BT. Separates HEADING from TEXT.
<u>TEXT</u>	
12.	Contains the TEXT of the message, including internal instructions.
13.	Contains separative prosign BT. Separates TEXT from ENDING.
<u>ENDING</u>	
14.	Contains the time-group, when authorized. The US Army has not prescribed doctrine concerning the time-group. Also contains the prosign CFN and confirmed material.
15.	Contains prosign C, followed by correction(s); time-of-file (optional); and final instructions (prosigns B, AS, and authentication).
16.	Contains the ending prosign, <u>K or AR</u> , as appropriate.

*Lines 2 and 3 may be included in one typed line.

b. Message Parts. Each message includes three parts, as follows:

- (1) Heading -- format lines 1-10.
- (2) Text -- format line 12.
- (3) Ending -- format lines 14-16.

c. Message Components. Each message includes five components, as follows:

- (1) Procedure -- format lines 1-4.
- (2) Preamble -- format line 5.
- (3) Address -- format lines 6-9.
- (4) Prefix -- format line 10.
- (5) Procedure -- format lines 14-16.

d. Message Elements. According to the requirements of a message, all or any of the following elements may be used.

- (1) Call -- format lines 2 and 3.
- (2) Transmission instructions -- format line 4.
- (3) Precedence, date-time group, message instructions -- format line 5.
- (4) Originator's designation -- format line 6.
- (5) Action addressee designation -- format line 7.
- (6) Information addressee designation -- format line 8.
- (7) Exempted addressee designation -- format line 9.
- (8) Accounting information, group designation -- format line 10.
- (9) Subject matter -- format line 12.
- (10) Time group -- format line 14.
- (11) Confirmation -- format line 14.
- (12) Corrections, filing time, final instructions -- format line 15.
- (13) Ending sign -- format line 16.

e. Message Separator. Separator, BT, is used in lines 11 and 13 to separate the heading, text, and the ending. Separators are not considered as a part, a component, or an element of the message.

f. Date and Time of Filing. The date and time of filing is not used in ship-to-ship, ship-to-shore, or naval radioteletypewriter broadcast circuits.

14. PLAINDRESS MESSAGE FORMAT

a. A plaindress message may use all lines of the basic message format. In the plaindress message, the originator and the addressee designations are not included in the text of the message, and the accounting symbol and group count may be omitted. The address elements (FROM, TO, INFO) of a plaindress message may be in clear text, if security is not required. When security is required, the call signs provide address information. In administrative or rear area nets, where security of the address elements is seldom required, clear text in format lines 6 (FROM), 7 (TO), and 8 (INFO) is normally used, and format line 15 -- time filed in communications center -- is usually given.

NOTE: In all the following examples of the plaindress format, the station serial number may be omitted, for example, NR1 in the first message. The NCS governs the use of station serial numbers (para 10).

b. The following is an example of the plaindress message format as used in an administrative or rear area manual teletypewriter net.

(5SP 2CR LF)	
8S64 DE SX6F NR1	(2CR LF)
R 251010Z	(2CR LF)
FM CG ALGIERS GEN HOSP	(2CR LF)
TO CO 801ST MED GROUP	(2CR LF)
DA GRNC	(2CR LF)
BT	(2CR LF)
UNCLAS AGH1076	(2CR LF)
REQUEST 1000 TONGUE DEPRSSRS AND 2 DOZEN	(2CR LF)
THERMOMETERS	(2CR LF)
BT	(2CR LF)
CFN AGH1076 1000 2	(2CR LF)
C WA TONGUE DEPRESSORS	(2CR LF)
25/1013Z	(2CR LF)
K	(2CR 8LF)

NNNN (12LTRS)

c. The following are examples of the plaindress message format as used in tactical and operational manual teletypewriter nets in forward areas.

NOTE: Although the beginning-of-message (5SP 2CR LF), end-of-line (2CR LF), and end-of-message (2CR 8LF NNNN 12LTRS) are not always shown in the following examples, they must be used in all messages.

- (1) Single-address message showing the use of lines 2 and 3 to denote address elements. The SOI provides plain-text decoding of call signs used.

PX7O DE 8MUZ NR1
P 251044Z
GRNC
BT

UNCLAS CF2654
OPERATION BUGGY WHIP EFFECTIVE 4 HOURS EARLIER
THAN PREVIOUSLY PLANNED.

BT
CFN CF2654
ZNB MM
K

(2CR 8LF NNNN 12LTRS)

- (2) Multiple-address single-precedence message showing the use of lines 6, 7, and 8 to denote address elements. The SOI provides plain-text decoding of call signs used.

JL3X PX7O DE 8MUZ NR1 NR2
R 251056Z
FM 8MUZ
TO PX7O
INFO JL3X
GRNC
BT

UNCLAS CF2655 FOR G1
PERSONNEL REPORT GFDS-78 WILL BE SENT BY
ELECTRICAL MEANS EFFECTIVE TODAY

BT
CFN CF2655 G1 GFDS-78
C WA EFFECTIVE TUESDAY
ZNB HH
K

(2CR 8LF NNNN 12LTRS)

- (3) Multiple-address, dual-precedence message showing the use of lines 6, 7, and 8 to denote address elements. The SOI provides plain-text decoding of call signs.

JL3X PX7O DE 8MUZ NR2 NR3
P R 251113Z
FM 8MUZ
TO JL3X
INFO PX7O
GRNC
BT

UNCLAS CF2656 FOR SIGO
RETURN ALL COPIES SOI ITEM 22-18, CHANGE 22-19
TO READ 22-18. ITEM 22-20 NOW BEING DELIVERED TO
BE MARKED 22-19

BT
CFN CF2656 22-18 22-19 22-18 22-20 22-19
ZNB LL
K

(2CR 8LF NNNN 12LTRS)

- (4) Multiple-address, dual-precedence message showing the use of lines 2 and 3 to denote address elements and the use of line 5 to denote ACTION (TO) addressee and INFORMATION (INFO) addressee. The time-of-file is also indicated. The SOI provides plain-text decoding of call signs.

JL3X PX7O DE 8MUZ NR3 NR4
O R 251136Z ZFH1 PX7O
GRNC
BT

UNCLAS CF2657 FOR SIGO MY CF2656
RETURN ALL COPIES SOI ITEM 43-16. NO FUTURE
ISSUES TO BE MADE. LETTER OF EXPLANATION TO
FOLLOW BY MESSENGER
BT
CFN CF2657 CF2656 43-16
ZNB DD
25/1137Z
K

(2CR 8LF NNNN 12LTRS)

- (5) Single-address message showing the use of transmission instructions (T). The prosign T with nothing following indicates that the called station will relay the message to the station indicated in line 7.

ZX2Y DE 8ALS NR5
T
P 251437Z
FM 8ALS
TO A64M
.....etc.
K

(2CR 8LF NNNN 12LTRS)

- (6) Single-address message showing the use of transmission instructions (T). The prosign T is followed by the call sign of the addressee.

ZX2Y DE 8ALS NR6
T A64M
P 251443Z
GRNC
BT
.....etc.
K

(2CR 8LF NNNN 12LTRS)

- (7) Multiple-address message or net call showing the use of prosign F. The prosign F denotes: Do not answer; do not receipt for this message; or do not transmit in connection with this message.

S64O DE 8ALS NR4
F
O 250534Z
GRNC
BT
T-E-X-T
BT
ZNB GG
AR

(2CR 8LF NNNN 12LTRS)

- (8) Single-address message showing the use of prosign G. The prosign G denotes: Repeat back; or, repeat this entire transmission back to me exactly as received.

4AB6 DE 8ALS NR7
G
P 251620Z
GRNC
BT
T-E-X-T
BT
ZNB KK
K

(2CR 8LF NNNN 12LTRS)

15. ABBREVIATED PLAINDRESS MESSAGE FORMAT

When speed is essential, the plaindress message format may be abbreviated by eliminating any or all four of these elements -- the date, date-time group, precedence, and group count. At the discretion of the NCS, the station serial number may also be eliminated to further shorten messages (para 10). The following is an example of an abbreviated plaindress message; it includes the station serial number -- NR5, in this case.

PX70 DE 8MUZ NR5
BT
UNCLAS CF2658
EXPEDITE PLAN MISSISSIPPI
BT
CFN CF2658
ZNB JJ
K

(2CR 8LF NNNN 12LTRS)

16. CODRESS MESSAGE FORMAT

In the codress message format, all address information -- FROM, TO, and INFO -- is "buried" within the encrypted text. The following is an example of a codress message; the address information appears between the two BT's.

PX70 DE 8MUZ NR6
P 251315Z
GR63
BT
ZJENX KILO ALFA LIMA ROMEO KILO DUEJD KSHRN KEHDD GJSLW
FLAPJ KRLKP ALOVI JILLJ ALJPI FEOTV DNSRC BVFTP WAVCJ MQUTV
LQPVR NIWLT UMIAX DBSCZ GYCZW JUKIV XENCH BGHNY FLITJ VLPPI
SOSSJ ULLTI NORPJ TAFFV YXNTY UBOFS RYNPI OALUX TZUFP APHRT
OTYXC FALTW ZJENX IILJV NOPUT YAMBX TARLJ CBFEA AMILI BQVFP
AERTI LJJOQ CMLUE SXCVF NLIUT PUWCZ DGKMC BWETY XJOWA JILIP
OTYXC FALTW ZJENX
BT
ZNB YY
K

(2CR 8LF NNNN 12LTRS)

17. PROCEDURE FOR LONG MESSAGES

a. A long message is one which contains more than 12 lines of text. A long message is divided into pages as follows.

- (1) The first page contains the heading and the first 10 lines of text; it does not carry a page number.

- (2) The second and succeeding pages each contain 20 lines of text and carry a page number.
- (3) The last page, which includes the ending, may have fewer than 20 lines of text. The last page also carries a page number.
- (4) When necessary, a confirmation line (CFN) and a correction line (C) are included on any page, as required, to confirm and correct the message text.

b. The following example outlines the composition of a long message.

6LPM DE 8MUZ NR6

P 251615Z

GRNC

BT

10 lines of text

CFN (when necessary)

C (when necessary) 2CR 8LF

PAGE TWO

20 lines of text

CFN (when necessary)

C (when necessary) 2CR 8LF

PAGE THREE

5 lines of text

CFN (when necessary)

C (when necessary)

ZNB HH

K 2CR 8LF NNNN 12LTRS

18. SERVICE MESSAGES

a. Use. After a message is transmitted and received for, one of the stations may notice an error or the receiving station may question a part of the message. Since the receipt was sent, the only correct method of sending or receiving a correction is by a service message. Thus, service messages are used to --

- (1) Supply information about a message.
- (2) Question doubtful portions of a message.
- (3) Reply to another service message.

b. Precedence and Reference. A service message is normally assigned a precedence equal to that of the message to which it refers. A service message refers to the original message by both date-time group and by station serial number.

c. Identification of a Service Message. A service message can be identified by any of the four following ways.

- (1) By the abbreviation SVC in line 10.
- (2) By the abbreviation SVC in the first line of text.
- (3) By its reference to another service message.
- (4) It may be addressed specifically to a communications center.

d. Format. Any of the three message formats may be used for service messages provided that --

- (1) When either the plaindress or the abbreviated plaindress format is used, the abbreviation SVC must be used in line 10 of the format instead of GRNC.
- (2) When the codress format is used, the actual group count must be used in line 10 of the format, for example, GR53.

NOTE: The use of SVC in codress format is a serious security violation.
A classified service message must not contain any external indication that it is a service message.

e. Example of a Service Message.

```

6LPM DE SMUZ NR5
R 250815Z
SVC
BT
UNCLAS SVC 6LPM NR3 250754Z ZDL2
BT
ZNB FF
K
(2CR 8LF NNNN 12LTRS)

```

19. PROCEDURE MESSAGES

a. Use.

- (1) Procedure messages are used to correct or clear up a doubtful part of a message before the operator sends a receipt for a message. Each transmission required for this purpose is a procedure message.
- (2) Procedure messages are also used to order frequency changes, emergency silence, an increase or decrease in speed of transmission, and to give information on signal strength and readability.

b. Format. Although there is no prescribed format for procedure messages, operators are encouraged to use prosigns and operating signals to achieve clarity and brevity. Examples of three types of procedure messages are shown below.

- (1) Request for a specific word and reply.

```

DE 6LPM IMI WA BAGGY K (request)
DE PX70 WA BAGGY PANTS K (reply)

```

- (2) NCS of RATT net orders emergency silence.

```

S640 DE 8ALS
HM HM HM
ZNB FL
AR

```

- (3) NCS of RATT net lifts emergency silence.

```

S640 DE 8ALS
ZUG HM HM HM
ZNB FL
K

```

20. CONFIRMATION

Beginning with the confirmation prosign, CFN, all numbers, unusual letter combinations (except abbreviations), and anything that might be confusing to the receiving operator, in the transmitted message text, are repeated in format line 14. The receiving operator checks the confirmation line against the text to insure accuracy, and questions doubtful portions. When the text includes more than 50 percent of confirmable material, the confirmation line is not usually used. The following are examples of confirmable material.

Confirmable material	Example
Originator's reference number	CF5684
Paragraph numbers	1, 2, 3, 4, 5, 6, etc.
Unusual words	KICAPOO (town in Kansas)
Letter-number combinations	6a 8BX
Letter groups	A BCM ZRA
Number groups	1 31 105-31

21. CANCELLATION OF MESSAGES AND TRANSMISSIONS

a. Cancellation of Messages. Only the originator of a message may cancel a message.

b. Cancellation of Transmissions. The operator at the transmitting station may cancel a transmission -- not a message -- at any time during transmission. To cancel a transmission, the operator sends the error prosign, 8E's, followed by the end-of-transmission prosign, AR. Each letter of the error prosign must be separated by a space, as shown in the example below.

NOTE: If a message has already been received for, the transmitting station operator must use a service message (para 18) to cancel the transmission.

. WILL BE EFFECTIVE UPO E E E E E E E AR

22. METHODS OF ERROR CORRECTION

In addition to using service (para 18) and procedure (para 19) messages to correct errors, transmitting station operators may also use the methods described in a, b, and c below.

a. 8E Method. When a transmitting station operator makes an error, he immediately transmits 8 or more E's, repeats the last correctly transmitted group, makes the correction, and then continues with the message. The following is an example of the 8E method.

. IN ACCORDANCE WITH SENE EEEEEEEEE WITH MESSAGE SENT. . .

b. C Method. When a transmitting station operator makes an error, he may wait until he transmits the entire text, and then make the correction. Format line 15 is used in the C method; the correction prosign, C, is transmitted followed by either prosigns WA (word after), WB (word before), or AA (all after), and the corrected text. The following is an example of the C method.

PX70 DE 8MUZ NR14
P 251046Z
GRNC
BT

UNCLAS CF 5809 FOR G3 OPN
GOOF BALL COMPLETED
BT
CFN CF 5809 G3
C WB BALL GOLF
ZNB ZZ
K

(2CR 8LF NNNN 12LTRS)

NOTE: In a and b above, it is advisable -- although not mandatory -- to avoid repeating the last correct group if it is a number, for example --

. . . PROVIDE 300 BLANKETS, 64 BAGSEEEEEEEEE BLANKETS, 64 SLEEPING BAGS,

c. Letters Rub-Out Method. The letters rub-out method is used to correct chad (fully-perforated) tapes. When the operator observes an error as the tape is being prepared, he uses the back-up lever of the reperforator, backs the tape to the first errored character, and uses the LTRS key to cancel the first errored character and all characters thereafter. The operator then types the correct word, group, or character, and resumes operation. The LTRS key produces 5 perforations in the BAUDOT code, and, thus, negates the errored character(s). The letters rub-out method reduces the use of the C method of correction.

23. DUAL PRECEDENCE

In multiple-address messages, a different precedence may be assigned to the ACTION and INFORMATION addressees. The originator of the message assigns the required precedences in the space provided on the messageform. The manual teletypewriter operator indicates the dual precedence on format line 5 by using two precedence prosigns, separated by a space; the higher precedence is shown first. The following example illustrates the use of dual precedence. In the example, a PRIORITY (P) precedence is shown for the ACTION addressee (JL3X) and a ROUTINE (R) precedence is shown for the INFO addressee (PX70).

JL3X PX70 DE 8MUZ NR6 NR17
P R 251209Z
FM 8MUZ
TO JL3X
INFO PX70
GRNC
BT
(etc.)

Section III. MANUAL TELETYPEWRITER NET OPERATING PROCEDURES

24. GENERAL

The procedures used in manual teletypewriter operations are governed by the type of circuit, or net, employed. In general, manual teletypewriter circuits, or nets, are categorized as point-to-point, multi-station or radioteletypewriter, and switched.

25. POINT-TO-POINT NET OPERATING PROCEDURE

a. Point-to-Point Circuit. A point-to-point net is one in which two teletypewriters are connected direct by radio or wire.



Figure 5. Point-to-point net, simplified diagram.

b. Point-to-Point Operation. The following is an example of the procedures used in point-to-point operation. In the example, station SP6B transmits a message to station 9RCF. The Action column shows activities by the operators at both stations; the Copy column shows the typed copy which appears at both stations as a result of this activity.

Action	Copy
1. SP6B transmits a 2-second break to alert 9RCF and then transmits the preliminary call.	1. 9RCF DE SP6B K
2. 9RCF answers the preliminary call.	2. DE 9RCF K
3. SP6B transmits TR 2CR 8LF	3. TR
4. SP6B and 9RCF both tear off and discard the preliminary call.	4. Preliminary call copy discarded.
5. SP6B transmits the message followed by 2CR 8LF NNNN 12LTRS.	5. 9RCF DE SP6B NR1 P 251407Z GRNC BT T-E-X-T BT CFN ZNB HH 2CR 8LF NNNN 12LTRS
6. 9RCF transmits the receipt for the message.	6. DE 9RCF R 1412Z AR

26. MULTI-STATION NET OPERATING PROCEDURE

a. Multi-Station Net. A multi-station net is one in which more than two stations are connected by radio or wire. A common example of the multi-station net is a radioteletypewriter (RATT) net, which is usually operated as a free net (para 2). An advantage of the multi-station net is its relay capability -- relaying from a station receiving good signals to called station which is unable to receive direct from a calling station. In practice, when the calling station cannot communicate with the called station, another station in the net is requested to relay the message to the called station. Relay instructions are placed in format line 4 by using the prosign T.

b. Multi-Station Net Operation. The procedure for calling, answering, and receipting in a multi-station net is the same as in the point-to-point operation (para 25b). When any station in the net transmits, all other stations receive the transmission, operating conditions permitting. When more than one station is called, the called stations answer -- and receipt for the transmission -- in alpha-numeric order.

27. MANUAL TELETYPEWRITER SWITCHED NET USING ONE SWITCHBOARD

a. General. When a manual teletypewriter net uses a switchboard, the calling and called stations are connected or patched through the switchboard.

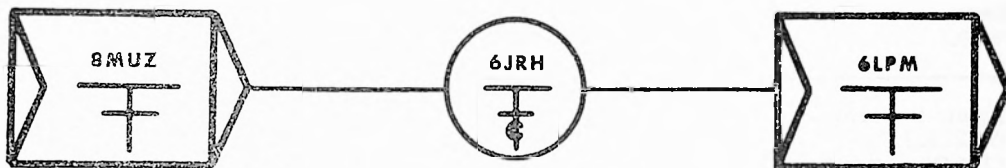


Figure 6. Manual teletypewriter switched net using one switchboard, simplified diagram.

b. Advantages. The chief advantage of using a switchboard in a manual teletypewriter net is that it provides flexibility in net operations.

- (1) In a multi-station net without a switchboard, when one station calls another (single-address call), all stations receive the call and are occupied until the call is completed. When a switchboard is used, one station can call another, effectively on a point-to-point basis, without tying up the other stations in the net. Thus, the interchange of traffic between individual stations in the net, depends only on the patching capacity of the switchboard.
- (2) By using the conference call capability of the switchboard, multiple-address calls can still be made in the net.

STUDENT NOTES:

c. Disadvantages. The chief disadvantage of using a switchboard in manual teletypewriter operations is that it takes more time to establish the individual connection between the calling and called stations, because of the actions required at the switchboard. This is evident by comparing the procedure in d below to the procedure in paragraph 25b. However, considering the flexibility that a switchboard provides (b above), more calls can be made by more stations in the net at any one time.

STUDENT NOTES:

d. Operation. The following is an example of the procedures used in a switched network that uses one switchboard. In the example, station 8MUZ has a PRIORITY message to transmit to station 6LPM through switchboard station 6JRH. The abbreviation SWBD is used to represent station 6JRH in the chart below.

Action by calling station 8MUZ	Action by SWBD	Action by called station 6LPM
1. Transmits a 2-second break to alert the SWBD.	1. Observes drop or light signal on switchboard panel.	1. None
2. Observes answer from SWBD.	2. Answers call by sending (5SP 2CR LF) DE 6JRH K (2CR LF)	2. None.
3. Transmits preliminary call -- (5SP 2CR LF) 6LPM DE 8MUZ P K (2CR LF) Remains silent until 6LPM answers.	3. Observes preliminary call.	3. None.
4. Observes the repetition of the preliminary call by SWBD.	4. Patches 8MUZ to 6LPM, transmits a 2-second break, then repeats the preliminary call -- (5SP 2CR LF) 6LPM DE 8MUZ P K (2CR LF)	4. Observes the 2-second break and the preliminary call as repeated by SWBD.
5. Observes answer from 6LPM.	5. Observes answer from 6LPM.	5. Answers the preliminary call -- (5SP 2CR LF) DE 6LPM K (2CR LF)
6. Transmits -- (5SP 2CR LF) TR (2CR 8LF)	6. Disconnects SWBD monitor teletypewriter when TR is observed.	6. Observes TR from 8MUZ.
7. Transmits message -- (5SP 2CR LF) 6LPM DE 8MUZ NR1 P 251009Z GRNC BT UNCLAS EXPEDITE BAREFOOT BT ZNB XX K (2CR 8LF NNNN 12LTRS)	7. None.	7. Observes message being received from 8MUZ.
8. Observes receipt from 6LPM.	8. None.	8. Transmits receipt for message -- (5SP 2CR LF) DE 6LPM R 1020Z AR (2CR LF)

Action by calling station 8MUZ	Action by SWBD	Action by called station 6LPM
9. Transmits a 2-second break to alert SWBD.	9. Observes drop or light signal on switchboard panel.	9. Observes his teletypewriter running open.
10. Observes answer from SWBD.	10. Answers call from 8MUZ by sending -- (5SP 2CR LF) DE 6JRH K (2CR LF)	10. Observes SWBD answering 8MUZ.
11. Transmits disconnect instructions to SWBD -- (5SP 2CR LF) DE 8MUZ AR (2CR LF)	11. Observes instructions to disconnect from 8MUZ.	11. Observes disconnect instructions.
12. None.	12. Disconnects the patch between 8MUZ and 6LPM.	12. None.

28. MANUAL TELETYPEWRITER SWITCHED NET USING TWO OR MORE SWITCHBOARDS

a. General. In a manual teletypewriter net which uses more than one switchboard (fig. 7), the basic operating procedure is the same as for a net that uses only one switchboard (para 27d). Each switchboard, through which a call is switched between the calling and called stations, acts as a relay of the preliminary call. Thus, when more than one switchboard is involved, more time per call is required.

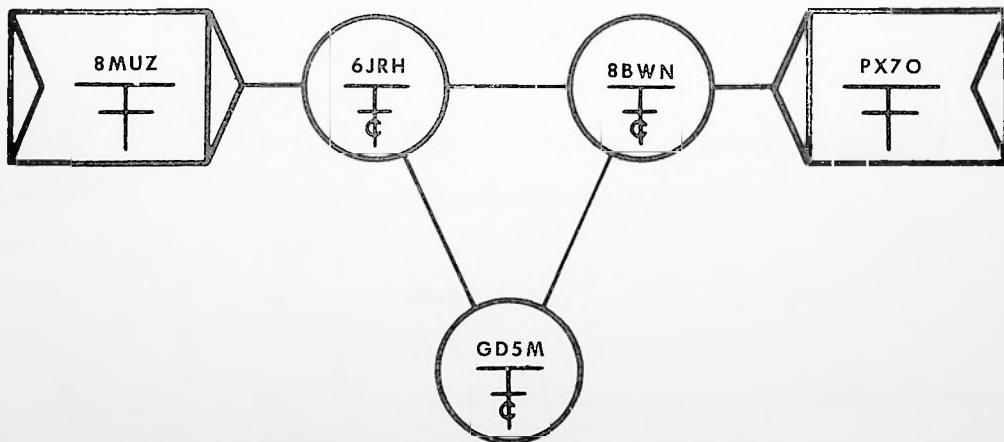


Figure 7. Manual teletypewriter switched net using three switchboards, simplified diagram.

b. Operating Procedure. In (1) through (6) below, which cover a general operating procedure, assume that station 8MUZ (fig. 7) has a message for station PX70, switched through switchboard stations 6JRH and 8BWN. Note that the switchboard stations involved monitor each call until the called station answers and the calling station transmits the abbreviation TR (tear page here; switchboard disconnect monitor).

- (1) After receiving the preliminary call from 8MUZ, switchboard 6JRH establishes a trunk circuit connection with switchboard 8BWN by sending a 2-second break.
- (2) After switchboard 8BWN answers, switchboard 6JRH repeats the preliminary call.
- (3) Switchboard 8BWN connects the calling station to station PX70, sends a 2-second break, then repeats the preliminary call.
- (4) After station PX70 answers (DE PX70 K), station 8MUZ transmits the abbreviation TR.
- (5) Each switchboard station disconnects its monitor.
- (6) After the message is transmitted and received for, the switchboard stations follow the ring-off procedure used by telephone switchboards -- each switchboard "challenges the line" when it observes a signal light or drop.

STUDENT NOTES:

APPENDIX I. MANUAL TELETYPEWRITER PROSIGNS AND SPECIAL ABBREVIATIONS

Prosigns

AA	All after.
AB	All before.
AR	End of transmission. no response is required.
AS	Wait (pause in transmission).
AS AR	You are to wait; I am obliged to wait.
B	More to follow.
BT	Long break (separates heading from text, and text from ending).
C	You are correct, or, as used in message ending, correction follows.
CFN	Confirmation. Used in message ending to confirm a portion of text.
DE	From. Station calling follows this prosign.
EEEEEEEE	Error has been made. Previous correct word to be repeated, followed by the actual correction.
E E E E E E E AR	Cancel transmission. (This message is in error, disregard it.)
F	Do not answer.
FM	Originator's sign.
G	Repeat back.
GR	Groups. (The number of groups of text follows immediately.)
GRNC	Groups of this message have not been counted.
IMI	Repeat.
INFO	Information addressee sign.
INT	Interrogatory. (Message is in question form.)
J	Verify with originator and repeat (used in text of a service message).
K	Go ahead, transmit. An answer is expected.
M	DEFERRED (precedence).
NR	Number.
O	IMMEDIATE (precedence).
P	PRIORITY (precedence).

R ROUTINE (precedence); or, I acknowledge receipt.
T Transmit to.
TO Action addressee sign.
WA Word after.
WB Word before.
XMT Exempted.
Y EMERGENCY (precedence).
Z FLASH (precedence).

Special Abbreviations

BOOK Book. Request this call be booked.^a
BKD Booked. Your call has been booked.^a
COS Cite our service.
CYM Cite your message.
CYS Cite your service.
DTG Date-time group.
ENGD Engaged. The station called is engaged.^a
LOCAL Tabling out position.^b
OOO Out of order. The circuit to the station called is out of order.^a
STASERNR Station serial number.
SVC Service.
TR Tear page here; switchboard disconnect monitor.

^aUsed in switching procedure.

^bUsed when switchboard has reperforating facility.

APPENDIX II. MANUAL TELETYPEWRITER OPERATING SIGNALS

<u>Signal</u>	<u>Question</u>	<u>Answer, advice, or order</u>
QRK	What is the intelligibility of my signals (or those. . .)?	The readability of your signals (or those of . . .) is. . . 1. Bad 2. Poor 3. Fair 4. Good 5. Excellent
QRM	Are you being interfered with?	} 1. Nil; 2. Slightly; 3. Moderately; 4. Severely; 5. Extremely.
QRN	Are you being troubled by static?	
QRQ	Shall I send faster?	Send faster. . . (words per minute).
QRS	Shall I send more slowly?	Send more slowly. . . (words per minute).
QRT	Shall I stop sending?	Stop sending.
QRU	Have you anything for me?	I have nothing for you.
QSA	What is the strength of my signals (or those of. . .)?	The strength of your signals (or those of. . .) is . . . 1. Scarcely perceptible. 2. Weak 3. Fairly good. 4. Good 5. Very good
QSL	Can you acknowledge receipt?	I am acknowledging receipt.
QSY	Shall I change to transmission on another frequency?	Change to transmission on another frequency (or on. . . kc/s) (or. . . mc/s).
ZAA		You are not observing proper circuit discipline.
ZAD		Your operating signal (made at. . .) received as . . . 1. Not understood. 2. Not held.
ZBK	Are you receiving my traffic clear?	I am receiving your traffic. . . 1. Clear. 2. Garbled.
ZBO	Of what precedence?	I have. . . (numeral followed by precedence prosign for each precedence) messages for you (or for. . .).

<u>Signal</u>	<u>Question</u>	<u>Answer, advice, or order</u>
ZDF		Message. . . was received by. . . (addressee designation) at . . . Z or was received by . . . 1. Action addressee(s) at . . . Z; 2. Information addressee(s) at . . . Z; 3. All addressee(s) at . . . Z; 4. All action addressee(s) message center at . . . Z; 5. Information addressee(s) message center at . . . Z; 6. All addressees message center at . . . Z; 7. Delivered by broadcast at . . . Z; 8. Forwarded by commercial means at . . . Z; 9. Mailed at . . . Z.
ZDK	Will you repeat message. . . (or portion. . .)? Or rerun NO. . .	Following repetition (of. . .) is made in accordance with your request.
ZDL		Confirmation. . . 1. Was omitted. 2. Differs from text.
ZED		The following confirmatory information as received is at variance with the text.
ZEH		Accuracy of. . . portion of following message (or message. . .) is doubtful. Correction or confirmation will be forwarded when received. 1. Heading. 2. Text. 3. Group: . . . to. . .
ZEI		Accuracy is doubtful of heading of message received as follows. . . Check to station of origin if necessary and repeat.
ZEK		No answer is required.
ZES		Your message. . . has been received. . . (1. Incomplete; 2. Garbled). Request retransmission.
ZEV	Request you acknowledge message. . .	Message (or message. . .) is acknowledged.
ZEW		Your attention is invited for. . . (1. Action; 2. Information), to message which is in your file.
ZEX		This is a book message and may be delivered as a single address message to addressees for whom you are responsible.
ZFD		This message is a suspected duplicate.

<u>Signal</u>	<u>Question</u>	<u>Answer, advice, or order</u>
ZFF		Inform me when this message (or message...) has been received by... (addressee designation) or by... 1. Action addressee(s). 2. Information addressee(s). 3. All addressees. 4. Action addressee(s) message center(s). 5. Information addressee(s) message center(s). 6. All addressee(s) message center(s).
ZFH		This message (or message...) is being (or has been) passed to you (or...) for... 1. Action. 2. Information. 3. Comment.
ZFS		Make message... same channel or station serial number as this procedure message.
ZII	What was... of your (or... 's) number? 1. Date-time group. 2. Filing time.	My (or... 's) number... had following... 1. Date-time group. 2. Filing time.
ZNB	What is authentication of... 1. Message...? 2. Last transmission? 3. ?	Authentication (of...) is... 1. Message... 2. Last transmission. 3.
ZUE		Affirmative (Yes).
ZUG		Negative (No).
ZUH		Unable to comply.
ZUJ		Standby.

- Notes: 1. Between Allied military stations, an operating signal becomes a question when preceded by the prosign INT. For example, INT QRT (Shall I stop sending?).
2. For civilian stations, or between military and civilian stations, an operating signal becomes a question when followed by the prosign IMI. For example, QRQ IMI (Shall I send faster?).

APPENDIX III. US MESSAGE PRECEDENCE POLICY

Effective 1 September 1963

Precedence designation, prosign, use, and examples	Handling by communications personnel
<p>FLASH (Z). Reserved for initial enemy contact messages or operational combat messages. Brevity is mandatory. Examples:</p> <ol style="list-style-type: none"> (1) Initial enemy contact reports. (2) Messages recalling or diverting friendly aircraft about to bomb targets unexpectedly occupied by friendly forces; or messages taking emergency action to prevent conflict between friendly forces. (3) Warning of imminent large-scale attacks. (4) Extremely urgent intelligence messages. (5) Messages containing major strategic decisions of great urgency. 	<ol style="list-style-type: none"> (1) Will be hand-carried, processed, transmitted, and delivered in the order received and ahead of all other messages. (2) Messages of lower precedence will be interrupted on all circuits involved until handling of the flash message is completed. (3) In automatic systems, where automatic interruption of lower precedence messages is not provided, adequate procedures are to be prescribed to ensure that FLASH messages are not delayed.
<p>IMMEDIATE (O). Reserved for messages relating to situations which gravely affect the security of national and allied forces or populace, and which require immediate delivery to the addressee. Examples:</p> <ol style="list-style-type: none"> (1) Amplifying reports of initial enemy contact. (2) Reports of unusual major movements of military forces of foreign powers in time of peace or strained relations. (3) Messages which report enemy counter-attack, or which request or cancel additional support. (4) Attack orders to commit a force in reserve without delay. (5) Messages concerning logistical support of special weapons when essential to sustain operations. (6) Reports of widespread civil disturbance. (7) Reports or warning of grave natural disaster (earthquake, flood, storm, etc.). (8) Request for, or directions concerning, distress assistance. (9) Urgent intelligence messages. 	<ol style="list-style-type: none"> (1) Will be processed, transmitted, and delivered in the order received and ahead of lower precedence. (2) If possible, messages of lower precedence will be interrupted on all circuits involved until handling of the IMMEDIATE message is completed. (3) In automatic systems, where automatic interruption is not provided, adequate procedures are to be prescribed to ensure that IMMEDIATE messages are not delayed.

Precedence designation, prosign, use, and examples	Handling by communications personnel
<p>PRIORITY (P). Reserved for messages which require expeditious action by the addressee and/or furnish essential information for the conduct of operations in progress when routine precedence will not suffice.</p> <p>Examples:</p> <ol style="list-style-type: none"> (1) Situation reports on position of front where attack is impending or where fire or air support will soon be placed. (2) Orders to aircraft formations or units to coincide with ground or naval operations. (3) Aircraft movement reports (e. g., messages relating to requests for news of aircraft in flight, flight plans, cancellation messages to prevent unnecessary search or rescue action). (4) Messages concerning immediate movement of naval, air, and ground forces. 	<ol style="list-style-type: none"> (1) Processed, transmitted, and delivered in the order received and ahead of all messages of routine precedence. (2) Routine messages being transmitted should not be interrupted unless they are extra long and a very substantial portion of the routine message remains to be transmitted. (3) PRIORITY messages should be delivered immediately upon receipt at the addressee designation. (4) When commercial refile is required, the commercial precedence that most nearly corresponds with PRIORITY will be used.
<p>ROUTINE (R). Reserved for all types of messages which justify transmission by rapid means, unless of sufficient urgency to require a higher precedence. Examples:</p> <ol style="list-style-type: none"> (1) Messages concerning normal peace-time military operations, programs, and projects. (2) Messages concerning stabilized tactical operations. (3) Operational plans concerning projected operations. (4) Periodic or consolidated intelligence reports. (5) Troop movement messages, except when time factors dictate use of higher precedence. (6) Supply and equipment requisition and movement messages, except when time factors dictate use of higher precedence. (7) Administrative, logistic, and personnel matters. 	<p>Processed, transmitted, and delivered in the order received and after all messages of a higher precedence, consistent with the following:</p> <ol style="list-style-type: none"> (1) When commercial or civilian refile is required, the lowest commercial precedence shall be used. (2) A routine message received during nonduty hours at the addressee destination may be held for morning delivery unless specifically prohibited by the command or formation concerned.

Note. NATO and other Allied commands or nations may continue to use the other two precedences (EMERGENCY and DEFERRED). When such messages enter a communications system of the US, the following applies:

- (1) EMERGENCY messages will be handled before IMMEDIATE and after FLASH messages.
- (2) DEFERRED messages will be handled after ROUTINE messages.