

COMMUNICATIONS INSTRUCTIONS TAPE RELAY PROCEDURES

ACP127 (G)



NOVEMBER 1988

**COMBINED
COMMUNICATIONS-ELECTRONICS
BOARD**

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FREEZING OF ACP 127 CONTENT

1. A routine review of ACP 127 was conducted in 1995/6, with no significant comment received from nations. As CCEB nations strive to implement AP 123-based X.400 messaging systems it is essential that telegraph systems remain stable, to allow ACP 123 to ACP 127 interfaces to be designed, built and implemented. Additionally, since the ACP 127 base protocol is used extensively outside the CCEB nations, any substantial amendment must be carefully considered since it could have significant impact on international interoperability.
2. ACP 127(G) is a mature publication. Moreover, most nations using ACP 127 also maintain national supplements to reflect the specifics of their respective utilisation, referencing the ACP 127 base document. These documents are under national control and can be easily amended without impacting on international interoperability, thus obviating the need to amend the base publication.
3. For the above reasons it has been decided not to amend ACP 127 further, but to freeze the current edition (G) until further notice. However, should any deficiency become apparent that may warrant future amendment, such occurrences should be brought to the attention of national staff in accordance with national guidelines and procedures detailed in ACP 198.

FOREWORD

1. The Combined Communications-Electronics Board (CCEB) is comprised of the five member nations, Australia, Canada, New Zealand, United Kingdom and United States and is the Sponsoring Authority for all Allied Communications Publications (ACPs). ACPs are raised and issued under common agreement between the member nations.
2. ACP127 (G), TAPE RELAY PROCEDURES, is an UNCLASSIFIED CCEB publication.
3. This publication contains Allied military information for official purposes only.
4. It is permitted to copy or make extracts from this publication.
5. This ACP is to be maintained and amended in accordance with the provisions of the current version of ACP198.

**THE COMBINED COMMUNICATION-ELECTRONICS BOARD
LETTER OF PROMULGATION
FOR ACP127 (G)**

1. The purpose of this Combined Communication Electronics Board (CCEB) Letter of Promulgation is to implement ACP127 (G) within the Armed Forces of the CCEB Nations. ACP127 (G), TAPE RELAY PROCEDURES, is an UNCLASSIFIED publication developed for Allied use and, under the direction of the CCEB Principals. It is promulgated for guidance, information, and use by the Armed Forces and other users of military communications facilities.
2. ACP127 (G) is effective on receipt for CCEB Nations and when directed by the NATO Military Committee (NAMILCOM) for NATO nations and Strategic Commands. When effective, ACP127 (G) is to be destroyed in accordance with national security regulations.

EFFECTIVE STATUS

Publication	Effective for	Date	Authority
ACP127 (G)	CCEB	On Receipt	LOP

3. All proposed amendments to the publication are to be forwarded to the national coordinating authorities of the CCEB or NAMILCOM.

For the CCEB Principals

N. CRAM
Squadron Leader
Permanent Secretary
CCEB

RECORD OF MESSAGE CORRECTIONS

Identification of message Correction and date time group.		Date Entered	By whom entered
DTG	Message Correction		
	1/1	FEB 00	MODUK
	2/1	FEB 00	MODUK
	3/1	1 March 2002	PS - CCEB

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CHAPTER 1

GENERALSECTION IINTRODUCTION101. **PURPOSE**

The purpose of this publication is to prescribe the procedure to be employed for the handling of messages by manual, semiautomatic or fully automatic relay systems, referred to collectively as TAPE RELAY.

102. **OPERATING PRECAUTIONS**

a. The attainment of reliability, speed and security depends, to a large extent upon the operating personnel. It is essential that they be well trained, maintain circuit discipline, and understand their responsibilities. The care with which receiving operators scrutinize and handle incoming messages has an important bearing on the overall speed of traffic handling. When garbles or mutilations are recognized and corrected before onward transmission, it permits immediate recognition and correction of equipment irregularities and prevents subsequent delays.

b. Adherence to prescribed procedures is mandatory. Unauthorized departures from prescribed procedures invariably creates confusion, reduces reliability and speed, and tends to nullify security precautions. If the procedures prescribed herein do not cover specific operating requirements, resorting to initiative and common sense should suffice.

c. No classified message shall be transmitted in plain language over a non-approved channel except when clear procedure has been authorized (see paragraph 209.b. and 403).

d. No transmission shall be made which has not been authorized by proper authority.

e. The following practices are specifically forbidden:

(1) Unofficial conversation between operators.

(2) Transmitting the operator's personal sign.

(3) Use of other than authorized prosigns.

(4) Unauthorized use of plain language in place of applicable prosigns or operating signals.

(5) Linkage or compromise of classified call signs and address groups by plain language disclosure or association with unclassified call signs.

(6) Profane, indecent or obscene language.

(7) Use of terminal teletypewriter/teleprinter equipment to produce additional page copies of classified messages unless disconnected from the signal line (circuit/channel).

103. ILLUSTRATIONS

a. The examples shown herein are for illustration purposes only and do not necessarily reflect actual routing indicator, call sign, address group, operating signal or transmission identification assignment, or the appropriate use of abbreviations in the message address. The format of the examples, however, shows the proper sequence of the message elements and the line functions to be employed; in addition, examples of service messages illustrate appropriate textual composition. The examples are prepared as they would appear when reproduced by a page printer set on "single space".

b. The diagram reflected at Annex A furnishes an indication of the manner in which individually operated tape relay networks may be interconnected to make the facilities of any one of the various networks available to users of other networks when authorized. All examples in this publication are based upon routing indicator assignments reflected in the diagram.

c. Abbreviated originator and addressee designations are considered to be plain language designations (see message format lines 6, 7, 8 and 9) and are used by message originators to achieve brevity in accordance with appropriate administrative instructions. For this reason, abbreviated titles are used in many message examples shown in this publication.

d. Message examples used in this publication may or may not show the complete geographical location of originator and addressee(s). Geographical locations have been included where necessary to complete originator or addressee titles, as in the case of such activities as Air Materiel Commands and Naval Air Stations. Geographical locations have not been included when originator and/or address designators are known within the network(s) concerned.

e. It will be noted that in many examples the abbreviation "(TI)" has been used in lieu of actual transmission identification. Wherever "(TI)" appears, it is to be assumed that it infers appearance of the Start of Transmission Functions, the Start of Message Indicator (when used) and the Channel Number, in that order (see paragraph 131) as would be the case in actual practice.

104. SPARE

105. SPARE

SECTION IIDEFINITION OF TERMS USED IN THIS PUBLICATION**106. DEFINITIONS OF COMMUNICATIONS-ELECTRONICS TERMS**

a. Definitions of the communications-electronics terms most frequently used in this publication and vital to understanding tape relay procedures are contained in the following paragraphs.

b. For definitions of other terms, see ACP 167.

107. ACCOUNTING SYMBOL

A combination of letters used in the message heading to identify the agency, service or activity which is financially accountable for the message.

108. ADDRESS DESIGNATOR

A plain language name (full or abbreviated), routing indicator, call sign or address group of a unit, activity or other authority used to indicate the originator and/or addressee(s).

109. AUTOMATIC NUMBERING EQUIPMENT

A type of equipment which automatically transmits a transmission identification (see paragraph 131).

110. CALLED STATION

The station to which a message is routed or a transmission is directed.

111. CALLING STATION

The station preparing the tape for transmission.

112. CHANNEL NUMBER

A combination of letters and figures used to identify a transmission on a channel between two stations. It consists of the following components in sequence.

a. Station and Channel Designator - Three letters which identify one or both of the stations and a specific channel between the two stations. These are used as follows:

(1) Either two letters to identify one or both of the stations and one letter to identify a specific channel, or

(2) Three letters to collectively represent one of the stations and a specific channel.

b. Channel Serial - Three numerical characters which serve to sequentially number each transmission and which:

(1) Start at one (001) on a daily basis; or

(2) Run consecutively through the numbering cycle starting with 001.

113. DATE-TIME-GROUP (DTG)

Depending upon national requirements, the DTG may indicate either the date and time when the message was officially released by the releasing officer, or the date and time when the message was handed into a communications facility for transmission. The DTG is expressed as six digits followed by a zone suffix and the month expressed by the first three letters. The year of origin may be added if required by national authorities, e.g., 061620Z MAR 99. Until 31 December 2005, when record communications contain a year in the header, it will be assumed that where the year is expressed in two digits of 06 – 99 the digits 19 precede, i.e., 1906 – 1999 and where the two digits 00 – 05 appear it will be assumed that digits 20 precede, i.e. 2000 – 2005. Effective 1 January 2006, record communications will contain a four digit year in the header, i.e. a date time group will be expressed as 011500Z JAN 2006. Within the body of a message, the established standards for character based messaging will be followed, e.g. The United States Message Text Formats (USMTFS), Allied Data Publication – 3 (ADATP-3), Australian Defence Formatted Message Standard (ADFORMS) These standards have adopted a four digit year for date data transmission.

114. END-OF-MESSAGE INDICATOR AND END-OF-MESSAGE FUNCTIONS

- a. End-of-Message Indicator (EOM) - NNNN. An indicator used to terminate transmission in tape relay systems.
- b. End-of-Message Functions. In tape relay procedure, the letter and key functions, including the EOM, which comprise the last format line, i.e., (2CR) (8LF)NNNN (12LTRS).

115. FILING TIME/TIME HANDED IN

The date and time a message is received from an originator by the communications centre for transmission shown as calendar date separated by slant from hour and minutes expressed in digits followed by zone suffix, e.g., 11/1215Z, or by a Julian Date immediately followed by hour and minutes in digits without a zone suffix, e.g., 2241215. The filing time for refile messages is the date and time the message is received by a communications centre for refile. For re-addressed messages, see paragraph 503.b. (8).

116. MESSAGE IDENTIFICATION

A combination of letters and figures used to identify a message between communications centres. It will normally consist of the following components in sequence taken from format line 3.

- a. The routing indicator.
- b. The station serial number.
- c. The filing time.

EXAMPLE: RPDLE 123 11/1215Z

117. MISROUTED MESSAGE

A message bearing an incorrect routing instruction.

118. MISSENT MESSAGE

A message which bears the correct routing instruction but which has been transmitted to a station other than that indicated.

119. OPEN NUMBER

A channel serial for which a transmission bearing a corresponding number has not been received.

120. PILOT

Instructions appearing in message format line 1 relative to the transmission or handling of that message.

121. REFILE

The reprocessing of messages into appropriate procedure for transfer to another system. This involves alteration of the message format, e.g., tape relay to radio telegraph; point to point teletypewriter network.

122. RETRANSMISSION (RERUN)

A repetition of a previously transmitted message.

123. ROUTING INDICATOR

A group of letters assigned to identify a station within a tape relay network to facilitate routing of traffic. It indicates the status of the station and may indicate its geographical area. Routing indicators are composed in accordance with the Routing Indicator Plan described in the ACP 121 series.

124. SECURITY WARNING

A prosign or operating signal used to permit the transmission of unclassified or off-line encrypted messages over non-approved circuits/channels or to prevent the transmission of classified messages in plain language over non-approved circuits/channels.

a. The security warning prosigns are:

(1) UU - Unclassified or off-line encrypted transmission; may be transmitted over non-approved circuits/channels.

(2) HH - Classified transmission; must be transmitted over approved/on-line cryptographic circuits/channels.

b. The security warning operating signals, and associated characters indicating the classification of the messages are:

(1) ZNR UUUUU - Unclassified or off-line encrypted message. This message may be forwarded without change by radio or non-approved circuit.

(2) ZNY RRRRR - RESTRICTED message. Do not forward this message unencrypted by radio or non-approved circuit. The letter repeated five times following the operating signal ZNY indicates the classification for which the circuit must be approved before the message can be forwarded over it.

(3) ZNY CCCCC - CONFIDENTIAL message. Do not forward this message unencrypted by radio or non-approved circuit. The letter repeated five times following the operating

signal ZNY indicates the classification for which the circuit must be approved before the message can be forwarded over it.

(4) ZNY SSSSS - SECRET message. Do not forward this message unencrypted by radio or non-approved circuit. The letter repeated five times following the operating signal ZNY indicates the classification for which the circuit must be approved before the message can be forwarded over it.

(5) ZNY TTTTT - TOP SECRET message. Do not forward this message unencrypted by radio or non-approved circuit. The letter repeated five times following the operating signal ZNY indicates the classification for which the circuit must be approved before the message can be forwarded over it.

125. SERVICE MESSAGE

A brief, concise message between operating or supervisory personnel at communication/signal centres or relay stations pertaining to any phase of traffic handling, status of communication facilities, circuit conditions, or other matters affecting communication operating (see Chapter 4, Section II).

126. START-OF-MESSAGE FUNCTION

The key functions, and, where appropriate, a security warning prosign (i.e., 5 SPACES, 2CR, 1LF or 5 SPACES, UU (or HH), 2CR, 1LF) which, in a tape relay or teleprinter message, immediately precede the repeated precedence prosign. In a tape relay procedure, the Start-of-Message Function is preceded by the Transmission Identification (TI).

127. START-OF-TRANSMISSION FUNCTION

In tape relay procedure, the letters and key functions (i.e., VV 3 SPACES) which immediately precede the Channel Number, or the letter (i.e., V) which immediately precedes the Start-of Message Indicator (ZCZC).

128. START-OF-MESSAGE INDICATOR (SOM) - ZCZC

An indicator employed to activate automatic message switching equipment. It is required on messages passing into or through automatic switching systems to indicate the start of a message.

129. STATION SERIAL NUMBER

A message reference number assigned within a communication/signal center. It will normally consist only of a number allotted in sequence; however, in those instances where station serial numbers are allotted at more than one position, as prescribed by the in-station procedure, a single letter designation follows each number, e.g., 107A, 119B.

130. TRANSFER STATION

A designated relay station of one network that is connected to a designated relay station in another network for the purpose of transferring traffic between the networks.

131. TRANSMISSION IDENTIFICATION (TI)

The collection of letters, figures and machine functions which, in tape relay procedure, identifies a transmission from one station to the next station the relay route. It precedes the Start-of-

Message Function and consists of the Start-of-Transmission Function, the Start-of-Message Indicator (when used) and the Channel Number, in that order.

132. **SPARE**

SECTION IIIPROSIGNS, PUNCTUATION AND OPERATING SIGNALS133. **PROSIGNS**

The following prosigns with meanings indicated are authorized for use in tape relay operation:

<u>Prosign</u>	<u>Meaning</u>
AA	All after.
AB	All before
AR	End of Transmission - This is the end of my transmission to you; no response is required or expected.
AS	Wait - (1) AS made during a transmission and without an ending sign indicated a pause for a few seconds. (2) AS followed by AR indicates "You are to wait" or "I am obliged to wait", as applicable.
BT	Break - Indicates the separation of the text from other portions of the message or portion indicated.
C.	Correction - The following is the correct version of the message or portion indicated (Always used when replying to prosign J).
DE	This message was prepared for transmission in tape form by the station whose designation follows.
E E E E E E E E	Error - A series of 8 E's each separated by a space. It indicates: (1) When followed by the last word, group or prosign that was correctly transmitted, that an error in transmission has been made and that the correct version follows. (2) When followed by AR and the end-of-message functions, that the transmission is incomplete and is hereby completed.
FM	Originator's sign - The originator of this message is indicated by the designation immediately following.
GR	Groups - The prosign GR followed by a numeral(s) means "The message contains the number of groups indicated" (Used only when the message text consists of countable encrypted groups).

<u>Prosign</u>	<u>Meaning</u>
HH	Classified Transmission; must be transmitted over approved circuits/channels only.
IMI	Repeat, or I repeat, message or portions of a message as indicated.
INFO	Information addressee sign.
INT	Interrogatory - Preceding operating signals and prosigns indicates that the matter to follow is in the form of a question. Preceding a portion of a message means "Is my reception of this correct?".
J	Verify and repeat - Verify the message or portion indicated with the originator and send the correct version. (This prosign may be used only on the authority of any addressee. Prosign C is always used in reply).
K	Invitation to transmit, or "This is the end of my transmission to you and a response is necessary".
KC	Indicates readiness to receive in cipher (used in on-line operation only).
O	Immediate - Immediate message.
P	Priority - Priority message.
R	R has two meanings: (1) Received - I have received the last transmission (or transmission indicated.) (2) Routine - Routine message.
T	Transmit to: (1) T alone - Station called transmit this message to all addressees (not to be used along in CODRESS messages). (2) T followed by plain language designations, address groups or call signs - Station called transmit this message to station(s) or addressee(s) whose designation(s) follows. (In CODRESS messages, only address groups, call signs and/or routing indicators may be used. Plain language designators are prohibited).

<u>Prosign</u>	<u>Meaning</u>
	(3) T proceeded by a routing indicator or call sign and followed by plain language designations, call signs or address groups - Station whose designation precedes T transmit this message to station(s) or addressee(s) whose designation(s) follow. (In CODRESS messages, only address groups, call signs and/or routing indicators may be used. Plain language designators are prohibited).
TO	Action Addressee - The addressee(s) immediately following is to take action on the message.
UU	Unclassified or off-line encrypted transmissions; may be transmitted over non-approved circuits/channels.
WA	Word after.
WB	Word before.
XMT	Exempt - Addressee(s) immediately following is exempted from the collective call or address designation used.
Z	Flash - Flash message.

134. PUNCTUATION

a. The punctuation symbols which appear in paragraph 140 will normally be used in tape relay. If, however, an originator has used one of the authorized abbreviations laid down in the ACP 121 series instead of a symbol, the abbreviation will not be changed by the communications centre.

b. Punctuation or other symbols not shown in paragraph 140 (but which may be included on keyboards of some instruments) will NOT be used. The following abbreviations will be used instead.

Paragraph	PARA
Quotation Marks	QUOTE
	UNQUOTE

135. OPERATING SIGNALS

Operating signals are groups of three letters (sometimes followed by a numeral) beginning with the letter Q or Z. They are used as a brevity code to express various stereotyped phrases required in the conduct of communications. The authorized operating signals and their meanings are contained in the ACP 131 series. Any of the signals in the series QAA to QNZ and QRA to QUZ and the series ZAA to ZZZ may be used in service messages required to tape relay operation provided their stated meaning leaves no doubt in the mind of the recipients as to what is intended or desired. Because they perform essential triggering functions in automatic equipment, only Z operating signals shall be used in format line 1.

136. SPARE

SECTION IVMACHINE FUNCTIONS AND MESSAGE ALIGNMENT137. **MACHINE FUNCTIONS**

a. Shift – The positioning of certain components of teletypewriter/teleprinter equipment to permit the printing of upper case or lower case characters as required. The movement from upper to lower case is accomplished by use of the letters (LTRS) key (or corresponding perforations when message is in tape form); the movement from lower to upper case is accomplished by use of the figures (FIGS) key (or corresponding perforation).

b. Carriage Return – Horizontal movement of the carriage of teletypewriter/teleprinter equipment to the left margin of the paper. This movement is accomplished by use of the carriage (CR) key (or corresponding perforation).

c. Line Feed – Vertical movement of the paper in teletypewriter/teleprinter equipment to prevent overtyping. This movement is accomplished by use of the line feed (LF) key (or corresponding perforation).

d. Space – Horizontal movement of the carriage of teletypewriter/teleprinter equipment required to advance the paper laterally without printing a character on the page copy. This movement is obtained by use of the space bar (or corresponding perforation).

e. Bell Signal – The sounding of a bell to attract the attention of the receiving operator. Because the bell is placed on the upper case J on some equipment and on the upper case S on other equipment, the signal is composed of FIGS and repeated letter J and S followed by LTRS as illustrated below:

(1) Five bells (FIGS)JJJJSSSS(LTRS) – indicates:

A FLASH message is being transmitted (see paragraph 151.b.)

(2) Continuous bells – Stop sending (used only in manual relay systems).

f. Perforator Warning Light – A light on tape perforating equipment which indicates that the end of a typing line is being approached.

g. Margin Bell – A bell which indicates when the end of a typing line is being approached on teletypewriter/teleprinter equipment having keyboard facilities capable of operating directly into the line.

138. **MESSAGE ALIGNMENT**

It is mandatory that only prescribed machine functions be transmitted because efficient relay of messages through semiautomatic and automatic systems is dependent upon transmissions on exact machine functions.

a. All messages shall be preceded by 5 spaces, the appropriate Security Warning Prosign (if used), 2 carriage returns and 1 line feed. The 5 spaces shall be transmitted; tape feed out functions preceding the 5 spaces shall not be transmitted.

b. The end-of-line functions shall be 2 carriage returns and 1 line feed, except that format line preceding the EOM will not require the end-of-line functions (2CR 1LF) since they are included in the EOM functions.

c. The separative functions between pages of long messages shall be 2 carriage returns and 4 line feeds.

d. The end-of-message functions shall be 2 carriage returns, 8 line feeds, the letter N repeated 4 times and 12 LTRS. BLANKS shall not be used in lieu of LTRS and any tape feedout in excess of 12 LTRS should be removed before the message is transmitted.

e. Separation between groups within any given line of a message shall be 1 space, except in the text of tabulated messages.

f. No line shall exceed 69 characters, including spaces.

g. Operators shall always depress the LTRS key when going from upper case to lower case, and the FIGS key when going from lower case to upper case. When a Julian date is used in format line 3 the LTRS key shall be depressed after the last digit of the file time and before the end-of-line function.

h. When the security warning specified in paragraph 203.b.(2) is used, no function shall be inserted between the 2CR ILF end-of-line functions of format line 3 and the security warning operating signal in format line 4.

139. **SPARE**

SECTION V

TELETYPEWRITER CODE AND GARBLE TABLE

140. **TELETYPEWRITER CODE (INTERNATIONAL TELEGRAPH ALPHABET NO 2) (MURRAY CODE).**

The following chart shows the teletypewriter characters and functions used in tape relay operation, and corresponding impulses.

LETTER CASE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	C R	L F	L T R S	F I G S	S P A C E	B L A N K
FIGURE CASE	-	?	:		3				8		()	.	,	9	0	1	4		5	7		2	/	6								
I																																
M	1	°	°		°	°				°	°						°		°		°		°	°	°	°				°	°	
P	2	°		°			°		°	°	°	°			°	°	°				°	°	°	°	°			°	°	°		
U	.....																														
L	3			°		°		°	°		°		°	°	°	°	°	°		°	°	°	°	°	°				°	°	°	
S	4		°	°	°		°			°	°		°	°	°	°	°				°	°	°	°	°			°	°	°		
E	5		°				°						°	°	°	°	°				°	°	°	°	°			°	°	°		
S											°		°	°	°	°	°		°		°	°	°	°	°							

141. TELETYPEWRITER GARBLE TABLE

L O W E R	U P P E R	CHARACTERS RESULTING FROM GAIN OF IMPULSES				
		1	2	3	4	5
A	-			U 7	J	W 2
B	?		FIGS FIGS	X /		
C	:	K (				V
D			J	F		B ?
E	3		A -	S	D	Z
F			K (			X /
G		FIGS FIGS		V		
H		Y 6	P 0		M .	
I	8	U ?			C :	P 0
J				K (		FIGS FIGS
K	(					LTRS LTRS
L	)	W 2		P 0	G	
M	.	X /	V			
N	,	F	C :			M .
O	9	B ?	G	M .		
P	0	Q 1			V	
Q	1				LTRS LTRS	
R	4	J		C :		G
S			U 7		F	Y 6
T	5	Z)	L	H	O 9	
U	7				K (	Q 1
V		LTRS LTRS				
W	2			Q 1	FIGS FIGS	
X	/		LTRS LTRS			
Y	6		Q 1		X /	
Z			W 2	Y 6	B ?	
C.R.		D	R 4	N ,		O 9
L.F.		A -		I 8	R 4	L)
FIGS				LTRS LTRS		
LTRS						
SPACE		S	I 8		N .	H
BLANK		E 3	LF LF	SPACE SPACE	CR CR	T 5

L O W E R	U P P E R	CHARACTERS RESULTING FROM LOSS OF IMPULSES				
		1	2	3	4	5
A	-	LF LF	E 3			
B	?	O 9			Z	D
C	:		N ,	R 4	I 8	
D		CR CR			E 3	
E	3	BLANK BLANK				
F		N .		D	S	
G			O 9		L)	R 4
H				T 5		SPACE SPACE
I	8		SPACE SPACE	LF LF		
J		R 4	D		A -	
K	(	C :	F	J	U ?	
L	)		T 5			LF LF
M	.			9	H .	N .
N	,			CR CR	SPACE SPACE	
O	9				T 5	CR CR
P	0		H	L)		I 8
Q	1	P 0	Y 6	W 2		U 7
R	4		CR CR		LF LF	
S		SPACE SPACE		E 3		
T	5					BLANK BLANK
U	7	I 8	S	A		
V			M .	G	P 0	C :
W	2	L)	Z			A -
X	/	M .		B ?	Y 6	F
Y	6	H		Z		S
Z		T 5				E 3
C.R.						BLANK BLANK
L.F.			BLANK BLANK			
FIGS		G	B ?		W 2	J
LTRS		V	X /	FIGS FIGS	Q 1	K (
SPACE				BLANK BLANK		
BLANK						

SECTION VIMESSAGE FORMAT**142. SCHEMATIC DIAGRAM**

a. A schematic diagram of message format is shown in Annex B. The diagram is not completely self-explanatory; it must be used in conjunction with amplifying instructions and examples contained in the remainder of this publication.

b. The message format is divided into 16 format lines. All format lines do not necessarily appear in every message. When used, however they shall be in the order indicated in the schematic diagram.

c. For convenience of reference, the message format is divided into three parts; heading, text and ending. Each part is divided into components. The composition of components is shown in Annex B.

143. TYPES OF FORMAT

Message handled over tape relay networks shall be prepared for transmission in one of three forms: PLAINDRESS, ABBREVIATED PLAINDRESS, or CODRESS.

144. PLAINDRESS

a. A PLAINDRESS message is one in which the originator and addressee designations are indicated externally of the text.

b. PLAINDRESS messages shall contain all format lines shown in the schematic diagram except those clearly unnecessary, eg, format line 8 when there are no INFO addressees, or not applicable to a particular message under the terms of the explanation column of Annex B (see examples, paragraphs 214, 215 and 216).

145. ABBREVIATED PLAINDRESS

a. An ABBREVIATED PLAINDRESS message is one in which certain components or elements mandatory in normal PLAINDRESS format are omitted for the sake of brevity.

b. Format lines 1, 2, 3, 11, 12, 13 and 16 are mandatory except for service messages between directly connected stations (see paragraphs 405.b.). When the designations included in format lines 2 and 3 identify the addressee(s) and originator, format lines 6, 7, 8 and 9 are omitted (see example, paragraph 217).

c. Other format lines not essential to the message at hand may also be omitted for the sake of brevity.

146. CODRESS

a. A CODRESS message is one in which the entire address, ie originator and all addressees, is contained only within the encrypted text. The heading of any CODRESS message contains only the minimum of information which will enable a receiving station to deal properly and expeditiously with the particular transmission.

b. A CODRESS message contains all the components as shown in the schematic diagram except the address. Also, plain language transmission instructions allowed in PLAINDRESS procedure are prohibited in CODRESS procedure (see example, paragraph 219).

147. **SPARE**

148. **SPARE**

149. **SPARE**

SECTION VIIPRECEDENCE150. **SIGNIFICANCE**

- a. Precedence designations are employed to indicate the relative order in which messages are to be handled.
- b. Four degrees of precedence are authorized. For communication purposes each has been assigned a distinctive prosign:

<u>Designation</u>	<u>Prosign</u>
(1) FLASH	Z
(2) IMMEDIATE	O
(3) PRIORITY	P
(4) ROUTINE	R

151. **COMMUNICATIONS HANDLING**

a. When messages are prepared for tape relay transmission, the precedence assigned by the originator shall be indicated in the routine line(s) (format lines 1 and 2) and in the preamble (format line 5). In the routing line(s), the precedence prosign will always be repeated; eg RR.

b. FLASH precedence shall be indicated in the routing line(s) by ZZ immediately preceded by the bell signal (see paragraph 137.e.(1)) and by Z in the preamble. FLASH messages shall be processed, transmitted and delivered in the order of receipt and ahead of all other messages. If possible, messages of lower precedence shall be interrupted on all circuits involved until handling of a FLASH message is completed¹. Station to station receipts shall be given. (When station to station receipt of FLASH messages is not required, the operating signal ZGC will be inserted in the message transmission instructions (format line 4). This will only be done when specifically authorized by the authority controlling the network/system).

EXAMPLE:

VZCZCFGA242 (5 SPACES) (UU)	(2CR) (1LF)
*(FIGS)JJJJSSSS(LTRS)ZZ RFBA	(2CR) (1LF)
DE RXDB 2151230	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R Z NAA359	(2CR) (1LF)
NNNN	(12LTRS)

c. IMMEDIATE precedence shall be indicated in the routing line(s) by OO, and by O in the preamble. IMMEDIATE messages shall be processed, transmitted and delivered in the order received and ahead of all messages of lower precedence. Processing and transmission of lower

¹ In automatic systems where automatic interruption of lower precedence messages is not provided, adequate procedures shall be prescribed to ensure that FLASH messages are not delayed.

* A lower precedence may be authorised by the authority controlling the network/system.

precedence messages already in progress shall be interrupted unless interrupting and cancelling the lower precedence transmission will take longer than completing it.

d. PRIORITY precedence shall be indicated in the routing line(s) by PP and by P in the preamble. PRIORITY messages shall be processed, transmitted and delivered in the order of receipt and ahead of all messages of lower precedence. Processing and transmission of lower precedence messages already in progress shall be interrupted only if extra long.

e. ROUTINE precedence shall be indicated in the routing line(s) by RR and by R in the preamble. ROUTINE messages shall be processed, transmitted and delivered in the order of receipt and after all messages of higher precedence.

152. DUAL PRECEDENCE

a. Multiple address messages including those addressed even to a single Address Indicating Group (AIG) having both action and information addressees may either be assigned a single precedence in which case it indicates the precedence for all addressees or they may be assigned two precedences, one precedence for all Action addressees and lower precedence for all Information addressees.

b. When the message originator has indicated dual precedence, only the higher precedence shall appear in format line 1 or 2 of the message prepared for transmission. Both precedences shall be reflected in format line 5.

EXAMPLE:

(TI) (5 SPACES) (2CR) (1LF)	
PP RUWSKT RUWSKTD	(2CR) (1LF)
DE RUECW 123 01/2355Z	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
P R 012345Z	(2CR) (1LF)
etc	

c. When an originating or relay station desires to transmit a dual precedence message separately to all or any one of the Action Addressees, the higher precedence prosign shall be inserted in format line 2 of that transmission.

d. When an originating or relay station desires to transmit a dual precedence message separately to all or any of the Information Addressees, the lower precedence prosign shall be inserted in format line 2 of that transmission.

e. When a multiple address message, including one addressed to an AIG, or prepared in CODRESS format is assigned a dual precedence of FLASH and a lower precedence, the originating station shall make separate transmissions, ie one transmission calling the station(s) serving the Action Addressees (FLASH precedence), and the other calling the station(s) serving the Information Addressees (lower precedence), except that only one transmission at the higher precedence is to be made to a station serving both Action and Information Addressees.

f. When dual precedence is used with the CODRESS messages, the higher precedence only will be shown in the basic routing line but both precedences will be shown in the preamble. In addition, transmission instructions will be inserted in format line 4 to enable relay station(s) having the capability, or refile station(s), to substitute the lower precedence prosign for the higher in the next basic routing line, if applicable. (These instructions will be in the form of the operating signal ZOT followed by the routing indicator(s) or address designation(s) of the communications station(s) and/or addressee(s) by whom the message may be handled at the lower precedence).

NOTE: Automatic relay stations and semiautomatic or manual relay stations which process multiple call messages by means of an automatic or semiautomatic routing line segregator do not have the capability to substitute the lower precedence prosign for the higher.

CHAPTER 2

PREPARATION OF MESSAGES FOR TRANSMISSIONSECTION 1RULES201. **GENERAL RULES**

a. Messages shall be prepared for transmission in accordance with the format reflected in Annex B, the message alignment instructions contained in paragraph 128 and the procedures prescribed in succeeding paragraphs of this section.

b. The text of messages shall be transmitted exactly as written by the originator or as received from the cryptocenter except when:

(1) Alterations have been authorized by the originator.

(2) It is necessary to substitute abbreviations for punctuation symbols which cannot be transmitted. Abbreviations shall not otherwise be substituted for words or words substituted for abbreviations.

(3) It is necessary for communications personnel to insert handling information ahead of the originator's text, e.g., passing instructions.

(4) The security classification, the abbreviation UNCLAS or the word CLEAR must be inserted at the beginning of the text (see paragraph 209).

c. All messages prepared for transmission over tape relay networks shall be free of errors or corrected in accordance with paragraph 211, when leaving the originating station. Each communications center shall be responsible for establishing whatever in-station precautions are necessary to ensure compliance with this requirement.

202. **RULES REGARDING TRANSMISSION IDENTIFICATION (TI)**

a. A TI is required in the heading of each message to provide a means of maintaining continuity of traffic.

b. Equipment which will automatically send a TI in sequence ahead of each message provides the most satisfactory means of performing this function. When such automatic numbering equipment is not available, the TI is normally prepared in tape form in such a way that a tab containing identification for one transmission may be detached from a roll and transmitted ahead of each message. As a last resort, when necessary, the TI is incorporated into each message as it is being prepared for transmission or transmitted from keyboard at the point of origin.

c. When sent by automatic numbering devices, the TI shall consist of the following characters in the sequence indicated:

(1) By stations transmitting directly into fully automatic relay stations:

(V) (START OF MESSAGE INDICATOR ZCZC) (3 STATION AND CHANNEL LETTERS) (1 FIGURES SHIFT) (3 NUMERAL CHARACTERS) (1 LETTERS SHIFT)

(a) Example:

VZCZCABC (FIGS) 027 (LTRS)

(b) Explanations:

1 The letter V is required to ensure that the first character of intelligence is not lost or garbled.

2 ZCZC is the start of message indicator (see paragraph 128). It must appear once (and only once) in each transmission introduced directly into an automatic relay station.

3 ABC are the station and channel designator letters of the station marking the transmission (see paragraph 112.a.).

4 The FIGS shift is operated once to shift the equipment from lower to upper case to receive the channel serial which follows.

5 027 is the channel serial (see paragraph 112.a.).

6 The LTRS shift is operated once to bring the equipment back to lower case.

(2) By stations transmitting directly into manual or semiautomatic relay stations:

(VV) (3 SPACES) (3 STATION AND CHANNEL LETTERS) (1 FIGURE SHIFT) (3 NUMERAL CHARACTERS) (1 LETTERS SHIFT)

(a) Example:

VV (3 SPACES) ABC (FIGS) 027 (LTRS)

(b) Explanation: Same as paragraph 202.c.(1)(b) above except that VV (3 SPACES) are used instead of V to provide machine synchronization. The start of message indicator ZCZC is not used.

d. TI to be sent by means of a detached number tab ahead of each message (see paragraph 202.b) shall be prepared as indicated in paragraph 202.c.(1) and (2) above, as applicable, except that 8 to 12 LTRS shall follow the channel serial. These LTRS provide the means for detaching a single number tab from the roll without damaging it or the remaining numbers.

e. When it is necessary to send the TI manually from the point of origin, it shall be transmitted ahead of the functions that are to precede each message (see paragraph 138.a.).

f. Since alteration of the format for TI prescribed in the above subparagraphs will cause the message involved to be rejected by fully automatic relay equipment, any variation of this component by network supplements should be avoided.

203. RULES REGARDING SECURITY WARNING

a. Many tape relay networks use both approved and non-approved channels. Classified messages are transmitted in clear text over channels approved for classification involved. Such messages must not be transmitted over non-approved channels. To inform operators and provide equipment recognition of messages which may be transmitted over non-approved channels and those

which may not, two security warning prosigns, HH and UU (see paragraph 124), and two operating signals, ZNR and ZNY, have been adopted. The operating signals ZNR and ZNY will always be followed by the first letter of the message classification repeated five times, e.g., ZNR UUUUU, ZNY RRRRR, ZNY CCCCC, ZNY SSSSS, or ZNY TTTTT.

b. In any tape relay network using approved channels, it must be instantly apparent whether a message requires transmission over an approved channel. The following methods are used.

(1) In some networks, the warning consists of the prosign HH or UU in format line 1. In these networks, the absence of either prosign indicates that the message must be transmitted over approved channels or handled in accordance with the classification shown in the text.

(2) In other networks, the warning consists of the operating signal ZNR and ZNY (followed by the times as described in 203.a. above) in format line 4. In these networks, the absence of either operating signal indicates that the message must be transmitted over approved channels or be handled in accordance with the classification shown in the text.

(3) When traffic is transferred from a network employing the method in 203.b.(1) to a network employing the method in 203.b.(2), the operating signal ZNR UUUUU must appear in format line 4 of every unclassified or off-line encrypted message. However, the deletion of the prosign in format line 1 is not necessary.

(4) When traffic is transferred from a network employing the method in 203.b.(2) to a network employing the method in 203.b.(1), the appropriate security warning prosign shall appear in format line 1, if practicable. However, the absence of a security warning prosign shall indicate that the message be transmitted over approved channels, or be handled in accordance with the operating signal in format line 4 or the classification shown in the text.

c. The security warning prosign, when used, shall appear in format line 1, following the five spaces and preceding the two carriage returns and one line feed which must appear at the beginning of each message (see paragraphs 138.a. and paragraph 215.a.).

d. The security warning operating signal, when used, shall appear as the first group in format line 4 (see paragraph 215.a.).

e. To avoid machine malfunctions, use of letters H or U in TI should be avoided, where practicable.

204. RULES FOR ROUTING MESSAGES

a. Calling and routing in tape relay networks shall be accomplished by use of authorized routing indicators only. The routing indicators used shall be selected from the ACP 117 series and supplements thereto.

b. In multiple call messages, all routing indicators associated with a single relay station shall be grouped together in format line 2; they shall not be intermingled indiscriminately.

c. When two or more addressees of a message are to be served by a single station, or if a particular addressee, is listed in more than one address indicating group used, the routing indicator of that station shall appear only once in format line 2 irrespective of the number of times it appears in format lines 7 and/or 8 (see paragraph 215.a.).

205. RULES REGARDING USE OF ADDRESS DESIGNATIONS

a. Plain language designations, routing indicators, call signs or address groups may be used in message headings to indicate originators and addressees. However, plain language address designators shall not be used in conjunction with call signs or address groups in the address component of any message.

b. Collective address designators other than Address Indicating Groups (AIGs), e.g., general message address designators, collective call signs, etc. shall be treated as follows:

(1) In PLAINDRESS messages, the designation of the originator shall appear in format line 6, the collective address designator(s) in format line 7 and/or 8, and exempted addressees, if any, in format line 9. Action or information addressees not included in the collective address designator shall be in format line 7 or 8, as appropriate (see paragraph 221).

(2) In CODRESS messages, the address component (see Annex B) is encrypted in the text. The collective address designator(s) and exempted addressee(s), if any, may appear in the external heading (format line 4), but to avoid defeating the purpose of CODRESS, they should not be placed in format line 4 unless essential.

c. AIGs shall be treated as follows:

(1) In PLAINDRESS messages:

(a) When an AIG which denotes the originator and all addressees is used as the address designator, it shall be in format line 7 (see paragraph 222.a.).

(b) Format line 6 shall be used only if the AIG composition does not include an originator, if the originator of the message being processed is other than that included in the AIG composition, or if there are additional addressees (see paragraph 222.c.).

(c) When a message is addressed to an authority(ies) not included in the AIG selected, the additional addressee(s) shall be included in format lines 7 and/or 8, as appropriate (see paragraph 222.c.).

(d) When an AIG is used by other than the permanently listed originator, and the permanently listed originator is an addressee of the message in question, the permanently listed originator shall be listed as an additional addressee in format line 7 or 8, as appropriate.

(e) Addressees exempted from an AIG shall be included in format line 9 (see paragraph 222.c.).

(2) In CODRESS messages:

(a) The address group representing the AIG, additional addressee(s) and/or exempted addressees shall appear in format line 4 only one or more of the stations called in format line 2 is required to pass the message in its encrypted form.

(b) The address designator used in the encrypted text shall be the AIG number rather than the address group representing the AIG. Additional and/or exempted addressees, if any, shall be indicated in the text by use of plain language designators.

206. RULES FOR INDICATING DELIVERY RESPONSIBILITY

a. In multiple address or book messages, delivery responsibility of the station called in format line 2 shall be determined by:

(1) Inclusion of the routing indicator of the station responsible for delivery preceding each address designation in format lines 7 and/or 8 (see paragraph 215). (This rule is not applicable when a collective address designator is used (see paragraph 22.b.).

(2) Predetermined delivery responsibility.

(3) Specific transmission instructions in format line 4 (see paragraph 219.a.). In these instances, any station responsible for transmission and/or delivery as indicated in format line 4 is also responsible for any delivery required under the provisions of paragraphs 206.a.(1) and (2). Specific transmission instructions in format line 4 shall be used only when such instructions are essential.

b. When delivery to an addressee of a multiple address message has been accomplished prior to introducing the message into a tape relay network, the station preparing the message for original transmission shall indicate such delivery by inserting the operating signal ZEN preceding the designation of that addressee (see paragraph 215.a.).

c. Book messages (see paragraph 216) shall be processed in the same manner as multiple address messages except that:

(1) Addressees of book messages to whom delivery has been effected prior to introducing the message into tape relay networks, or who have been protected by separate transmissions, need not be included in the message heading.

(2) The operating signal ZEX shall be inserted in format line 5 following the date-time group.

d. Paragraph 206.a.(1) shall apply to all joint or combined multiple address and book messages (see explanation column of format lines 7 and 8, Annex B).

e. If a particular addressee is listed in more than one address indicating group used, precaution must be taken to prevent duplicate delivery.

207. RULES REGARDING CODRESS MESSAGES

a. Except when the routing and/or transmission is accomplished by the cryptocenter, such encrypted version of a CODRESS message is presented to the communications center showing externally, or having attached, an indication of the addressee(s) or the address designator(s) to whom that version must be transmitted.

b. Some multiple call versions may require more than one transmission, depending upon the communication facilities available for routing messages to the various address designators involved. In such cases, the communications center shall prepare a separate heading for each transmission required. The external procedure component of each transmission shall contain only those routing indicators, call signs or address groups necessary to ensure delivery to those addressees who are to receive the message as a result of that particular transmission (see paragraph 220).

c. Transmission instructions (format line 4) shall be used in the heading of CODRESS messages when the station(s) whose designation(s) appears in format line 2 is to deliver or refile the message without decrypting it. When such a station is responsible for decrypting, as well as refiling

or delivery, its designator shall also appear following the prosign T in format line 4 (see paragraph 219.a.).

- d. For use of dual precedence with CODRESS messages, see paragraph 152.e.

208. RULES REGARDING LONG MESSAGES

To facilitate reproduction of incoming messages by distribution centers, all messages exceeding a total of 20 lines of heading and text, beginning with format line 5, will be divided into pages for transmission.

- a. Each page will consist of not more than 20 lines.
- b. The first part shall begin with format line 5 of the message heading and continue for a total of 20 lines, including succeeding lines of the heading.
- c. Second and succeeding pages shall be identified by the page number, the routing indicator of the station of origin and the station serial number. When message text is transmitted in plain language the security classification or the abbreviation UNCLAS shall also be included as part of the page identification of second and succeeding pages. Page identification shall appear on a separate line, and shall not be included in the line count as in 208.b. (see paragraph 223.a.).
- d. Machine functions used between pages shall be 2 CR and 4 LF.
- e. The number of pages of message text in any transmission shall not exceed five; a page consisting of part heading and part text shall not count as a textual page. Messages which exceed five pages of message text shall be divided into transmission sections.

(1) At a convenient point on the last permissible page of a transmission section, the originator's text shall be separated. This normally will be at the end of a sentence or cryptopart.

(2) Each section shall be numbered, and the section number shall be inserted in plain language at the beginning of the text, following the classification or abbreviation UNCLAS and special handling designations, if used by the originator. For example, when a message is divided into two sections, the first section shall be identified as SECTION 1 OF 2, and the second section as FINAL SECTION OF 2.

(3) In long encrypted messages, when a transmission section commences with a new cryptopart, the designation of the cryptopart shall follow the designation of the transmission section.

f. Each section shall bear a separate station serial number, but the same date-time group and filing time shall be used on all sections.

g. If a numerical group count must be indicated in format line 10, it shall indicate the number of groups in the section being transmitted, not the number in the complete message. Transmission section and page identification shall not be included in the group count. The cryptopart identification shall be included.

209. RULES REGARDING PLAIN LANGUAGE TRANSMISSION OF MESSAGES

a. When messages classified RESTRICTED or above are to be transmitted in plain language over approved channels (including those made secure by on-line devices), the security classification shall appear as the first word of the text. Each letter of the security classification shall be separated by a space; e.g., C O N F I D E N T I A L (see paragraph 223).

b. The rule stated in 209.a. above does not apply to classified messages transmitted "in the clear" over non-approved channels by authority of the originator (see ACP 121 series). In such instances, the word CLEAR will be substituted for the classification.

c. When a message is marked UNCLASSIFIED by the originator, the abbreviation UNCLAS shall appear as the first word of the text. If the message is not specifically designated as being either classified or unclassified, its status must be determined from the originator.

210. RULES REGARDING TABULATED MESSAGES

a. When the text of a message received for transmission is in tabulated form, it shall be transmitted in tabulated form. In some instances, however, the heading of columns require more space than the data shown in the column. In such cases, to permit the tabular format to be retained, the column heading should be arranged on several lines rather than on one line. The first column of data shall be as close to the lefthand margin as possible with minimum spacing between subsequent columns in order to reduce transmission time.

b. Messages which must be encrypted in countable group systems cannot be tabulated.

c. For an example of a tabulated message, see paragraph 224.

211. RULES REGARDING CORRECTION OF ERRORS

a. Errors made during TAPE PREPARATION.

(1) Errors made in format lines 1, 2, 3 or 4 shall not be corrected; the incorrect tape shall be discarded and a new tape prepared (see paragraph 218.a.).

(2) Except as noted below, errors made in other than format lines 1, 2, 3 or 4 shall be corrected by back-spacing the tape and obliterating the error by use of the (LTRS) key.

(3) Errors made in the security classification shall be corrected by back-spacing and obliterating the entire security classification. When back-spacing facilities do not exist, the errored tape shall be discarded and a new tape prepared.

(4) Errors made in the end of message functions shall be corrected by back-spacing and obliterating the entire end of message functions. When back-spacing facilities do not exist, the error prosign shall be made and the entire end of message functions repeated.

b. Errors made during KEYBOARD TRANSMISSION.

(1) Errors made in the message heading, or in the security classification when appearing as the first word of text, shall not be corrected. The incorrect transmission shall be cancelled by transmitting the error prosign followed by the end of transmission prosign (see paragraph 133), and the normal end of message functions. Transmission of the message shall then recommence (see paragraph 424.b.(1)).

(2) When an error is detected during original transmission of the message text, the operator shall, except in the instances noted below, correct the error by transmitting the error prosign (see paragraph 133) after the error. Transmission shall then be resumed by repeating the last correctly transmitted word or group and continuing with the message text (see paragraph 215.a.).

(3) When an error is detected in the end of message functions, the operator shall correct the error by transmitting the error prosign after the error and shall retransmit the entire end of message functions.

c. Errors made in single page messages.

(1) Errors made in message headings and security classification when appearing as the first word of text shall not be corrected (paragraph 211.b(1) applies.

(2) If an error is detected in the text after a considerable portion has been transmitted, it shall be corrected in format line 15. Such corrections shall be preceded by the correction prosign C and identifying data as required (see paragraphs 219.a. and 222.a.).

d. Errors made in the text of multiple page messages.

(1) Errors may be corrected in the manner outlined in 211.c.(2). The correction should be made following the last line of text of the page in which the error appears. Such corrections shall be separated from the last line of text by (2CR) and (ILF), and shall be followed by the end of page sequence4 (2CR) and (4LF) (see paragraph 223.a(1)).

(2) If an error on one page is not detected prior to starting another page, it may be corrected at the end of the message by making reference to the page number, as well as other identifying data required (see paragraph 223.a.(1)).

212. **SPARE**

SECTION IIEXAMPLES213. **GENERAL**

a. Insofar as possible, routing indicators used in the examples in this section are those used in Annex A, Routing Diagram. Where portions of networks shown in Annex A are not of sufficient magnitude to include as many stations of a network as were required to present a satisfactory example, additional routing indicators have been injected.

b. All examples include TI to show its relationship in message format. This practice would occur in message preparation only when necessary to manually perforate or transmit channel numbers ahead of each message at the point of origin. If TI is transmitted automatically (see paragraphs 202.b. and 202.c), or by means of tabs (see paragraphs 202.b. and 202.d.), each transmission shall begin with 5 SPACES, the appropriate security warning prosign (if used) 2 CR and 1LF (see paragraph 138.a.).

214. **EXAMPLE OF PLAINDRESS SINGLE CALL, SINGLE ADDRESS MESSAGE**

a. Example:

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	VV (3 SPACES) PCB111(5 SPACES)UU	(2CR)(1LF)
2	RR RCWNDB	(2CR)(1LF)
3	DE RCCIC 134 02/0009Z	(2CR)(1LF)
5	R 012345Z APR	(2CR)(1LF)
6	FM CANAVHED	(2CR)(1LF)
7	TO NAVAL RESERVE DIV WINNIPEG	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	UNCLAS FOR SHIPPING DEPARTMENT FROM PROCUREMENT LIAISON SECTION YOUR 291318Z MAR PD ADVISE WHEN MATERIAL LISTED MY 160322Z MAR WILL BE READY FOR SHIPMENT	(2CR)(1LF) (2CR)(1LF) (2CR)(1LF) (2CR)(1LF) (2CR)(1LF)
13	BT	(2CR)(8LF)
16	NNNN	(12LTRS)

b. Explanation:

(1) Basic explanation of each of the above format lines is contained in the Schematic Diagram of Message Format (Annex B), and will be reiterated here.

(2) Format line 1 shows the TI, security warning prosign and start of message functions. TI shall be manually inserted at the called station only when automatic number equipment is not available (see paragraph 202.b. and 202.e.).

(3) Format line 4 is not required in this instance.

(4) Format line 8 is not required since the message is single address.

(5) Format line 9 is not required because there are no exempted addressees.

- (6) Format line 10 is not required in this instance.
- (7) Format line 14 is not used in tape relay operation.
- (8) Format line 15 is not used in this example since no errors were made.

215. **EXAMPLE OF PLAINDRESS MULTIPLE CALL, MULTIPLE ADDRESS MESSAGE**

a. Example:

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	VV (3 SPACES) BDA164(5 SPACES)	(2CR)(1LF)
2	RR RUEPDA RFFWBG	(2CR)(1LF)
3	DE RXFPSA 105 17/2207Z	(2CR)(1LF)
4	ZNR UUUUU	(2CR)(1LF)
5	R 172133Z MAR 1971	(2CR)(1LF)
6	FM SACEUR	(2CR)(1LF)
7	TO RUEDA/SGN WASHDC	(2CR)(1LF)
8	INFO RUEPDA/US SECDEF WASHDC	(2CR)(1LF)
	RFFWGB/MOD FRANCE	(2CR)(1LF)
	ZEN/CHMN EMCCC PARIS	(2CR)(1LF)
10	ACEX	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	UNCLAS SH30151 REP STASEC 6020 INFR	(2CR)(1LF)
	E E E E E E E 6020 INFORMATION	(2CR)(1LF)
	REQUESTED WILL BE FORWARDED BY 31	(2CR)(1LF)
	AUG	(2CR)(1LF)
13	BT	(2CR)(8LF)
16	NNNN	(12LTRS)

b. Explanation:

- (1) Basically same as for example contained in paragraph 214.
- (2) Format line 4 is used in this instance to provide the security warning (see paragraph 203).
- (3) Format line 10 shows the accounting symbol used by SACEUR when required.

216. **EXAMPLE OF PLAINDRESS BOOK MESSAGE (SEE PARAGRAPH 206.C.)**

a. Message address as submitted by originator:

FROM: CANGB WASHDC

TO: TAG STATE OF TEXAS AUSTIN TX

TAG STATE OF ARIZONA TUCSON AZ

TAG STATE OF OKLAHOMA OKLAHOMA CITY OK

TAG STATE OF VIRGINIA RICHMOND VA

PRECEDENCE: ROUTINE BOOK MESSAGE

b. RUEAHQ, the communication/signal center to which the message is submitted by the originator, files the message commercially to TAG STATE OF VA and prepares a transmission for tape relay to the other 3 addressees. The fact that TAG STATE OF VIRGINIA was an addressee is not indicated in the tape relay version:

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES)	(2CR)(1LF)
2	RR RUWGBS RUWGCU	(2CR)(1LF)
3	DE RUEAHQ 167C 0461425	(2CR)(1LF)
4	ZNR UUUUU	(2CR)(1LF)
5	R 151413Z MAR 1971 ZEX	(2CR)(1LF)
6	FM CANGB WASHDC	(2CR)(1LF)
7	TO RUWGBS/TAG TX	(2CR)(1LF)
	RUWGCU/TAG AZ	(2CR)(1LF)
	RUWGCU/TAG OK	(2CR)(1LF)
	Etc	

c. Upon receipt of the above transmission at RUWGCU, the message requires commercial refile to the addressees to be protected by that station. When refiled commercially, all address designations except the one for whom the specific commercial transmission is intended are eliminated.

217. EXAMPLE OF AN ABBREVIATED PLAINDRESS MESSAGE (SEE PARAGRAPH 145)

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	AEA 147 (5 SPACES)	(2CR)(1LF)
2	RR RUFDDO	(2CR)(1LF)
3	DE RUFDAE 134 2111145	(2CR)(1LF)
4	ZNR UUUUU	(2CR)(1LF)
5	R 291131Z MAR	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	UNCLAS WHAT IS ESTIMATED TIME OF ARRIVAL OF GENERAL BRYANT	(2CR)(1LF) (2CR)(1LF)
13	BT	(2CR)(8LF)
16	NNNN	(12LTRS)

218. EXAMPLE OF SINGLE CALL, CODRESS MESSAGE

a. Example:

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES) UU	(2CR)(1LF)
2	PP RBFWXG	(2CR)(1LF)
3	DE RBD AIR 14	(2CR)(1LF)

NOTE: The above partially prepared tape is discarded because an error was made in format line 3 (see paragraph 211.a.(1)).

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES)	(2CR)(1LF)
2	PP RBFWXG	(2CR)(1LF)
3	DE RBD AIR 134B 14/1503Z	(2CR)(1LF)
5	P 141415Z MAR	(2CR)(1LF)
10	GR 37	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	24680 XRAY UNIFORM DELTA MIKE ALFA PBOSI NTYEB HJELC GRZQS etc	(2CR)(1LF) (2CR)(1LF)
13	BT	(2CR)(8LF)
16	NNNN	(12LTRS)

b. Explanation:

- (1) Basically same as for preceding examples.
- (2) Line 10 is used because text consists of countable encrypted groups.

219. EXAMPLE OF MULTIPLE CALL, MULTIPLE ADDRESS CODRESS MESSAGE

a. Example:

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES) UU	(2CR)(1LF)
2	(FIGS) JJJJSSSS(LTRS)ZZ RBDIF RBDIC	(2CR)(1LF)
3	DE RBDIFC 161 08/0616Z	(2CR)(1LF)
4	RBDIC T RBDIC XYAG	(2CR)(1LF)
5	Z 080601Z MAR	(2CR)(1LF)
10	GR27	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	26420 ROMEO ZULU GOLF BRAVO INDIA BFOXU WSGRN ECPDY CWYLD etc	(2CR)(1LF) (2CR)(1LF)
13	BT	(2CR)(1LF)
15	C7 - PROXU 9 - ECPDF	(2CR)(8LF)
16	NNNN	(12LTRS)

b. Explanation:

(1) This example illustrates use of the bell signal in format line 2 (see paragraph 137.e.(1)).

(2) Line 4 is used because one of the addressees (represented by address group XYAG) cannot be reached directly via tape relay networks. The addressee can be reached, however, via refile from RBDIC.

(3) Station designator RBDIC is repeated following T in line 4 to indicate that the message must also be decrypted by RBDIC (see paragraph 207.c.).

220. MULTIPLE CALL, MULTIPLE ADDRESS CODRESS MESSAGE, FOR WHICH THE ORIGINATING COMMSEN HAS SEPARATE TRANSMISSION ROUTES

The original address included addressees for which the following routing indicators are responsible: RXFBAR RXFPC (To pass to address group HAVF) RBIFC RUEPWN. The originating COMMSEN (RBDI) prepares two tapes for transmission over separate routes:

TAPE 1

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES) UU	(2CR)(1LF)
2	RR RXFBAR RBFPC RUEPWN	(2CR)(1LF)
3	DE RBDI 145 16/2220Z	(2CR)(1LF)
4	ZNR UUUUU	(2CR)(1LF)
	RXFPC T HAVF	(2CR)(1LF)
5	R 162210Z MAR	(2CR)(1LF)
10	GR75	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	ENCRYPTED TEXT	(2CR)(1LF)
13	BT	(2CR)(8LF)
16	NNNN	(12LTRS)

TAPE 2

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES) UU	(2CR)(1LF)
2	RR RBDIFC	(2CR)(1LF)
3	DE RBDI 145 16/2220Z	(2CR)(1LF)
5	R 162210Z MAR	(2CR)(1LF)
10	GR75	(2CR)(1LF)
11	BT	(2CR)(1LF)
	Etc	

221. EXAMPLE OF MESSAGE USING COLLECTIVE ADDRESS DESIGNATOR

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES) UU	(2CR)(1LF)
2	PP RCCIC RUECYA RUEGFK RUWDAA*	(2CR)(1LF)
3	DE RUECW 183B 0141530	(2CR)(1LF)
4	ZNR UUUUU	(2CR)(1LF)
5	P 141516Z MAR 1971	(2CR)(1LF)
6	FM CNO	(2CR)(1LF)
7	TO ALL NAF CONUS**	(2CR)(1LF)

* Followed by the remaining routing indicators representing addressees served by the collective address designator.

** ALL NAF CONUS is a collective address designator for all Naval Air Facilities in the Continental United States.

8	INFO RCCIC/CANFORCEHED OTTAWA	(2CR)(1LF)
9	XMT NAF CHINA LAKE	(2CR)(1LF)
	NAF MONTEREY	(2CR)(1LF)
11	BT	(2CR)(1LF)
	Etc	

222. **EXAMPLES OF MESSAGES EMPLOYING ADDRESS INDICATING GROUPS**

- a. Example of a PLAINDRESS unclassified message in which an AIG number is used:

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES)	(2CR)(1LF)
2	RR RUWSPH RUHPB	(2CR)(1LF)
3	DE RUECW 177C 1661529	(2CR)(1LF)
4	ZNR UUUUU	(2CR)(1LF)
5	R 141527Z MAR	(2CR)(1LF)
7	TO AIG 205	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	UNCLAS WHAT WAS 1500Z POSITION OF USS ESTES	(2CR)(1LF) (2CR)(1LF)
13	BT	(2CR)(1LF)
15	C WA 1500Z POSITION	(2CR)(8LF)
16	NNNN	(12LTRS)

- b. A PLAINDRESS classified message, encrypted and using the assigned address group in lieu of the AIG number:

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES)	(2CR)(1LF)
2	RR RUWSPH RUHPB	(2CR)(1LF)
3	DE RUECW 177C 1661529	(2CR)(1LF)
4	ZNR UUUUU	(2CR)(1LF)
5	R 141527Z MAR	(2CR)(1LF)
7	TO EYNT	(2CR)(1LF)
10	GR17	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	22480 YANKEE QUEBEC NOVEMBER JULIET FOXTROT BLYRM SGCZY RHOPS AHXTJ etc	(2CR)(1LF) (2CR)(1LF) (2CR)(1LF)
13	BT	(2CR)(8LF)
16	NNNN	(12LTRS)

- c. Message in which an AIG is used to denote most of the addressees, but in which the originator and some addressees (additional and/or exempted) must be reflected individually (see paragraphs 205.c.(1)(b), (c) and (e)).

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES) UU	(2CR)(1LF)
2	RR RUWSKTD RCWNC RXFBAR RUFDAAE	(2CR)(1LF)

	RBDIC	
3	DE RUECW 154 2080814	(2CR)(1LF)
4	ZNR UUUUU	(2CR)(1LF)
5	R 260803Z MAR	(2CR)(1LF)
6	FM HFYL	(2CR)(1LF)
7	TO BPFU (REPRESENTING AIG 123)	(2CR)(1LF)
	RCWNC/SPCR	(2CR)(1LF)
	RXFBAR/DNAB	(2C4)(1LF)
8	INFO RBDIX/SQFH	(2CR)(1LF)
9	XMT STXR	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	TEXT	(2CR)(1LF)
13	BT	(2CR)(8LF)
16	NNNN	(12LTRS)

223. **EXAMPLES OF LONG MESSAGES (SEE PARAGRAPH 208)**

a. Long Plain Text Message.

(1) Section 1

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES) HH	
2	RR RBDTQT	(2CR)(1LF)
3	DE RBDTRQ 115B 02/1452Z	(2CR)(1LF)
5	R 021427Z MAR	(2CR)(1LF)
6	FM RAF ABINGDON	(2CR)(1LF)
7	TO RAF ST MAWGAN	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	R E S T R I C T E D SECTION 1 OF 2	(2CR)(1LF)
	CRASH REPORT (etc through a total of 20 lines counting from format line 5)	(2CR)(1LF)
	C LINE 8 WA DAMAGED LANDING	(2CR)(4LF)
	PAGE 2 RBDTRQ 115B R E S T R I C T E D (20 lines of text)	(2CR)(1LF) (2CR)(1LF)

NOTE 1: Succeeding pages of this transmission would appear as shown above for page 2, except the last page which would appear as follows:

	PAGE 6 RBDTRQ 115B R E S T R I C T E D	(2CR)(1LF)
	(Final lines of text in this section)	(2CR)(1LF)
13	BT	(2CR)(1LF)
15	C PAGE 3 LINE 2 WAS ESTABLISHED FAULT	(2CR)(8LF)
16	NNNN	(12LTRS)

NOTE 2: Page 1 is not counted as a page of message text, so five textual pages permitted per transmission section would be pages 2 through 6.

Explanation:

- (a) Line 12 illustrates the practice explained in paragraph 209.

(b) Line 15 illustrates the correction of an error as explained in paragraph 211.d.(2).

(c) "Line 8" and "Line 2", used in corrections in the above example, refer to lines within the text of the message (between BT and BT). In multiple page messages the page should also be referred to (see format line 15) above.

(d) If this above example had been a multiple address message with three pages consumed in transmitting the addressees, the text would then have been transmitted as pages 4 through 8.

(2) Section 2

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES) HH	(2CR)(1LF)
2	RR RBDTQT	(2CR)(1LF)
3	DE RBDTRQ 116B 02/1452Z	(2CR)(1LF)
5	R 021427Z MAR	(2CR)(1LF)
6	FM RAF ABINGDON	(2CR)(1LF)
7	TO RAF ST MAWGAN	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	R E S T R I C T E D FINAL SECTION 1 OF 2 (Remainder of text)	(2CR)(1LF)

NOTE: This section would be paged and ended in the same manner as reflected in paragraph 223.a.(1).

b. Long Encrypted Message.

(1) Section 1

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES) UU	(2CR)(1LF)
2	RR RBDTQT	(2CR)(1LF)
3	DE RBDTRQ 115B 02/1452Z	(2CR)(1LF)
5	R 021427Z MAR	(2CR)(1LF)
10	GR 855	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	SECTION 1 OF 2 PART ONE OF TWO 46820 DELTA HOTEL OSCAR TANGO INDIA (etc through total of 20 lines counting from format line 5)	(2CR)(1LF) (2CR)(1LF) (2CR)(4LF)
	PAGE 2 RBDTRQ 115B	(2CR)(1LF)
	(20 lines of encrypted text)	(2CR)(4LF)
	PAGE 3 RBDTR1 115B	(2CR)(1LF)
	Etc	

NOTE: This transmission would be ended in the same manner as reflected in paragraph 223.a.(1).

(2) Section 2

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES) UU	(2CR)(1LF)
2	RR RBDTQT	(2CR)(1LF)
3	DE RBDTRQ 116B 02/1452Z	(2CR)(1LF)
5	R 021427Z MAR	(2CR)(1LF)
10	GR 536	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	FINAL SECTION OF 2 FINAL	(2CR)(1LF)
	PART OF TWO 46820 ALFA XRAY LIMA	(2CR)(1LF)
	ECHO CHARLIE QSHON BGXQR etc	(2CR)(1LF)

NOTE: This transmission would be paged and ended in the same manner as reflected in paragraph 223.a.(1).

224. **EXAMPLE OF TABULATED MESSAGE (SEE PARAGRAPH 210)**

a. As submitted by the originator:

FROM: TAG DA WASHDC
 TO: CINCUSAREUR HEIDELBERG GERMANY
 PRECEDENCE: PRIORITY
 UNCLAS FOR FAAG-A FROM AGPA-D 60396 YOUR AG-A 010-407
 1. ASG 23 EM CAT I AS FOL NOV ALOC. PARA 13 AR 612-15 DOES NOT
 APPLY

NE	GRADE	MOS	FOR ASG BY/TO
1	E2	140.00	CGUSCONARC
5	E3	154.00	CINCUSARPAC

b. As transmitted:

FORMAT LINE	CONTENTS	END OF LINE FUNCTIONS
1	(TI) (5 SPACES)	(2CR)(1LF)
2	PP RUFDAAE	(2CR)(1LF)
3	DE RUEPDA 167C 0072117	(2CR)(1LF)
4	ZNR UUUUU	(2CR)(1LF)
5	P 072101Z MAR 1971	(2CR)(1LF)
6	FM TAG DA WASHDC	(2CR)(1LF)
7	TO CINCUSAREUR HEIDELBERG GERMANY	(2CR)(1LF)
11	BT	(2CR)(1LF)
12	UNCLAS FOR FAAG-A FROM AGPA-D 60396 YOUR AG-A 010-407	(2CR)(1LF) (2CR)(1LF)
	1. ASG 23 EM CAT I AS POL NOV ALOC	(2CR)(1LF)
	PARA 13 AR 612-15 DOES NOT APPLY	(2CR)(1LF)
	NR GRADE MOS FOR ASG	(2CR)(1LF)
	BY/TO	(2CR)(1LF)

1	E2	140.00	CGUSCONARC	(2CR)(1LF)
5	E3	154.00	CINCUSARPAC	(2CR)(1LF)

CHAPTER 3

ROUTING AND RELAY OF MESSAGES

SECTION I

GENERAL

301. RELAY OF SINGLE CALL MESSAGES

When properly prepared at the originating station, a single call message requires no reprocessing during tape relay.

302. ROUTING OF MESSAGES

A prerequisite for effective routing of messages is a thorough knowledge of the network(s) involved. As a means to this end, authorities controlling networks should promulgate routine doctrine indicating as a minimum the primary and alternative routes to be used when passing traffic between stations of the same network and between networks.

303. RELAY OF MULTIPLE CALL MESSAGES

- a. Relay of multiple call messages is accomplished by routing line segregation.

(1) Each multiple call message starts out from the originating station as a single transmission containing in format line 2 all of the routing indicators required to effect transmission to all communications centers responsible for delivery or refile of the message to any of the addressees (for a variation of this rule, see paragraph 303.b.).

(2) Each subsequent station is responsible for ensuring that the message is forwarded so as to effect delivery to all stations called in format line 2 of the transmission received by that station.

(3) At the first and each succeeding relay station, the routing line of the received transmission is examined to determine the transmission path(s) that the message will take from that station.

(4) Each relay station which must forward the message over more than one transmission path shall segregate format line 2. Each new transmission shall contain in format line 2 only those routing indicators pertinent to that transmission. In this process, no extraneous characters shall be inserted to replace routing indicators which have been deleted. If practicable, transmission instructions appearing in the received message which are not pertinent to a particular onward transmission shall be removed.

(5) Each terminal station receives the message as a single call message except when a simultaneous transmission is made to two or more stations on a multi-station circuit.

(6) For an example of a message processed by routing line segregation, see paragraph 311.

b. It is sometimes desirable to effect complete or partial routing line segregation at the originating station, e.g., when relay stations in a network are not equipped to perform routing line segregation; when routing line segregation equipment at the first relay station is temporarily out of order; when it is desired to transmit dual precedence messages to each addressee at the appropriate precedence; when processing will be facilitated; as when a station operates as part of more than one

tape relay network using the worldwide routing indicator plan. In those instances where originating stations perform routine line segregation it shall be accomplished as follows:

(1) The required number of tapes to effect transmission to all addressees shall be prepared by the originating station.

(2) Format line 2 of each transmission shall consist of the repeated precedence prosign applicable to that transmission and only the routing indicator(s) of the station(s) that is to effect delivery or refile of the particular transmission.

(3) The same date-time group and stations serial number shall be used in the preparation of all tapes required to effect overall transmission of any given message.

304. **SPARE**

SECTION II

RELAY OF MESSAGES BETWEEN NETWORKS

305. TRANSFER CIRCUITS AND TRANSFER STATIONS

a. In order to make maximum use of existing tape relay facilities, the various independently operated networks are interconnected at strategic points to permit onward relay of authorized messages via the facilities of a network other than that in which the messages originated. Such interconnecting circuits are called transfer circuits, and the stations which are connected by such circuits are called transfer stations. Transfer circuits and stations are agreed between network authorities and are laid down in the ACP 117 series. Interchange of message traffic between networks shall be effected only through transfer stations.

b. In exceptional and presumably unforeseen circumstances, warning, alert distress or emergency traffic will be permitted to pass through any network without prior arrangement, and will be designated by the operating signal ZVQ inserted as handling instructions in format line 1 of each such message. If the emergency is prolonged, the principle in paragraph 305.a. shall apply.

306. ROUTINE INDICATORS LIMITATIONS

To minimize possibility of overloading the telegraph automatic relay equipment (TARE) of another network, the routing line of a transferred message shall contain not more than two lines of routing indicators.

SECTION III

ALTERNATIVE ROUTING

307. REQUIREMENT FOR ALTERNATIVE ROUTING

When messages cannot be transmitted within a reasonable time over the normal transmission route because of extended outage of, or backlog on, a link of the normal route, an alternative route, if available, should be used.

308. ESTABLISHING AND USING AN ALTERNATIVE ROUTE

a. When it is desired to route traffic alternatively through the tape relay facilities of another network, a request shall be transmitted to the particular relay station through which alternative routine is desired to determine the capability of that station to accept. Permission to alternatively route through another station shall be obtained by service message or through direct supervisory contact by telephone.

b. Stations receiving requests to alternatively route traffic for another network shall make every effort to comply in the interest of overall efficiency and flexibility. It must be remembered that alternative routine is a normal process and constitutes a fundamental responsibility of all relay stations.

c. When a station has agreed to accept traffic for alternative routine:

(1) The message shall be transmitted without new handling instructions; i.e., no pilot.

(2) Subsequent relaying shall be accomplished through normal channels without further requests.

d. All traffic accepted for alternative routine shall be transmitted in order of receipt and precedence. It shall not be treated separately from other traffic.

309. TERMINATING USE OF AN ALTERNATIVE ROUTE

When the alternative route is no longer required, the requesting station shall so advise the other station concerned.

310. SPARE.

SECTION IV

EXAMPLES

311. MULTIPLE CALL DUAL PRECEDENCE MESSAGE PROCESSED BY ROUTING LINE SEGREGATION (SEE PARAGRAPH 303.A.)

- a. Message address as submitted on originator's message from:

FROM: SGN WASHDC
 TO: MOD FRANCE PARIS FRANCE
 MAF LUXEMBOURG
 INFO: SACEUR PARIS FRANCE
 CINCUSAREUR HEIDELBERG GERMANY
 PRECEDENCE: PRIORITY INFO ROUTINE

- b. Message heading as prepared by originating communication/signal center:

VZCZCWNA114(5 SPACES) (2CR)(1LF)
 PP RUFDAERXFPSA RXFPC RFFWBG (2CR)(1LF)
 DE RUEPDA 129B 1821328 (2CR)(1LF)
 ZNR UUUUU (2CR)(1LF)
 P R 301318Z MAR 1971 (2CR)(1LF)
 FM SGN WASHDC (2CR)(1LF)
 TO RXFPC/MAF LUXEMBOURG (2CR)(1LF)
 RFFWBG/MOD FRANCE (2CR)(1LF)
 INFO RXFPSA/SACEUR (2CR)(1LF)
 RUFDAE/CINCUSAREUR (2CR)(1LF)
 ACEX (2CR)(1LF)
 BT (2CR)(1LF)
 etc.

- c. RUEPDA transmits the message to RDEP, the first relay station involved. Since the route from RUEP to all stations in the basic routing line is via RUFD, RUEP relays the message to RUFD without change:

VV(3 SPACES) EUC093WNA114(5 SPACES) (2CR)(1LF)
 PP RUFDAE RXFPSA RXFPC RFFWBG (2CR)(1LF)
 DE RUEPDA 129B 1821328 (2CR)(1LF)
 etc.

- d. Upon receipt of the transmission from RUEP, RUFD prepares two new tapes and transmits the message to RUFDAE and to RXFP:

(TI) (5 SPACES) (2CR)(1LF)
 RR RUFDAE (2CR)(1LF)
 DE RUEPDA 129B 1821328 (2CR)(1LF)
 etc.

NOTE: Precedence changes from PRIORITY to ROUTINE because this transmission is to an INFO addressee.

(TI) (5 SPACES) UU	(2CR)(1LF)
PP RXFP SA RXFP C RFFWB G	(2CR)(1LF)
DE RUEPDA 129B 1821328	(2CR)(1LF)
etc.	

e. Upon receipt of the transmission from RUF D, RXFP transmits the message by offnet means to MAP LUXEMBOURG. RXFP also prepared two new tapes and transmits the message to RXFP SA and RFFW:

(TI) (5 SPACES)	(2CR)(1LF)
RR RXFP SA	(2CR)(1LF)
DE RUEPDA 129B 1821328	(2CR)(1LF)
etc.	

(TI) (5 SPACES) UU	(2CR)(1LF)
PP RFFWB G	(2CR)(1LF)
DE RUEPDA 129B 1821328	(2CR)(1LF)
etc.	

f. RFFW relays without change to RFFWB G:

(TI) (5 SPACES) UU	(2CR)(1LF)
PP RFFWB G	(2CR)(1LF)
DE RUEPDA 129B 1821328	(2CR)(1LF)
etc.	

312. VARIATIONS OF ROUTING LINE SEGREGATION

Variations of routine line segregation are sometimes necessary. In such circumstances, in the example in paragraph 311.a., RUEPDA would have prepared the number of tapes necessary to comply with paragraph 303.b.; subsequent processing through the network would be altered accordingly.

313. EXAMPLE OF ALTERNATIVE ROUTING

a. Situation: RCWD has a backlog for RCWN but has temporarily lost its normal route. RCWD asks RCCA to act as an alternative route:

(TI) (5 SPACES) UU	(2CR)(1LF)
RR RCCA	(2CR)(1LF)
DE RCWD 161 15/15162	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC INT ZOE RCWN	(2CR)(1LF)
BT	(2CR)(1LF)
NNNN	(12LTRS)

NOTE: Precedence of request shall be the same as the highest precedence message awaiting transmission.

b. RCCA, after checking with RCCI and determining that both RCCA and RCCI are capable of acting as an alternative route, answers RCWD:

(TI) (5 SPACES) UU	(2CR)(1LF)
RR RCWD	(2CR)(1LF)
DE RCCA 139 15/1521Z	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC ZOE RCWN (or ZOE RCWN ZAN PP)	(2CR)(1LF)
BT	(2CR)(1LF)
NNNN	(12LTRS)

CHAPTER 4

OPERATING INSTRUCTIONS

SECTION I

OPERATORS' RESPONSIBILITIES

401. **OBJECTIVES**

Paragraph 102.a. states three objectives which are essential to communications – reliability, speed, and security. It must be reemphasized that attainment of the objectives depends, to a great extent, upon adherence to prescribed procedure by operating personnel. All personnel should be constantly alert to detect security and procedure violations in the transmission of messages and bring them to the attention of supervisory personnel for local corrective action or forwarding to stations involved.

402. **RECEIVING OPERATORS' RESPONSIBILITIES**

a. It is the responsibility of the receiving operator to ensure that a transmission is received under each number and that numbers are not duplicated or omitted. Discrepancies in numbers should be promptly reported to the supervisor.

b. Receiving operators of tributary stations shall ascertain that every message handled is legible and free of garbles and mutilations, that it is within security and special handling limitations of the circuit and that it is complete and is not a misroute. If it fails to pass any of these tests, corrective action as indicated in paragraphs 419, 420 and/or 426 shall be instituted or in the case of security mishandling, reported in accordance with national/service instructions. Receiving operators shall not question the textual component of messages containing nongroup cipher (scrambled) text unless there is an indication that reception may have been interrupted.

c. Receiving operators of manual relay stations shall ascertain that format lines 1 through 4 and 16 of every message handled are legible and free of garbles and mutilations, that it is within security and special handling limitations of the circuit and that the message is complete. If it fails to pass any of these tests, corrective action as indicated in paragraphs 419 and/or 420 shall be instituted or in the case of security mishandling, reported in accordance with national/service instructions. This action can also be instituted when the receiving operator notes garbles and mutilations in format line 5 through 15 before the message is relayed. Receiving operators shall not question the textual component of messages containing nongroup cipher (scrambled) text unless there is an indication that reception may have been interrupted.

403. **TRANSMITTING OPERATORS' RESPONSIBILITIES**

Transmitting operators are charged specifically with the responsibility for maintaining transmission security. Before transmitting any plain text message, the operator shall determine the security classification of the message by referring to the first word of text. Messages classified RESTRICTED and above, other than those authorized by the originator to be transmitted CLEAR during tactical situations, must either be OFF-LINE encrypted or forwarded over approved circuits (see paragraphs 203 and 209).

SECTION IISERVICE MESSAGES**404. PURPOSE AND CONTENT OF SERVICE MESSAGES**

a. Service messages are used by communication centre personnel to exchange information and instructions pertaining to the conduct of communications, e.g., circuit continuity checks, correction of errors, tracer action and all phases of traffic handling and network operation.

b. Brevity shall be stressed in service messages. The text shall consist of the minimum number of words required to express the thought intended without being vague or ambiguous. Maximum practicable use shall be made of operating signals and prosigns.

405. FORMAT OF SERVICE MESSAGES

a. Service messages shall be prepared in abbreviated PLAINDRESS format, except as outlined in the following sub-paragraphs.

b. Service messages between two directly connected stations may be reduced to the absolute essentials of ABBREVIATED PLAINDRESS format, i.e., format lines 1, 2, 3, (less station serial number), 4 (when required), 12 and 16.

c. Service messages requiring relay must include as a minimum the following elements in addition to those specified in sub-paragraph 405.b.:

- (1) A station serial number in format line 3.
- (2) The appropriate security warning indication in format lines 1 and/or 4.
- (3) Separation sign BT in format lines 11 and 13.
- (4) Indication of security as the first word of the text followed by the abbreviation SVC.
- (5) When it is necessary to show ACTION and INFORMATION status in multiple address service messages, format lines 7 and 8 shall be used. Routing indicators shall be used in lieu of other address designators when such messages are addressed to stations in tape relay networks.

Example of Abbreviated Service Message (see sub-paragraph 405.b.):

VV (3 SPACES) FPA126 (5 SPACES) UU	(2CR) (1LF)
PP RBDA	(2CR) (1LF)
DE RBFW 21/1230Z	(2CR) (1LF)
INT ZDK DPA116	(2CR) (8LF)
NNNN	(12LTRS)

Example of Normal Single Address Service Message (see sub-paragraph 405.c.):

VZCZCDOA123 (5 SPACES)	(2CR) (1LF)
RR RUFDAA	(2CR) (1LF)
DE RUFDDO 131 2031417	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)

BT	(2CR) (1LF)
UNCLAS SVC INT ZDK RUFDAE 145 21/1352	(2CR) (1LF)
PAGE 1 LINES 3 AND 4	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

Example of Normal Multiple Address Service Message (see sub-paragraph 405.c. (4)):

VZCZCHQA321 (5 SPACES) UU	(2CR) (1LF)
RR RUEA RCCU RCCU KL	(2CR) (1LF)
DE RUEAHQ 152 2031535	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
TO RCCU KL	(2CR) (1LF)
INFO RUEA	(2CR) (1LF)
RCCU	(2CR) (1LF)
BT	(2CR) (1LF)
UNCLAS SVC INT ZEC RUEAHQ 118 2031020	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

d. When service messages require commercial refile, a complete address must be provided (see rules for refile, Chapter 5, Section II).

e. Certain types of service messages are used in recurring situations. These are used mainly for testing, reporting readability and stopping the sending station. They are prepared in the abbreviated service message format (see paragraph 405.b.), but do not require a filing time.

Example:

VZCZCGDA231 (5 SPACES) UU	(2CR) (1LF)
RR RCWD	(2CR) (1LF)
DE RCWDGD	(2CR) (1LF)
TEXT	(2CR) (8LF)
NNNN	(12LTRS)

406. CLASSIFICATION OF SERVICE MESSAGES

a. An unclassified service message may be used when referring to a message classified RESTRICTED or above if only operating signals, prosigns and message or transmission identification are used. If it is necessary to include anything that would reveal part of the text of the classified message, however, the service message must be classified.

b. An unclassified service message referring to a message received in CODRESS format or using encrypted call signs/address groups shall use only those routing designations and message or transmission identifications which were contained in the received message heading.

407. PRECEDENCE OF SERVICE MESSAGES

Service messages shall be assigned an appropriate precedence consistent with operating requirements.

408. **SPARE**

409. **SPARE**

410. **SPARE**

SECTION III

MAINTAINING COMMUNICATIONS

411. **OPENING AND TESTING CIRCUITS/CHANNELS**

a. Opening Circuits/Channels.

(1) Before starting transmission of traffic on a circuit/channel which has just been opened or reopened, a test message shall be transmitted once as follow:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUEPW	(2CR) (1LF)
DE RUEPWN	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
TEST THE QUICK BROWN FOX JUMPS OVER THE	(2CR) (1LF)
LAZY DOG	(2CR) (1LF)
1234567890RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY	(2CR) (1LF)
INT ZBZ K	(2CR) (8LF)
NNNN	(12LTRS)

(2) When the station called determines that the test message is satisfactory, it transmits:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUEPWN	(2CR) (1LF)
DE RUEPW 1901245	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
ZBZ5 K	(2CR) (8LF)
NNNN	(12LTRS)

(3) It shall be the responsibility of each station that does not operate continuously to initiate opening action.

(4) Opening action pertaining to part-time channels between relay stations may be initiated by either station as directed by the senior station involved or as mutually agreed.

b. Test of Circuits/Channels.

(1) After a circuit/channel has been opened for traffic, it sometimes becomes necessary to interrupt traffic and send a test because of poor readability. Testing on multi-channel radio systems service tape relay stations is usually conducted by use of automatic test generating equipment. When such equipment is not available, a test tape, constructed as follows, will be used:

(Sufficient LTRS to permit splicing tape into a continuous loop)

(5 SPACES)	(2CR) (1LF)
THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG 1234567890	
TEST DE*	(2CR)
THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG 1234567890*	
TEST DE	(2CR) (1LF)
RY	(2CR) (1LF)

* Call sign of Station Testing.
 * Call sign of Station Testing.

(Sufficient LTRS to permit splicing tape into a continuous loop)

NOTE: Omission of (1LF) following (2CR) at the end of the first line of test is intentional. The test is designed so that the second line of "THE QUICK BROWN FOX" will overprint the first line. In this manner, any malfunction will be more immediately apparent, and paper will be saved.

(2) The test tape shall be run continuously until the station requesting the test advises the transmitting station that readability of the circuit/channel has improved to the point where it is feasible to resume traffic.

412. ENSURING THE CONTINUITY OF TRAFFIC

a. The responsibility for the continuity of received numbers rests with the station receiving the traffic. It is the responsibility of the receiving operator to ensure that a transmission is received under the each number and that numbers are not duplicated or omitted. Open numbers shall be reported as they occur (see paragraph 433).

b. When no transmission has been received over a channel/circuit for a period of 30 minutes**, the receiving station shall originate a PRIORITY service message to the transmitting station:

VV (3 SPACES) PFA125 (5 SPACES) UU	(2CR) (1LF)
PP RBDIF	(2CR) (1LF)
DE RBDIFC 03/1605Z	(2CR) (1LF)
ZID PPA113	(2CR) (8LF)
NNNN	(12LTRS)

This example shows the check being handled over the channel in question. In multi-channel operation, however, the service message may be transmitted or received over other than the channel being checked for continuity of traffic.

c. If all is well, the transmitting station shall reply:

VV (3 SPACES) PPA114 (5 SPACES) UU	(2CR) (1LF)
PP RBDIFC	(2CR) (1LF)
DE RBDIF 01/1607Z	(2CR) (1LF)
ZIC PPA113	(2CR) (8LF)
NNNN	(12LTRS)

This example shows the check being handled over, the channel in question. In multi-channel operation, however, the service message may be transmitted or received over other than the channel being checked for continuity of traffic.

d. If the message reported as last received does not correspond with that last sent, the sending station shall take whatever action is necessary to establish contact with the receiving station and ascertain the status of traffic.

e. To facilitate the transmission of channel checks (number comparisons) between stations that are connected by only one channel, or by multi-channels where selection of individual channels can be controlled, a self-addressed abbreviated service message may be used. The channel

** This interval may be increased to 60 minutes at the discretion of the relay station on channels/circuits to tributary stations during light traffic periods.

check is prepared as a precut tape and held at the operating position for immediate transmission when needed.

Example:

(TI) (5 SPACES) UU	(2CR) (1LF)
PP RBDIFC	(2CR) (1LF)
DE RBDIFC	(2CR) (1LF)
CHANNEL CHECK RYRYRYRY ABCDEFGHIJKLMNOPQRSTU	
	(2CR) (1LF)
WXYZ 1234567890	(2CR) (8LF)
NNNN	(12LTRS)

f. When the channel check is received at the connected station, a number comparison shall be made either automatically or by an operator. The channel check will then be transmitted back to the called station for similar action. If proper continuity and accurate transmission and reception is evident, further action is not necessary except to annotate records with time of receipt.

413. CHANGING NUMBER SEQUENCE AND MAKING FINAL NUMBER COMPARISON

a. Stations will start a new sequence of channel numbers and station serial numbers either on a daily basis or on completion of the numbering cycle. Where channel numbers change daily, the accounting procedure described in subparagraphs 413.b. and 413.c. may be employed.

b. Except when the sending station has been officially closed (see paragraph 414), a station receiving a new day's traffic shall initiate a service message to the sending station stating the last number received in the previous day's number series. Such messages shall also include an indication of all messages awaiting retransmission (rerun); this provides an end of day traffic summary and should not be construed as a new request for reruns previously requested. This summary highlights the fact that, while total numbers are correct, there may still be traffic of the previous day not received in a releasable condition.

(1) Example, if there are no outstanding numbers to account for:

VV (3 SPACES) FPA001 (5 SPACES) UU	(2CR) (1LF)
RR RXFB	(2CR) (1LF)
DE RXFP 12/0002Z	(2CR) (1LF)
ZID FAA164	(2CR) (8LF)
NNNN	(12LTRS)

(2) Example, if there are numbers still to be accounted for:

VV (3 SPACES) FPA001 (5 SPACES) UU	(2CR) (1LF)
RR RXFB	(2CR) (1LF)
DE RXFP 12/0002Z	(2CR) (1LF)
ZID FAA164 AWAITING ZDK FAA137	(2CR) (8LF)
NNNN	(12LTRS)

c. It is the responsibility of a station receiving a new day's traffic to ensure that each number is accounted for on the previous day's traffic reports. Traffic records of the previous day shall not be considered complete until any reruns noted in the end of the day's traffic summary have been satisfactorily received.

414. **CLOSING PART-TIME STATIONS**

It shall be the responsibility of each station that does not remain in operation continuously to initiate closing action which shall include a number check:

- a. RUEPWN, when ready to close, originates the following service message:

VV (3 SPACES) WNA164 (5 SPACES)	(2CR) (1LF)
RR RUEPW	(2CR) (1LF)
DE RUEPWN 2052155	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
INT ZKJ ZID PWA157 PWB091	(2CR) (8LF)
NNNN	(12LTRS)

- b. RUEPW replies:

VV (3 SPACES) PWB092 (5 SPACES)	(2CR) (1LF)
RR RUEPWN	(2CR) (1LF)
DE RUEPW 2052157	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
ZKJ1 ZID WNA164	(2CR) (8LF)
NNNN	(12LTRS)

415. **SPARE**

SECTION IV

CORRECTION REQUESTS AND REPLIES

416. SOURCE OF CORRECTIONS

a. Corrections involving errored groups, incorrect group counts, omitted portions, and similar errors arising from an otherwise correct tape, i.e., no apparent garbles or mutilations, are obtained by originating a service message addressed to the calling station requesting correction only for that part of the message which is in error. Relay stations are not responsible for or required to furnish corrections of this nature.

b. Corrections for discrepancies in transmission identification, incomplete transmission, mutilations and garbles which have apparently occurred during relay shall be handled in accordance with paragraph 419. If garbling persists, action must be taken to correct equipment or circuit/channel difficulties.

417. RULES REGARDING CORRECTION REQUESTS

a. When sending a correction request to the calling station, reference shall be made to the message identification (see paragraph 116). If the message identification is garbled, the message shall be identified by quoting what is legible in the heading and, if necessary, a portion of its text. If the message contains more than one error, all questions concerning the message shall be incorporated in one service message.

Example: Message as received by RUFPBK

(TI) (5 SPACES)	(2CR)(1LF)
PP RUFPBK	(2CR)(1LF)
DE RUFDAE 117 0611423	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
P 021415Z MAR 1986	(2CR)(1LF)
FM CICNUSAREUR	(2CR)(1LF)
TO CGUSASEVEN	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS AFZID 6377 FOR S-3 FROM SIGNAL	(2CR)(1LF)
OFFICER MY AEZID 5918. SITUATION WATTSNYS	(2CR)(1LF)
IMMEDIATE ACTION. ORDERS BILL NO IDDURF SD	(2CR)(1LF)
NECESSARY TO EFFECT EQUIPMENT TRANSFER	(2CR)(1LF)
BY 5 MAR	(2CR)(1LF)
BT	(2CR)(1LF)
NNNN	(12LTRS)

RUFBK requests corrections:

(TI) (5 SPACES)	(2CR)(1LF)
PP RUFDAE	(2CR)(1LF)
DE RUFPBK 142 0611437	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC INT ZDK RUFDAE 117 0611423	(2CR)(1LF)
WA SITUATION – ORDERS TO NECESSARY	(2CR)(1LF)
BT	(2CR)(1LF)
NNNN	(12LTRS)

NOTE: The hyphen is used to separate portions of the request.

b. If the transmission is garbled, the message identification or other specific data, such as the transmission which it followed, shall be reported to the preceding relay. A complete retransmission will be requested.

Example:

(TI) (5 SPACES)	(2CR)(1LF)
PP RUFPP	(2CR)(1LF)
DE RUFPPBK 111 0611447	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
INT ZDK TRANSMISSION FOLLOWING PDA143	(2CR)(1LF)
NNNN	(12LTRS)

c. If follow-up action is necessary on a correction request, see paragraph 419.f. for guidance.

418. RULES REGARDING REPLIES TO CORRECTION REQUESTS

a. Replies to correction requests shall be prepared and transmitted as expeditiously as possible.

b. Service messages shall be used to provide corrections.

Example: (Reply to correction request contained in sub-paragraph 417.a.).

(TI) (5 SPACES)	(2CR)(1LF)
PP RUFPPBK	(2CR)(1LF)
DE RUFDAE 136 0611455	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC ZUI RUFPPBK 142 ZDK RUFDAE 117 WA	(2CR)(1LF)
SITUATION WARRANTS – ORDERS TO NECESSARY -	(2CR)(1LF)
ORDERS WILL BE ISSUED AS NECESSARY	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

c. Replies to request made in accordance with sub-paragraph 417.b. shall be in the same format and shall make reference to the service message being answered.

Example:

(TI) (5 SPACES)	(2CR)(1LF)
PP RUFPPBK	(2CR)(1LF)
DE RUFDAE 0611623	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
ZUI RUFPPBK 111 ZDK TRANSMISSION FOLLOWING	(2CR)(1LF)
PDA143 AB BT PDA144	(2CR)(1LF)
RR RUFPPBK	(2CR)(1LF)
DE RUFDAE 174	(2CR)(8LF)
etc.	

d. Each correction request shall be answered even though a previous reply has been made. When the previous request has been answered, the reply to succeeding requests shall not

contain a repetition of the correction, but only a reference to the transmission identification and/or message identification under which the correction was furnished.

419. **REQUESTING RETRANSMISSION (RERUN)**

a. When a station notes that a **PRIORITY** or lower precedence message is incomplete, garbled or mutilated it shall immediately request a retransmission. In the case of **IMMEDIATE** or **FLASH** precedence messages, action shall be taken in accordance with paragraph 420. Use of the following procedure makes it mandatory that requests for retransmission be identified by channel number and/or stations serial number for positive service message accountability and reference between stations. Therefore, at tributary stations operating into torn-tape manual relays when station serial numbers are used as the only means of maintaining continuity of traffic, each service message containing a request for retransmission must be assigned a station serial number.

b. When a relay station receives an incomplete, garbled or mutilated transmission which cannot be handled under "subject to correction" procedure contained in paragraph 420, and notes the condition before the message is relayed, it shall:

(1) Send a service message to the calling station requesting that the message involved be retransmitted. If the message involved is multiple call/multiple address, the request for retransmission must indicate the stations to which the message is to be retransmitted.

(2) Annotate in in-station records, by use of the incoming channel number, that the transmission bearing that number was incomplete, garbled or mutilated and that a retransmission was requested from the calling station.

(3) Discard the incomplete, garbled or mutilated transmission.

Example: RCCP upon receiving a garbled transmission from RCWP, originated by tributary station RCWPWM, prepares and transmits a service message to the calling station as follows:

(TI) (5 SPACES)	(2CR)(1LF)
RR RCWPWM	(2CR)(1LF)
DE RCCP 012 02/1421Z	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC RCWPWM 174 02/1040Z ZES2	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

c. When a relay station is notified that one of its transmissions was received in an incomplete, garbled or mutilated condition it shall take action as follows:

(1) If its copy of the transmission is good, it shall retransmit the message involved under a new channel number and with a service message retransmission pilot.

(2) If the relay station's copy of the transmission is not good, it shall:

(a) Send a service message to the calling station furnishing the required identification and specifying retransmission directly to the station initially requesting the rerun. The station which requested the rerun shall be included as an **INFO** addressee in order to be kept informed regarding the status of its initial request as a basis for follow-up action, if necessary.

DAA037	(2CR)(1LF)
RR RUCP	(2CR)(1LF)
DE RUCPDA 182 0931230	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
UNCLAS SVC CUA103 IMI CUA103 RUFDAE 174	(2CR)(1LF)
0931040 ZES2	(2CR)(1LF)
NNNN	(12LTRS)

RUCP, upon receipt of a notification from RUCPDA that a transmission is garbled and discovering that the transmission from its preceding station is also garbled, takes action as follows:

(TI) (5 SPACES)	(2CR)(1LF)
RR RUFDAE RUCPDA	(2CR)(1LF)
DE RUCP 134 0931442	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
TO RUFDAE	(2CR)(1LF)
INFO RUCPDA	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC RUFDAE 1740931040 ZES2	(2CR)(1LF)
RUCPDA CITING CUA103 IN REPLY	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

(b) Annotate in in-station records the action taken.

d. Tributary Station – A tributary station receiving a transmission in an incomplete, garbled or mutilated condition shall:

(1) If connected to a fully automatic or semiautomatic (push button switching) relay station, transmit the request for retransmission to the calling station. Reference shall be made to message identification and further identification data as required.

Example:

(TI) (5 SPACES)	(2CR)(1LF)
PP RCCBAE	(2CR)(1LF)
DE RCCAAG 117 03/1423Z	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC RCCBAE 123 03/13242 ZES2	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

(2) If connected to a manual torn-tape relay station, request for transmission shall be directed as follows:

(a) To the calling station if the message was originated by a station served by the same relay station.

Example:

(TI) (5 SPACES)	(2CR)(1LF)
RR RCCPMR	(2CR)(1LF)
DE RCCPNH 182/03/1232Z	(2CR)(1LF)
BT	(2CR)(1LF)

UNCLAS SVC ZUI RCCPMR 123 03/1200Z ZES2	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

(b) To the connected relay station for all other requests.

Example:

(TI) (5 SPACES)	(2CR)(1LF)
RR RBDP	(2CR)(1LF)
DE RBDPAR 188 03/1213Z	(2CR)(1LF)
UNCLAS SVC DPA103 IMI DPA103 RBMPRF 174	(2CR)(1LF)
03/1040Z ZES2	(2CR)(1LF)
NNNN	(12LTRS)

e. The Calling Station shall:

(1) Upon receipt of a rerun request from a relay station, retransmit the message involved under a new channel number and without a service message retransmission pilot to designated stations only.

(2) Upon receipt of a return request similar to examples outlined in paragraphs 419.c.(2)(a), d.(1) and d.(2)(a), retransmit the message involved with a service message retransmission pilot which cites the appropriate identification pertaining to the transmission.

Example:

(TI) (5 SPACES)	(2CR)(1LF)
RR RFFXZ	(2CR)(1LF)
DE RFFPI 183 03/1445Z	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC ZUI XZA103 ZDK RFFPI 174	(2CR)(1LF)
03/1040Z	(2CR)(1LF)
RR RFFXZ	(2CR)(1LF)
DE RFFPI 174 03/1040Z	(2CR)(1LF)
etc.	(2CR)(1LF)

(3) In the case of a multiple call message, the message in question shall be reprocessed to eliminate from format line 2 all routing indicators except those representing the stations to which the message is to be retransmitted.

(4) Each station is responsible for the establishment of the necessary in-station procedures and safeguards to determine definitely that all requests are promptly and correctly handled. This includes the essential requirements of maintaining strict continuity at receiving positions and insuring that all records pertaining to retransmission requests indicate clearly the action taken in each case.

f. When tributary station follow-up action is necessary the following instructions apply.

(1) The responsibility of providing a requested correction or retransmission promptly is placed upon the station to which the transmission request is routed. Elapsed time allowed between the first and succeeding requests is determined by such factors as: precedence of the message involved, indication of previous delay, nature of the request, speed of service between originating and terminating station, operative hours of the station to which the service is destined if

known, and any indication of abnormal traffic/circuit conditions which may exist. When no reply is received to a service request within time prescribed below, as influenced by factors stated above, another request shall be initiated.

IMMEDIATE	2 hours
PRIORITY	8 hours
ROUTINE	16 hours

(2) When a reply to a service request for a correction or retransmission is not received within the time criteria specified in paragraph 419.f.(1), a second request shall be sent to the calling station. This request will be so identified by the use of the operating signal ZAR2.

Example:

(TI) (5 SPACES)	(2CR)(1LF)
PP RGFAAB	(2CR)(1LF)
DE RGFDLB 173 03/2158Z	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC ZAR2 RGFAAB 123 03/1320Z ZES2	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

(3) When no reply is received to a second request within the time criteria specified in paragraph 419.f.(1), service message notification will be sent to the major relay station serving the station to which the original request was routed.

Example:

(TI) (5 SPACES)	(2CR)(1LF)
RR RGFA	(2CR)(1LF)
DE RGFDLB 174 04/0559Z	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC ZAR3 RGFAAB 123 03/1320Z ZES2	(2CR)(1LF)
NO REPLY RECEIVED FROM RGFAAB ZARI RGFDLB	(2CR)(1LF)
171 03/1356Z ZAR2 RGFDLB 173 03/2158Z	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

(4) Major relay stations, upon receipt of a service message similar to that in paragraph 419.f.(3) shall:

(a) If unaware of any difficulties in transmission between the relay and identified station, originate a service message to the identified station with an INFO copy to the requesting station.

Example:

(TI) (5 SPACES)	(2CR)(1LF)
PP RGFAAB RGFDLB	(2CR)(1LF)
DE RGFAC 123 04/0618Z	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
TO RGFAAB	(2CR)(1LF)
INFO RGFDLB	(2CR)(1LF)

BT	(2CR)(1LF)
UNCLAS SVC ZUI RGFDLB REQUEST RGFAAB 123	(2CR)(1LF)
03/1320Z ZES2. RGFDLB REPORTS NO REPLY TO	(2CR)(1LF)
RGFDLB 171 03/1356Z AND ZAR2 RGFDLB 173	(2CR)(1LF)
03/2158Z. REQUEST IMMEDIATE ACTION	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

(b) If the major relay station is aware of any difficulties in transmission between the relay and identified station, it will originate a service message to the station requesting the rerun indicating the reason for delay in obtaining a rerun.

Example:

(TI) (5 SPACES)	(2CR)(1LF)
PP RGFDLB	(2CR)(1LF)
DE RGFAC 123 04/0613Z	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC ZUI RGFDLB 174 04/0559Z. ACTION	(2CR)(1LF)
ON RGFAAB 123 03/1320 ZES2 DELAYED DUE	(2CR)(1LF)
TO _____	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

(5) A relay station receiving subsequent requests, shall continually attempt to obtain a response from the calling station.

g. If a relay station receives a requests from a connected tributary for retransmission of a garbled message (ZES2) and cannot identify the calling station or the originator (garbles in format lines 3 and 6) but can identify the incoming channel number from the previous relay station, the following action shall be taken:

(1) The retransmission request shall be transmitted for ACTION to the previous relay station, INFO to the initial requesting station, identifying the message by the incoming channel numbers and specifying that retransmission should be made directly to the initial requesting station. The reason for this particular action will be indicated in the request:

Example:

BT	(2CR)(1LF)
UJA172FUB089 IMI UJA172FUB089 ZES2	(2CR)(1LF)
TO RUEAHQ CITING HQ253	(2CR)(1LF)
UNABLE IDENTIFY CALDING STATION OR	(2CR)(1LF)
ORIGINATOR	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

(2) **The previous relay station upon receipt of a request as outlined above will take action as prescribed in paragraph 419.c. except that the retransmission will be piloted to the initial requesting station with the required "citing" identification.**

420. **HANDLING MESSAGES “SUBJECT TO CORRECTION”**

a. Messages requiring corrections which have a precedence of IMMEDIATE or higher shall be relayed “subject to correction” without delay. The preceding station or calling station, as appropriate, shall then be requested to forward corrections, or a corrected copy of the message, directly to the destination station(s) (see paragraph 417 and 419. An information copy of this request shall be sent to the destination station.

b. Routine messages may be relayed “subject to correction” in the same manner when replies to requests for corrections are excessively delayed. However, care should be taken to ensure that lower precedence messages are not relayed “subject to correction” if garbled or mutilated to the extent that the information contained therein is apparently unintelligible.

c. No message should be forwarded with such garbles or mutilations in the heading as would cause a misroute or nondelivery.

d. When a message arrives at the destination station “subject to correction” it shall be delivered to the addressee(s) with an explanation that the correct version will follow.

e. If a correction is not received within a reasonable time the station of destination shall direct a request to the station indicated in the latest service message as being responsible for forwarding the correction version.

f. When “corrected copy” is received, it shall be delivered to the addressee(s) with an explanation that it is a corrected copy of a previous message. The identity of the previous message will be given.

g. Examples:

(1) Single call message received garbled by RUEA from RUEAHQ.

HQA123	(2CR)(1LF)
OO RUWGBS	(2CR)(1LF)
DE RUEAHQ 196A 3441633	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
O 091630Z	(2CR)(1LF)
etc.	

(a) Above message as processed and relayed by RUEA “subject to correction”.

(TI) (5 SPACES)	(2CR)(1LF)
OO RUWGBS	(2CR)(1LF)
ZNR UUUUU ZDG	(2CR)(1LF)
HQA123	(2CR)(1LF)
OO RUWGBS	(2CR)(1LF)
DE RUKAHQ 196A 3441633	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
O 091630Z	(2CR)(1LF)
etc.	

(b) Request for “corrected copy” as prepared by RUEA and forwarded to RUEAHQ for action and to RUWGBS for information.

(TI) (5 SPACES)	(2CR)(1LF)
OO RUEAHQ RUWGBS	(2CR)(1LF)
DE RUEACM 331 3441724	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
TO RUEAHQ	(2CR)(1LF)
INFO RUWGBS	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLAS SVC ZDH HQA123 RUEAHQ 196A 3441633	(2CR)(1LF)
TO RUWGBS	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

RUWGBS: (c) Corrected copy as prepared and forwarded by RUEAHQ to

(TI) (5 SPACES)	(2CR)(1LF)
OO RUWGBS	(2CR)(1LF)
ZNR UUUUU ZEL RUEAHQ	(2CR)(1LF)
HQA123	(2CR)(1LF)
OO RUWGBS	(2CR)(1LF)
DE RUEAHQ 196A 3441633	(2CR)(1LF)
ZNR UUUUU	(2CR)(1LF)
O 091630Z	(2CR)(1LF)
etc.	

(2) Multiple call message as originally received by RBDT from RBDTQT and requiring "subject to correction" handling.

VV(3 SPACES) QTA145(5 SPACES)UU	(2CR)(1LF)
OO RBDIC REDTRQ RBDPAR	(2CR)(1LF)
DE RBDTQT 178B 22/2205Z	(2CR)(1LF)
etc.	

(a) RBDT is responsible for two transmissions, one to RBDTRQ and one to RBDP. RBDT prepares two separate pilots and transmits "subject to correction" as follows:

(TI) (5 SPACES) UU	(2CR)(1LF)
OO RBDTRQ	(2CR)(1LF)
ZDG	(2CR)(1LF)
QTA145(3 SPACES) (UU)	(2CR)(1LF)
OO RBDIC RBDTRQ RBDPAR	(2CR)(1LF)
DE RBDTQT 178B 22/2205Z	(2CR)(1LF)
etc.	

(TI) (5 SPACES)	(2CR)(1LF)
OO RBDIC RBDPAR	(2CR)(1LF)
ZDG	(2CR)(1LF)
QTA145(5 SPACES) UU	(2CR)(1LF)
OO RBDIC REDTRQ RBDPAR	(2CR)(1LF)
DE RBDTQT 178B 22/2205Z	(2CR)(1LF)
etc.	

(b) RBDP performs routing line segregation on the transmission received from RBDT and transmits the message to RBDT and RBDPAR:

(TI) (5 SPACES)	(2CR)(1LF)
OO RBDIC	(2CR)(1LF)
ZDG	(2CR)(1LF)
QTA145(5 SPACES) (UU)	(2CR)(1LF)
OO RBDIC RBDTRQ RBDPAR	(2CR)(1LF)
DE RBDTQT 178B 22/2205Z	(2CR)(1LF)
etc.	

(TI) (5 SPACES) UU	(2CR)(1LF)
OO RBDPAR	(2CR)(1LF)
ZDG	(2CR)(1LF)
QTA145(5 SPACES) (UU)	(2CR)(1LF)
OO RBDIC RBDTRQ RBDPAR	(2CR)(1LF)
DE RBDTQT 178B 22/2205Z	(2CR)(1LF)
etc.	

(c) Subsequent to transmission as “subject to correction” RBDT prepares a service message requesting RBDTQT to transmit corrected copy.

(TI) (5 SPACES) UU	(2CR)(1LF)
OO RBDIC RBDTRQ RBDTQT RBDPAR	(2CR)(1LF)
DE RBDT 176 22/2225Z	(2CR)(1LF)
TO RBDTQT	(2CR)(1LF)
INFO RBDIC	(2CR)(1LF)
RBDTRQ	(2CR)(1LF)
RBDPAR	(2CR)(1LF)
BT	(2CR)(1LF)
UNCLA SVC ZDH QTA145 RBDTQT 178B 22/2205Z	(2CR)(1LF)
TO RBDIC RBDTRQ RBDPAR	(2CR)(1LF)
BT	(2CR)(8LF)
NNNN	(12LTRS)

(d) RBDTQT prepares and forwards “corrected copy” as follows:

(TI) (5 SPACES) UU	(2CR)(1LF)
OO RBDIC RBDTRQ RBDPAR	(2CR)(1LF)
ZEL RBDTQT	(2CR)(1LF)
QTA145(5 SPACES) (UU)	(2CR)(1LF)
OO RBDIC RBDTRQ RBDPAR	(2CR)(1LF)
DE RBDTQT 178B 22/2205Z	(2CR)(1LF)
etc.	

(e) RBDT performs routing line segregation, making two tapes, for relay as shown below:

(TI) (5 SPACES) UU	(2CR)(1LF)
OO RBDTRQ	(2CR)(1LF)
ZEL RBDTQT	(2CR)(1LF)
QTA145(5 SPACES) (UU)	(2CR)(1LF)
OO RBDIC RBDTRQ RBDPAR	(2CR)(1LF)
DE RBDTQT 178B 22/2205Z	(2CR)(1LF)
etc.	

(TI) (5 SPACES) UU	(2CR)(1LF)
OO RBDIC RBDPAR	(2CR)(1LF)
ZEL RBDTQT	(2CR)(1LF)
QTA145(5 SPACES) (UU)	(2CR)(1LF)
OO RBDIC RBDTRQ RBDPAR	(2CR)(1LF)
DE RBDTQT 178B 22/2205Z	(2CR)(1LF)
etc.	

(f) RBDP makes two tapes, one for RBDIC and one for RBDPAR:

(TI) (5 SPACES) UU	(2CR)(1LF)
OO RBDIC	(2CR)(1LF)
ZEL RBDTQT	(2CR)(1LF)
QTA145(5 SPACES) (UU)	(2CR)(1LF)
OO RBDIC RBDTRQ RBDPAR	(2CR)(1LF)
DE RBDTQT 178B 22/2205Z	(2CR)(1LF)
etc.	

(TI) (5 SPACES) UU	(2CR)(1LF)
OO RBDPAR	(2CR)(1LF)
ZEL RBDTQT	(2CR)(1LF)
QTA145(5 SPACES) (UU)	(2CR)(1LF)
OO RBDIC RBDTRQ RBDPAR	(2CR)(1LF)
DE RBDTQT 178B 22/2205Z	(2CR)(1LF)
etc.	

421. SPARE

422. SPARE

SECTION V**CANCELLING TRANSMISSIONS****423. AUTHORITY AND RESPONSIBILITY**

- a. Messages may be cancelled only by the originator.
- b. Transmissions between communications centers may be cancelled by the transmitting station when necessary.
- c. It is the responsibility of the station cancelling a transmission to ensure further handling of the message.

424. METHOD OF CANCELLING TRANSMISSIONS

- a. When a message has not been completely transmitted and prior to any further transmission, the operator shall notify the distant station to disregard the incomplete transmission by transmitting (2CR)(1LF) and the prosigns E E E E E E E AR followed by (2CR)(8LF) (NNNN) (12LTRS). Each letter of the error prosign shall be separated by a space.

Example: It is assumed that the operator has made an error in sending the date-time group. In accordance with paragraph 211.b.(1), he cancels the transmission and sends the message again.

TDA013(5 SPACES)	(2CR)(1LF)
RR RUECW	(2CR)(1LF)
DE RUWSKTD 114B 3651325	(2CR)(1LF)
R 32	(2CR)(1LF)
E E E E E E E AR	(2CR)(1LF)
NNNN	(12LTRS)

TDA014(5 SPACES)	(2CR)(1LF)
RR RUECW	(2CR)(1LF)
DE RUWSKTD 114B 3651325	(2CR)(1LF)
ZNY CCCCC	(2CR)(1LF)
R311313Z	(2CR)(1LF)
etc.	

- b. When required, the operating signal ZXB (repeated) may be used in place of the prosign E E E E E E E AR to indicate to the called station that the transmission has been interrupted. The called station shall then request a complete copy from the calling station (this procedure shall not be used between networks except as bilaterally agreed). The channel number of a transmission cancelled in the above manner shall be considered as having been used and shall not appear on a subsequent transmission.

- c. Where systems requirements dictate, messages which are interrupted in transmission may be cancelled by use of the operating signal ZPH, in lieu of E E E E E E E AR, to indicate to the called station(s) that the interrupted transmission is cancelled and a complete retransmission will follow without request.

- d. When an incomplete transmission cannot be cancelled prior to making the next transmission, it shall be cancelled by a service message quoting the transmission identification appearing on the transmission to be cancelled. A record of the cancellation shall be made.

Example:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUEP	(2CR) (1LF)
DE RUFD 125B 3651328	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
BT	(2CR) (1LF)
UNCLAS SVC ZFR FPA035	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

e. When it is necessary to inform a relay station to take no forwarding action on a completed transmission which that station has questioned, the transmission shall be cancelled as indicated in paragraph 424.d.

f. When a transmission has been forwarded but has not been questioned and requires cancellation, the station desiring to cancel the transmission shall be responsible for forwarding the cancellation to the station(s) of destination.

Example:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUECW	(2CR) (1LF)
DE RUWSKTD 121B 3651419	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
BT	(2CR) (1LF)
UNCLAS SVC ZFR RUWSKTD 114B 3651313 (reason)	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

425. **SPARE**

SECTION IVMISROUTED, MISSENT, SUSPECTED
DUPLICATE AND DUPLICATE MESSAGES**426. MISROUTED AND MISSENT MESSAGES**

- a. A misrouted message is one bearing an incorrect routing instruction.
- b. A missent message is one which bears a correct routing indication but has been transmitted to a station other than that indicated.
- c. When a station detects a misrouted or missent message, that station shall relay the message onward to the correct station over the most direct route.
- d. When the message involved has been missent, a pilot is not affixed. Onward relay shall be made without alteration, provided the message is complete and not in a garbled condition. If a station cannot protect delivery due to incomplete or garbled copy, or a station does not have a receive tape capability, the serving relay station shall be notified accordingly by service message. The operating signal ZEQ2 shall be used in the text.
- e. If the message involved has been misrouted, a misroute pilot shall be affixed before the message is relayed onward. The pilot shall consist of:
 - (1) The appropriate security warning prosign when required.
 - (2) The appropriate precedence repeated.
 - (3) The correct routing indicator of the station to effect delivery or refile.
 - (4) The operating signal ZOV, preceded by the appropriate security warning operating signal when necessary.
 - (5) The routing indicator of the station preparing the pilot.
 - (6) In the case of multiple address messages, appropriate transmission instructions if required.
- f. After a misrouted message has been rerouted, the station rerouting the message shall transmit a service message to the station of origin identifying the particular message, pointing out the incorrect routing and indicating corrective action taken. The operating signal ZEQ3 shall be used in the text.
- g. A station receiving a multiple address message bearing a misroute pilot containing transmission instructions shall effect delivery to only that addressee(s) whose designator(s) appears following the prosign "T" in the pilot. Delivery responsibility appearing in the message address shall be ignored.
- h. When messages involving mobile units are routed to a designated guard station and require rerouting to another station for delivery or further relay, they shall be treated as misrouted messages except that the originating station need not be advised.
- i. The originating station shall be notified by service message and requested to protect delivery, using the operating signal ZEQ4 and ZEQ5, as appropriate, in the text if:

(1) The correct routing indicator cannot be determined due to insufficient address information or lack of station delivery responsibility (paragraph 206) in format lines 7 or 8.

(2) Reroute action cannot be effected because of incomplete or garbled copy or the receiving station has no receive tape capability.

j. On receipt by the originating station of ZEQ4 service message, the entire message will be retransmitted adding the operating signal ZEQ6 to format line 4 to indicate that the delay was the result of misrouting the message.

k. Examples:

(1) Example 1: Signal Call misrouted message (RUFDDO is the correct routing for CGUSARELEVEN):

FDA0353EUA024E4A017	(2CR) (1LF)
RR RUFDAE	(2CR) (1LF)
DE RUEPDA 116B 1351530	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 141432Z MAR 71	(2CR) (1LF)
FM HQ DA	(2CR) (1LF)
TO CGUSARELEVEN	(2CR) (1LF)
Etc	

Misroute pilot applied by RUFDAE:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUFDDO	(2CR) (1LF)
ZNR UUUUU ZOV RUFDAE	(2CR) (1LF)
FDA035EUA024ERA017	(2CR) (1LF)
RR RUFDAE	(2CR) (1LF)
DE RUEPDA 116B 1351530	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 151532Z MAR 71	(2CR) (1LF)
FM HQ DA	(2CR) (1LF)
TO CGUSARELEVEN	(2CR) (1LF)
Etc	

Service message sent by RUFDAE to RUEPDA:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUEPDA	(2CR) (1LF)
DE RUFDAE 117A 1351541	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
BT	(2CR) (1LF)
UNCLAS SVC ZEQ3 RUEPDA 116B 1351530	(2CR) (1LF)
RUFDDO 141455Z	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

(2) Example 2: Multiple call message misrouted to one called station (RUFDAE):

FDB110EUB048PDB027	(2CR) (1LF)
RR RUFDAE RXFPSA	(2CR) (1LF)

DE RUEPDA 127A 1421327	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 211303Z MAR 1971	(2CR) (1LF)
FM US SECDEF	(2CR) (1LF)
TO RXFPESA/SACEUR	(2CR) (1LF)
INFO RUFDA/CGUSARELEVEN	(2CR) (1LF)
Etc	

Misroute pilot applied by RUFDAE (RUFDDO is the correct routing for CGUSARELEVEN):

(TI) (5 SPACES)	(2CR) (1LF)
RR RUFDDO	(2CR) (1LF)
ZNR UUUUU ZOV RUFDAE	(2CR) (1LF)
FDB110EUB048PDB027	(2CR) (1LF)
RR RUFDAE RXFPESA	(2CR) (1LF)
DE RUEPDA 127A 1421327	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 211303Z MAR 1971	(2CR) (1LF)
FM US SECDEF	(2CR) (1LF)
TO RXFPESA/SACEUR	(2CR) (1LF)
INFO RUFDAE/CGUSARELEVEN	(2CR) (1LF)
Etc	

Service message sent by RUFDAE to RUEPDA:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUEPDA	(2CR) (1LF)
DE RUFDAE 145B 1421821	(2CR) (1LF)
BT	(2CR) (1LF)
UNCLAS SVC ZEQ3 RUEPDA 127A 1421327 RUFDDO	(2CR) (1LF)
CGUSARELEVEN 021715Z	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

(3) Example 3: Garble misrouted message received by RUFDAE:

FYA212EUB048PCA027	(2CR) (1LF)
RR RUFDAE	(2CR) (1LF)
DE RUEPDA 127A 1421327	(2CR) (1LF)
R 211303Z	(2CR) (1LF)
FM OGEFH/4Z#N	(2CR) (1LF)
TO RXFPESA/SACEUR	(2CR) (1LF)
INFO RUFDA/CGUSARELEVEN	(2CR) (1LF)
Etc	

Service message sent by RUFDAE to RUEPDA:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUEPDA	(2CR) (1LF)
DE RUFDAE 145B 1421821	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
BT	(2CR) (1LF)
UNCLAS SVC ZEQ4 RUEPDA 127A 1421327 RUFDDO	(2CR) (1LF)
CGUSARELEVEN GARBLED	(2CR) (1LF)

BT (2CR) (8LF)
NNNN (12LTRS)

(4) Example 4: Missent by RBDT to RBDTQT (instead of being sent to RBDTRQ):

VV (3 SPACES) DLB 123 (5 SPACES) UU (2CR) (1LF)
RR RBDTRQ (2CR) (1LF)
DE RBDT 133 18/1752Z (2CR) (1LF)
Etc

(a) Sent by RBDTQT back to RBDT:

VV(3 SPACES) QTA151114VV(3 SPACES) DLB123(5 SPACES)UU (2CR) (1LF)

RR RBDTRQ (2CR) (1LF)
DE RBDT 133 18/1752Z (2CR) (1LF)
Etc

(b) Sent by RBDT RBDTRQ:

VV(3 SPACES)DLA128VV(3 SPACES)QTA114VV(3 SPACES) (2CR) (1LF)
DLB123(5 SPACES)UU (2CR) (1LF)
RR RBDTRQ (2CR) (1LF)
DE RBDT 133 18/1752Z (2CR) (1LF)

(c) Service message sent by RBDTQT due to receipt of garbled missent message:

VV(3 SPACES) QTA115(5 SPACES)UU (2CR) (1LF)
RR RBDT (2CR) (1LF)
DE RBDTQT 104 18/1803Z (2CR) (1LF)
ZNR UUUUU (2CR) (1LF)
UNCLAS SVC ZEQ2 RBDT 133 18/1752Z GARBLED (2CR) (1LF)
BT (2CT) (8LF)
NNNN (12LTRS)

427. SUSPECTED DUPLICATES

a. When a station has cause to suspect that a message may have been previously transmitted, but definite proof of prior transmission cannot be readily determined, the message shall be forwarded as a "suspected duplicate" by use of a pilot. A suspected duplicate pilot consists of:

- (1) The repeated precedence prosign.
- (2) The routing indicator(s) to which the suspected duplicate transmission is to be directed.
- (3) The operating signal ZFD.
- (4) The Routing indicator of the station forwarding the message as a suspected duplicate.

b. Example:

(1) Message received by RCWD from RCCA which RCWD suspects to be a duplicate, but cannot locate among the messages previously sent to RCWDGD:

VV(3 SPACES) EPA 071VV(3 SPACES)PCA082(5 SPACES)UU	(2CR) (1LF)
RR RCWDGD	(2CR) (1LF)
DE RCCAC 168C 11/1942Z	(2CR) (1LF)
Etc	

(2) Above message forwarded by RCWD to RCWDGD as a suspected duplicate:

(TI) (5 SPACES)UU	(2CR) (1LF)
RR RCWDGD	(2CR) (1LF)
ZFD RCWD	(2CR) (1LF)
VV(3 SPACES) EPA071VV(3 SPACES)PCA082(5 SPACES)UU	(2CR) (1LF)
RR RCWDGD	(2CR) (1LF)
DE RCCAC 168C 11/1942Z	(2CR) (1LF)
Etc	

c. When a station receives a message containing a suspected duplicate pilot, that station shall:

(1) File the message if it was previously received.

(2) Forward the message as a suspected duplicate if there is no indication that it was previously received.

428. **DUPLICATES**

a. When any station receives an exact duplicate of a message previously received, and the duplicate is not piloted as a suspected duplicate, or the reason for the duplication is not explained by message instructions, it shall be handled as indicated in paragraph 427.c.(1). In addition, a service message shall be sent to the station from which the duplicate was received. It is extremely important that this action be taken because if the message in question is multiple address, receipt of the duplicate is an indication of mishandling that could result in non delivery to another addressee if the discrepancy were not reported.

b. Upon receipt of notification that a duplicate transmission has been made, a station shall examine its previous handling of the message in question to ensure that all necessary transmissions were properly made. If any doubt exists, corrective action shall be taken as indicated in paragraph 427.a.

SECTION VIIDISCREPANCIES IN TRANSMISSION
AND/OR MESSAGE IDENTIFICATION**429. TWO MESSAGES WITH THE SAME NUMBER**

a. When two different messages bearing identical channel serials are received, both shall be released immediately if they are otherwise correct.

b. After the messages have been released, a service message shall be sent to the preceding station giving notification of the duplication and the action taken. The preceding station shall make a record of the discrepancy and check to see if it was caused by equipment malfunction.

Example:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUWG	(2CR) (1LF)
DE RUWGBS 1732345	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
ZFQ WFA145	(2CR) (8LF)
NNNN	(12LTRS)

or

(TI) (5 SPACES)	(2CR) (1LF)
RR RUWG	(2CR) (1LF)
DE RUWGBS 21/2345Z	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
ZFQ RUCDSQ 149A RUEAFF 167C WFA145	(2CR) (8LF)
NNNN	(12LTRS)

c. A notation shall be made in the receiving station's records, identifying the number under which two messages were received and also identifying the second message.

430. ONE MESSAGE PRECEDED BY TWO NUMBERS

a. When a station receives a message preceded by two consecutive transmission identifications of the preceding station, and there is nothing else wrong with the message, it shall be recorded under the lower number and released immediately.

b. The higher number shall be recorded in the receiving station's records as a "Number Only" (BLANKED).

c. A service message shall be sent to the preceding station advising of the discrepancy and the action taken.

Example:

(TI) (5 SPACES)JU	(2CR) (1LF)
RR RFFW	(2CR) (1LF)
DE RFFWBG 23/1831Z	(2CR) (1LF)
ZFU FPA116 FPA117 RXFBDY 107 23/1745Z	(2CR) (8LF)
NNNN	(12LTRS)

d. It shall be the responsibility of the station receiving a service message such as that in 430.c. to ascertain whether or not a transmission has been lost. If a message had been transmitted under the higher of the two channel numbers, it shall be retransmitted under a new channel number.

431. ONE TRANSMISSION CONTAINING CHANNEL NUMBERS SEPARATED BY PORTIONS OF THE MESSAGE INVOLVED

a. When a station receives a message containing two or more channel numbers and the numbers are separated by a portion of the message involved, the message shall be released "subject to correction" for onward relay, delivery or refile. The lower number, being in the proper position, shall be retained in the corrected version; the higher number(s) shall be blanked.

b. If the extraneous transmission identifications are identified as those used by the immediately preceding station, the receiving station shall advise the preceding station of the discrepancy and include the destination station as an information addressee.

Example:

(TI) (5 SPACES)UU	(2CR) (1LF)
RR RCCP	(2CR) (1LF)
DE RCCU 197 14/1531Z	(2CR) (1LF)
TO RCCP	(2CR) (1LF)
INFO RCCUKL	(2CR) (1LF)
BT	(2CR) (1LF)
UNCLAS SVC EPA111 EPA112 ZFV RCCSVB 167A	(2CR) (1LF)
14/1428Z RECORDED AS EPA111 AND RELEASED	
ZDG EPA112 BLANKED	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

NOTE: A similar transmission would be sent to RCCUKL

c. If the extraneous transmission identifications were inserted beyond the immediately preceding station, "subject to correction" action in accordance with paragraph 420 shall be taken; no action need be made to correct the number discrepancies.

432. MESSAGE WITHOUT A CHANNEL NUMBER

a. A message received without a channel number shall be released for onward transmission, delivery or refile if it is otherwise correct.

b. A service message shall be sent to the preceding station giving notification of the discrepancy and indicating the numbered transmission which the unnumbered message followed.

c. A notation shall be made in the receiving station's records identifying the unnumbered message and indicating the sequence in which it was received.

Example:

(TI)(5 SPACES)UU	(2CR) (1LF)
RR RBDA	(2CR) (1LF)
DE RBD AIR 17/1923Z	(2CR) (1LF)
ZFT RBD AC 148C 17/1712Z DPA125	(2CR) (8LF)
NNNN	(12LTRS)

433. **OPEN NUMBERS**

a. When an open number, i.e., a sequential number for which no transmission was received, is discovered, the transmitting station shall be advised by IMMEDIATE service message. The service message will merely report that the number is open; it will not contain a request for retransmission. After appropriate record is made, the matter shall be considered closed insofar as the reporting station is concerned.

b. Upon receipt of a report of an open number, the transmitting station shall determine whether or not a transmission had been made under that number. If not, appropriate notation shall be made in station records and no further action taken; if so, the transmission shall be retransmitted under a new channel number. However, if the transmitting station can determine that the open number is a service message which is no longer pertinent, an appropriate notation shall be made in station records and no further action taken.

Example:

(1) RUHPB reports an open number to RUHP:

(TI)(5 SPACES)	(2CR) (1LF)
OO RUHP	(2CR) (1LF)
DE RUHPB 131 0111245	(2CR) (1LF)
ZFX HPA063	(2CR) (8LF)
NNNN	(12LTRS)

(2) RUHP, after ascertaining that a transmission was made under HPA063, retransmits:

HPA066WPB027PHA051	(2CR) (1LF)
RR RUHPB	(2CR) (1LF)
DE RUWSPH 151 0111215	(2CR) (1LF)
Etc	

434. **MESSAGES WITHOUT A STATION SERIAL NUMBER**

If a called station receives a message without a station serial number, that station shall obtain the omitted data, if required, by sending a service message to the originating station.

435. **SPARE**

436. **SPARE**

SECTION VIIITRACER ACTION437. **DEFINITION**

Tracer action is the process by which an investigation is conducted to determine the reason for inordinate delay in delivery or non delivery of a message.

438. **TRACER ACTION**

a. Request for tracer action may be generated by an originator of a message or by any source interested in reasons why a message was not delivered or was inordinately delayed. In cases where a message is deemed to be non delivered, the addressee communication center is first to be requested to check the communications records to ensure that delivery action has not taken place. Such a request should normally be made either by the addressee or by service message from the commcen serving the originator. Subsequent tracer requests should be passed for action to the communication center serving the originator of the message in question.

b. Upon receipt of a tracer request indicating non receipt of a message, the originating communication center shall either retransmit the message as a duplicate or cancel it as directed by the originator. If a retransmission is made it shall be made as a duplicate with the message instruction ZFG in format line 5. Any message bearing ZFG in format line 5 shall be delivered.

c. Upon receipt of a tracer request indicating delivery but inordinate delay, the originating communication center shall search pertinent records to ascertain that station's handling of the original transmission.

d. When the action indicated in 438.b. or c. has been accomplished, and if the original transmission was properly transmitted from the originating station, the station to which the transmission was made shall be requested by service message to conduct tracer action. The service message shall contain the following:

- (1) The station reporting non receipt or delay.
- (2) Complete format lines 2 and 3 of the message being traced.
- (3) Transmission identification, date and time message was transmitted.
- (4) Any additional pertinent facts.

e. If the original transmission had been properly relayed at the second station involved, it shall originate a service message as described in 438.d. to the third station. The originating station is included as an information addressee.

f. Successive stations shall continue the process until the place and cause of mishandling is determined.

g. Example:

- (1) Message as originally transmitted by RUWSKTD:

TDA043
PP RUWSPH
DE RUWSKTD 126 2861418

(2CR) 1LF)
(2CR) 1LF)
(2CR) 1LF)

ZNR UUUUU	(2CR) (1LF)
P 121415Z MAR 1971	(2CR) (1LF)
Etc	

(2) Two days later the message originator advises RUWSKTD that the above message had not been received by the addressee. The originator asks RUWSKTD to retransmit the message and initiate tracer action on the original transmission. RUWSKTD retransmits the message:

(TI) (5 SPACES)	(2CR) (1LF)
PP RUWSPH	(2CR) (1LF)
DE RUWSKTD 126 2861418	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
P 121415Z MAR 1971 ZPG	(2CR) (1LF)
Etc	

(3) After determining that the message had been properly transmitted originally, RUWSKTD prepares and transmits the following service message:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUWSKT	(2CR) (1LF)
DE RUWSKTD 148 2881523	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
BT	(2CR) (1LF)
UNCLAS SVC RUWSPH CLAIMS NONRECEIPT	(2CR) (1LF)
PP RUWSPH DE RUWSKTD 126 2861418 ZDQ	(2CR) (1LF)
RUWSKT TDA043 121421Z. TRACE AND ADVISE	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

(4) RUWSKT, after ascertaining that the original transmission was correctly relayed to RUWS, originates the following service message:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUWS	(2CR) (1LF)
DE RUWSKT 166 2881628	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
TO RUWS	(2CR) (1LF)
INFO RUWSKTD	(2CR) (1LF)
BT	(2CR) (1LF)
UNCLAS SVC RUWSPH CLAIMS NONRECEIPT	(2CR) (1LF)
PP RUWSPH DE RUWSKTD 126 2861418 ZDQ	(2CR) (8LF)
RUWS KTA136 121427Z. TRACE AND ADVISE	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

NOTE: A similar transmission would be sent to RUWSKTD.

(5) RUWS, after determining that the original transmission was mishandled at that station, advises the station which originated the tracer request:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUWSKTD	(2CR) (1LF)
DE RUWS 227 2881747	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
BT	(2CR) (1LF)

UNCLASSIFIED

ACP127 (G)

UNCLAS SVC THIS STATION RESPONSIBLE FOR
NONDELIVERY PP RUWSPH DE RUWSKTD 126 2861418
RUWS KTA136 121427Z. TRACE AND ADVISE
BT
NNNN

(2CR) (1LF)

(2CR) (1LF)

(2CR) (8LF)

(12LTRS)

439. **SPARE**

UNCLASSIFIED

4-32

CHAPTER 5

READDRESSING AND REFILEING MESSAGESSECTION IREADDRESSING MESSAGES501. **GENERAL**

Circumstances may arise in which it becomes necessary to readdress a message to additional authorities not originally included in the address.

502. **ORIGINATOR'S RESPONSIBILITIES**

a. The readdressing authority must originate a message which will accomplish delivery of the previously transmitted message to the desired additional authorities. Thereafter, the readdressed message is handled in the same manner as other messages (see ACP 121 series).

b. The readdressing authority initiates a request for readdressal, identifying the message he wishes readdressed by indicating the originator, date-time group and originator's reference number (if any). He specifies the additional addressee(s) to whom the message is to be delivered and will indicate whether it is for action or information.

c. If the communications center no longer holds a copy of the message in question, the readdressing authority either furnishes a copy of the message to be readdressed or accomplishes the readdressal by originating a new message.

503. **RULES FOR READDRESSING MESSAGES**

a. If the message being readdressed is held in the files of the communications center serving the additional addressees, the readdressal may be accomplished by a service message containing appropriate operating signals.

b. If the message being readdressed is not held in the files of the communications center serving the additional addressees, it will be processed as follows:

(1) A supplementary heading is inserted in front of the original preamble. The supplementary heading will include all procedure lines, 1 through 10, as required.

(2) All parts of the original message heading preceding the preamble are omitted. It shall be ensured that under no circumstances is the original date-time group either omitted or altered. If the message being readdressed was not originated during the current month or year, the abbreviation of the month, or month and last two digits of the year of origin will be inserted following the original date-time group.

(3) The precedence indicated by the readdressing authority shall be used in the supplementary heading.

(4) The routing indicator of the station of origin and station serial number in the supplementary heading shall be used for identification by the called station(s) if retransmission or corrections are required.

(5) A new date-time group shall be assigned by the readdressing authority and will appear in format line 5 of the supplementary heading.

(6) The designation of the readdressing authority (new originator) shall appear in format line 6 of the supplementary heading.

(7) The addressees to whom the message is readdressed shall appear in format lines 7 and 8 as appropriate.

(8) The filing time appearing on the readdressed message shall be the time of receipt of the readdressal request in the communication center.

c. A message cannot be readdressed if any alteration is made to its original preamble, address, prefix, or text, except:

(1) when readdressing multiple address messages originated in theater networks into worldwide networks, the operating signal ZEN will replace the theatre routing indicators contained in the address component of the original heading. (When readdressing multiple address messages originated in worldwide networks into theatre networks, substitution for or deletion of worldwide network routing indicators is not normally required).

(2) When readdressing multiple page messages, the page identifications will normally be changed to be in agreement with the routing indicator and station serial number appearing in the "DE" line of the supplementary heading. However, when time or equipment capability does not permit, such messages may be relayed with the page identification as they were originally received.

(3) When a readdressed message is to be forwarded to the new addressees as a book message, all addressees except the readdressing authority may be deleted from the original address component. The routing indicator and slant sign preceding the address designation of the readdressing authority, if appearing in the original address, may also be deleted (see paragraph 504.c.).

d. Encrypted messages shall not be readdressed without prior reference to the cryptocenter. Nations, Services or Allied Commands may prohibit the practice by issuing instructions to their cryptocenters specifying that such messages must be re-encrypted.

e. When the readdressing authority determines that certain of the original addressees or the originator should be informed of the additional addressees, notification shall be accomplished as follows:

(1) In the case of PLAINDRESS, notification may be accomplished through the use of the operating signal ZFH (and appropriate numeral) or by use of a separate message according to National or Service procedure.

(2) In the case of CODRESS, the originator and/or other addressees of the message may be informed of the readdressal by separate CODRESS message or by being included as information addressees in the message which accomplished the readdressal.

504. **EXAMPLES OF READDRESS MESSAGES**

a. Multiple Address Message.

(1) As received by an original addressee in PLAINDRESS format:

EPA201	(2CR) (1LF)
RR RUWSPH	(2CR) (1LF)
DE RUECW 167 1352227	(2CR) (1LF)

ZNR UUUUU	(2CR) (1LF)
R 142200Z MAR 1971	(2CR) (1LF)
FM ASPPA WASHDC	(2CR) (1LF)
TO RUWSPH/AREAPETO SFRAN CA	(2CR) (1LF)
INFO RCWNC/CANFLAGPAC ESQUIMALT BC	(2CR) (1LF)
BT	(2CR) (1LF)
TEXT	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

(2) As readdressed by an original addressee to a new addressee served by a communication center which did not receive the original transmission.

(TI) (5 SPACES)	(2CR) (1LF)
RR RUHPB	(2CR) (1LF)
DE RUWSPH 174 1360920	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 150910Z MAR 1971	(2CR) (1LF)
FM AREAPETO SFRAN CA	(2CR) (1LF)
TO DIR PAC DIV BUDOCKS	(2CR) (1LF)
R 142200Z MAR 71	(2CR) (1LF)
FM ASPPA WASHDC	(2CR) (1LF)
TO RUWSPH/AREAPETO SFRAN CA	(2CR) (1LF)
INFO RCWNC/CANFLAGPAC ESQUIMALT BC	(2CR) (1LF)
BT	(2CR) (1LF)
TEXT	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

(3) As readdressed to a new readdressee served by a communication center which does hold the original message in its files:

(TI) (5 SPACES)	(2CR) (1LF)
RR RCWNC	(2CR) (1LF)
DE RUWSPH 178 1361117	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 151114Z MAR 1971	(2CR) (1LF)
BT	(2CR) (1LF)
UNCLAS SVC ZOGI RUECW 167 1352227 NCSO	(2CR) (1LF)
ESQUIMALT BC FROM AREAPETO SFRAN	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

(4) Notification of readdressal to example (2) to original addressees and originator using ZFH procedure:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUECW RCWNC	(2CR) (1LF)
DE RUWSPH 175 1360915	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 142200Z MAR 1971	(2CR) (1LF)
FM AREAPETO SFRAN	(2CR) (1LF)
TO RUECW/ASPPA WASHDC	(2CR) (1LF)
RCWNC/CANFLAGPAC ESQUIMALT BC	(2CR) (1LF)
BT	(2CR) (1LF)

UNCLAS ZFHI ASPPA MSG DTG 142200Z DIR	(2CR) (1LF)
PAC DIV BUDOCKS	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

b. Message in 504.a. (assuming original transmission was in CODRESS format) received by an original addressee:

EPA201	(2CR) (1LF)
RR RUWSPH	(2CR) (1LF)
DE RUECW 167 1352227	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 142200Z MAR 1971	(2CR) (1LF)
GR84	(2CR) (1LF)
BT	(2CR) (1LF)
TEXT (ENCRYPTED)	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

(1) Above message readdressed in CODRESS format to a new addressee served by a communication center which did not receive the original transmission.

(TI) (5 SPACES)	(2CR) (1LF)
RR RUHPB	(2CR) (1LF)
DE RUWSPH 174 1360920	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
T ABCD	(2CR) (1LF)
R 150910Z MAR 1971	(2CR) (1LF)
R 142200Z MAR 1971	(2CR) (1LF)
GR 84	(2CR) (1LF)
BT	(2CR) (1LF)
TEXT (ENCRYPTED)	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

NOTE: ABCD used in format line 4 is assumed to be the address group representing DIR PAC DIV BUDOCKS.

(2) The message in 504.b. could also have been readdressed as follows:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUHPB	(2CR) (1LF)
DE RUWSPH 174 1360920	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 150910Z MAR 1971	(2CR) (1LF)
R 142200Z MAR 1971	(2CR) (1LF)
GR84	(2CR) (1LF)
BT	(2CR) (1LF)
TEXT (ENCRYPTED)	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

followed by a separate service message as follows:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUHPB	(2CR) (1LF)
DE RUWSPH 175 1360922	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 150911Z MAR 1971	(2CR) (1LF)
GR19	(2CR) (1LF)
BT	(2CR) (1LF)
(Encrypted text, which when decrypted reads:	
CONFIDENTIAL SVC RUWSPH 174 1360920 PASSES	(2CR) (1LF)
ASPPA MSG 142200Z TO DIR PAC DIV BUDOCKS	(2CR) (1LF)
FOR ACTION FROM AREAPETO SFRAN	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

(3) Message in 504.b. readdressed in CODRESS format to a new addressee served by a communication center which does hold the original message in its file:

(TI) (5 SPACES)	(2CR) (1LF)
RR RUWSKTD	(2CR) (1LF)
DE RUWSPH 178 1361117	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 151114Z MAR 1971	(2CR) (1LF)
GR19	(2CR) (1LF)
BT	(2CR) (1LF)
(Encrypted text, which when decrypted reads):	
CONFIDENTIAL SVC REQUEST YOU PASS ASPPA	(2CR) (1LF)
MSG 142200Z (RUECW 167 1352227) TO NCSO	(2CR) (1LF)
ESQUIMALT FOR ACTION FROM AREAPETO SFRAN	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

c. A message readdressed as a BOOK message:

(1) As received by an original addressee:

FAA131	(2CR) (1LF)
RR RXFBD	(2CR) (1LF)
DE RXFPSA 114B 14/1625ZZ	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 141620Z MAR	(2CR) (1LF)
FM RUFW	(2CR) (1LF)
TO RXFBAR/BQRL	(2CR) (1LF)
RXBFD/DDCE	(2CR) (1LF)
BT	(2CR) (1LF)
TEXT (PLAIN LANGUAGE)	(2CR) (1LF)
BT	(2CR) (1LF)
NNNN	(12LTRS)

(2) Above message readdressed as a book message by an original addressee to two new addressees served by a communication center which did not receive the original transmission:

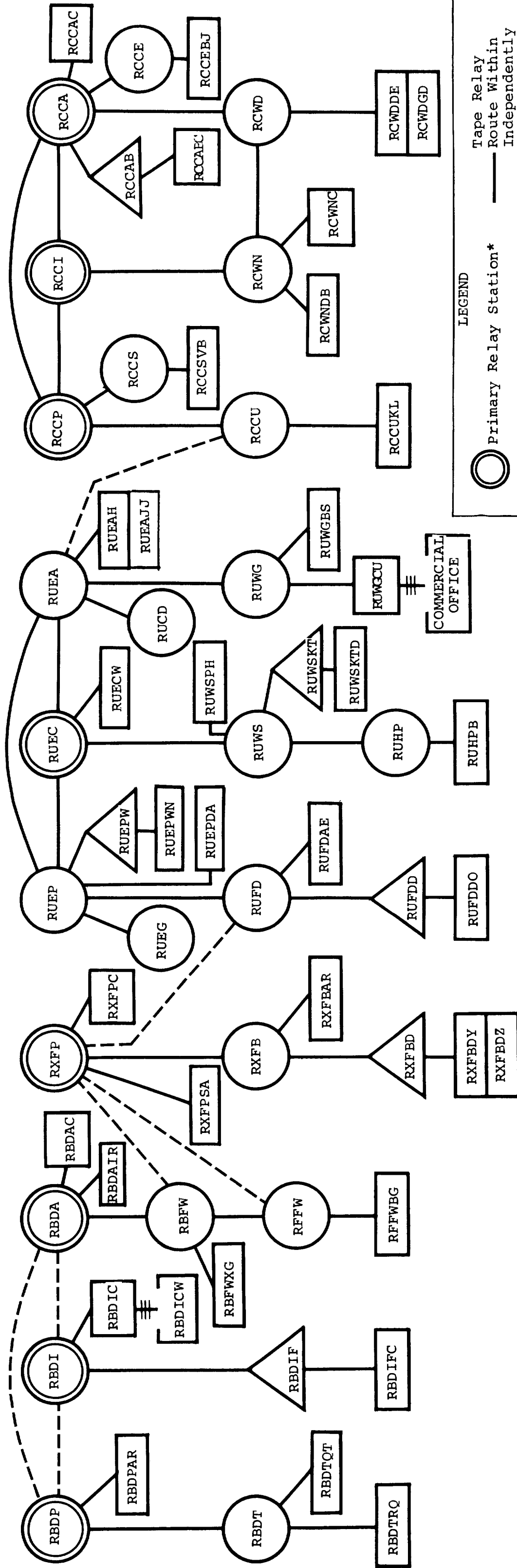
(TI) (5 SPACES)	(2CR) (1LF)
RR RXFBDY RXFBDZ	(2CR) (1LF)
DE RXFBD 123 14/1727Z	(2CR) (1LF)
ZNR UUUUU	(2CR) (1LF)
R 141723Z MAR ZEX	(2CR) (1LF)
FM DDCE	(2CR) (1LF)
TO RXFBDY/LOGA	(2CR) (1LF)
RXFBDZ/LOGC	(2CR) (1LF)
R 141620Z MAR	(2CR) (1LF)
FM RUFW	(2CR) (1LF)
TO RXFBAR/BQRL	(2CR) (1LF)
RXFBD/DDCE	(2CR) (1LF)
BT	(2CR) (1LF)
TEXT (PLAIN LANGUAGE)	(2CR) (1LF)
BT	(2CR) (8LF)
NNNN	(12LTRS)

505. **SPARE**

ROUTING DIAGRAM

(This diagram shows sections of Tape Relay Networks which have been used to illustrate examples)

ANNEX A TO ACP 127(G)



LEGEND

- Primary Relay Station*
- Major Relay Station
- △ Minor Relay Station
- Supplementary Section of Relay Station
- ▭ Tributary Station
- Tape Relay Route Within Independently Operated or Joint Networks
- - - Transfer Circuit
- ++++ Refile Circuit

NOTE: Suffixes C, CU and CW have been used in accordance with ACP 121 series.

*As defined in ACP 121 series

SCHEMATIC DIAGRAM OF MESSAGE FORMAT

PARTS	COMPONENTS	FORMAT LINE	ELEMENTS	CONTENTS	EXPLANATION
H E A D I N G	PROCEDURES	1	HANDLING Instructions	TRANSMISSION Identification; Security warning prosign (when used); Pilot – Pilots contain: Repeated precedence prosign *; Routing Indicator(s); Prosigns, operating signals and address designations ** as required.	Always contains transmissions identification (which includes the “Start of Message Indicator” when necessary); also contains pilot(s) as required to convey specific message handling instructions.
		2	Called Station(s)	Repeated Precedence prosign**; Routing indicator(s) of station(s) responsible for delivery or refile.	Basic routing line. If message is dual precedence, only the higher precedence is shown on this line.
		3	Calling Station and Filing time.	Prosign DE; Routing indicator of station preparing message for transmission; Station serial number; Filing time: Date separated by slant from hour and minute expressed in digits followed by zone suffix.	Filing time is the date and time the message was filed with the communication center.

* If message is dual precedence, only the higher precedence is shown in this line.

** Plain language designators are not permitted in CODRESS messages.

PARTS	COMPONENTS	FORMAT LINE	ELEMENTS	CONTENTS	EXPLANATION
		4	Transmission Instructions	Security Warning Operating Signal (when used); Prosign T; Other operating signals; Special operating group(s) (SOGs); Address designator(s); Routing indicator(s)	Indicates specific transmission responsibility not apparent in other components of the message headings. Not to be used unless necessary. Plain language address designators are not permitted in CODRESS messages.
	PREAMBLE	5	Precedence; Date-Time Group; Message Instructions	Precedence prosign(s) Date-Time group and zone suffix (Z indicating Greenwich Mean Time); Operating signal(s).	In the case of dual precedence, both prosigns are shown separated by a space. Operating signal(s) are used only when required to convey message handling instructions.
<p>Until 31 December 2005, when record communications contain a year in the header, it will be assumed that where the year is expressed in two digits of 06 – 99 the digits 19 precede, i.e., 1906 – 1999 and where the two digits 00 – 05 appear it will be assumed that digits 20 precede, i.e. 2000 – 2005. Effective 1 January 2006, record communications will contain a four digit year in the header, i.e. a date time group will be expressed as 011500Z JAN 2006. Within the body of a message, the established standards for character based messaging will be followed, e.g. The United States Message Text Formats (USMTFS), Allied Data Publication – 3 (ADATP-3), Australian Defence Formatted Message Standard (ADFORMS) These standards have adopted a four digit year for date data transmission.</p>					
	ADDRESS	6	Originator	Prosign FM; originator's designation.	Message originator is indicated by plain language, routing indicator, address group or call sign.

PARTS	COMPONENTS	FORMAT LINE	ELEMENTS	CONTENTS	EXPLANATION
		7	Action Addressee(s)	Prosign TO; Routing indicator(s); Operating signal; Address designation(s).	Action addressee(s) is indicated by plain language, routing indicators, address group(s) or call sign(s). In the case of multiple address messages, when addressees are listed individually, each address designation shall be on a separate line and may be preceded either by the operating signal ZEN (meaning delivered by other means) or by the routing indicator of the station responsible for delivery. Such use is mandatory on all joint and combined messages.
		8	Information Addressee(s)	Prosign INFO; Routing indicator(s); Operating signal(s); Address designator(s).	Same as for Line 7, except that Line 8 pertains to information addressee(s). A collective address designation or an Address Indicating Group (AIG) in format Line 7 may include information addressees.
		9	Exempted	Prosign XMT; Address designator(s).	Used only when a collective address designation is used in Line 7, and an indication of the addressee(s) exempted from the collective address or AIG is required.

PARTS	COMPONENTS	FORMAT LINE	ELEMENTS	CONTENTS	EXPLANATION
	PREFIX	10	Accounting Information; Group Count.	Accounting symbol (when required); Group count prosign GR; Group count.	The group count prosign and group count shall be used only when the text consists of countable encrypted groups.
SEPARATION 11				Prosign BT.	
T E X T		12	Classification; Internal instructions; Thought or Idea expressed by originator (in that order).		See ACP 121 series.
SEPARATION 13				Prosign BT.	
E N D I N G	PROCEDURE	14	Confirmation/ Group Count		Not used in tape relay operation.
		15	Correction.	Prosign C; Other prosigns, operating signals and plain language as required.	
		16	End of Message Functions.	2CR, 8LF, 4N's, 12LTRS	The 4N's in this sequence are the end of message indicator.

INDEX

PURPOSE

The purpose of this index is to assist users of ACP 127 in locating information quickly. This index may be used in conjunction with the Table of Contents which is a more comprehensive listing, but, has the contents listed in the order they appear in the publication. Index entries by using the relevant page allocation from the right hand margins of either list as a reference.

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