79 01-584 ACP 13I(B) + US SUPP-1Also provided ACP 113 US Decore Se 1 & JANAP 146 (5) **COMMUNICATION INSTRUCTIONS** OPERATING SIGNALS ACP I3I(B)WIDE-10-FEB SSDZ F/LE JULY 1964

,CP 131(B)

10 July 1964

FOREWORD

 ACP 131(B), COMMUNICATION INSTRUCTIONS-OPERATING SIGNALS, is an Unclassified Publication. Periodic accounting is not required.

2. ACP 131(B) is effective upon receipt and supersedes ACP 131(A) which shall be destroyed by burning.

3. This publication contains allied military information and is furnished for official purposes only.

4. It is permitted to copy or make extracts from this publication.

III

ORIGINAL

(Reverse Blank)

COMMUNICATION INSTRUCTIONS OPERATING SIGNALS

TABLE OF CONTENTS

.............

Sec	tion	Paragraph	Subject	Page Number
		• •	CHAPTER 1	
			GENERAL INSTRUCTIONS	
		101 102 103 104	Purpose General Authorization Instructions	1-1 1-1 1-1 1-2
			CHAPTER 2 OPERATING SIGNALS-DECODE	
	A		Q Signals. QAA. QBA. QCA. QDA. QEA. QFA. QFA. QFA. QFA. QFA. QFA. QFA. QIA. QIA. QIA. QIA. QIA. QIA. QIA. QIA. QIA. QIA. QFA.	2A-1 $2A-4$ $2A-9$ $2A-11$ $2A-15$ $2A-21$ $2A-23$ $2A-27$ $2A-29$ $2A-33$ $2A-35$ $2A-39$ $2A-41$ $2A-44$ $2A-45$ $2A-47$ $2A-51$ $2A-53$ $2A-58$
	в		QVA-QZZ Z Signals ZAA ZBA	2B-1 2B-1 2B-1 2B-3
			ZCA ZDA ZEA ZFA	2B-7 2B-9 2B-13 2B-15
			ZGA ZHA. ZIA. ZJA. ZKA. ZLA. ZMA. ZNA. ZOA.	2B-19 2B-21 2B-25 2B-27 2B-31 2B-33 2B-37 2B-39 2B-43 2B-45
			ZMAZNA	2B-33 2B-39 2B-43

CHANGE NO. 4

.....

(

<u>.....</u>

C

TABLE OF CONTENTS (Cont'd)

Section	Paragraph	Subject	Page Number
		CHAPTER 2 (Cont'd)	
B (Con	t'd) .	ZQA ZRA ZSA ZTA ZUA ZVA ZWA ZXA	2B-51 2B-55 2B-57 2B-61 2B-63 2B-67
		CHAPTER 3	
		OPERATING SIGNALS-ENCODE	
A B C D E F G H I J K		Search and Rescue Radio Navigation Direction Finding Aeronautical and Sea Operations Meteorology Communications Equipment and Circuit Adjusting and Testing Circuit Discipline and Net Control Message Handling Security and Cryptographic Visual Exercise and Miscellaneous	3B-1 3C-1 3D-1 3E-1 s 3F-1 3G-1 3H-1 3I-1 3J-1
		CHAPTER 4	
	M	ISCELLANEOUS ABBREVIATIONS AND SYMBOL	s
A B	-	Decode Encode	
		CHAPTER 5	
		SERIES ZYA - ZZZ	
•	·	(Reserved for intra-nation, intra- service, or intra-command use)	
		ZYA ZZA	
		CHAPTER 6	
		DESIGNATION OF EMISSIONS	
	· (Ex	tract from Radio Regulations, Geneva,	1959)
I		Classification	6-1
			. ·

х

.....

CHANGE NO. 4

CHAPTER 1

GENERAL INSTRUCTIONS

101. Purpose

The purpose of this publication is to list operating signals and provide instructions for their use.

102. General

This publication includes:

a. Operating Signals from the following series of international civil Q code:

(1) The series QAA to QNZ inclusive, the meanings of which are assigned by the International Civil Aviation Organization (ICAO). In general, the only civil stations that will have available a copy of this series are those of the Aeronautical Service. Therefore, this series is not to be used with other civil stations unless it is known that the station concerned is familiar with the series. (Note: Stations of the Aeronautical Service are those operated in accordance with ICAO international standards and recommended practices to provide for the safety of air navigation and for the regular, efficient and economical operation of the air services).

(2) The series QOA to QQZ inclusive is reserved for the Maritime Services.

(3) The series QRA to QUZ inclusive, the meanings of which are assigned by the International Telecommunications Union (ITU). In general, all civil stations will have available a copy of this series. Therefore, this series may be used with all civil stations unless the station concerned indicates its unfamiliarity with the series.

(4) The series QVA to QZZ inclusive has not been allocated to date.

b. Operating signals from the series ZAA to ZXZ inclusive of the allied military Z code. The series ZYA to ZZZ inclusive is reserved for the temporary or permanent assignment of meanings on an intra-military basis by any nation, service or command authorized use of this publication. For the convenience of assigning authorities, provision for this series (ZYA-ZZZ) is included in Chapter 5 of this publication.

c. Miscellaneous abbreviations and symbols developed or approved by ICAO for use with the series QAA to QNZ inclusive. These abbreviations and symbols, however, are authorized for use by allied military stations with any Q or Z signal subject to the use limitations, if any, of that Q or Z signal (see paragraph 103).

103. Authorization

a. The series QAA to QUZ of the international civil Q code, and the series ZAA to ZXZ of the allied military Z code, are authorized for use between allied military stations subject to the provisions of paragraph 102. Q and Z signals of these series may be used together between allied military stations.

1-1

1

103. (Continued)

b. The series QAA to QUZ of the international civil Q code are authorized for use between Allied military stations and civil stations, subject to the provisions of paragraph 102. The allied military Z code (ZAA-ZZZ) is not authorized for use between allied military stations and civil commercial stations.

c. Any nation, service or command may prohibit or restrict the military use, within its area of jurisdiction, of any operating signal. However, when such operating signals are received from other users, they must be recognized and acted upon.

104. Instructions

a. Action. Q or Z signals ordering or indicating that an action is to be taken (a change of frequency, for example) will be answered before the action is taken, unless the "Broadcast" method is used or the station ordering or indicating the action has indicated that an answer is not required.

b. Affirmatives or Negatives. Operating signals, as appropriate, will be used by allied military stations to convey an affirmative or negative sense...

(1) To civil stations by adding "C" (affirmative) or "N" (negative) after the Q signal and any data used with it:

Examples (of replies):

(a) QFQ C means: (Yes) The approach and runway lights are lit.

(b) QAK N means: (No) There is no risk of collision. "NO", instead of "N", is authorized for use by and to civil stations of the Aeronautical Service.

(2) To allied military stations by using the appropriate Q or Z signal:

Examples (of replies):

(a) QHZ means: (Yes) Circle the aerodrome (or go around).

(b) ZOE means: (Yes) Give me your message. I will dispose of it.

Note: In addition to the above, replies to questions from military stations may be made by using ZUE meaning Affirmative (Yes) or ZUG meaning Negative (No).

c. Blank Spaces. Blank spaces in the meanings of Q and Z signals will be completed, in the order in which they appear; however, blank spaces inclosed in parentheses normally will be completed on an optional basis only.

Examples:

(1) QBM BF6 1010Z means: Here is the message sent by BF6 at 1010Z hours.

Note: The meaning assigned QBM is "Here is the message sent by...at...hours"; therefore, as these blank spaces are not included in parentheses, all are completed, in the order in which they appear.

(2) ZKO BG2 means: I have handed over guard to BG2.

Note: The meaning assigned ZKO is "I have handed over guard (to...) (on...kHz (or MHz)) (serial number of last message received was...)"; however, in the above example, the user elected to complete only one of the blank spaces inclosed in parentheses.

1-2

104. (Continued)

d. Call Signs. Normally call signs will follow the Q or Z signal to which they refer; however, they also may precede the operating signal for separation or clarity.

e. Frequencies:

(1) When the meaning of a Q or Z signal includes the expression "on... kHz (or MHz)", the figures used alone (not supplemented by an abbreviation) always will indicate the frequency in kilohertz per second. To indicate the frequency in megahertz per second, the figures will be supplemented by the abbreviation "MHz".

(2) Provided that no confusion can arise, in those Q or Z signals whose meaning includes the expression "on...kHz (or MHz)", the circuit designator or other disguised reference, if available, will be used in place of the actual frequency.

(3) Although not provided for in the meaning of a Q or Z signal, a frequency may be used with any such operating signal by adding figures and the appropriate abbreviation ("kHz" (kilohertz per second) or "NHz" (megahertz per second)).

f. Numbered Alternates. Q and Z signals with numbered alternate meanings will be followed, without spacing, by the appropriate number to indicate the meaning intended.

Examples:

(1) QCB2 means: Delay is being caused by your slowness in answering.

Note: QCB has the following numbered alternate meanings - "Delay is being caused by...(l. your transmitting out of turn; 2. your slowness in answering; 3. lack of your reply to my...)."

(2) ZAP5 means: Work single sideband.

Note: ZAP has the following numbered alternate meanings - "Work...(l. simplex; 2. duplex; 3. diplex; 4. multiplex; 5. single sideband)."

g. Plain Language. Plain unabbreviated language is authorized for use to complete or amplify the meaning of operating signals only when no other approved method will do.

h. Questions. Operating signals, as appropriate, will be used by allied military stations to ask questions:

(1) Of civil stations, by adding the prosign \overline{IMI} after the Q signal and any data used with it;

Example: QAR 15 IMI means: May I stop listening on the watch frequency for 15 minutes?

(2) Of military stations, by inserting the prosign \overline{INT} before the Q or Z signal to which it refers.

Examples:

(a) INT QAR 15 means: May I stop listening on the watch frequency for 15 minutes?

(b) INT ZDJ means: How many groups does your message contain?

1-3

CHANGE NO. 1

CHANGE NO. 1

104. (Continued)

i. Security. Operating signals possess no security. They must be regarded as the equivalent of plain language.

j. Separation. The separative sign (prosign II, written as a short dash) may be used to separate Q or Z signals when desired.

k. Time Groups. Time groups (including date-time groups) used with Q or Z signals always will be followed, without spacing, by a zone suffix letter (see ACP 121). Although not provided for in the meaning of a Q or Z signal, a time group (including date-time group) may be used with any such operating signal.

1. Units of Measurement. When units of measurement are desired for use which differ from those in the meaning of an operating signal, an appropriate abbreviation will be used (see Chapter 4).

m. Class of Emission (Chapter 6). When using operating signals concerning radio equipment or its use, e.g. QSU, QSW, ZTD, ZTE, ZTJ, ZTM, the class of emission/type of transmission may be indicated by use of the tables in Chapter 6. The operating signal ZTG is used for this purpose unless Chapter 6 is referred to in the meaning of the signal.

Examples:

(1) QSU F1 means: Send or reply on this frequency use frequency shift keyed telegraphy.

(2) ZTM ZTG A3A means: I am unable to use single sideband, reduced carrier, telephony.

1-4

LIST OF EFFECTIVE PAGES

Subject Matter	Page Numbers	Change In Effect
Title Page	I (Reverse Blank)	Original
Foreword dated 10 July 1964	III (Reverse Blank)	Original
National Letter of Promulgation	V (Reverse Blank)	Original
Record of Changes and Corrections	VII, VIII .	Original
Table of Contents	IX (Reverse Blank)	Original
Text		•
Chapter 1	1-1, 1-2 1-3, 1-4	Change No. 3 Change No. 1
Chapter 2	1-3, 1-4	-
Section A	2A-1 to 2A-4 2A-5, 2A-6 2A-7 (Reverse Blank) 2A-9 to 2A-13 (Reverse Blank) 2A-15 to 2A-25(Reverse Blank) 2A-27 to 2A-31(Reverse Blank) 2A-33 to 2A-37(Reverse Blank) 2A-39 to 2A-49(Reverse Blank) 2A-51 to 2A-58	Change No. 1 Change No. 1 Change No. 1
Section B	2B-1 to 2B-5 (Reverse Blank) 2B-7, 2B-8 2B-9, 2B-10 2B-11 (Reverse Blank) 2B-13, 2B-14 2B-15, 2B-16 2B-17 (Reverse Blank) 2B-19, 2B-20 2B-21 to 2B-23(Reverse Blank) 2B-25 to 2B-29(Reverse Blank) 2B-31 to 2B-40 2B-41, 2B-42 2B-43, 2B-44 2B-45, 2B-46 2B-47 (Reverse Blank) 2B-55 to 2B-59(Reverse Blank) 2B-61 to 2B-65(Reverse Blank) 2B-67 to 2B-71(Reverse Blank)	Change No. 1 Change No. 1 Change No. 3 Change No. 1 Change No. 2 Change No. 1 Change No. 1 Change No. 1 Change No. 1 Change No. 1

LEP-1

CHANGE NO. 3 (Reverse Blank)

.

LIST OF EFFECTIVE PAGES						
chlac	t Matter	Page Numbers	Change In Effect			
Subjec						
Chapter 3		· · ·	Change No. 1			
Section A		3A-1, 3A-2 3A-3, 3A-4 3A-5, 3A-6	Original Change No. 1			
Section B		3B-1, 3B-2 3B-3, 3B-4	Original Change No. 1 Change No. 1			
Section (2	3C-1 to 3C-4	Original			
Section	D	3D-1 to 3D-6 3D-7, 3D-8 3D-9 to 3D-16	Change No. 1 Original			
Section	E	3E-1 to 3E-2a (Reverse Blank) 3E-3 to 3E-9 (Reverse Blank)				
Section	F	3F-1, 3F-2 3F-3 to 3F-13 (Reverse Bland	K) Original Change No. 1 Change No. 1			
Section	G	3G-1 to 3G-14	Original			
Section	н	3H-1 to 3H-4 3H-5 to 3H-12 3H-13, 3H-14 3H-15 to 3H-18	Change No. 3 Change No. 2 Change No. 1			
Section	ı I	3I-1, 3I-2 3I-3, 3I-4	Change No. 2 Change No. 1 Change No. 1			
Sectio	n J	3J-1, 3J-2 3J-3 (Reverse Blank)	Original			
Sectio	n K	3K-1 to 3K-4	Original			
Chapter	4	4A-1 to 4A-4	Change No. 1			
Sectio	on A	4B-1 to $4B-4$	Change No. 1			
· Secti	on B	5-1 to 5-5 (Reverse Blank) Original			
Chapter	5		Original			
Chapter	• 6 Effective Pages	6-1 to 6-4 LEP-1 (Reverse Blank) LEP-3 (Reverse Blank)	Change No. 3 Change No. 3			

CHANGE NO. 3 (Reverse Blank)

LEP-3

.

CHAPTER 2

OPERATING SIGNALS

DECODE

SECTION A - Q SIGNALS

SIGNAL_	QUESTION	ANSWER, ADVICE OR ORDER
QAA		
QAB	May I have clearance (for) from(place and/or control) to(place and/or control) at(figures and units) height above(datum)?	You are cleared (oris cleared) byfrom(place and/or control) to(place and/or control) at (figures and units) height above (datum).
QAC		
QAD		
QAE		
QAF	Will you advise me when you are (were) at (over) (place)?	I am (was) at (over)(place) (at hours) (at(figures and units)) height above(datum).
QAG		Arrange your flight in order to arriv over(place) athours. or I am arranging my flight in order to
QAH	What is your height above (datum)?	I am all anglight over(place) athours. I am at(figures and units) height above(datum). Note: An aircraft is permitted to reply to QAH IMI by using any of the answer forms of signals QBF, QBG, QBH QBK, QBN or QBP. In such cases the signal QAH is omitted from the reply. or Arrange your flight so as to reach (figures and units) height above (datum) at(hours or place).

2A-1

CHANGE NO. 1

DECODE

SIGNAL	QUEST ION	ANSWER, ADVICE OR ORDER
QAI	What is the essential traffic? Note: Relates to aircraft and not communication traffic.	The essential traffic is Note: Relates to aircraft and not communication traffic.
QAJ	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
Q.1K	Is there any risk of collision?	There is risk of collision. Note: This signal should be followed by appropriate Q signals or ICAO approved abbreviations giving instruc- tions for avoiding collision.
QAL	Are you going to land at(place)? or Has aircraftlanded at(place)? (See also signal QTP.).	I am going to land at(place) or (You may)'land at(place). or Aircraftlanded at(place). (See also signal QTP.)
QAM	What is the latest available meteorological observation for(place)?	Meteorological observation made at (place) athours was as follows Note: The information may be given in Q Code form or the AERO form of the International Meteorological Figure Code. When in Q Code, the informa- tion is to be given in the follow- ing sequence of Q signal answer (or advice) forms: QAN, QBA, QNY, QBB, QNH and/or QFE and, if necessary QMU, QNT, QBJ. It is not normally neces- sary to precede the QAN, QBA, QNY and QBB information by these Q signals but this may be done if considered desir- able. When in the AERO form of Inter- national Meteorological Figure Code, the abbreviation AERO is to precede the information.
QAN	What is the surface wind direction and speed at (place)?	The surface wind direction and speed at(place) athours is (direction)(speed figures and units). Note: Unless otherwise indicated in the question, answer (or advice), sur- face wind direction is given in degrees relative to MAGNETIC North.

CHANGE NO. 1

•

2A-2

......

DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
240	What is the wind direction in degrees TRUE and speed at(position or zone/s) at each of the(figures) (units) levels above (datum)?	The wind direction and speed at (position or zone/s) at the following heights above(datum) is: (vertical distance in figures and units) degrees TRUE(speed in figures and units)
QAP	Shall I listen for you (or for) onkHz (or (MHz)? Note: If the frequency is given iu megahertz, the abbreviation MHz is to be used. (See also signal QSX).	Listen for me (or for) on kHz (MHz). Note: If the frequency is given in megahertz, the abbreviation MHz is to be used. (See also signal QSX).
Q1Q	Am I near a prohibited area (orprohibited area)?	You are 1) near 2) flying over a prohibited area (orprohibited area).
QAR	May I stop listening on the watch frequency for minutes?	You may stop listening on the watch frequency forminutes.
QAS		
QAT		
QAU		I am about to jettison fuel.
QAV		
QAW		I am about to carry out overshoot procedure.

CHANGE NO. 1

2A-3

DECODE

	DECODE		
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER	-
LAX		•	
LAY.	Will you advise me when you pass (passed)(place) bearing 090 (270) degrees relative to your heading?	I passed(place) bearingdegrees relative to my heading athours.	
LAZ	Are you experiencing communication difficulties through flying in a storm?	I am experiencing communication difficulties through flying in a storm. Note: Attention is invited to the possible supplementary use of signals QAR, QBE, QCS, QRM, QRN, QRX, QSZ or the signal CL to amplify the meaning associated with signal QAZ.	ė
	· · · · · · · · · · · · · · · · · · ·		
QBA	Mat is the herizontal	The heateentel wightitt -4	
ци н	What is the horizontal visibility at(place)?	The horizontal visibility at (place) athours is(distance figures and units).	
BB	What is the amount, type and height above official aero- drome elevation of the base of the cloud (at(place))?	The amount, type and height above official aerodrome elevation of the base of the cloud at(place) at hours is:	
	- -	eighths (type) at(figures and units)*	*******
		height above official aerodrome elevation.	
	information is reported in seq	(if reported) and vertical distance uence if several cloud layers are g being from low to high levels in	
<i>,</i> ,	 a) the lowest individual layer b) the next higher individual is three-eighths or more (t c) the next higher individual is five-eighths or more (to 	layer the amount of which o the nearest eighth); layer the amount of which	
	Example: = QBB CYUL 1300 2 30	-	
•	 a) the lowest individual la b) the next higher individu is three-eighths or more c) the next higher individu is five-eighths or more 	yer al (t al (to	yer of any amount; al layer the amount of which (to the nearest eighth); al layer the amount of which (to the nearest eighth).
		• •	
		CHANGE NO. 1	
	24	A-4	.

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QBC ·	Report meteorological conditions as observed from your aircraft (at (position or zone)) (at hours).	The meteorological conditions as observed from my aircraft at (position or zone) athours at (figures and units) height above (datum) are Note: The information may be given in AIREP, or Q Code form. When given in Q Code, the following sequence of Q signal answer (or advice) forms is used: QMX, QNY, QAO, QDF, QMI, QFT and QNI.
QBD	How much fuel have you remaining (expressed as hours and/or minutes of consumption)?	Fuel remaining is(hours and/or minutes of consumption).
QBE		.I am about to wind in my aerial.
QBF	Are you flying in cloud?	I am flying in cloud at(figures and units) height above(datum) (and I am ascending (descending) to(figures and units) height
QBG	Are you flying above cloud?	above that datum). I am flying above cloud and at (figures and units) height above (datum) or Maintain a vertical distance of (figures and units) above cloud,
QBH	Are you flying below cloud?	T am flying below cloud and at (figures and units) height above (datum). Maintain a vertical distance of (figures and units) below cloud.
QBI	Is flight under IFR compulsory at(place) (or fromto(place))?	Flight under IFR is compulsory at (place) (or fromto(place)).
QBJ	What is the amount, type and height above(datum) of the top of the cloud (at (position or zone))?	Athours at(position or zone) the top of the cloud is: amounteighths (type) at (figures and units) height above(datum).

ORIGINAL

.....

.....

.....

2A-5

Ŀ

Dł	ΞC	0D	E
----	----	----	---

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
2Bh	Are you flying with no cloud in your vicinity?	I am flying with no cloud in my vicinity and at(figures and units) height above(datum).
2BL		
JBM	Hassent any message for me?	Here is the message sent byat hours.
QBN	Are you flying between two layers of cloud?	I am flying between two layers of cloud and at(figures and units) height above(datum).
280	What is the nearest aero- drome at which flight under VFR is permissible and which would be suitable for my landing?	Flying under VFR is permissible at(place) which would be suitable for your landing.
QBP	Are you flying in and out of cloud?	I am flying in and out of cloud and at(figures and units) height above(datum).
QBQ		
QBR		
QBS		Ascend (or descend) to(figures and units) height above(datum) before encountering instrument meteorological conditions or if visibility falls below(figures and units of distance) and advise.

2A-6

ORIGINAL

DECODE

	DECC	
	OTTECTION'	ANSWER, ADVICE OR ORDER
SIGNAL GBT	QUESTION How far, along the runway, from the approach end, can the observer at the runway threshold see the runway lights which will be in operation for my landing (at(place))?	Athours, the observer at the threshold of runway numbercould see the runway lights in operation for your landing (at(place)) for a distance of(figures and units) from the approach end. Note: If the station enquired of is not equipped to make the special observation requested, the reply to QBT IMI is given by the signal QNO.
QBU		
QBV	Have you reached the (figures and units) height above(datum) (or (area or place))?	I have reached the(figures and units) height above(datum) (or (area or place)). or Report reaching the(figures and units) height above(datum) (or (area or place)).
QBW		
QBX	Have you left the (figures and units) height above(datum) (or(area or place))?	I have left the(figures and units) height above(datum) (or(area or place)). Report leaving the(figures and units) height above(datum) (or (area or place)).
QBY		
QBZ	Report your flying conditions in relation to clouds.	The reply to QBZ IMI is given by the appropriate answer form of signals QBF, QBG, QBH, QBK, QBN and QBP.

2A-7

.....

CHANGE NO. 1 (Reverse Blank)

DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QCA	May I change from(figures and units) to(figures and units) height above (datum)?	You may change from(figures and units) to(figures and units) height above(datum). or I am changing from(figures and units) to(figures and units) height above(datum).
QCB		Delay is being caused by
		 your transmitting out of turn. your slowness in answering. lack of your reply to my
QCC		·
QCD	· · · · · · · · · · · · · · · · · · ·	
€ 0₽		
QCE	When may I expect approach	Expect approach clearance athours
	clearance?	or No delay expected.
QCF		Delay indefinite. Expect approach
~~~ı		clearance not later than hours.
QCG		
		· .
QCH	May I taxi to(place)?	Cleared to taxi to(place). (the place is given in plain language).
QCI		Make a 360-degree turn immediately (turning to the).
		or I am making a 360-degree turn immediately (turning to the).
QCJ		
QCK		
-		

......

.....

......

2A-9

CHANGE NO. 1

.....



. .....

._ ._ _..._

2A-10

CHANGE NO. 1

 DECODE

 SIGNAL
 QUESTION
 ANSWER, ADVICE OR ORDER

 QCX
 What is your full call sign?
 My full call sign is... or

 Use your full call sign until further notice.

 QCY
 I am working on trailing aerial. or

 QCZ
 QCZ

·····		
QDA		
QDB	Have you sent message	I have sent messageto
	to?	
QDC		
QDD		
		· ·
QDE		
QDF	What is your D-Value	My D-Value at(position) at (figures and units) height above the
	at(position)?	1013.2 millibars datum is
		(D-Value figures and units)* (specify plus or minus).
	or	or
	What is the D-Value at	The D-Value at(place or position)
	(place or position) (at	athours for themillibar level is(D-Value figures and units)*
	hours) for themillibar level?	(specify plus or minus).
	10.01	*Note: When the true altitude (radio altitude) is greater than the pres-
		I sure altitude PS (plus) is used and
		when it is less MS (minus) is used.

CHANGE NO. 1

1



-u;.<u>..</u>....

256-069 O-6*-2

2A-11

ACP 131(1.)

	DEC	ODE
IGNAL	QUESTION	ANSWER, ADVICE OR ORDER
UG		
		•.
		'> ,
сон		<u> </u>
<u>un i</u>		
<b>e</b>		
ພັນງ		
	1 9	
QDK		
QDL	Do you intend to ask me	I intend to ask you for a series of
	for a series of bearings?	bearings.
QDM	Will you indicate the	The MAGNETIC heading for you to steer
QU.1	MAGNETIC heading for me to	to reach me (or) with no wind
	steer towards you (or) with no wind?	wasdegrees (athours).
<u>WDN</u>	1	
ω <i>μ</i>		
QDO		
QIPP	Will you accept control	I will accept control (or respon- sibility) of (for)now (or at
·	(or responsibility) of (for)now (or at	hours).
	hours)?	
QDQ		
	ļ	
	1	

CHANGE NO. 1

2A-12

.....

.....

.....

DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QDR	What is my MAGNEFIC bearing from you (or from)?	Your MAGNETIC bearing from me (or from) wasdegrees (athours).
ws ·		
QDT	Are you flying in visual meteorological conditions?	I am flying in visual meteorological conditions.
		Fly at all times in visual meteoro- logical conditions.
QDU		Cancel my IFR flight plan.
QDV	Are you flying in a horizontal visibility of less than(figures and units)?	I am flying in a horizontal visibility of less than(figures and units) at(figures and units) height above(datum).
QDW		
QDX		
QDY		
	~ 	
QDZ		

CHANGE NO. 1 (Reverse Blank)

..... .....

.

2A-13

## DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QEA ,	May I cross the runway. ahead of me?	You may cross the runway ahead of you.
ųEB	May I turn at the intersection?	Taxi as follows at the intersection. (straight ahead DRT turn left LEFT turn right RITE).
QEC	May I make a 180-degree turn and return down the runway?	You may make a 180-degree turn and return down the runway.
QED	Shall I follow the pilot vehicle?	Follow the pilot vehicle.
VEE		
QEF	Have I reached my parking area? Or Have you reached your parking area?	You have reached your parking area. or I have reached my parking area.
QEG	May I leave the parking area? or Have you left the parking area?	You may leave the parking area. or I have left the parking area.
QEH	May I move to the holding position for runway number? or Have you moved to the hold- ing position for runway number?	Cleared to the holding position for runway number or I have moved to the holding position for runway number
QEI		
QEJ	May I assume position for take-off? or Have you assumed position for take-off?	Cleared to hold at take-off position for runway number or I am assuming take-off position for runway numberand am holding.

2A-15

.....

CHANGE NO. 1

DECODE

STOVIT	—	
<u>SIGNAL</u> GEK	QUESTION Are you ready for immediate	ANSWER, ADVICE OR ORDER I am ready for immediate take-off.
	take-ofi'?	
QEL	May I take-off (and make ahand turn after take- off)?	You are cleared to take-off (turn as follows after take-off).
QEM	What is the condition of the landing surface at (place)?	The condition of the landing surface at(place) is Note: The information is given by sending appropriate NOTAM Code groups
QEN	Shall I hold my position?	Hold your position.
QE0	Shall I clear the runway	Clear the runway (or landing area).
	(or landing area)?	or I have cleared the runway (or land-
	Have you cleared the runway (or landing area)?	ing area).
QEP		
Ψ£C Γ	· · ·	
QEQ		
QER		
QES	Is a right-hand circuit in force at(place)?	A right-hand circuit is in force at(place).
QET		
QEÚ	······	

CHANGE NO. 1

......

......

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QEV		
	•	
QEW	•	
1		
QEX		
W.E.A		
QEY		
QËZ		
· ·		
		The meteorological forecast for
QFA	What is the meteorological forecast for (flight,	(flight route, section of route
	froute, section of route	zone) for the periodhours unti
	or zone) for the period	hours is Note: When the forecast is given
	hours untilhours?	i o code the following sequence of
		I signal answer (or advice) forms 1
		to be given: QAO, QMX, QMI, QNY, QBA, QMW, QFT and QNI.
		Why wing wir und the
		701
QFB		The
		1) approach
		2) runway
		3) approach and runway lights ar out of order.
		(The second seco
QFC	What is the amount, the	At(place, position or zone) the base of the cloud iseighths
	type and the height above(datum) of the	type at (figures and units) net
	base of the cloud at	ahove(datum).
	(place, position or zone)?	Note: If several cloud layers or masses are present, the lowest is
		I masses are present, one tenes -

2A-17

.

-----

.....

CHANGE NO. 1

------

7

.....

......

......

π.

	DECO	DE
SIGNAL	QUESTION	ANSWER ADVICE OF ORDER
¥FD .	<ol> <li>Is thevisual beacon         <ul> <li>(at(place)) in operation?</li> <li>Will you switch on the</li> <li>visual beacon (at(place))?</li> <li>Will you extinguish the</li></ul></li></ol>	ANSWER, ADVICE OR ORDER 1) Thevisual beacon (at (place)) is in operation. 2) I will extinguish the aerodrome visual beacon (at(place)) until your landing is completed.
QFE	(At(place)) what is the present atmospheric pressure at official aerodrome elevation?	At(place) the atmospheric pressure at official aerodrome elevation is (or was observed at hours to be)millibars.
QFF	(At(place)) what is the present atmospheric pressure converted to mean sea level in accordance with meteor- ological practice?	At(place) the atmospheric pressure converted to mean sea level in accordance with meteorological practice is (or was determined athours to be)millibars.
QFC	Ат I overhead?	You are overhead.
QFH	May I descend below the clouds?	You may descend below the clouds.
QFI	Are the aerodrome lights	The aerodrome lights are lit.
	lit?	or Please light the aerodrome lights.
LAD		
QFK		
QFL		

2A-18

ł

CHANGE NO. 1

## DECODE

-----

.....

-<u>::::</u>:

.....

SIGNAL	QUESTION	ANSWEH, ADVICE OR ORDER
אָר <b>יוט</b>	What height above (datum) 1) should I maintain? 2) are you maintaining? 3) do you intend cruising at?	<ul> <li>Maintain (or fly at)(figures and units) height above(datum).</li> <li>2) I am maintaining(figures and units) height above(datum).</li> <li>3) I intend cruising at(figures and units) height above(datum).</li> </ul>
QFN		
QF0	May I land immediately?	You may land immediately.
<u>QFP</u>	Will you give me the latest information concerning facility (at(place))?	The latest information concerning facility (at(place)) is as follows Note: The information is given by sending appropriate NOTAM Code groups.
QFQ	Are the approach and runway lights lit?	The approach and runway lights are lit. or Please light the approach and runwa lights.
QFR	Does my landing gear appear damaged?	Your landing gear appears damaged.
QFS	Is theradio facility at(place) in operation?	Theradio facility at(place) is in operation (or will be in operation in hours). or Please have theradio facility at(place) put in operation.
QFT	Between what heights above(datum) has ice formation been observed (at(position or zone))?	Ice formation has been observed at(position or zone) in the type ofand with an accretion rate ofbetween(figures and units) and(figures and units) heights above(datum).

2A-19

CHANGE NO. 1

.....

::

.....

1	D)	E	С	0	D	Е

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QT.	What is the magnetic direction (or number) of the runway to be used?	The magnetic direction (or number) of the runway to be used is Note: The runway number is indicated by a two-figure group and the magnetic direction by a three- figure group.
QFV	Are the floodlights switched on?	The floodlights are switched on. or Please switch on the floodlights.
QFW	What is the length of the runway in use in(units)?	The length of runwaynow in use is(figures and units).
QFN		I am working (or am going to work) on a fixed aerial. or Work on a fixed aerial.
QFY	Please report the present meteorological landing conditions (at (place)).	The present meteorological landing conditions at(place) are Note: When given in Q Code the information is sent in the following sequence: QAN, QBA, QNY, QBB, QNH, and/or QFE and, if necessary, QMU, QNT, QBJ. It is not normally necessary to precede the QAN, QBA, QNY and QBB information by these Q signals but this may be done if considered desirable.
QFZ	What is the aerodrome meteorological forecast for(place) for the periodhours until hours?	The acrodrome meteorological fore- cast for(place) for the period hours untilhours is Note: When given in Q Code the following sequence of Q signal answer (or advice) forms is to be used: QAN, QBA, QNY, QBB and, if necessary, QMU, QNT and QBJ.

2A-20

-----

....

CHANGE NO. 1

......

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
2G A		1
•		
	•.	
2G B	· · · · · · · · · · · · · · · · · · ·	· ·
200		There are obstructions to the
		of runway
QCD	Are there on my track any	There are obstructions on your
	obstructions whose eleva-	track(figures and units) height
	tion equals or exceeds my altitude?	above(datum).
	attitude:	
QGE	what is my distance to your station (or to)?	Your distance to my station (or to) is(distance figures and
	four starton (or cover):	units).
		Note: This signal is normally used
		in conjunction with one of the
		signals QDM, QDR, QTE or QUJ.
QGF		
	·	· · · · · ·
000		
601	Liver T lend veing	You may land using (procedure or
QGH .	May I land using   (procedure or facility)?	facility).
QGI	<u></u>	
α() I		
QGJ		
QGK	What track should I make	Make good a track from (place)
<b>-</b> - · ·	good?	ondegrees(true or magnetic).
	or	or I am making good a track from
	what track are you making   good?	(place) ondegrees(true or
	1 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	magnetic).

2A-21

CHANGE NO. 1

.....

••••

ACP 131(b)

.....

, ....,

-----

DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QGL	May I enter the (control area or zone) at(place)?	You may enter the(control area or zone) at(place).
QGM		Leave the (control area or zone),
QGN	May I be cleared to land (at(place))?	You are cleared to land (at (place)).
1 <u>0</u> 0		Landing is prohibited at(place).
QGP	What is my number for landing?	You are numberto land.
<u>460</u>	May I hold at(place)?	Hold at(place) at(figures and units) height above(datum) and await orders.
QGR		
QGS		
QGT		Fly forminutes on a heading that will enable you to maintain a track reciprocal to your present one.
QCU		Fly forminutes on a magnetic heading ofdegrees.
QGV	Do you see me? or Can you see the aerodrome? or Can you see (aircraft)?	I see you at(cardinal or quadran- tal point of direction). or I can see the aerodrome. or I see(aircraft).
QGW	Does my landing gear appear to be down and in place?	Your landing gear appears to be down and in place.

2A-22

.....

----

-----

CHANGE NO. 1

------



*_____* 

`~<u>~~</u>~~

2A-23

CHANGE NO. 1

ACP 131(E)

DECODE
--------

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
©НЙ 	Are you making an emergency landing?	I am making an emergency landing. or
	-	Emergency landing being made at (place). All aircraft below
}	•	(figures and units) height above (datum) and within a distance of
	· _	(figures and units) leave(place
		or headings).
UII	Are you (or is)	I am (oris)
	l) waterborne?	1) waterborne ) athours.
	2) on land?	2) on land )
UIJ		· · · · · · · · · · · · · · · · · · ·
QHK		
QHL		
онм	······································	
QHN	· · · · · · · · · · · · · · · · · · ·	
оно		
		· .
QHP		
(UIQ	May I make aapproach	You may make aapproach (at
	(at(place))? or	(place)).
	Are you making a approach?	I am making aapproach.
1	appi vacu.	

2A-24

· .....

CHANGE NO. 1

.....

• ......

.....



.

CHANGE NO. 1 (Reverse Blank)

*****

E.

2A-25

...

DECODE

DECODE		
SIGNAL	QUESTION ,	ANSWER. ADVICE OR ORDER
QIA		
	•••	
		1.5
QIB		· · ·
		Establish communication with
QIC	May I establish communi- cation withradio station	radio station on kHz. (or MHz.)
	onkHz. (orMHz.) now	now (or athours).
	(or athours)?	or I will establish communication with
		radio station onkHz. (orMHz.)
1		now (or athours).
QID		· ·
QIE		
ľ		
QIF	What frequency is	is usingkHz. (orMHz).
-	using?	
QIG		·
QIH		
<b>C</b>		
QII		
(7)		
QIJ		· ·
		1
QIK		· · · · · · · · · · · · · · · · · · ·
1		

.....

......

_____

2A-27

CHANGE NO. 1

÷.

....

.....

ACP 131(E)

_____

- -



_ . . . . . . . . . . . . . . . .

24-28

CHANGE NO. 1

.....

	QUESTION	ANSWER, ADVICE OR ORDER
SIGNAL	QUESTION	
QIX		
]		
	-	
QIY	······································	
1		
012		
1		
QJA	Is my	Your 1) tape)
Ì	1) tape) $(1) = -1$	2) mark and space) is reversed.
	2) mark and space) reversed?	
	Teverser +	
		I will use
QJB	Will you use	1) radio.
	1) radio?	2) cable.
	2) cable? 3) telegraph?	3) telegraph.
	4) teletypewriter?	4) teletypewriter.
	5) telephone?	5) telephone.
	6) receiver?	6) receiver.
	7) transmitter?	7) transmitter.
	8) reperforator?	8) reperforator.
QJC	Will you check your	I will check my
40 C	1) transmitter	1) transmitter distributor.
	distributor?	2) auto-head.
	2) auto-head?	3) perforator. 4) reperforator.
	3) perforator?	5) printer.
	4) reperforator?	6) printer motor.
	5) printer? 6) printer motor?	7) keyboard.
	7) keyboard?	8) antenna system.
	S) antenna system?	
· · · · · · · · · · · · · · · · · · ·	Lite T the new it to new	You are transmitting
ίψ.Π	Am I transmitting 1) in letters?	1) in letters.
	2) in figures?	2) in figures.
		1
		Your frequency shift is
QJE	Is my frequency shift	3) too wide.
	<ol> <li>1) too wide?</li> <li>2) too narrow?</li> </ol>	2) too narrow (byhertz).
	3) correct?	3) correct.
	57 COLLECC;	
		My signal as checked by monitor
QJF		is satisfactory
		1) locally.
	1	2) as radiated.

_____

2A-29

_

CHANGE NO. 1

.
ACP 131(L)

	<u>D</u>	ECODE
SIGNAL	QUESTION	ANSWER. ADVICE OR ORDER
QIC	Shall I revert to automatic relay?	Revert to automatic relay.
QJH	Shall I run 1) my test tape? 2) a test sentence?	Run 1) your test tape. 2) a test sentence.
QJ1	Will you transmit a continuous 1) mark? 2) space?	I am transmitting a continuous 1) mark. 2) space.
QJ J		
QJK	Are you receiving 1) a continuous mark? 2) a continuous space? 3) a mark bias? 4) a space bias?	I am receiving 1) a continuous mark. 2) a continuous space. 3) a mark bias. 4) a space bias.
	+) a space stat.	
QJL		
QJM		
QJN	-	
010		
•	· ·	
QJP .		
QJQ		
QJR		
		2A-30 CHANCE NO. 1

2A-30

CHANGE NO. 1

.....

	Ē	DECODE
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
SIGNAL QJS		·
ÇJT		
QJU -		
QJV		
QJ W		
QJX		
Ćl <i>I</i> .	-	
QJZ	······	

· __ _

. . . .....

.....

.....

2A-31

CHANGE NO. 1 (Reverse Blank)

.....

DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QKA		
QKB		
QKC	 	The sea conditions (atposition) 1) permit alighting but not take-off 2) render alighting extremely hazardous.
QKD		·
QKE		
QKF	May I be relieved (at hours)?	You may expect to be relieved at hours (byl) aircraft(identi- fication) (type). 2) vessel whose call sign is(call sign) (and/or whose name (is(name)).
QKG	Will relief take place when(identification) establishes 1) visual, 2) communications, contact with survivors?	Relief will take place when (identification) establishes 1) visual, 2) communications, contact with survivors.
QKH	Report details of the parallel sweep (track) search being (or to be) conducted?	
	or In the parallel sweep (track search being (or to be) conducted, what is (are) 1) the direction of sweeps, 2) the separation between sweeps, 3) the height above the datum, employed in the search pattern?	<pre>The parallel sweep (track) search is being (or to be) conducted 1) with direction of sweeps degrees(true or magnetic). 2) with(distance figures and units) separation between sweeps 3) at a height of(figures) above(datum).</pre>

2A-33

CHANGE NO. 1

.....

7

ACP 131(E)

. .. .

		CODE	
INAL	QUESTION	ANSWER, ADVICE OR ORDER	
		c	
		· · · · · · · · · · · · · · · · · · ·	
			·····
-	•••••••••••••••••••••••••••••••••••••••		
			•
r			(
1			
<u>M</u>			
ļ			
N		Aircraft plotted (believed to be	
		you) in positionon track degrees athours.	
5	What other units are (or will be) taking part	In the operation ((identifi- cation)), the following units are	
	in the operation ( (identification of	cation)), the following units are (or will be) taking part(name of units).	
	operation))?	or	
		(name) unit is taking part in operation ((identification))	
		(with effect fromhours).	
<u> </u>	Which pattern of search is	The search pattern is	
Ĺ	being followed?	1) parallel sweep.	
		<ol> <li>2) square search.</li> <li>3) creeping line ahead.</li> </ol>	
	•	4) track crawl. 5) contour search.	
.		6) combined search by aircraft and ship.	
		7) (specify).	•••
2			
1			

2A-34

.....

CHANGE NO. 1

.....

.....

				ACP 131(B)
		DECOD		
	SIGNAL	QUESTION	ANSWER, ADVICE OR ORDE	F
	SIGNAL QKR			
	-			
	QKS			
······································			х <b>.</b>	
	QKT			
· · · · · · · · · · · · · · · · · · ·	QXU			
	<b>C</b> AU			
	QKV			
۰.	QKW			
·	QKX			
_				
	QKY	······		
. •			· · ·	ı
	QKZ			
	-			
			· · · · · · · · · · · · · · · · · · ·	
······································	QLA			
	QLB	Will you monitorstation and report regarding range, quality, etc.?	I have monitoredstation report (briefly) as follo	on and ows
		quality, etc.?		

-<u>-</u>--

_____

2A-35

.....

÷

CHANGE NO. 1

.....

.....

.....

..... .....

1

ГП 201

	DEC	CODE	
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER	******
QLC			- <u>1999</u> , 7
QLD			
QLE			
QLF			v <u></u>
QLC			
QLH	Will you use simultaneous keying onfrequency and frequency?	I will now key simultaneously on frequency andfrequency.	-
QLI			,
QLJ ·			
QLK			
QLL			
QLM			uffe i finne Life i finne
QLN			

. •

2A-36

CHANGE NO. 1



**....** 

------

.....

CHANGE NO. 1 (Reverse Blank) 2A-37



_____

2A-39

CHANGE NO. 1

ACP 131(E)



2A-40

.....

......

.....

.....

......

CHANGE NO. 1

#### DECODE

•••••

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER At(position or zone) the zero
QMR	At(position or zone) what is (are) the height(s) above(datum) of the zero celsius isotherm(s)?	celsius isotherm(s) is (are) at (figures and units) height(s) above (datum).
QMX .	What is the air temperature (at(position or zone)) (athours) at the (figures and units) height above(datum)?	At(position or zone) athours the air temperature is(degrees and units) at(figures and units) height above(datum). Note: Aircraft reporting QMX inform- ation will transmit the temperature figures as corrected for airspeed.
<u>Q\U</u>		
QMZ	Have you any amendments to the flight forecast in respect of section of route yet to be traversed?	The following amendment(s) should be made to the flight forecast (If no amendments, signal QMZ NIL.)
QNA	-	
QNB		
QNC		
QND		
QNE	What indication will my altimeter give on landing at(place) athours, my sub-scale being set to 1013.2 millibars (29.92 inches)?	On landing at(place) athours, with your sub-scale being set to 1013.2 millibars (29.92 inches), you altimeter will indicate(figures and units).

2A-41

CHANGE NO. 1

.....

.....

DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QNF		• · ·
		':
QNC		
QNH	What should I set on the sub-scale of my altimeter so that the instrument would indicate my ele- vation if I were on the ground at your station?	If you set the sub-scale of your alti- meter to readmillibars (or hundredths of an inch*), the instrument would indicate your eleva- tion if you were on the ground at my station athours. *Note: When the setting is given in hundredths of an inch the abbrevia- tion "INS" is used to identify the units.
QNI	Between what heights	Turbulence has been observed at
	above(datum) has tur- bulence been observed at (position or zone)?	(position or zone) with an intensity ofbetween(figures and units) and(figures and units) heights above(datum).
QÑJ		
QNK	· · ·	
QNL		·
<i>ц</i> , П		
QNM		
QNN		
<u>QX0</u>		I am not equipped to give the inform-
ν _έ . NU		ation (or provide the facility) re- quested.
	·	· · · · · · · · · · · · · · · · · · ·

2A-42

......

------

CHANGE NO. 1

<b>.</b>			DECODI	<u>E</u>
	SIGNAL QNP	QUESTION		ANSWER, ADVICE OR ORDER
	QNP			
	1			· 、 .
	-			<u>'</u>
<u>f</u>	QNQ		:	
				I am approaching my point of no
	QNR			return.
			•	
				· · · · · · · · · · · · · · · · · · ·
	QNS			
•			•	
			. <u> </u>	The surface
	QNT	What is the maximum gust		The maximum gust speed of the surface wind at(place) athours is (speed figures and units).
		speed of the surface wind at(place)?		(speed figures and units).
·				
	QNU			
·	. '			
	QNV			
	QNW			
	QNX			
	•			

CHANGE NO 5

.....

2A-43

•••

.....

.....

DECODE	DI	ΞC	:0	DE	ļ
--------	----	----	----	----	---

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QN Y	What is the present weather and the intensity thereof at(place, position or zone)?	The present weather and intensity there- of at(place, position or zone) at hours is (See Notes a) and b)).
		Notes: a) When present weather information is transmitted by a ground station, the in- formation shall be selected from the pre- sent weather table (Table III) in PANS- MET (Doc 7605-MET/526). If none of these conditions prevail the reply shall be QNY NIL.
·		b) When present weather information is transmitted by an aircraft, the inform- ation shall be selected from Item 11, AIREP. If none of these conditions pre- vail the reply shall be QNY NIL or alter- natively the appropriate answer (or advice) form of signals QBF, QBG, QBH, QBK, QBN or QBP. The alternative may also be given in addition to present weather conditions when one or more of 'the conditions listed in Item 11 prevail.
QNZ —		
QOA-QQ	the Maritime Service	Z inclusive is reserved for and will be promulgated change to this publication.

<u>.....</u>

x.

### DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QRA	What is the name of your station?	The name of my station is
QRB	How far approximately are you from my station?	The approximate distance between our stations isnautical miles (or kilometers).
QRC	By what private enterprise (or State administration) are accounts for charges for your station settled?	The accounts for charges of my station are settled by the private enterprise (or State administration).
QRD	Where are you bound and where are you from?	I am bound for from
QRE	What is your estimated time of arrival at (or over) (place)?	My estimated time of arrival at (or over) (place) ishours.
QRF	Are you returning to (place)?	I am returning to(place). or Return to(place).
QRG	Will you tell me my exact frequency (or that of)?	Your exact frequency (or that of) iskHz (or MHz).
QRH	Does my frequency vary?	Your frequency varies.
QRI	How is the tone of my transmission?	The tone of your transmission is 1) good. 2) variable. 3) bad.
QRJ	How many radiotelephone calls have you to book?	I haveradiotelephone calls to book.
QRK	What is the intelligibility of my signals (or those of)?	The intelligibility of your signals (or those of) is 1) bad. 2) poor. 3) fair. 4) good. 5) excellent.

......

.....

2A-45

......

CHANGE NO.1

.....

ACP 131(E)

·.....

DECODE SIGNAL QUESTION ANSWER, ADVICE OR ORDER QRL Are you busy? I am busy (or I am busy with...). ¢ Please do not interfere. 15 **URM** Are you being interfered I am being interfered with with? (1. nil 2. slightly 3. moderately 4. severely 5. extremely). ORN Are you troubled by static? I am troubled by static (1. nil 2. slightly 3. moderately 4. severely 5. extremely). QRO Shall I increase trans-Increase transmitter power. mitter power? QRP Shall I decrease trans-Decrease transmitter power. mitter power? QRQ Shall I send faster? Send faster ( ... words per minute). QRR Are you ready for I am ready for automatic operation. automatic operation? Send at ... words per minute. QRS Shall I send more slowly? Send more slowly (...words per minute). ORT Shall I stop sending? Stop sending. QRU Have you anything for me? I have nothing for you. QRV Are you ready? I am ready.

2A-46

CHANGE NO. 1

#### DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QRW -	Shall I inform that you are calling him onkHz (or MHz).	Please informthat I am calling him onkHz (or MHz).
QRX	When will you call me again?	I will call you again athours (onkHZ (or MHz).
QRY	What is my turn? (Relates to communication.)	Your turn is number(or according to any other indication). (Relates to communication.)
QRZ	who is calling me?	You are being called by(on kHz (or MHz).
QSA	What is the strength of my signals (or those of)?	The strength of your signals (or thos of) is 1) scarcely perceptible. 2) weak. 3) fairly good. 4) good. 5) very good.
QSB	Are my signals fading?	Your signals are fading.
QSC	Are you a cargo vessel?	I am a cargo vessel.
QSD .	Is my keying defective?	Your keying is defective.
QSE	What is the estimated drift of the survival craft?	The estimated drift of the survival craft is(figures and units).
QSF	Have you effected rescue?	I have effected rescue and am pro- ceeding tobase (withpersons injured requiring ambulance).
<u>esc</u>	Shall I sendtelegrams	Sendtelegrams at a time.

**`**......

.....

CHANGE NO. 1

2A-47

TONIT	QUESTION	ANSWER, ADVICE OR ORDER
SIGNAL QSH	Are you able to home on your D/F equipment?	I am able to home on my D/F equipment (on station).
QSI		I have been unable to break in on your transmission. or Will you inform(call sign) that I have been unable to break in on his transmission (onkHg. (ormHg)).
QSJ	What is the charge to be collected toincluding your internal telegraph charge?	The charge to be collected to including my internal telegraph charge isfrancs.
QSK	Can you hear me between your signals and if so can I break in on your trans- mission?	I can hear you between my signals; break in on my transmission.
QSL	Can you acknowledge receipt?	I am acknowledging receipt.
QSM	Shall I repeat the last telegram which I sent you (or some previous telegram)?	Repeat the last telegram which you sent me (or telegram(s) number(s)).
QSN	Did you hear me (or (call sign)) onkHz (or MHz)?	I did hear you (or(call sign))on kHz (or MHz).
<u>QS0</u>	Can you communicate with direct or by relay?	I can communicate withdirect (or by relay through).
QSP	Will you relay tofree of charge?	I will relay to free of charge.
QSQ	Have you a doctor on board (or is(name of person) on board)?	I have a doctor on board (or (name of person) is on board).
QSR	Shall I repeat the call on the calling frequency?	Repeat your call on the calling fre- quency; did not hear you (or have .interference).

.

2A-48

.....

.....

CHANGE NO. 1

· · · · · ·

-----

DECODE

	DEC	
	QUESTION	ANSWER, ADVICE OR ORDER
SIGNAL QSS	What working frequency will you use?	I will use the working frequency kHz (normally only the last three figures of the frequency need be given).
QST		
QSU	Shall I send or reply on this frequency (or on kHz (or MHz)) (with emissions of class)?	Send or reply on this frequency (or onkHz (or MHz)) (with emissions of class).
QS V	Shall I send a series of V's on this frequency (orkHz (or MHz))?	Send a series of V's on this frequency (or onkHz (or MHz)).
QSW	Will you send on this fre- quency (or onkHz (or MHz)) (with emissions of class??	I am going to send on this frequency (or onkHz (or MHz)) (with emissions of class).
QSX	Will you listen to (call sign(s)) on kHz (or MHz)?	I am listening to(call sign(s)) onkHz (or MHz).
QSY	Shall I change to trans- mission on another fre- quency?	Change to transmission on another frequency (or onkHz (or MHz)).
QSZ	Shall I send each word or group more than once?	Send each word or group twice (or times).

2A-49

CHANGE NO. 1 (Reverse Blank)

.....

•

## DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QTA	Shall I cancel telegram number?	Cancel telegram number
QTB	Do you agree with my counting of words?	I do not agree with your counting of words; I will repeat the first letter or digit of each word or group.
QTC	How many telegrams have you to send?	I havetelegrams for you (or for).
QTD	What has the rescue vessel or rescue aircraft re- covered?	<pre>(identification) has recovered 1)(number)survivors. 2) wreckage. 3)(number) bodies.</pre>
QTE	What is my TRUE bearing from you? What is my TRUE bearing from(call sign)?	Your TRUE bearing from me is degrees (athours). or Your TRUE bearing from(call sign) wasdegrees (athours).
	or What is the TRUE bearing of(call sign) from (call sign)?	or The TRUE bearing of(call sign) from(call sign) wasdegrees athours.
QIF	Will you give me the position of my station according to the bearings taken by the D/F stations which you control?	The position of your station according to the bearings taken by the D/F stations which I control was latitudelongitude (or other indi- cation of position), classat hours.
QTC	Will you send two dashes of ten seconds each follow- ed by your call sign (repeatedtimes) (on kHz (or MHz))? or Will you requestto send two dashes of ten seconds followed by his call sign (repeated	I am going to send two dashes of ten seconds each followed by my call sign (repeatedtimes) (onkHz (or MHz)). I have requestedto send two dashes of ten seconds followed by his call sign (repeatedtimes) onkHz (or MHz).
QTH	What is your position in latitude and longitude (or according to any other indication)?	My position islatitudelongitude (or according to any other indication)

2A-51

......

ł

.....

.....

 CHANGE NO. 1

	DE	CODE
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QTI	What is your TRUE track?	My TRUE track isdegrees.
	· · ·	
QTJ	What is your speed? (Requests the speed of a ship or aircraft through the water or air res- pectively.)	My speed isknots (orkilometers orstatute miles per hour). (Indicates the speed of a ship or air- craft through the water or air res- pectively.)
QTK	What is the speed of your aircraft in relation to the surface of the earth?	The speed of my aircraft in relation to the surface of the earth is knots (orkilometers orstatute miles per hour).
QT L	What is your TRUE heading?	My TRUE heading isdegrees.
QTM	What is your MAGNETIC heading?	My MAGNETIC heading isdegrees.
QTN	At what time did you depart from(place)?	I departed from (place) at hours.
QTO	Are you airborne? or Have you left dock (or port)?	I am airborne or I have left dock (or port).
2TP	Are you going to alight (or land)? or Are you going to enter dock (or port ⁾ ?	I am going to alight (or land). or I am going to enter dock (or port).
QTQ	Can you communicate with my station by means of the international code of signals?	I am going to communicate with your station by means of the international code of signals.
TR	What is the correct time?	The correct time ishours.

CHANGE NO. 1

......

.....

Ŷ

-----

**`**......

2A-52

_CP 131(b)

DECODE ANSWER, ADVICE OR ORDER QUESTION SIGNAL I will send my call sign for tuning Will you send your call sign QTS purposes or so that my frequency may be measured now (or at...hours) on... for tuning purposes or so that your frequency can be measured now (or at...hours) on...kHz (or MHz)? kHz (or MHz). The identification signal which QT'T follows is superimposed on another transmission. My station is open from...to...hours. What are the hours during QTU which your station is open? Stand guard for me on the frequency Shall I stand guard for of...kHz (or MHz) (from...to... OTV you on the frequency of ... hours). kHz (or MHz) (from... to...hours)? Survivors are in ... condition and What is the condition of QTW urgently need ... survivors? I will keep my station open for fur-Will you keep your station ther communication with you until QTX open for further communifurther notice (or until...hours). cation with me until further notice (or until... hours)? I am proceeding to the position of Are you proceeding to the position of incident and incident and expect to arrive at ... QTY hours (on...date). if so when do you expect to arrive? I am continuing the search for .... Are you continuing the (aircraft, ship, survival craft, QTZ search? survivors or wreckage). Here is news of ... (call sign). Have you news of ...

2A-53

CHANGE NO. 1

QUA

(call sign)?

	DECOD	E	
<u>SIGNAL</u> QUB	QUESTION Can you give me in the ' following order inform- ation concerning: the direction in degrees TRUE and speed of the surface wind; visibility; present weather; and amount, type and height of base of cloud above surface elevation at (place of observation)?	ANSWER, ADVICE OR ORDER Here is the information requested  (The units used for speed and distances should be indicated.)	
QUC	What is the number (or other indication) of the last message you received from me (or from(call sign))?	The number (or other indication) of the last message I received from you (or from(call sign)) is	
QTD	Have you received the urgency signal sent by (call sign of mobile station)?	I have received the urgency signal sent by(call sign of mobile station) athours.	
QUE	Can you use telephony in (language), with interpreter if necessary; if so, on what frequencies?	I can use telephony in(language) onkHz (or MHz).	
QUF	Have you received the dis- tress signal sent by (call sign of mobile station)?	I have received the distress signal sent by(call sign of mobile station) athours.	
QUG	will you be forced to alight (or land)?	I am forced to alight (or land) immediately. or I will be forced to alight (or land) at(position or place) athours.	
QUH	Will you give me the present barometric pressure at sea level? Aeronautical Note: Stations of the inter- national aeronautical telecommunication service will interpret this signal as: What is the present atmospheric pressure at the present water level?	The present barometric pressure at sea level is(units). Aeronautical Note: Stations of the international aeronautical tele- communication service will interpret this signal as: The present atmo- spheric pressure at the present water level at(place or position) at hours is(figures and units).	
QUI	Are your navigation lights working?	My navigation lights are working.	

2A-54

......

CHANGE NO.1

#### DECODE

SIGNAL	QUESTION Will you indicate the TRUE	ANSWER, ADVICE OR ORDER
QUJ	track to reach you (or)?	(or) isdegrees at hours.
	·	The sea at(place or co-ordinates)
QUK	Can you tell me the condi- tion of the sea observed at(place or co-ordinates)?	is

Aeronautical Note: Stations of the international aeronautical telecommunication service will complete the answer, information or advice form by the use of a numbered alternative as given hereunder, selected according to the average wave height as obtained from the larger wellformed waves of the wave system being observed. If observed height coincides with one of the limits, report the lower numbered alternative, e.g. waves with a mean maximum height of 4 meters are to be reported as "5".

		He	ight
Number		Meters	Feet (approx.)
0	Calm-glassy .	0	0,
i	Calm-rippled	0-0.1	0-1/3
2	Smooth wavelets	0.1-0.5	1/3-1 2/3
ĩ	Slight	0.5-1.25	1 2/3-4
4	Moderate	1.25-2.5	4-8
5	Rough	2.5-4	8-13
õ	Very rough	4-6	13-20
7	High	6-9	20-30
Ś	Very high	9-14	30-45
9	Phenomenal	0ver 14	0ver 45

QUL Can you tell me the swell The swell at...(place or co-ordinates) observed at...(place or coordinates)?

Aeronautical Note: Stations of the international aeronautical telecommunication service will complete the answer, information or advice form by the use of the following numbered alternatives:

Number O 1 2 3	Length of Swell Short or average Long Short	Height - Low Low Moderate Noderate	Number 5 6 7 8 9	Length of Swell Long Short Average Long Confused	Height Moderate Heavy Heavy Heavy
4	Average	Moderate	9	Confused	-

......

Additionally, stations of the international aeronautical telecommunication service may indicate the direction of swell by the use of the a propriate cardinal or quandrantal point abbreviation N, NE, E, SE, etc. following the numbered alternate for indicating swell condition. The descriptions in the above numbered alternatives are as follows:

			Length	of Swell	
		Meters	- 0	Feet (approx.	)
Short	=	0-100		Ũ-3ŬŬ	
Average	=	100-200		300-600	
Long	Ξ	Over 200		Over 600	
DOUR		0.01 400	Height	of Swell	
		Meters	4	Feet (approx.	,)
Low	= ·	0-2		0-7	
Moderate	. = .	2-4		7-13	
Heavy		Over 4		0ver 13	

2A-55

#### DECODE

# SIGNAL QUESTION ANSWER, ADVICE OR ORDER

(cont.)

When there is no swell, the numbered alternative "O" is used; when the swell is such that the length and height of the swell waves cannot be determined, the numbered alternative "9" is used.

QUM	May I resume normal working?	Normal working may be resumed.
QUN	Will vessels in my immedi- ate vicinity (or in the vicinity oflatitude longitude (or of)) please indicate their position, TRUE course and speed?	My position, TRUE course and speed are
·	Aeronautical Notes: a) All stations of the international aeronauti- cal telecommunication service will interpret this signal (in part) as referring to TRUE TRACK. b) English-speaking stations of the maritime mobile service may inter- pret this signal (in part) as referring to TRUE HEADING. When communi- cating with such stations it is recommended that	Aeronautical Notes: a) All stations of the international aeronautical telecommunication service will interpret this signal (in part) as referring to TRUE TRACK. b) English-speaking stations of the maritime mobile service may interpret this signal (in part) as referring to TRUE HEADING. When communicating with such stations it is recommended that supplementary use be made of the signal QTI to avoid any misunder- standing.
	supplementary use be made of the signal QTI to avoid any misunderstanding.	
QUO	Shall I search for 1) aircraft, 2) ship, 3) survival craft, in the vicinity of latitudelongitude (or according to any other indication)?	Please search for 1) aircraft, 2) ship, 3) survival craft, in the vicinity oflatitude longitude (or according to any other indication).
QUP	<pre>Will you indicate your position by 1) searchlight? 2) black smoke trail? 3) pyrotechnic lights?</pre>	My position is indicated by 1) searchlight. 2) black smoke trail. 3) pyrotechnic lights.

CHANGE NO. 1

2.....

----

#### DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QUQ	Shall I train my searchlight nearly vertical on a cloud, occulting if possible and, if your aircraft is seen or heard, deflect the beam up wind and on the water (or land) to facilitate your landing?	Please train your searchlight on a cloud, occulting if possible and, if my aircraft is seen or heard, deflect the beam up wind and on the water (or land) to facilitate my landing.
QUR	Have survivors 1) received survival equipment? 2) been picked up by rescue vessel?	Survivors 1) are in possession of survival equipment dropped by 2) have been picked up by rescue vessel.
	3) been reached by ground rescue party?	3) have been reached by ground rescue party.
QUS	Have you sighted sur- vivors or wreckage? If so, in what position?	Have sighted 1) survivors in water, 2) survivors on rafts, 3) wreckage, in positionlatitudelongitude (or according to any other indi- cation).
QUT	Is position of incident marked?	Position of incident is marked by 1) flame or smoke float. 2) sea marker. 3) sea marker dye. 4)(specify other marking).
QUU	Shall I home ship or air- craft to my position?	Home ship or aircraft(call sign) 1) to your position by transmitting your call sign and long dashes on kHz (or MH2). 2) by transmitting onkHz (or MH2) TRUE track to reach you.
QUV		
Q.:. W	Are you in the search area designated as(designator or latitude and longitude)?	I am in the(designation) search area.

····<u>·</u>····

2A-57

CHANGE NO. 1

-----

É

<u>____</u>

	DECO	DE
SIGNAL QUY	QUESTION Is position of survival craft marked?	ANSWER, ADVICE OR ORDER Position of survival craft was marked athours by 1) flame or smoke float 2) sea marker 3) sea marker dye 4)(specify other marking).
QUZ	· · · · · · · · · · · · · · · · · · ·	
QVA-QZZ	The series QVA to QZZ allocated to date.	inclusive has not been
	<u> </u>	, ·
		·
·	23	-58
		-58 CHANGE NO. 1

•

... .

.....

	-	DECODE B - Z SIGNALS
SIGNAL		ANSWER, ADVICE OR ORDER
ZAA	·	You are not observing proper circuit discipline.
ZAB	· .	Your speed key is improperly adjusted.
ZAC		Cease using speed key.
ZAD	 	Your operating signal (made at) received as(1. Not understood; 2. Not held).
ZAE		I am unable to receive you. Receipt through
ZAF	Will you patch me through to(via you or)?	I am about to patch you through to (via).
ZAG		Break(1. Go ahead with next tape; 2. Go backfeet; 3. Advance your key tape to reference mark number and repeat last transmission (or trans- mission).
ZAH		Unable to relay messagein present form (1. Not in prescribed format; 2. Format linesincorrect; 3. No on-line facility available; 4. Call signs not encrypted; 5. Text not en- crypted). We file. Transmit correctl prepared message to all addressees (or to).
ZAI		Run (l. Caller; 2. Test tape; 3. Synchronizing tape; 4. Traffic tape 5. Marking signals; 6. Spacing signals 7. Reversals; 8. Run teletypewriter space bar signals). 9. Datel test atbd
ZAJ		I have (orhas) been unable to break you.
······································		2B-1 CHANGE NO.

.

••••••

-----

.....

Į.,

#### DECODE

	DEC	
IGNAL	QUESTION	ANSWER, ADVICE OR ORDER
АК		Transmission onkHz (or MHz) suspended until(or was suspended at) on account of electrical hazards (or)
LAL		I am closing down (until) due to
ZAM		I am unable to obtain reply from tele- printer switchboard(for connection to). Request you call him (or other intermediate switchboard) for me.
ZAN		Transmit only messages of and above precedence
ZAO		I cannot understand your speech. Use radiotelegraph.
ZAP ·	Shall I work(1. Simplex; 2. Duplex; 3. Diplex; 4. Multi- plex; 5. Single Sideband; 6. With automatic error correction system; 7. Without automatic error correction system)?	Work(1. Simplex; 2. Duplex; 3. Diplex: 4. Multiplex; 5. Single Sideband; 6. With automatic error correction system; 7. Without automatic error correction system).
ZAQ		The last word (or group) (1. Received from you was; 2. Transmitted to you was).
ZAR		This is myrequest (or reply). (1. First; 2. Second; 3. Third; etc.).
ZAS		Rerun all tapes run onsince (1. Your present frequency; 2kHz (or MHz); 3. Call sign; 4. This channel orchannel).
ZAT		Am preparing traffic (perforating tape) for transmission.
ZAU	What is teletype range taken on my signal(s)?	Teletype range taken on your signal(s) isto

2B-2

....

.....

CHANGE NO. 5

...

### DECODE

SIGN <u>AL</u>	QUESTION	ANSWER, ADVICE OR ORDER Transmit traffic for me (or for)
ZAV	ć	by broadcast method until further directed (or until).
ZAW	Shall I transmit 12 inches of blank tape at short intervals at words per minute?	Transmit 12 inches of blank tape at short intervals atwords per minut
ZAX		You are(1. Causing interference. Listen before sending; 2. Causing interference by inattention to order to wait; 3. Sending at the same time as(call sign); 4. Causing delay b slowness in answering; 5. Causing delay by slowness in answering my service or procedure messages; 6. Answering out of turn).
ZAY		Transmit traffic to me (or toon kHz (or MHz)) without waiting for receipts. I (or) will receipt for traffic later (onkHz (or MHz)).
ŻĄŻ		One or more transmitters, simul- taneously keying on this broadcast, are defective but transmission will continue on remaining transmitters. Traffic so transmitted will be re- peated when full service is restored
ZBA	What is cause of delay (or of bad transmission)?	Delay (or bad transmission) due to
ZBB	·	For following message you will requ a total of copies.
ZBC		You are transmitting a continuous (1. Mark; 2. Space).
ZBD	Will you repeat what you (or) sent (at)?	Following is what I (or) sent (at).
ZBE		Retransmit messageto(for) (1. Action; 2. Information).

.....

•

2B-3

······

CHANGE NO. 1

······

.....

.....

*,*----

DECODE

.

· · · · · · · · · · · · · · · · · · ·	For following message use large message forms.
· · · · · · · · · · · · · · · · · · ·	
· · · · · · · · · · · · · · · · · · ·	
· · · · · · · · · · · · · · · · · · ·	
	You are transmitting in upper case.
•	fou are or anomicoring in apper oucco
	:
	Make preliminary call before trans-
	mitting traffic.
	Listen for radiotelephony.
re you receiving my	I am receiving your traffic
raffic clear?	(1. Clear; 2. Garbled).
· · · · · · · · · · · · · · · · · · ·	I am unable to receive you while I
	am transmitting. Do not use break-
	in-procedure.
·····	Placeon watch on this frequency.
	(1. A qualified speed key operator; 2. A competent operator).
	2. A competent operator ).
<u></u>	
	Youris reversed. (l. Tape; 2. Mark and space).
·	w. main and space).
If what precedence(s)?	I have (orhas)(numeral followed
a mat precedence(s):	by precedence prosign for each pre-
	precedence) message(s) for you
	(or for).
	Your(1. Characters are indistinct;
	2. Spacing is bad).
men and on what fre-	Messagewas received aton
	kHz (or MHz).
.eceived (	
	Then and on what frequency was message

2B-4

.....

,...*.* 

CHANGE NO. 1

.

.....

DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZBR	Shall I send by (1. Direct (R) method; 2. Broadcast (F) method; 3. Intercept (I) method; 4. Repeat back (G) • method)?	Send by(1. Direct (R) method; 2. Broadcast (F) method; 3. Intercept (I) method; 4. Repeat back (G) method).
ZBS		Your(1. Dots are too heavy; 2. Do are too light; 3. Dots are varying i bias; 4. Dot spacing is bad; 5. Dots are missing; 6. Dots are burring).
ZBT	How do you count following text group(s) ?	Text group(s)should be counted asgroup(s).
ZBU		Report when you are in radio communication with
ZBV		Answer me (or) onkHz (or MHz).
ZBW	Will you shift (or ask to shift) to trans- mit onkHz (or MHz)?	I am (oris) shifting to transmit onkHz (or MHz).
ZBX	Will you shift (or ask to shift) to receive onkHz (or MHz)?	I am (oris) shifting to receive onkHz (or MHz).
ZBY		Pass(1. On broadcast; 2. On Broadcastsingle operator; 3. On Broadcasttwo operator period; 4. On Broadcastgeneral periods only).
ZBZ	What is the printing accuracy of my signals (or those of)?	The printing accuracy of your signa (or those of) is(1. Totally corrupt; 2. Very corrupt; 3. Partly corrupt rendering traffic unaccept- able; 4. Occasionally corrupt but traffic acceptable. 5. Perfect - no corruption).

;;

.....

.....

CHANGE NO. 1 (Reverse Blank)

••••

.....

2B-5

<u>DECODE</u>

	SIGNAL		ANSWER, ADVICE OR ORDER
	2CA		Satellite(s) is/are pre-empted from
*****	ZCB	•	Change to double-hop working using satel litesWest andEast now (or at hours).
	zcċ	-	Establishon accesschannel (A/ B)
			<ol> <li>300 db Emergency patch.</li> <li>Phase-reverse-keying.</li> </ol>
	ZCD	,	Weight your access to(call sign) bydb
	ZCE		Access satellitenow (or at
			<ul> <li>hours) with</li> <li>1. Spread Spectrum Modulation (normal allocation).</li> <li>2. Spread Spectrum Modulator changed to access</li> </ul>
			<ol> <li>Spread Spectrum Demodulator changed to access</li> <li>Frequency modulation.</li> <li>Phase Shift Keying Modulation.</li> </ol>
	ZCF		Remove accessnow (or athours) 1. Spread Spectrum Modulation (1 - 40) 2. Frequency Modulation.
			3. Phase-reverse-keying. 4. Phase Shift Keying Modulation.
	ZCG	What is your frequency modu- lation deviation?	My frequency modulation deviation is
	ZCH	What is your tracking mode?	My tracking mode is 1. Autotrack. 2. Manual tracking. 3. Word horming
	ZCI	What is your? 1. Total output power. 2. Quality meter reading. 3. Number of accesses. 4. Frequency modulation access	3. Hand barring.         My 1. iswatts.         2
·····	ZCJ	power. Are you experiencing equipment trouble?	<ul> <li>I am experiencing trouble with my</li> <li>1. Spread Spectrum Modulator.</li> <li>2. Frequency division multiplex equipment.</li> </ul>
			<ol> <li>Line modem.</li> <li>Time division multiplex equipment.</li> <li>Switching or patching.</li> <li>Servo system.</li> </ol>
			<ol> <li>7. Transmitter.</li> <li>8. Receiver.</li> <li>9. Parametric Amplifier.</li> <li>10. Phase Shift Keying Modulator.</li> </ol>
		-	

• • • • • • • • • • • • • • • • •

-----

.....

.....

÷.,

D	Ε	С	O	Ð	ε	

		ANOWER ADVICE OF OPDER
<u>C\-L</u>	QUESTION	ANSWER, ADVICE OR ORDER
СК	Shall I loop my?	Loop your 1. Spread Spectrum Modulator Channel
	1. Spread Spectrum Modulator	1. Spread Spectrum Hodulator chamier
	channel (A/B).	2. Line modem.
	2. Line modem.	3. Time division multiplex equipment.
	3. Time division multiplex	4. Frequency division multiplex
1	equipment.	equipment.
ĺ	4. Frequency division multi-	
1	-lan equinment.	·
CL	Have your checked speed setting	I have checked speed setting on
/OL	of all equipment on	(channel/circuit).
	(channel/circuit)?	
ZCM	May I carry out on	Carry outon satellite
.0m	satellite?	1. Spread Spectrum Modulation back-to-
	1. Spread Spectrum Modulation	back check.
	L. Spread Spectrum noutlation	2. Range measurement.
	back-to-back check.	3. Power Balance.
	2. Range measurement.	
	3. Power Balance.	I am ready to synchronize Spread
ZCN	Are you ready to synchronize	Spectrum Access
	Spread Spectrum Access?	On your FM/FDM Access
ZCÓ		1. Suppress telegraph channel(1 - 9)
		2. Open telegraph channel(1 - 9)
		2. Open telegraph channel
ZCP		Change (total) radiated power
!		1. On narrow-band towatts.
		2. On Spread Spectrumwatts.
		Note: This power excluded that for
		access D or E.
		3. Of access(1-40, N1-N5, D or E)
		to,(watts).
	1	4. Of access(1-40, RAE) to
		(0,3,6, 9db) below full access at
		Combiner Unit.
800		Change FM/FDM mode to Mode(A/D)
ZCQ		with deviationkHz.
		I am about to initiate
ZCR		1. Serial
		2. Parallel synchronization of accesses
		<b>1</b>
		C. it is now Speed Speetnum Access
ZCS		Switch your Spread Spectrum Access
		modulator to
		1. Code off
		2. Search
		3. Sync. 1
		4. Sync. 2
		5. Traffic
		6. Channel A Normal On
		7. Channel B Normal on
		My Spread Spectrum Access demodulator
		is
ZCT		1 1 3
ZCT		
ZCT		1. CW tuned
ZCT		1. CW tuned 2. In short-code lock
ZCT		1. CW tuned 2. In short-code lock 3. In long-code lock
ZCT		<ol> <li>1. CW tuned</li> <li>2. In short-code lock</li> <li>3. In long-code lock</li> <li>4. In long-code and data-lock on Channel</li> </ol>
ZCT		1. CW tuned 2. In short-code lock 3. In long-code lock

CHANGE NO. 5

.....

F.

.....

DECODE
--------

*****		Ū	ECODE
	SIGNAL	OUESTION	ANSWER, ADVICE OR ORDER
	zcu	· · · · · · · · · · · · · · · · · · ·	<pre>Set Spread Spectrum Accessto 1. Channel A only. 2. Channel A and B retaining original radiated power for this access.</pre>
	ZCV	• •	Set speed of Spread Spectrum Access        Channel(A/B) to         1. 1300 bd.       4. 1200 bd.         2. 2600 bd.       5. 2400 bd.         3. 600 bd.       6. 4800 bd.
	ZCW	· · · · · · · · · · · · · · · · · · ·	<ol> <li>Check yourand advise</li> <li>I have lost</li> <li>Perform back to back through</li> <li>Bypass</li> <li>I have bypassed</li> <li>Retune demodulator</li> <li>To be used in conjunction with ZCX.</li> </ol>
	ZCX		<ol> <li>Test loop 1</li> <li>Test loop 2</li> <li>Test loop 3</li> <li>Test loop 4</li> <li>Paramp</li> <li>High Power Amplifier</li> <li>Demodulator</li> <li>Mux Channel A</li> <li>Mux Channel B</li> <li>Demux Channel B</li> <li>Decoder</li> <li>Tracking (including side lobe)</li> <li>S MHz standard</li> <li>Synthesizer</li> <li>Power Supply</li> <li>Modulator</li> <li>Satellite</li> <li>Crypto Equipment</li> <li>Patching DC</li> <li>Patching Clock</li> </ol>
	ZCY		Operate at(BPS) 1. 75 2. 84 3. 150 4. 168 5. 300 6. 336_600 87. 672 58. 1200 99. 2400 10. 4800 11. 9600 To be used in conjunction with ZCZ.

2B-9

*. .....

··· ...

D	Ē	С	Ο	D	E

IG'.4_	CUESTION	ANSWER, ADVICE OR ORDER
cz		1. Coded
		2. Uncoded
1		3. Satellite Access Channel atDEW
		4. Relinguish Satellite Access due to
		sole access
		5. Relinquish Satellite Access due to
		violation of Power restrictions
		6. Increase Power toDBW
		7. Decrease Power toDBW 8. NB ALPHA
		9. NB BRAVO
		10. Change Satellite Access Channel
		toat DBW
DA.		I have a formal message for you (pre-
DD D		cedence is).       Prodito poply(ico) to my
ZD <b>B</b>		Expedite reply(ies) to my(1. Pre-
		vious operating signal; 2. Request(s) for
		repetition and correction; 3. Service
<u>DC</u>	Doog the least managers (ar	Last message (or message) requires
ZDC	Does the last message (or	a signal of execution.
	message) require a signal of execution?	a signal of execution.
.DD		Bring messageto the circuit.
		bring moosage, , , vo the off our of
DE		Messageundelivered(1. Station
LDL		closed untilZ; 2. Attempting alert
		station to re-open (for Flash or Immed-
		iate precedence only); 3. Will continue
		efforts to effect disposal; 4. Advise
		disposition; 5. Will not continue fur-
		ther efforts. Request cancel and file:
		6. Give more complete address).
ZDF	· · · · · · · · · · · · · · · · · · ·	Messagewas: (1. Received by (ad-
	· ·	dressee(s) designation) atZ. 2. Re-
		ceived by (addressee(s) designation com-
		munications center) atZ. 3. Delivered
	1	to (addressee(s) designation) by broad-
	1	cast atZ. 4. Forwarded to (addressee
		(s) designation) by commercial means at
	· ·	Z. 5. Mailed to (addressee(s) desig-
		nation) atZ.
-		
ZDG		Accuracy of following message(s) or
		(message) is doubtful. Correction
		or confirmation will be forthcoming.
	1	
	· · ·	ŀ
	l	
. –		
		2B-10 CHANGE NO. 5

.

.....

### <u>DECODE</u>

·	1		CODE
	<u>SIGNAL</u>	QUESTION	ANSWER, ADVICE OR ORDER
	∕грн	د	Request corrected copy of message be forwarded to
	ZDI .		Place this message (or message) on. (1. MERCAST; 2. MERCAST one operator period).
	ZDJ	How many groups does your message contain?	I have a message containinggroups to transmit to you (or to)
	ZDK	Will you repeat message (or portion) (or will you rerun number)?	Following repetition (of) is made in accordance with your request.
	ZDL.		Confirmation(1. Was omitted; 2. Differs from text).
	ZDM		I am holding your message
	ZDN		Report disposal of message your station with any reason for delay.
	ZDO		I could not send messageto
	ZDP		Hold my messageuntil correctness is confirmed.
****	ZDQ		Messagewas relayed toatby (onkHz (or MHz)).
	ZDR		This is a multiple-address or book message tape containingrouting indicators in the routing line which is to be routed in accordance with the established doctrine.
-			
·			
ACP 131 (6)

DECODE	

SIG142 CLESTION	ANSWER, ADVICE OR ÖRDER
ZDS	Message (or message) which you have (orhas) just forwarded was incor- rectly transmitted. Correct version of message (or part or portion) is
CDT	Exercise messages are not to be sent until further orders (or until)
ZDU .	Pass the following(1. Private message (telegram); 2. Service telegram) (Number of words charged for is).
ZDV	Private message (telegram) received forRequest instructions.
ZDW	In addition to the regular broadcast times, this hydrographic message is to be transmitted on the following hydro- graphic schedules(lschedule; 2. All schedules on(date); 3. All schedules fromto(dates inclusive).
DX	Messages up to and including serial (or circuit) numberhave been pre- viously transmitted.
ZDY	Private messages (telegrams) are not to be sent until further orders (or until).
ZDZ	On(date) message(s) was (were) mailed to(command(s)) bearing serial numbers

-----

	SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
	ZEA		Pass plain language copy to by secure means.
	ZEB	· · · · ·	This is a reprocessed ICAO message.
	ZEC	Have you received message?	Message(1. Not received; 2. Uniden- tified. Give better identifying data).
••• ••• •	ZED		The following confirmatory information as received is at variance with the text
	ZEE		Request messagebe transmitted.
	ZEF		This message has been read (received or intercepted) from a ship at sea.
	ZEG		This message is not to be decrypted or reported outside the communication cente in(1. Aggressor force; 2. Friendly force).
	ZEH		Accuracy ofportion of following message (or message) is doubtful. Correction or confirmation will be for- warded when received. (1. Heading; 2. Text; 3. Groupto)
	ZEI		Accuracy is doubtful of heading of message received as follows Check to station of origin if necessary and repeat.
·	ZEJ		Replies to this message (or message) are to be sent now (or at)
_	ZEK		No answer is required.

2B-13

------

.....

:::::::

...

......

_____

..... 2

DECODE

. . _....

	DE	CODE
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZEL	Is messagea correction to messagewhich was previously transmitted with doubtful or missing groups (words)?	This message is a correction (to message) (transmitted by). Note: May only be used in conjunction with ZDG.
ZEM		
ZEN		This message has been delivered by a separate transmission or by other means (1. Messenger/courier; 2. Mail) to the addressee(s) immediately following this operating signal.
ZEO		Transmit this message by rapid means when no charges are involved and to all others by mail.
ZEP		This message (or message) was incom- pletely received. Each word or group missed, which is indicated by position of ZEP in the message, will be forwarded as soon as obtained.
ZEQ		Messagehas been (1. Missent to this station. Received atz. Message pro- tected; 2. Missent to this station and unable to protect delivery due to Request you re-transmit to the appro- priate called station(s); 3. Misrouted to this station and has been rerouted to atz. Recommend corrective action; 4. Misrouted to this station and unable to protect delivery (for) due to Request your station protect delivery; 5. Routed to this station in format line 2, but without delivery responsibility in format lines 7 or 8. Advise.)
ZER		This is a multiple-address or book message tape containingrouting indi- cators in the routing line for which the station called in the pilot is respon- sible.
ZES		Your messagehas been received(1. Incomplete; 2. Garbled). Request retrans- mission.
ZET		Messagehas been protected and no further action byis required.
2EU		Exercise (drill) message.

2B-14

..... . ..... CHANGE NO. 5

-----

ACP 131 (8)

.....

		D	ECODE
	SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
	ZEV	Request you acknowledge message	Message (or message) is acknowledged.
	ZEW		Your attention is invited, for (1. Action; 2. Information), to message which is in your files.
	ZEX		This is a book message and may be delivered as a single-address message to addressees for whom you are responsible.
¢	ZEY		This message (or message) has been (or will be) put on the broadcast schedules (serial number)
- 	ZEZ	- -	When delivery is effected of this book message to addressee by commercial means, or when copy is forwarded to confirm message previously delivered by telephone it is to be sent as a single address message. (May only be used in conjunc- tion with ZEX.)
	ZFA	· · ·	Following message has been read (received or intercepted).
	ZFB		Pass this message to (1. on arrival; 2. On return to base).
	ZFC	Have you received (or sent) the executive signal ("Execute") for message?	Executive signal ("Execute") for last message (or following message) has been made (or was made at).
	ZFD		This message is a suspected duplicate.
<b>2</b>	ZFE		Pass message(which is in your files) to addressee(s) for whom you are responsible using the indicated supplementary heading.

CHANGE NO. 5

.

ł

	DEC	ODE
<u>G</u>	OUESTION	ANSWER, ADVICE OR ORDER
FF	e , ,	Inform me when this message (or message) has been received by (addressee designation) or by (1. Action addressee(s); 2. Information addressee(s); 3. All addressees; 4. Action addressee's/addresses' message center; 5. Information addresse's/ addressees' message center; 6. All addressees' message center). (NOTE: AUTHORIZED FOR USE ON GENERAL MESSAGES).
G		This message is an exact duplicate of a message previously transmitted.
ZFH		This message (or message) is being (or has been) passed to you (or) for (l. Action; 2. Information; 3. Comment) (at the request of)
ZFI	Is there any reply to message?	There is no reply to message
2FJ		Message(s)number(s)not transmitted on this schedule (or on schedule) are no longer needed.
ZFK	Does message(or station serial number) concern me . (or)?	Message(or station serial number) (1. Does not concern you (or); 2. No longer concerns you (or)).
	Was there any traffic addressed to me on broadcast schedule between serial numbers and ?	Following traffic was addressed to you onbroadcast schedule between serial numbers and
IFM		Message(s) serial number(s)(to ) which was (were) transmitted during unserviceability of one or more transmitters, simultaneously keyed, will now be repeated.
ZFN	· · ·	ε 
		· · · · · · · · · · · · · · · · · · ·

2B-16

CHANGE NO. 5

.....

. . . . . .....

DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZFO	c	Messageis being delivered as a basegram message.
ZFP		Basegram.
		· ·
ZFQ		Two messages (and) received under channel number (or station serial number) Both released.
ZFR		Cancel transmission(made under channel or station serial number ).
ZFS		Make messagesame channel or station serial number as this pro cedure message.
ZFT	· · · · · · · · · · · · · · · · · · ·	Messagereceived without channe number (or station serial number following message bearing channe number (or station serial number Message released.
ZFC		Channel numbersandpreceded message Lower number recorded and higher number blanked.
ZFV		Messagecontaining channel numberseparated by portions o the message, released subject to correction. Take necessary actio to provide corrected copy.
ZFW		BLANK channel number(s)Forwar messageas channel number
ZFX		Channel number (or station seria number)is open.
ZFI		
ZFZ		
	•	

CHANGE NO. 1 (Reverse Blank)

.....

.....

. _.....

1

ł:

0.0	c c c	າມຮ
- 00		JUC.

. . . . . . . . . . . . .

	DE	CODE
SIGN	AL QUESTION	ANSWER, ADVICE OR ORDER
ZGA	What is my call sign for use on this circuit only?	Your call sign for use on this circuit only is
ZGI		Send (answer)(1. In alphabetical sequency of call signs. Each station to make its call signs once (or times); 2. In the following sequency of call signs).
ZGC	· · ·	Station to station receipts are not required for this FLASH message (authorization for use must be pre- scribed by authorities controlling networks/systems).
ZGI		Two stations are using the same indef- inite call sign onkHz (or MHz). Bot stations are to select different call signs.
ZGE	······································	Send your call sign(s) once (or times) on this frequency (or onkHz (or MHz)).
ZGF		Make call signs more distinctly.
ZGG	What is call sign of (1. Friendly striking force aircraft; 2. Friendly shad- owing aircraft; 3. Incoming vessel; 4. Senior officer present afloat (or Officer in tactical command); 5. Ship acting as flagship for)?	Call sign ofis(1. Friendly striking force aircraft: 2. Friendly shadowing aircraft; 3. Incoming vessel; 4. Senior officer present afloat (or Officer in tactical command); 5. Ship acting as flagship for).
ZGH		I am using this transmitter to answer calls on two or more frequencies. Answer to calls may be delayed.
ZGI		I am or have been (oris or has been) calling you (onkHz (or MHz)).
ZGJ	When will you call me again on present frequency (or on kHz (or MHz))?	I will call you again as soon as possib (or at) on present frequency (or on. kHz (or MHz)).

ACP 131 (6)

- -

#### <u>DECODE</u>

_____

	DEC	ÇODE
<u>G., 4 .</u>	QUESTION	ANSWER, ADVICE OR ORDER
GK	When shall I call you again on present frequency (or on kHz (or MHz))?	Call me again aton present fre- quency (or onkHz (or MHz)).
GL	· · · · · · · · · · · · · · · · · · ·	will answer calls for me (or for).
LGM	Did you (or) hear (at)?	I have (orhas) been unable to com- municate with(since).
GN	when was I (or) last heard?	Nothing heard from you (or) (since)
<u>.00</u>	what is my number and sequence in answering?	Your number is Answer after number (Numbers to be separated by separative sign).
<u>G</u> P		Answer calls for me on present fre- quency (or onkHz (or MHz)).
GQ		
GR		
·		
G <u>s</u>		
GT		
GU		
•		
GV		
		· · · · · · · · · · · · · · · · · · ·
	Í	
	i	

2B-20

......

.

- - - -

CHANGE NO. 5

1999-1995 1999-1995

-----

....<u>.</u>.

.....

....

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZGW		
ZGX	- ··· · ··· · · · · · · · · · · · ·	
201		
	_	
ZGY		
	,	
ZGZ		
202		
	·	Designed the support your shight by
ZHA	Shall I decrease fre-	Decrease frequency very slightly (orkHz) to clear interference.
	quency very slightly (orkHz) to clear	
	interference?	
		Transpoor Programmer vorst clightly
ZHB	Shall I increase fre-	Increase frequency very slightly (orkHz) to clear interference
	quency very slightly (orkHz) to clear	
	interference?	
ZHC		
ZHD	·····	
611 <i>0</i>		
ł		
ZHE		
ZHF		
7110		
ZHG		
ZHH		
1	1	

2B-21

	DECO	
SIGNAL ZHI	QUESTION	ANSWER, ADVICE OR ORDER
1		
•	•	
ZHJ	<u> </u>	
-		
ł	•	
<u>гнк</u>	·····	
1		
Ι.		
ZHL		······································
		· ·
ZHM		
ZHN	How do you receive my	Your automatic transmissions are
	automatic transmission? ·	(1. Good; 2. Fair; 3. Unread- able).
		aure J.
ZHO	What is your speed of	My speed of automatic transmission
	automatic transmission in(l. Revolutions per	in(1. Revolutions per minutes; 2. Words per minute; 3. Bauds) is
	minute; 2. Words per	2. words per minute, 5. Danus / 15
	minute; 3. Bauds ).	
ZHP	What is preventing	Automatic reception is prevented
4 LLL	automatic reception?	by
ZHQ		Please listen for me onkHz (or
201 <b>Q</b>		MHz) and transmit to me onkHz
		(or MHz).
ZHR	Is my speed of automatic	Your speed of automatic trans-
~	transmission correct?	mission is(l. Fast; 2. Slow;
		3. Erratic; 4. Correct).
ZHS		
211.3		
Į		
ZHT	· · ·	
		· · · · · · · · · · · · · · · · · · ·

2B-22

CHANGE NO. 1



.....

.....

	$\overline{\mathrm{D}}$	ECODE
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
SIGNAL ZHU		
	•	
ZHV		
ZHW		
	· · · · · · · · · · · · · · · · · · ·	
ZHX		
ZHY		
ZHŻ		

......

CHANGE NO. 1 (Reverse Blank) 2B-23

_____

____

DECODE	1
--------	---

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZIA .	د ۰.	This message (or message) is being (or has been) passed out of proper sequence of station serial numbers.
ZIB	Two messagesand (or group counts and time of originand ), both received as serial number What are correct serial numbers?	<ul> <li>Change station serial number of messageto read number0R Assign to messagestation serial number</li> </ul>
ZIC	What is (are) station serial number(s) or channel number(s) of last message(s) you transmitted to me (or to)?	Station serial number(s) or channel number(s) of last message(s transmitted to you (or to) is (are)
ZID	What is (are) station serial number(s) or channel number(s) of last message(s) re- ceived from me (or from)?	Station serial number(s) or channel number(s) of last message(s) received from you (or from) is (are)
ZIE		Station serial number(s) or channel number(s) (from) has (have) not been received. Repeat message(s) or cancel serial number(s) or channel number(s).
ZIF		I (or) did not use serial number(s).
ZIG	Is (are) number(s) (to) blank?	Number(s)(to) is (are) blank.
ZIH	, 	Repeat headings of message number totransmitted by you (or) to check serial numbers.
ZII	What wasof your (or 's) number? (1. Date-time group; 2. Filing time)?	My (or 's) numberhad tollow- ing(l. Date-time group; 2. Filing time).

5

............

2B-25

......

.....

-----

......

******

## ACP 131(E)

......

_____

	DECODE	
SIGNAL 277	QUESTION	ANSWER, ADVICE OR ORDER
ZIJ		I am now changing my channel number/letter. Last number sent in this series is that of this message.
ZIK		This is a weather controlled message which is not to be trans- mitted in the clear over radio circuits.
ZIL	· · · · · · · · · · · · · · · · · · ·	
ZIM		
ZIN		
ZIO	•	
ZIP		Have set continuous watch, or (1. Single operator period; 2. Two operator period; 3. General periods only; 4. Reduced single operator periods) on broadcast indicated. First serial number received is/No number yet received.
ZIQ		Have ceased watch on Broadcast, last number received
ZIR		
215	- · ·	
ZIT		

2B-26

-:::

CHANGE NO. 1

-----

----

E			

. .. ...

	DECOL	JE
SIGNAL	QUESTION	ANSWER, ADVICE OR OHDER
ZIU		
ZIV		
1		
ZIW		
21n		· ·
ZIX	······································	
ļ		
ļ		1
ZIY		1
ļ		•
	······································	
ZIZ		
	-	
r		
ZJA		Read signalling light of
LUA		
ZJB	May I close down visual	Close down visual watch now (or
	watch now (or at)?	at).
		Report all flag signals made hy
ZJC		Repeat all flag signals made by the senior officer (senior office
}		present afloat).
ļ		
ZJD		Use(1. Better light; 2. Better
200		background).
ZJE		Set visual watch now (or at)
		Visual relaying station between
		I VISUAL PELAVINE SUBLION DELWEEN
ZJF		senior officer (senior officer
ZJF		senior officer (senior officer
ZJF		senior officer (senior officer present afloat) (or) andis to be

2B-27

-----

71

CHANGE NO. 1

......

: ·

SIGNAL ZJG ZJH ZJI	QUESTION	ANSWER, ADVICE OR ORDER Repeat all flashing (or semaphore) messages made by the senior officer (senior officer present afloat).
2 ј н	c	Repeat all flashing (or semaphore) messages made by the senior officer (senior officer present afloat).
	· · · · · · · · · · · · · · · · · · ·	
ZJI		Your light is unreadable(1. Not trained correctly; 2. Not bright enough; 3. Too bright).
	What are the call signs of the ships in company with you?	Call signs of the ships in company with me are(For visual use only),
ZJJ		Use double-flash procedure.
Z J K	Are you (or is) visual guard for?	I am (oris) visual guard for
ZJL		Hoist the following signal.
ZJM	· · · · · · · · · · · · · · · · · · ·	(1. Flaghoist; 2. Semaphore; 3. 20 inch signaling projector; 4. 10 inch signaling projector; 5. ALDIS; 6. Intermediate; 7. Heather; 8. Daylight signaling lantern; 9. Masthead flashing light; 10. Infrared; 11. Signal search light; 12. Omnidirectional flashing light. 13. Directional flashing light.
ZĴN		Messagehas been passed to those for whom I am responsible (or to ) (at) but "L" has not been received.
ZJ0		Repeat back each group of the text of this message as it is trans- mitted.
ZJP		Message which follows is to be encrypted and passed to all addressees (by). (Only to be used by visual not liable to interception.)

.

2B-28

-----

· · ·.....

.

CHANGE NO. 1

.....

...

.....

. . . . . .

.

#### DECODE

. .

. . .. ... .

	DEC	<u>, , , , , , , , , , , , , , , , , , , </u>
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZJQ	¢ - ,	Repeat signal (or message) the senior officer (senior officer present afloat) (or ship indicated) is now transmitting or is about to transmit.
ZJR	-	Only semaphore is to be used for visual signalling betweenand (or from).
ZJS	•	Directional lights of minimum brilliancy are to be used for all visual traffic betweenand except for messages of precedence priority and above requiring trans- mission to two or more ships.
ZJT		Broadcast transmitter indicated is about to be taken off for minutes (or until).
<u>zл:</u>		
ZJV		
ZJX		
ZJX		
ZJY		
232		

.....

-----

....

.....

2B-29

CHANGE NO. 1 (Reverse Blank)

DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZKA	Who is controlling station (net control station) on this fre- quency (or onkHz (or MHz))?	I am (oris) controlling station (net control station) on this frequency (or onkHz (or MHz)).
ZKB	Is it necessary to obtain the permission of the controlling station (net control station) before transmitting messages?	It is necessary to obtain the per- mission of the controlling station (net control station) before trans- mitting messages.
ZKC	······	Substitute code sign (call sign) of control station of group (net) in place of this operating signal.
ZKD	Shall I take control of net (for) (until)?	Take control of net (for) (until)
ZKE		I (or) report(s) into circuit (net).
ZKF		Station leaves net temporarily (or forminutes) (to communicate with) (will be onkHz (or MHz )).
ZKG		Observe (or directto observe) schedule withonkHz (or MHz) (at).
ZKH	Did you (or) observe schedule with (at)?	I (or) observed schedule with(at).
ZKI		Set watch onkHz (or MHz) (1. Continuous; 2. Until further notice).
ZKJ	May I close down (until)?	<pre>(1. Close down (until); 2. I am closing down (until)).</pre>
ZKK		Assume radiotelegraph (wireless) organizationforthwith (or at

.....

CHANGE NO. 1

DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
LKL	۰.	Resume normal radio communication now (or at).
		· · ·
ZKM	· · · · · · · · · · · · · · · · · · ·	Take guard (for) (onkHz (or MHz)).
ZKN		I have taken over guard onkHz (or MHz).
260		I have handed over guard (to) (onkHz (or MHz)) (serial number of last message received was).
ZKP	Are you (or is) radio guard for (onkcs (or mcs))?	I am (oris) radio guard for (onkHz (or MHz)).
284		Indicate ships or stations for which you are (oris)guard. (1. Radio (onkHz (or MHz)); 2. Visual).
ZKR	ún what frequencies are you (or) maintaining watch?	I am (oris) maintaining watch onkHz (or MHz).
ZKS	what stations are keeping watch onkcs (or mcs) (or are in net)?	Following stations are keeping watch onkHz (or MHz) (or are in net).
ZKT		Am keeping watch onkHz (or MHz) for(1. First five minutes in each half hour; 2. From 10 to 15 and 40 to 45 minutes past the hour; 3. Betweenandminutes past the hour).
ZKU		I am (oris) maintaining con- tinuous watch, or (1. Single operator period; 2. Two operator period; 3. General periods only; 4. Reduced single operator period) on(call sign)Broadcast.

2B-32

DECODE

. . . . . . . . . . . . . . . .

SIGNAL	QUESTION		ANSWER, ADVICE OR ORDER
ZKV .	-		I am (oris) standing splitphone watch onandkHz (or MHz).
ZKW			
ZKX			
ł		<u>.</u>	
ZKY			
	· · · · · · · · · · · · · · · · · · ·	·	
ZKZ			
	· · · · · · · · · · · · · · · · · · ·		I have pictures of the following
ZLA			types to transmit(1. Photo- graphs; 2. Weather maps; 3. Blue- prints; 4. Printed matter; 5. Test).
ZLB	What drum rotation speed shall I use?		Transmit atrevolutions per minute. (1. 30; 2. 45; 3. 50; 4. 60; 5. 90; 6. 100).
ZLC		<u></u>	Your transmission(1. Shows objectionable modulation; 2. Suit- able for communication but not for picture; 3. Shows caption too close to edge of picture; 4. Shows buckled print; 5. Shows fork drift; 6. Picture shows fork contrast; 7. Picture shows in- sufficient contrast; 8. Picture
			shows cross-over).
ZLD			I am unable to(1. Synchronize with you; 2. Transmit pictures; 3. Copy pictures).
ZLE			Send(1. Fence; 2. White; 3. Black; 4. Picture; 5. Synchro- nize; 6. Fence swinging black until I stop you; 7. Fence swinging white until I stop you).

2B-33

------

CHANGE NO. 1

......

• • • • •

.....

240-069 **C-**67-*

-

<u>_.....</u>

-----

4.....

.....

.....

	DECOD	DE
SIGNAL	QUESTION	ANSWER ADVICE OF OFDER
ZLF	······	ANSWER, ADVICE OR ORDER (1. Inverter; 2. Converter; 3. 96-line l2 x 18 transceiver; 4. 100-line transceiver.). 5. 300-line transceiver).
ZLG	Shall I transmit (1. Negative; 2. Positive)?	Transmit(1. Negative; 2. Positive).
ZLH	Will you transmit map(s)(area timetype).	I am going to transmit map(s) (areatimetype).
ZLI	<u></u>	Reverse material on drum and re- run until I break you.
ZLJ	What size lettering shall I use?	Use(1. Standard telegraphic typewriter; 2. Jumbo typewriter if available; 3. Hand lettering at least 3/16 of an inch high).
ZLK		
ZIL	· · · · · · · · · · · · · · · · · · ·	
ZLM	•	
ZLN		Facility indicated cannot be operated at present.

2B-34

.....

.....

CHANGE NO. 1

.....

------

- . ----- ---- -

	DECO	DE
070111	QUESTION	ANSWER, ADVICE OR ORDER
ZLO .	Is (are) facility(ies) operative at your station (or at)?	The followingfacility(ies) is (are) operative at this station (or at). (l. Homing beacon; 2. Radar beacon; 3. Revolving and/or flashing beacon; 4. Radio beacon; 5. Instrument landing system; 6. Ground control approach; 7. Approach control; 8. Tower transmitter (state which type LF, MF, VHF, or UHF); 9. MF Direction finder; 10. VHF Direc- tion finder; 11. UHF Direction finder; 12. Runway lights; 13. Sandra lights; 14. Radio track guide; 15. Radio range).
ZLP	What is (are) the magnetic line(s) of shoot of the (facility)?	The magnetic line(s) of shoot of the(facility) is (are) degrees.
ZLQ		
ZLR		
ZLS		
ZLT		
ZLU		
ZLV		
ZLN		·

2B-35

CHANGE NO. 1

.....

**.** 

7

....

### ACP 131(E)

.



2B-36

11.555. XI

.....

. .

.....

CHANGE NO. 1

....<u>.</u>.....

#### DECODE

IGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZMA	What was bearing of un-	Bearing of unknown station (or
·	known station (or station	station using call sign) was
ł	using call sign) at (time) (onkHz (or MHz))?	(attime) class(onkHz
	(CIME) (ON: KHZ (OF MHZ)).	(or MHz)).
		Bearing of you (or of) was
ZMB		(class) from me (or from)
ł		at(time).
ZMC		Bearing of station which answered
		message (or transmission) from
		was(at(time)) class(on
		kHz (or MHz)).
		1. Your bearing appears to be
		betweendegrees anddegrees,
		and sense indicates you are to
ļ		the(direction) of this station 2. Your bearing is changing
Ì		rapidly.
		Pass in direction finding bearing
ZME		(of) obtained onkHz (or MHz
		(or betweenandkHz (or MHz))
	Will you endeavor to	Bearing of station now transmitti
L.'IF	obtain a direction	(or of eac) (on each Hz (or MHZ)) wa
	finding bearing of	(class) sense determined
ļ	station now trans-	at
1	mitting (or of)	
	(onkHz (or MIIz))?	
21/0		This bearing (course or position,
ZMG		is unreliable. Error in excess (
		class C bearing (or position) may
		amountdegrees or miles).
ZMH		Surface craft using call sign cooperating. Change tokHz (o
		MHz) and follow direction finding
		procedure when called.
		P
	till you coud your coll	I am about to send my call sign
ZMI	will you send your call sign and dashes of five-	and dashes of five-seconds; dura
Ì	sign and dashes of five- seconds' duration at	tion at intervals in order that
	intervals in order that	you (or ) may home on me.
	I (or) may home on	
	you?	

_____

· . . . . . . -

....

2B-37

•

.....

.....

	DECODI	E
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZMJ		Check(1. Correctness of last QUV; 2. Sense of last QDR; 3. Correctness of last QDM; 4. Sense of last QDM).
<u>ZMK</u>	· · · · · · · · · · · · · · · · · · ·	Cannot determine your (or's (1. Position; 2. Bearing).
		(1. Position; 2. Bearing).
ZML		Steerdegrees for 2 minutes if possible and send call sign and long dashes while you are so doing.
ZMM		Increase height to enable more accurate bearing to be completed.
ZYDY	· · · · ·	Change over to loop direction finding onkHz (or MHz) (and home on transmissions made by).
ZMO	What is my position by direction finding bear- ing from nearest land- mark (or from)?	Your position by direction finding cross bearings from nearest land- mark (or from) is(class) at(hours).
ZMP		Endeavor to plot position from bearings taken on station(s) now transmitting (or of) (onkHz (or MHz)).
ZNQ		Cannot determine your position, you are in line or nearly in line with direction finding station baseline.
ZMA		Take over direction finding guard as previously ordered (onkHz (or MHz)) (fromtokHz (or MHz)).
ZMS		Carry out short direction finding procedure (as locally prescribed).
ZMT		Sense determination unreliable, bearing may be reciprocal.

2B-38

. .

......

.....

DECODE

		DECODE
SIGN	AL QUESTION	ANSWER, ADVICE OR ORDER
ZMU		<pre>(1. Listen (for) on direc- tion finding onkHz, (or MHz) (or betweenandkHz (or MHz)): 2. Shift to direction finding fre- quencyand listen for call sign ).</pre>
ZMV	What is the Grid Course for me to steer to reach you (or)?	The Grid Course for you to steer to reach me (or) isdegrees athours.
ZMW		
		· · · · · · ·
ZMX		
ZMY		
ZMZ		
ZNA		You are encryptingincorrectly. (1. Operating signals; 2. Radio call signs); 3. Address groups).
ZNB	What is authentication of(1. Message; 2. Last transmission; 3)?	Authentication (of) is (1. Message; 2. Last trans- mission; 3).
ZNC		All transmissions will be authen- ticated(1. On all circuits; 2. On this circuit; 3. On frequency).
ZND		You are using authenticator in- correctly(l. Verify authentica tor system key; 2. Check authenti cation of your last transmission)
ZNE		I am prepared to authenticate.



2B-39

4:

(

/*******.** 

**``** 

	•
DECODE	-
DECODE	

:

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZNF		Addressees who are not holders of the cryptographic system employed in the text need not decrypt (decipher), but shall sight (read) translation at first opportunity and obtain copy if appli- cable.
ZNG		Commands who are included in the collective address used in this head- ing, who are not holders of the cryp- tographic system employed in the text, are exempted.
ZNH		Plain-text tape of this message should be prepared during process of decipherment.
ZNI		Shift to(l. On-line; 2. Plain) operation now.
ZNJ		This message has been has been trans- mitted under serial numberat by station whose designation follows. (1. By on-line cipher; 2. By off- line encryption)
ZNK		Addressees who do not hold crypto- graphic facilities are exempted.
ZNL ·		Receiving Cryptographic Office con- cerned should refer queries relating to the text of this message (e.g., requests for verification) to (address designators except plain language). Note: To be used in codress messages when necessary to indicate originating crypto center and then normally limited to messages of Immediate precedence and above.
ZNM		Originator authorizes the transfer of this message into the secure networks of all authorities addressed, pro- vided the networks are secured or approved for the security classifi- cation of the message involved.
ZNN	··········	

CHANGE NO. 4

......

ACP 131(b)

.

		DECO	DE
	SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
	ZNO	QUALIZO.	Unable to decrypt message (from indefinite call sign). Note: Only to be used under circumstances laid down in cryptographic instructions.
	ZNP		Transfer operation of channel now to(1. Normal; 2. Top Secret; 3. Conference; 4. Engineering) on-line cipher operation. Note: This signal is for use only when already in on-line operation.
	ç ZNQ		This message (or message) received at this station(1. With- out authentication (when authentica- tion is in force); 2. Incorrectly Authenticated. 3. Correctly authenticated.)
	ZNR		This message may be forwarded with- out change by radio or non-approved circuit. Note: The letter U repeated five times following this operating signal indicates that the message which follows is unclassified or is acceptable for transmission over any circuit in its present form.
·	ZNS		Following message has been authenti- cated(This signal is for use only over approved/on-line circuits).
	ZNT		Following message has NOT been au- thenticated(This signal is for use only over approved/on-line circuits).
	ZNU		
	ZNV		
	ZNW		
	ZNX -		



2B-41

,.....

DECODE

SIGNAL	QUESTION	,	ANSWER, ADVICE OR ORDER
ZNY			Do not forward this message un- encrypted by radio or non-approved circuit. Note: A letter repeated five times following this operating signal indicates the classification for which the circuit must be approved before the message can be forwarded over it.
ZNZ			Originator has indicated that this message should be forwarded without service action on the text at relay or addressee stations, as the in- formation conveyed is(1. Perish- able; 2. For information only and will be confirmed by other means).

- TOV 17	QUESTION	ANSWER, ADVICE OR ORDER
SIGNAL ZOA		Relay this message (or message) by visual (to).
ZOB .		Take (I will take) no further action regarding forwarding message
ZOC		Station(s) called relay this message to addressees for whom you are responsible.
ZOÐ		Act as radio link (relaying station) between me and(or betweenand).
20E	Can you accept message for? (1. on line ; 2. off line).	Give me your message. I will dispose of it(1. on line; 2. off line).
ZOF	<u> </u>	Relay (pass) this message (or message) tonow (or at).
ZOG		Transmit (pass) this message (or message) to(for) (1. Action; 2. Information).
ZOH	·	Send message foronkHz (or MHz) by(1. Receipt method; 2. Broadcast method; 3. Intercept method).
ZOI		Pass this message to the nearest (or) weather central/control.
ZOJ		Unable to relay messagein pre sent form(1. Call signs not encrypted; 2. Text not encrypted
ZOK		Relay this message via
ZOL		I will relay your call sign to senior officer present afloat, whose call sign is



_____

.....

2B-43

. :

1

_____

···<u>·</u>·····

SIGNAL	QUESTION	ANSWER ADVICE OF OFFE
IOM		ANSWER, ADVICE OR ORDER Delivery of this message by mail in lieu of broadcast permissable (to).
.0N		Place this message (or message) on(1. Continuous wave broad- cast; 2. Radioteletype broadcast) indicated by following specific broadcast designator(s)
ŬŨ		Place this message (or message) on MERCAST indicated by following specific broadcast designator(s)
0P		This message (or message) has been delivered to all broadcast areas (or to the following specific broadcast area(s)).
ΰQ		Deliver this message (or message ) to all broadcast areas (or to the following specific broad- cast area(s)).
OR		1. Route traffic for viaarea broadcast. 2. Beginning at traffic for you (or) will be routed viaarea broadcast.
0S	Request area routing for messages for?	Area routing for messages for is
OT	,	Transmit or handle this message at the lower precedence to the station or address designator(s) which follow(s).
ot	How should traffic forbe routed?	Route traffic forthrough (onkHz (or MHz)).
01	•	Station designation preceding this operating signal is the correct routing for this message rerouted by
<u>.</u>		Broadcast this message at special watchkeeping periods for ships with (1. One radio operator; 2. Two radio operators).

2B-44

CHANGE NO. 1

.:

		DECODE	•
	SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
	ZOX	· · · · · · · · · · · · · · · · · · ·	Place this message (or message) on submarine broadcast indicated by following specific broadcast desig- nator(s)
(	Z0Y		Relay this message only to the stations(s) whose designation(s) precede this operating signal.
	202	· · ·	Relay this message (or message) in its present form without de- cryption.
	ZPA	······································	Your speech is distorted.
	ZPB		Your transmitter has strong radiation while idling.
,	ZPC		Your signals are(1. Fading badly; 2. Fading slightly; 3. Good for words per minute; 4. Getting stronger; 5. Getting weaker).
	ZPD	Is your signal as checked by monitor satisfactory (1. Locally; 2. As radiated)?	My signal as checked by monitor is satisfactory (1. Locally; 2. As radiated).
	ZPE	· · · · · · · · · · · · · · · · · · ·	Maximum power is now being radiated.
	ZPF	What is the readability of the signals of the group (net) (or of)?	The readability of the signals of the group (net) (or of) is (1 to 5).
	ZPG	What is (are) signal strength(s) of group (net) (or of)?	Signal strength(s) of group (net) is (are) (or of) is (1 to 5).
	%ZPH	· · · · ·	This interrupted transmission is can- celled. A complete retransmission from this station will follow without request.



CHANGE NO. 4

......

* ......

DECODE ANSWER, ADVICE OR ORDER <u>SIGNAL</u> ZPI QUESTION ZPJ ZPK ZPL ZPM IFF switched ON in distress ZPN position. ZP0 The text of this message is to be relayed in precisely the same format as that in which it is received. No characters or machine functions are to be added, inserted or deleted and the relative positions of the groups are to be retained. ZPP Message which follows is a submarine surfacing signal to be cleared on calling frequency ZPQ ZPR I have messages (precedence) prepared in tape relay format for you (or for___). (Consideration should be given to receiving this message directly on to a printing perforator/typing reperforator). ZPS

# DECODE ANSWER, ADVICE OR ORDER OUESTION SIGNAU This transmission is a transmitter pre-ZPT acceptance trial. Request expeditious strength and readability reply. If more than one tropical wind warning ZPU message in this sequence is awaiting transmission, transmit highest serial number first. (Sequence/serial is understood to include tropical warning name or number and consecutive warning number). If the earlier wind warnings identified ZPV by DTG(s) following this signal are awaiting transmission, file those warnings without further transmission. This message canceled at time indicated. ZPW File without further transmission. This message (or message....) is for-ZPX warded to you for screening and determination of need for broadcast promul-£...... gation. Advise broadcast control commander of recommended message disposition. This message (or message....) has been 2PY screened by command authority and requires broadcast delivery. ZPZ

2**B-4**7

CHANGE NO. 5 (Reverse Blank)

......

DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZQA	· .	The landing lights at the aero- drome (or at the aerodrome at) are out of order.
ZQB	What is the magnetic direction in which landing is to be made?	The magnetic direction in which landing is to be made is degrees.
ZQC	Are you (or is) (1. Airborne; 2. Water- borne; 3. On land)?	I am (oris)at(time). (l. Airborne; 2. Waterborne; 3. On land).
ZQD	Am I to carry out the procedure appropriate to the use of the (facility)?	You are to carry out the procedur appropriate to the use of the (facility).
ZQE	What is your desired rate of descent expressed in hundreds of feet per minute?	My desired rate of descent is hundreds of feet per minute.
ZQF	What is the length in yards of the runway in use?	The length of the runway in use isyards.
ZQG		
ZQH	· · · · · · · · · · · · · · · · · · ·	
ZQI		
ZUJ		
ZQK		

•

2st- ≁2 C-€7-8

2B-49

CHANGE NO. 1

۱

÷



2B-50

CHANGE NO. 1

••• -

......

	DECODE		
	SIGNAL_	QUESTION	ANSWER, ADVICE OR ORDER
	ZQY		
		·	•
	ZQZ		
×			
	ZRA	How does my frequency check?	Your frequency is(1. Correct; 2. Slightly (orhertz (or kHz))
		CHECK:	high; 3. Slightly (orhertz (or kHz)) low; 4. Stable on steady
			mark: 5. Stable on steady space;
			6. Unstable; 7. Erratic).
			Check your (or's) frequency on
	ZRB		this circuit (or onkHz (or MHz)).
			Tune your transmitter to(1.
	ZRC	Shall I tune my trans- mitter to(l. Proper	Proper frequency; 2. Zero beat
		frequency; 2. Zero beat	with my (or) transmitter).
		transmitter)?	
, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	ZRD	What is the frequency of theradio facility	The frequency of the radio facility now in operation is
_		now in operation?	
		· · ·	I hear you best onkHz (or MHz).
	ZRE	On what frequency do you hear me best?	I near you best onkhz (or imz).
	• .		
			Am about to send tuning signal on
	ZRF	Will you send tuning signal on your present	my present frequency (or onkHz
		frequency (or onkHz or (MHz)) for 1 minute,	(or MHz)).
		or until AS is given?	
			A change in frequency (tokHz (or
	ZRG	When will a change of frequency (tokHz	MHz)) will be necessary at
		(or MHz)) be necessary?	approximately
			Your frequency shift is(1.Too
	ZRH	Is my frequency shift correct?	wide; 2. Too narrow; 3. Not linear;
*****			4. Correct) (by hertz).
	ZRI	-	
	-		

2B-51

. ....

***********
ACP 131(E)

#### DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZRJ	Will you check your?	I will check my
ZRK	Shall I revert to single channel working?	Revert to single channel working.
ZRL	Are you working on the correct code? NOTE: This meaning applies only to frequency shift diplex.	I am working on the correct code. NOTE: This meaning applies only to frequency shift diplex.
ZRM	Can you receive both side- bands of my independent sideband transmissions?	I can receive(l. The upper side- band; 2. The lower sideband; 3. Both sidebands).
ZRN	Do you intend to transmit on(1. The upper sideband; 2. The lower sideband; 3. Both sidebands independently)?	I intend to transmit on(1. The upper sideband; 2. The lower side- band; 3. Both sidebands indepen- dently).
ZR0	Can you read me on(l. Channel A; 2. Channel B; 3. Channel(s); 4. All channels)?	I can read you on(1. Channel A; 2. Channel B; 3. Channel(s); 4. All channels; 5. No channels).
ZRP		Transfer signal on channelto channel (Should only be used when order originates from a third working channel. See ZRV for use between dir- ectly connected working channels).
ZRQ		Change to other sideband.
ZRR		Message(s)number(s)will no longer be broadcast but are effective and of interest (to units indicated).
ZRS		Your carrier is(1. Over-suppressed: 2. Under-suppressed.)
ZRT		Radiate full unmodulated power forminutes.

CHANGE NO. 4

<u>.</u>.....

# DECODE

-----

	SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
<u></u>	ZRU	Are my tone frequencies correct?	Your tone for(1. Marking and spacing are high; 2. Marking and spacing are low; 3. Marking and spacing are correct).
<u></u>	% ZRV		Transfer signal to channel
	10		
	•		
	ZRW		
	ZRX		
	ZRY		
•	ZRZ		
منٹئاریس			

•••••••

-----

......

.....

CHANGE NO. 4 (Reverse Blank)

.....

#### DECODE

· ·- -- - ··- --

......

••••••

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER You may ascend to(height).
ZSA	May I ascend to (height)?	You may ascend to (height)?
		You may descend to (height).
ZSB	May I descend to (height)?	You may descend to (herein) t
ZSC		Switch on IFF.
ZSD		IFF switched OFF.
ZSE	Do you have glider in tow?	(1. We have glider in tow; 2. We are forced to release glider at (approximate position) ).
ZSF		Switch off(1. IFF; 2. IFF sets for 10 minutes in area denoted except for ships whose call signs follow).
ZSG	May I make an approach using the facility indicated?	You may approach using the facility indicated.
ZSH		
		You are(1. To maintain height
ZSI		of feet and report over (cal sign) range station; 2. To hold onleg of the beam (call sign) range station at height feet).
ZŠJ		
ZSK		

2B-55

CHANGE NO. 1

.....

.....

<u>, ....</u>



2B-56

DECODE

_ _...



2B-57

. ..

	DE	CODE	(
<u>G . 4 (</u>	QUESTION	ANSWER, ADVICE OR ORDER	·
II		(1. Receiver; 2. Transmitter; 3. Power supply; 4. Antenna system; 5. Radio direction finder).	
70 7	· · · · · · · · · · · · · · · · · · ·	Cease using	6
ΖŢJ		Cease using	
ZTK	Are you (or is) connected to?	I am (oris) connected to	
		·	
ZTL	Are you (or is) about to disconnect?	I am (oris) about to disconnect.	
ZTM		I am (oris) unable to use	
ZTN	What is my bias distortion?	Your bias distortion is (1. Excessive; 2percent (marking); 3percent (spacing); 4percent (total distortion).	
ZTO	Is my character formation correct?	Your character formation is (1. Cor- rect; 2. Defective in the start element; 3. Defective in the lst unit; 4. Def- ective in the 2nd unit; 5. Defective in the 3rd unit; 6. Defective in the 4th unit; 7. Defective in the 5th unit; 8. Defective in the stop element).	
ZTP	What is the duration of your modulation cycle?	The duration of my modulation cycle is50 Baud Equipment1. 148 milliseconds (7.42 units) fast.2. 150 milliseconds (7.5 units) correct.3. 152 milliseconds (7.6 units) slow.4erratic per character45.5 Baud Equipment1. 161 milliseconds (7.35 units) fast.2. 163 milliseconds (7.42 units) correct.3. 165 milliseconds (7.5 Units) slow.4erratic per character.	
			- ()) ·
		2B-58 CHANGE NO. 5	

····

10P 131(B)

DECODE

	DECODE	
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZTQ	Will you(l. get the Circuit Engineer/Facility Control Technician to speak on this circuit (or circuit); 2. Hand the line over to the Circuit Engineer/Facility Control Technician for check)?	I will(1. get the Circuit Engineer/Facility Control Tech- nician to speak on the circuit; 2. Hand the line over to the Circuit Engineer/Facility Control Technician for check and call you when check has been completed).
ZTR	Will you(1. Disconnect your equipment from line and carry out local test, reconnecting to line in minutes; 2. Connect your transmit line to your receive line to enable me to carry out a loop test for minutes)?	I will(1. Disconnect (or I am disconnecting) my equipment from line and carry (or to carry) out local test reconnecting to line in minutes; 2. Connect my transmit line to my receive line to enable you to carry out a loop test for. minutes).
ZTS	Is the line satisfactory?	The line is(l. Satisfactory; 2, Unsatisfactory).
211		<u> </u>
ZTC		
ZTV		
ZTh		
ZTX		
ZTY		
ZTZ		

2B~59

CHANGE NO. 1 (Reverse Blank)

_____

.....

.....

DECODE

	QUESTION	ANSWER, ADVICE OR ORDER
SIGNAL	Request a timing signal	i missing signal will be transmitted
ZUA	now (or at)	1 . (an at 1 The numerals in-
·	now (or at)	I accepting the time will be really the
1		I have a five second dash terminavins
	· · ·	exactly at the time indicated.
1.	15	
ZUB		At
2010		
ZUC		Fromto
l l		Until further orders (or until
ZUD		Until further orders (or andarter
		Affirmative (Yes).
ZUE		ALLITMAULVE (100).
1		
		Air Raid(1. Warning; 2. In
ZUF		progress; 3. All clear).
		progress, or max
ZUG		Negative (No).
200		
ZUH		Unable to comply.
ZUR		•
ł		
		Your attention is invited to
ZUI		
1		•
		Stand by.
ZUJ		
ļ		
ļ		
ļ		(Appointment Code) is now
ZUK	(Appointment Code)	I woode to her in key conversactor
	i docince bey conversation	with (Appointment Code).
	on this circuit with (Appointment Code). Will	
		1
	(Appointemente code), "are	
	you indicate when you are	
	you indicate when you are ready?	

2B-61

CHANGE NO. 1

.....

F....

ACP	131(B)
-----	--------

.....

.....

	DECODE		<u>(</u>
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER	
ZUL			-
	· · · · · · · · · · · · · · · · · · ·		
ZUM	•		<u>f</u>
ZUN			<b>-</b>
	•		
ZUO			-
ZUP	······································		-
			-
ZUQ			• •
ZUR	<u> </u>		-
ZUS			-
	<u> </u>	······································	-
ZUT			
ZUU			-
200		· · ·	
			-
ZUV			
Ì			
ZUW			-
201			
			-

2B-62

CHANGE NO. 1

_ . .

DECODE

- . -

. ... ._. _ . ..

.....

·----

.....

	DECODE		ſ
IGNAL	QUESTION	ANSWER, ADVICE OR ORDER	
JX			
ļ			
	·		
<u> 07 -   -</u>			
UZ ·			
		Station called is responsible for	
VA		relay or delivery to all stations in line two (2) or to stations	
		indicated.	
VB	What was your time over	My time over last compulsory re-	
. •	last compulsory reporting	porting point wasand my ETA at next compulsory reporting point	
ļ	point, and ETA at next compulsory reporting point?	is	
	Combaness 2 - 1 - 1 - 1		
zvc			
ZVD			
200			
	What are the security con-	Security conditions at my termina-	
ZYE	ditions of your termina-	tion of this channel (or channel/circuit designated) are	
	tion(s) of this channel (orchannel/circuit	1/1 Conured for Restricted;	
4	designated)?	<ol> <li>Secured for Confidential;</li> <li>Secured for Secret; 4. Secured</li> </ol>	
		l for Ton Secret L.	
		Note: The answer to this signal may only be passed on circuits	
		cleared for classified traffic.	
ZVF		This channel (orchannel/circuit designated) is unserviceable for	
<i>U</i> ,1		classified traffic.	
ŻVG			
	·		
		CHANGE NO. 1	
	28	3-63	

	•	ACP 131(b)	
	DECODE		<u><u> </u></u>
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER	
ZVH	c.		
ZVI			
			(
ZVJ			
			<u> </u>
ZVK			
ZVL			
2.2			-
ZVM			
•			
ZVN			
			,
ZVO			
2,10			
ZVP		· · · ·	
	-		
ZVQ	······································	This message, relating to a warn-	
		ing, an alert, distress, or an emergency, is authorized to be	
		relayed via the facilities of your network without prior arrangement.	
·			
ZVR		Retransmit this message (or message) at once to all sub-	
		ordinate stations.	
ZVS			,
213			
	<u>                                      </u>	L	

2B-64

.

CHANGE NO. 1



.

. . .

2B-65

CHANGE NO. 1 (Reverse Blank)



251 - KAL 0+0⁻-9

DEC	ODE
-----	-----

. . . ..

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZWA		
Į		
		Indicate name of (1. Operator of
ZWB		watch; 2. Senior rating on watch;
		3. Operator who transmitted last
		message (or message)).
		NOTE: This signal is authorized for use in connection with operat
		training only; it may not be used
		for any other purpose.
ł		
	· · ·	The following is to be taken as
ZWC		applying to personnel on watch
		only.
1		Ť
		Carry out communication (visual
ZWD		evercise number at senior
		officer (or) is to conduct.
		Voluntary exercise (number) ma
ZWÉ		be carried out now (or at).
ZWF		Incorrect.
4 ni.		
ļ	-	
ZWG		You are correct.
·		Try again.
ZWH		ITY again.
71:1		Answer last question (or
ZWI		question).
1		
	•	
ZWJ		Stations are to answertaking
		the following dutiesA,B, Cetc.
ZhK		Following is answer to the last question (or question).
		duesprov (or duesproved)

-----

2B-67

CHANGE NO. 1

.....

ACP 131(E)

*.....* 

•.....-

12

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
SIGNAL ZWL		• No forwarding action to the de- signation(s) immediately following is required.
ZWM		Correct answer to last question (or question) is(or will be found in).
ZWN		Correct version of the part of the last message (or message) which was sent incorrectly is (or will be found in).
ZWO		Following message (or question, or exercise is for the exercise of (1. Junior operators; 2. Senior operators; 3. Ratings on watch).
ZWP		A junior operator is to carry out (1. A standard flashing exer- cise; 2. A standard semaphore exercise; 3. A standard radio- telegraphy transmitting exercise; 4. A standard radiotelegraphy re- ceiving exercise).
ZWQ	<u></u>	
ZWR		
ZWS		
ZWT		
ZWU	<u></u>	
ZW.		
		· · ·

CHANGE NO. 1

. .

2B-68

.....

.....



_____

CHANGE NO. 1

2B-69

Ē.

	DECO	DE
SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZXH		
[		
ZXI	· ·	
ZXJ		
•		
ZXK	to to	Station called relay this message
		(or message) toin addition to predetermined responsibilities.
ZXL		······
ſ		
ZXM		
ZXN		
ZXO		Request you obtain retransmission of messagesfrom station
ŽXP		I have for you(1. A request for direct air support; 2. A reply to
		a support request; precedence is ).
ZXQ		I have for you(1. A request for tactical reconnaissance; 2. A re-
		quest for photographic reconnais-
		sance; 3. A request for artillery reconnaissance. Precedence is).
		reconnarssance. recetting recetting.
ZXR		Intensive flag signalling will take
2AN		place shortly (or inminutes).

2B-70

# DECODE

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZXS		Message which follows is Emergency handled by(1. Officer Emergency Cryptographic team; 2. Ratings Emergency Cryptographic team; 3. Senior Communications Rating; 4. Junior Communications Rating; 5. Coder (Educational)).
ZXT		This message is not to be trans- mitted by radiotelegraph or radio- telephone in any form over part of
		its route.
ZXU		
ZXV		
ZXW		This message has been delivered to all action addressees whose desig- nations follow this operating
		signal. This message has been delivered t
ZXX		all information addressees whose designations follow this operatin signal.
ZXY		Transmit this message to the addressee(s) indicated by the numeral(s) following All addressees are to be counted con- secutively as they appear (number to be separated by the Separative Sign).
ZXZ		

.....

**`** 

2B-71

.....

•

CHANGE NO. 1 (Reverse Blank)

····

*

# CHAPTER III

# SECTION A

# ENCODE

# SEARCH AND RESCUE

_	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
	ALIGHT	Are you going to alight (or land? or Are you going to enter dock (or port)?	I am going to alight (or land) I am going to enter dock (or port).	QTP
		Will you be forced to alight (or land)?	I am forced to alight (or land) immediately. or I will be forced to alight (or land) at(position or place) athours.	QUG
	AREA	Are you in the search area designated as (designator or lati- tude and longitude)?	I am in the(desig- nation) search area.	QUW
	CONDITION	What is the condition of survivors?	Survivors and in condition and urgently need	QTW
	CONTINÙING	Are you continuing the search?	I am continuing the search for(aircraft, ship, sur- vival craft, survivors or wreckage).	QTZ .
]	DISTRESS	Have you received the distress signal sent by(call sign of mobile station)?	I have received the dis- tress signal sent by (call sign of mobile station) athours.	QUF
		May I resume normal working?	Normal working may be resumed.	QUM
]	DOCTOR	Have you a doctor on board (or is(name of person) on board)?	I have a doctor on board (or(name of person is on board).	ୡଽୡୖ
]	DRIFT	What is the estimated drift of the survival craft?	The estimated drift of the survival craft is (figures and units).	QSE

Ĺ

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
ENDURANCE	How much fuel have you remaining (ex- pressed as hours and/or minutes of consumption)?	Fuel remaining is(hours and/or minutes of consump- tion).	QBD
OMING		Fly forminutes on a magnetic heading of degrees.	ឲិយ
	Shall I home ship or aircraft to my position?	Home ship or aircraft (call sign)l) to your position by transmitting your call sign and long dashes onkHz (or MHz). 2) by transmitting on kHz (or MHz) TRUE track to reach you.	QUU
FF	•	IFF switched ON in dis- tress position.	ZPN
ī.			
IGHTS	Are your navigation lights working?	My navigation lights are working.	QUI
	Shall I train my searchlight nearly vertical on a cloud, occulting if possible	Please train your search- light on a cloud, occulting if possible and, if my air- craft is seen or heard, de-	QUQ
	and, if your aircraft is seen or heard, de- flect the beam up wind and on the water (or land) to facili- tate your landing?	flect the beam up wind and on the water (or land) to facilitate my landing.	

# ENCODE

	QUESTION	ANSWER, ADVICE OR ORDER	SIGNA
MARKING	Will you indicate your position by 1) searchlight? 2) black smoke trail? 3) pyrotechnic lights?	My position is indicated by 1) searchlight. 2) black smoke trail. 3) pyrotechnic lights.	QUP
·	Is position of incident marked?	Position of incident is marked (by). 1) flame or smoke float. 2) sea marker. 3) sea marker dye. 4)(specify other marking).	QUT
NEWS OF	Have you news of(call sign)?	Here is news of (call sign).	QUA
		· · ·	
POSITION	Is position of sur- vival craft marked?	Position of survival craft was marked at hours by 1) flame or smoke float. 2) sea marker. 3) sea marker dye. 4)(specify other marking)	QUY
PROCEED(ING)	Are you proceeding to the position of incident and if so when do you expect to arrive?	I am proceeding to the position of incident and expect to arrive at hours (ondate).	QTY
RELIEF	May I be relieved (athours)?	You may expect to be re- lieved athours (by 1) aircraft(identifi- cation) (type). 2) vessel whose call sign is(call sign) (and/or whose name is(name)).	QXF

ÀCP 131(B)

•

ţ

}

ENCODE

ELIEF Cont†d)	Will relief take place		
	<pre>when(identification) establishes 1) visual. 2) communications, contact with survivors?</pre>	Relief will take place when (identification) estab- lishes 1) visual. 2) communications, con- tact with survivors.	QKG
· .			
ESCUE .	Have you effected rescue?	I have effected rescue and am proceeding to base (withpersons in- jured requiring ambulance).	QSF
	What has the rescue vessel or rescue air- craft recovered?	<pre>(identification) has recovered 1)(number) survivors. 2) wreckage. 3)(number) bodies.</pre>	QTD
1.	Have survivors 1) received survival equipment? 2) been picked up by rescue vessel? 3) been reached by ground rescue party?	Survivors 1) are in possession of survival equipment dropped by 2) have been picked up by rescue vessel. 3) have been reached by ground rescue party.	QUR
EA CON- ITIONS		The sea conditions (at position) l) permit alighting but not take-off. 2) render alighting ex- tremely hazardous.	QKC
		· · · ·	
	3A-4	ORIGINA	

# ENCODE

SEADCH			
SEARCH	Report details of	The parallel sweep (track)	QKH
	the parallel sweep	search is being (or to be)	
	(track) search	conducted	
	being (or to be)	<ol> <li>with direction of sweeps</li> <li>degrees(true or mag-</li> </ol>	
	conducted? or	netic).	
	In the parallel	2) with(distance figures)	
	sweep (track)	and units) separation be-	
	search being (or	tween sweeps.	
<u>.</u>	to be) conducted,	3) at a height of (figures) above(datum).	
· ·	what is (are) 1) the direction of	(Lightes) above (acounts)	
	sweeps.		
	2) the separation		
	between sweeps.		
	3) the height above	·	
	the datum, employed in the search pattern?		•
-	In one search partern?		
	What other units are (or will be) taking	In the operation ((iden- tification)), the following units are (or will be)	QK0
	part in the operation ((identification of	taking part(name and	
	operation))?	units).	
		or (nome) unit is taking	
		(name) unit is taking part in operation (	
	· · ·	(identification)) (with	
		effect fromhours).	
		The general nottonn is	QKP
-	Which pattern of	The search pattern is 1) parallel sweep.	, whit
	search is being followed?	2) square search.	
		3) creeping line ahead.	
-		4) track crawl.	
		5) contour search. 6) combined search by	
		aircraft and ship.	
		7) $\dots$ (specify).	
	Shall I search for	Please search for	QUO
	1) aircraft,	l) aircraft, 2) ship,	
	2) ship, 3) survival craft,	3) survival craft,	
	in the vicinity of	in the vicinity of	
	latitudelongitude	latitudelongitude	
	(or according to any	(or according to any other indication).	
	other indication)?	contra indicatority.	
	· · ·		
		ł · · · ·	
		<b>i</b> .	

(

١

(

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ONDER	SIGNAL
SIGHTING	Have you sighted survivors or wreckage? If so, in what position?	Have sighted 1) survivors in water. 2) survivors on rafts. 3) wreckage. in positionlatitude longitude (or according to any other indication).	QUS
URGENCY	Have you received the urgency signal sent by(call sign of mobile station)?'	I have received the urgency signal sent by(call sign of mobile station) athours.	QUD
-			
		· .	
	-		· · · ·
	34-6	CHANGE	NO. 1
		· · · · · · · · · · · · · · · · · · ·	

# SECTION B

# ENCODE

#### RADIO NAVIGATION

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGN
BEARINGS	Do you intend to ask me for a series of bearings?	I intend to ask you for a series of bearings.	QDL
BEARINGS, MAGNETIC	Will you indicate the MAGNETIC heading for me to steer towards you (or) with no	The MAGNETIC heading for you to steer to reach me (or) with no wind was degrees (athours).	QDM
	wind? What is my MAGNETIC bearing from you (or from)?	Your MAGNETIC bearing from me (or from) wasde- grees (athours).	QDR
BEARINGS, TRUE	What is my TRUE bearing from you? or What is my TRUE bearing from (call sign)? or What is the TRUE bearing of (call sign) from (call sign)?	Your TRUE bearing from me isdegrees (athours). or The TRUE bearing of(call sign) wasdegrees (at hours). or The TRUE bearing of(call sign) from(call sign) wasdegrees athours.	QTE
HEADING, Magnetić	Will you indicate the MAGNETIC heading from me to steer towards you (or) with no wind?	The MAGNETIC heading for you to steer to reach me (or) with no wind was degrees (athours).	QDM
HEADING, TRUE	Will you indicate the TRUE track to reach you (or)?	The TRUE track to reach me (or) isdegrees athours.	QUJ
- 1			

### ENCODE

	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
OLD	· · ·	You are(1. To maintain height of feet and report over(call sign) range station; 2. To hold on leg of the beam(call sign) range station at heightfeet).	2ST
DMING	Am I overhead?	You are overhead.	QFG
	Do you see me? or Can you see the aerodrome? or Can you see (aircraft).	I see you at(cardinal or quandrantal point of direction). I can see the aerodrome. or I see(aircraft).	QGV
	Are you able to home on your DF equipment?	I am able to home on my DF equipment (on station ).	QSH
	Will vessels in my immediate vicinity (or in the vicinity oflatitude longitude) (or of) please indicate their position, TRUE course and speed? Aeronautical Notes: a) All stations of the international aero- nautical telecommuni- cation service will interpret this signal (in part) as referring to TRUE TRACK. b) Engligh-speaking stations of the mari- time mobile service may interpret this signal (in part) as referring to TRUE HEADING. When communicating with such stations it is recommend- ed that supplementary use be made of the signal QTI to avoid any misunder-	My position, TRUE course and speed are Aeronautical Notes: a) All stations of the international aeronautical telecommunication service will interpret this signal (in part) as referring to TRUE TRACK. b) English-speaking sta- tions of the maritime mobile service may inter- pret this signal (in part) as referring to TRUE HEADING. When communicating with such stations it is recommended that supplemen- tary use be made of the signal QTI to avoid any misunderstanding.	QUN

ORIGINAL

----

#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIG
HOMING (Cont'd)	Shall I home ship or aircraft to my position?	Home ship or aircraft 1)(call sign) to your position by transmitting your call sign and long dashes onkHz (or MHz). 2)(call sign) by trans- mitting onkHz (or MHz). courses* to steer to reach you. *Aeronautical Note: Stations of the international aero- nautical telecommunication service will interpret "course" to be "headings".	QUI
	Will you send your call sign and dashes of five-seconds' duration at inter- vals in order that I (or) may home on you?	I am about to send my call sign and dashes of five- seconds' duration at inter- vals in order that you (or) may home on me.	ZMJ
· . ·		Change over to loop direction finding on kHz (or MHz) (and home on transmissions made by).	ZMI
•		· · ·	
POSITION		Aircraft plotted (be- lieved to be you) in positionon track degrees athours.	`QΚ
· · ·	Will you give me the position of my station according to the bear- ings taken by the direction-finding stations which you control?	The position of your station according to the bearings taken by the direction-finding sta- tions which I control waslatitude longitude, classat hours. Aeronautical Note: In the aeronautical direction- finding service any other indication of position may be used.	QT
	What is your position in latitude and longi- tude (or according to any other indication)?	My position islatitude longitude (or according to any other indication).	QT

3B-3

Α

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
PROCEDURE	Will you send two dashes of ten seconds each followed by your call sign (repeated times) (onkHz (or MHz))?	I am going to send two dashes of ten seconds each followed by my call sign (repeatedtimes) (or kHz (or MHz)).	QTG
	Will you requestto send two dashes of ten seconds followed by his call sign (re- peatedtimes) on kHz (or MHz)?	or I have requestedto send two dashes of ten seconds followed by his call sign (repeatedtimes) on kHz (or MHz).	
· · · · · ·	Am I to carry out the procedure appropriate to the use of the (facility)?	You are to carry out the procedure appropriate to the use of the(facility).	ZQD
STATION DISTANCE	What is my distance to your station (or to)?	Your distance to my sta- tion (or to) is (distance figures and units). Note: This signal is nor-	QCE
	-	mally used in conjunction with one of the signals QDM, QDR, QTE or QUJ.	
- -	How far approximately are you from my station?	The approximate distance between our stations is nautical miles (or kilometers).	QRB
· .			
STEER		Steerdegrees for 2 minutes if possible and send call sign and long dashes while you are to doing.	ZML
	What is the Grid Course for me to steer to reach you (or)?	The Grid Course for you to steer to reach me (or) isdegrees at hours.	ZMV
-			

CHANGE NO. 1

(

# SECTION C

# ENCODE

#### DIRECTION FINDING

(

	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
	BEARINGS	Do you intend to ask me for a series of bearings?	I intend to ask you for a series of bearings.	QDL
		What was bearing of unknown station (or station using call sign) at(time) (onkHz (or MHz))?	Bearing of unknown sta- tion (or station using call sign) was(at time) class(on kHz (or MHz).	ZMA
			Bearing of you (or of) was(class) from me (or from) at(time).	ZMB
	·		Bearing of station which answered message (or transmission) fromwas (at(time)) class (onkHz (or MHz)).	ZMC
			1. Your bearing appears to be betweendegrees anddegrees, and sense indicates you are to the (direction) of this station; 2. Your bearing is changing rapidly.	ZMD
-	•		Pass in direction find- ing bearing (of) obtained onkHz (or MHz) (or betweenand kHz (or MHz).	ZME
		Will you endeavor to obtain a direction finding bearing of station now trans- mitting (or of) (onkHz (or MHz))?	Bearing of station now transmitting (or of) (onkHz (or NHz)) was (class) sense deter- mined at	ZMF
			This bearing (course or position) is unreliable. Error in excess of class C Bearing (or position) may amountdegrees or miles).	ZMG
			Check(1. Correctness of last QDR; 2. Sense of last QDR; 3. Correctness of last QDM; 4. Sense of last QDM).	. ZMJ

3C-1

#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
BEARINGS (Cont [‡] d)		Cannot determine your (or's(l. Position; 2. Bearing).	ZMK
		Increase height to en- able more accurate bear- ing to be completed.	ZMM
BEARINGS, MAGNETIC	What is my MAGNETIC bearing from you (or from)?	Your MAGNETIC bearing from me (or from) was degrees (athours).	QDR
BEARINGS, TRUE	What is my TRUE bear- ing from you? or	Your TRUE bearing from me isdegrees (athours). or	QTE
	What is my TRUE bear- ing from(call sign)? • or	Your TRUE bearing from (call sign) wasdegrees (athours).	
	What is the TRUE bear- ing of(call sign) from(call sign)?	or The TRUE bearing of(call sign) from(call sign) wasdegrees athours.	
	•		
DISTANCE - -	What is my distance to your station (or to)?	Your distance to my station (or to) is (distance figures and units). Note: This signal is normally used in con- junction with one of the signals QDM, QDR, QTE or QUJ.	QCE
	How far approximately are you from my station?	The approximate distance between our stations is nautical miles (orkilo- meters).	QRB
G UAR D	-	Take over direction find- ing guard as previously ordered (onkHz (or MHz)) (fromtokHz (or MHz)).	ZMR
		l .	

3C-2

### ENCODE

NONTNO	1	ANSWER, ADVICE OR ORDER	SIGNA
HOMING		Change over to loop direction finding on kHz (or MHz) (and home on transmissions made by).	ZMN
LISTEN	Will you send two dashes of ten seconds each followed by your call sign (repeated times) (onkHz or MHz))? or Will you request to send two dashes of ten seconds fol- lowed by his call	I am going to send two dashes of ten seconds each followed by my call sign (repeatedtimes) (on kHz (or MHz). or I have requestedto send two dashes of ten seconds followed by his call sign (repeated times) onkHz (or	QTG
	sign (repeated times) onkHz (or MHz)?	MHz).	
		(l. Listen (for) on direction finding on kHz, (or MHz )(or betweenandkHz (or MHz)); 2. Shift to direc- tion finding frequency and listen for call sign ).	ZMU
OSITION	Will you give no the		
	Will you give me the position of my station according to the bear- ings taken by the D/F stations which you control?	The position of your station according to the bearings taken by the D/F stations which I control waslatitudelongitude (or other indication of position), classat hours.	QTF
	What is your position in latitude and longi- tude (or according to any other indication)?	My position islatitude longitude (or according to any other indication).	QTH
	What is my position by direction finding bearing from nearest landmark (or from)?	Your position by direction finding cross bearings from nearest landmark (or from ) is(class) at (hours).	ZMO

280-069 O-67-10

(.

30-3

#### SECTION D

# ENCODE

# AERONAUTICAL AND SEA OPERATIONS

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
AERIAL		I am about to wind in my aerial.	QBE.
		I am working on trailing aerial.	QCY
		or Work on trailing aerial.	
APPROACH	Will you inform me when you are on leg of approach?	I am on 1) cross-wind leg) 2) down-wind leg ) of 3) base leg )approach. 4) final leg )	QHE
	May I make a approach (at (place)?	You may make aapproach (at(place)).	QHQ
	or Are you making a approach?	I am making aapproach.	
•	May I make an approach using the facility indicated?	You may approach using the facility indicated.	ZSG
ARRIVAL		Arrange your flight in order to arrive over (place) athours. or	QAĠ
		I am arranging my flight in order to arrive over (place) athours.	
	What is your estimated time of arrival at (or over) (place)?	My estimated time of arrival at(or over) (place) ishours.	QRE
	-		
BEACON	<ol> <li>Is thevisual beacon (at(place)) in operation?</li> <li>Will you switch on thevisual beacon (at(place))?</li> <li>Will you extinguish the aerodrome visual beacon (at(place)) until I have landed?</li> </ol>	<ol> <li>1) Thevisual beacon (at(place)) is in operation.</li> <li>2) I will extinguish the aerodrome visual beacon (at(place)) until your landing is completed.</li> </ol>	QFD

ORIGINAL

3D-1

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
CARGO VESSEL	Are you a cargo vessel?	I am a cargo vessel.	QSC
CIRCUIT .	Is a right-hand circuit in force at(place)?	A right-hand circuit is in force at(place).	QES
CLEARANCE	May I have clearance (for) from (place and/or con- trol) to(place and/or control) at (figures and units) height above (datum)?	You are cleared (or is cleared) byfrom (place and/or control) to(place and/or con- trol) at(figures and units) height above (datum).	QAB
	When may I expect approach clearance?	Expect approach clearance athours. or No delay expected.	QCE .
		Delay indefinite. Expect approach clearance not later thanhours.	QCF
-	May I be cleared to land (at(place))?	You are cleared to land (at(place)).	QGN
	May I enter traffic circuit at (figures and units) height above (datum)?	Cleared to enter traffic circuit at(figures and units) height above (datum).	QHC
LOUD	Are you flying in cloud?	I am flying in cloud at (figures and units) height above(datum) (and I am ascending (descending) to (figures and units)	QBF
	Are you flying above cloud?	height above that datum). I am flying above cloud and at(figures and units) height above(datum). or Maintain a vertical dis-	QBG
		tance of (figures and units) above cloud, smoke, haze or fog levels.	

3D-2

# ENCODE

۰.

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
CLOUD (Cont'd)	Are you flying below cloud?	I am flying below cloud and at(figures and units) height above (datum). or	QBH
		Maintain a vertical dis- tance of(figures and units) below cloud.	
	Are you flying with no cloud in your vicinity?	I am flying with no cloud in my vicinity and at (figures and units) height above(datum).	QBK
	Are you flying be- tween two layers of cloud?	I am flying between two layers of cloud and (figures and units) height above(datum).	QBN
	Are you flying in and out of cloud?	I am flying in and out of cloud and at(figures and units) height above (datum).	QBP
	Report your flying conditions in re- lation to clouds.	The reply to QBZ IMI is given by the appropriate answer form of signals QBF, QBG, QBH, QBK, QBN and QBP.	QBZ
COLLISION	Is there any risk of collision?	There is risk of collision. Note: This signal should be followed by appropriate Q signals or ICAO approved abbreviations giving in- structions for avoiding collision.	QAK
COMMUNICATION	Are you experiencing communication diffi- culties through fly- ing in a storm?	I am experiencing communi- cation difficulties through flying in a storm. Note: Attention is invited to the possible supplemen- tary use of signals QAR, QBE, QCS, QRM, QRN, QRX, QSZ or the signal CL to amplify the meaning associated with signal QAZ.	Q.1.Z
	Have you anything for me?	I have nothing for you.	QRU

(

3D-3

ì

(

#### ENCODE

CONTROL       Will you accept control (or respon- sibility) of (for) now (or at hours)?       I will accept control (or responsibility) of (for) now (or athours).       QDP         DEFARTURE       At what time did you depart from (place)?       I departed from(place) athours.       QIN         Are you airborne? or Have you left dock (or port)?       I am airborne or I am of control.       QTO         Are you (or is) (1. Airborne; 2. Waterborne; 3. On land.)?       I am (oris)at (time). (1. Airborne; 2. Waterborne; 3. On land.)?       ZQC         DESTINATION       May I have clearance (for) from (place and/or control) to(place and/or control) to(place and/or control) to(place and/or control) to(place) and/or control) to(place)?       You are cleared (oris cleared byfrom (place and/or control) to(place and/or control) to(place) and/or control) to(p	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
Depart from (place)?       Are you airborne? or Have you left dock (or port)?       I am airborne or I have left dock (or port).       QTO         Are you left dock (or port)?       I am airborne or I have left dock (or port).       QTO         Are you (or is) (l. Airborne; 2. Waterborne; 3. On land.)?       I am (oris)at (time). (l. Airborne; 2. Waterborne; 3. On land.)?       ZQC         DESTINATION       May I have clearance (for) from (place and/or control) to(place and/or control) at(figures and units) height above(datum)?       You are cleared (oris cleared) byfrom (place and/or control) to(place and/or control) at(figures and units) height above(datum)?       QIB         Are you going to land at(place)? or Has aircraftlanded at(place)? (See also signal QTP.)       I am going to land at (place). (See also signal QTP.)       QAL         Where are you bound and where are you from?       I am going to alight (or alight (or land)? or Are you going to       I am going to alight (or land). or I am going to enter dock       QTP	CONTROL	control (or respon- sibility) of (for) now (or at	I will accept control (or responsibility) of (for)	
Depart from (place)?       Are you airborne? or Have you left dock (or port)?       I am airborne or I have left dock (or port).       QTO         Are you left dock (or port)?       I am airborne or I have left dock (or port).       QTO         Are you (or is) (l. Airborne; 2. Waterborne; 3. On land.)?       I am (oris)at (time). (l. Airborne; 2. Waterborne; 3. On land.)?       ZQC         DESTINATION       May I have clearance (for) from (place and/or control) to(place and/or control) at(figures and units) height above(datum)?       You are cleared (oris cleared) byfrom (place and/or control) to(place and/or control) at(figures and units) height above(datum)?       QIB         Are you going to land at(place)? or Has aircraftlanded at(place)? (See also signal QTP.)       I am going to land at (place). (See also signal QTP.)       QAL         Where are you bound and where are you from?       I am going to alight (or alight (or land)? or Are you going to       I am going to alight (or land). or I am going to enter dock       QTP				
Or       or       or         Have you left dock (or port)?       or       I have left dock (or port).         Are you (or is) (1. Airborne; 2. Waterborne; 3. On land.)?       I am (oris)at (time). (1. Airborne; 2. Waterborne; 3. On land.)       ZQC         DESTINATION       May I have clearance (for) from (place and/or control) to(place and/or control) to(place and/or control) to(place and/or control) to(place and/or control) to(figures and units) height above(datum)?       You are cleared (oris cleared) byfrom (place and/or control) at(figures and units) height above(datum).       QAB         Are you going to land at(place)? (See also signal QTP.)       I am going to land at (place). (See also signal QTP.)       QAL         Where are you bound and where are you from?       I am going to alight (or land). or Are you going to       I am going to alight (or land). or I am going to enter dock       QUD	DEPARTURE	depart from	I departed from(place) at:hours.	QIN
Image: book state(or port)?port).Are you (or is) (1. Airborne; 2. Waterborne; 3. On land.)?I am (oris)at (time). (1. Airborne; 2. Waterborne; 3. On land.)ZQCDESTINATIONMay I have clearance (for) from (place and/or control) to(place and/or control) to(place)? Mas aircaftlanded at(place)? (See also signal QTP.)You are cleared (oris (cleared) byfrom (place and/or control) to(place and/or control) to(place and/or control) to(place). (datum)?QALMere you going to land at(place)? (See also signal QTP.)I am going to land at (place). (See also signal QTP.)QALDOCKINGAre you going to alight (or land)? or Are you going to land where are you from?I am going to alight (or land). or I am going to enter dockQID			· ·	QTO
DESTINATION       Nay I have clearance (for) from (place and/or control) to(place and/or control) to(place)       QAB         Are you going to land at(place)? (See also signal QTP.)       I am going to land at (place). (See also signal QTP.)       QAL         Where are you bound and where are you from?       I am going to alight (or land). or Are you going to       I am going to alight (or land). or I am going to enter dock       QRD				
DOCKINGAre you going to alight (or land)? or Are you going to and where are you from?I am going to alight (or laight (or land)? or Are you going to laight (or land)?I am going to alight (or lam going to alight (or lam going to enter dockQALDOCKINGAre you going to alight (or land)? or Are you going toI am going to alight (or lam going to enter dockI am going to alight (or lam going to enter dockQAL		2. Waterborne;	(time). (l. Airborne; 2. Waterborne; 3. On	ZQC
DOCKINGAre you going to alight (or land)? or Are you going to and where are you from?I am going to alight (or laight (or land)? or Are you going to laight (or land)?I am going to alight (or lam going to alight (or lam going to enter dockQALDOCKINGAre you going to alight (or land)? or Are you going toI am going to alight (or lam going to enter dockI am going to alight (or lam going to enter dockQAL				
at(place)? or Has aircraftlanded at(place)? (See also signal QTP.)(place). or (You may) land at(place). or Aircraftlanded at (place). (See also signal QTP.)Where are you bound and where are you from?I am bound forfrom I am going to alight (or land). or I am going to enter dock	DESTINATION	(for) from (place and/or control) to(place and/or control) at(figures and units) height	<pre>cleared) byfrom (place and/or control) to(place and/or control) at(figures and units)</pre>	QAB
Has aircraftlanded at(place)? (See also signal QTP.)       (You may) land at(place). or Aircraftlanded at (place). (See also signal QTP.)         Where are you bound and where are you from?       I am bound forfrom         DOCKING       Are you going to alight (or land)? or Are you going to       I am going to alight (or land).         OCKING       Are you going to alight (or land)? or Are you going to       I am going to enter dock		at(place)?		QAL
Where are you bound and where are you from?I am bound forfromQRDDOCKINGAre you going to alight (or land)? or Are you going toI am going to alight (or land). or I am going to enter dockQRD		Has aircraftlanded at(place)? (See also	(You may) land at(place). or Aircraftlanded at (place). (See also signal	
DOCKING Are you going to alight (or land)? or Are you going to I am going to alight (or land). or Are you going to I am going to alight (or I an going to alight (or		and where are you		QRD
alight (or land)? or Are you going to I am going to enter dock		- · · ·		
Are you going to I am going to enter dock	DOCKING	alight (or land)?	land).	QTP
		Are you going to	I am going to enter dock	

# ENCODE

	KEY	QUESTION		
	DOCTOR	Have you a doctor on	ANSWER, ADVICE OR ORDER I have a doctor on board	SIGNAL QSQ
	•	board (or is(name of person) on board)?	(or(name of person) is on board).	
	FACILITY	Will you give me the latest information concerning facility (at (place))?	The latest information concerningfacility (at(place)) is as follows Note: The information is	QFP
			given by sending appro- priate NOTAM Code groups.	
<b>`</b>	•		I am not equipped to give the information (or pro- vide the facility re- quested.)	QNO
•	FLIGHT CONDITIONS	Are you flying in cloud?	I am flying in cloud at (figures and units) height above(datum) (and I am ascending	QBF
	:		(descending) to (figures and units) height above that datum).	· ·
		Report your flying conditions in re- lation to clouds.	The reply to QBZ IMI is given by the appropriate answer form of signals QBF, QBG, QBH, QBK, QBN and QBP.	QBZ
. · · · ·		Are you flying in visual meteorological conditions?	I am flying in visual meteorological conditions.	QDT
			Fly at all times in visual meteorological conditions.	
		Are you flying in a horizontal visibility of less than (figures and units)?	I am flying in a horizon- tal visibility of less than(figures and units) at(figures and units) height above(datum).	QDV
. ·		•	C. Sak	
	FLIGHT RULES	Is flight under IFR compulsory at (place) (or from to(place)?	Flight under IFR is com- pulsory at(place) (or fromto(place).	QBI
		Ι ·		

 $\left( \right)$ 

đ

¥ /

# ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
TLIGHT RULES (Cont'd)	What is the nearest aerodrome at which flight under VFR is permissible and which would be suitable for my landing?	Flying under VFR is per- missible at(place) which would be suitable for your landing.	QBO
		Cancel my IFR flight plan.	ODU
UEL	-	I am about to jettison fuel.	QAU
	How much fuel have you remaining (ex- pressed as hours and/or minutes of consumption)?	Fuel remaining is (hours and/or minutes of consumption).	QBD
LIDER	Do you have glider in tow?	(1. We have glider in tow; 2. We are forced to release glider at (approximate position)).	ZSE
			,
ADING		Fly forminutes on a heading that will enable you to maintain a track reciprocal to your present one.	QGT
	ц.	Fly forminutes on a magnetic heading of degrees.	- QGU
	What is your TRUE heading?	My TRUE heading is degrees.	QTL
	What is your MAGNETIC heading?	My MAGNETIC heading is degrees.	QTM
-	-		s . 

ORIGINAL

(
#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
HEIGHT ALT ITUDE	What is your height above(datum)?	I am at(figures and units) height above (datum). Note: An aircraft is per- mitted to reply to QAH IMI by using any of the answer forms of signals QBF, QBG, QBH, QBK, QBN or QBP. In such cases the signal QAH is omitted from the reply. or Arrange your flight so as to reach(figures and units) height above (datum) at(hours or place).	QAH
		Ascend (or descend) to (figures and units) height above(datum) before en- countering instrument mete- orological conditions or if visibility falls be- low(figures and units of distance) and advise.	QBS
•	Have you reached the(figures and units) height above (datum) (or (area or place))?	I have reached the (figures and units) height above(datum) (or (area or place)). or Report reaching the (figures and units) height above(datum) (or (area or place)).	QBV
	Have you left the (figures and units) height above (datum) (or(area or place))?	I have left the (figures and units) height above(datum) (or (area or place)). or Report leaving the (figures and units) height above(datum) (or (area or place)).	QBX
	May I change from (figures and units) to(figures and units) height above (datum)?	You may change from (figures and units) to (figures and units) height above(datum). or I am changing from (figures and units) to (figures and units) height above(datum).	QCA
· .	May I descend below the clouds?	You may descend below the clouds.	QFH

3D-7

`* ;

#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
HEIGHT ALTITUDE (Cont'd)	What height above (datum) 1) should I maintain? 2) are you maintaining? 3) do you intend cruising at?	<ol> <li>Maintain (or fly at) (figures and units) height above(datum).</li> <li>I am maintaining (figures and units) height above(datum).</li> <li>I intend cruising at (figures and units) height above(datum).</li> </ol>	QFM .
	What is your desired rate of descent ex- pressed in hundreds of feet per minute?	My desired rate of des- cent ishundreds of feet per minute.	ZQE
	May I ascend to (height)?	You may ascend to (height).	ZSA
	May I descend to (height)?	You may descend to (height).	ZSB
		You are(1. To main- tain height of feet and report over(call sign) range station; 2. To hold onleg of the beam (call sign) range station at heightfeet).	ZSI
HOLD	Shall I hold my position?	Hold your position.	QEN
	May I hold at (place)?	Hold at(place) at (figures and units) height above(datum) and await orders.	QGQ
		Hold ondirection of facility.	QGZ
	-	You are(1. To maintain height offeet and re- port over(call sign) range station; 2. To hold onleg of the beam (call sign) range station at heightfeet.).	ZSI

#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	Terev
IFF		Switch ON IFF.	ZSC
		IFF switched OFF.	ZSD
		Switch off(1. IFF; 2. IFF sets for 10 minutes in area denoted except for ships whose call signs follow).	ZSF
· .			Ì
LANDING	May I land imme- diately?	You may land immediately.	QFO
	May I land using (procedure or facility)?	You may land using (procedure or facility).	бсн
		Landing is prohibited at(place).	QGO
	What is my number for landing?	You are numberto land.	QGP
	Are you making an emergency landing?	I an making an emergency landing.	QHH
		or Emergency landing being made at(place). All aircraft below(figures and units) height above (datum) and within a dis- tance of(figures and units) leave(place or headings).	
	Are you going to alight (or land)? or Are you going to	I am going to alight (or land). Or	QTP
<b>`</b> ~~	enter dock (or port)?	I am going to enter dock (or port).	
	Will you be forced to alight (or land)?	I am forced to alight (or land) immediately.	QUG
	- · · ·	or I will be forced to alight (or land) at(position or place) athours.	
	What is the magnetic direction in which landing is to be made?	The magnetic direction in which landing is to be made isdegrees.	ZQB
	·.		

3D-9

1

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
LANDING GEAR	Does my landing gear appear damaged?	Your landing gear appears damaged.	QFR
	Does my landing gear appear to be down and in place?	Your landing gear appears to be down and in place.	QGW
LANDING SURFACE	What is the condition of the landing surface at(place)?	The condition of the land- ing surface at(place) is Note: The information is	QEM
		given by sending appropri- ate NOTAM Code groups.	
GHTING		The 1) approach 2) runway	QFB
	L	3) approach and runway lights are out of order.	
	Are the aerodrome lights lit?	The aerodrome lights are lit.	QFI
		Please light the aerodrome lights.	· .
*	Ę		
	Are the approach and runway lights lit?	The approach and runway lights are lit. or	QFQ
		Please light the approach and runway lights.	•
	Are the floodlights switched on?	The floodlights are switched on.	QFV
	· · ·	or Please switch on the floodlights.	
·		I am not equipped to give the information (or pro- vide the facility) request- ed.	, QNÔ
	Are your navigation lights working?	My navigation lights are working.	QUI
	1		

#### ENCODE

(.

	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
	LIGHTING (Cont [†] d)	Shall I train my searchlight nearly	Please train your search- light on a cloud, occulting	QUQ
		vertical on a cloud, occulting if possible and, if your aircraft is seen or heard,	if possible and, if my air- craft is seen or heard, deflect the beam up wind and on the water (or land)	
		deflect the beam up wind and on the water (or land) to facili- tate your landing?	to facilitate my landing.	
			The landing lights at the aerodrome (or at the aero- drome at) are out of order.	ZQA
•				
	OBSTRUCTIONS		There are obstructions to theof runway	QGC
		Are there on my track any obstruc- tions whose elevation equals or exceeds my	There are obstructions on your track(figures and units) height above (datum).	QGD
		altitude?		
		· ·		
- -	OVERSHOOT PROCEDURES		I am about to carry out overshoot procedure.	QAW
	PARKING	Have I reached my	You have reached your	QEF
		parking area? or Have you reached your	parking area. or I have reached my parking	-
		parking area?	area.	
	•	May I leave the parking area? or	You may leave the parking area. or	QEG
		Have you left the parking area?	I have left the parking area.	
	DOCTUTON			
	POSITION	Will you advise me when you are (were) at (over) (place)?	I am (was) at (over) (place) (athours) (at (figures and units) height above(datum).	QAF

;

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
POSITION (Cont'a)	Will you advise me when you pass (passed) (place) bearing 090 (270) degrees relative to your heading?	I passed(place) bear- ingdegrees relative to my heading athours.	QAY
· ·	Shall I hold my position?	Hold your position.	QEN
	Are you (or is) 1) waterborne? 2) on land?	I am (oris) 1) waterborne) athours. 2) on land	QHI
		Aircraft plotted (be- lieved to be you) in positionon track degrees athours.	QKN
		I am approaching my point of no return.	QNR
	How far approximately are you from my sta- tion?	The approximate distance between our stations is nautical miles (or kilometers).	QRB
	What is your position in latitude and longi- tude (or according to any other indication)?	My position islatitude longitude (or according to any other indication).	QTH
	What was your time over last compulsory report- ing point, and ETA at next compulsory report- ing point?	My time over last compul- sory reporting point was and my ETA at next com- pulsory reporting point is	ZVB
RESSURE	What should I set on the sub-scale of my alti- meter so that the in- strument would indicate my elevation if I were on the ground at your station?	If you set the sub-scale of your altimeter to read millibars (or hundredths of an inch*), the instrument would indi- cate your elevation if you were on the ground at my station athours.	QNH
•		*Note: When the setting is given in hundredths of an inch the abbreviation "INS" is used to identify the units.	
	· · · · · ·		

3D-12

.

#### ENCODE

...

(

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNA
RETURN		I am approaching my point of no return.	QNR
	Are you returning to(place)?	I am returning to (place)	QRF
		or Return to(place).	
RUNWAY	What is the magnetic direction (or number) of the runway to be used?	The magnetic direction (or number) of the runway to be used is Note: The runway number is indicated by a two- figure group and the magnetic direction by a three-figure group.	QFU
	What is the length of the runway in use in(units)?	The length of runway now in use is(figures and units).	QFW
		There are obstructions to theof runway	<b>6</b> CC
÷	What is the length in yards of the runway in use?	The length of the runway in use isyards.	ZQF
		-	
SAFETY	What is the essential traffic? Note: Relates to air- craft and not communi- cation traffic.	The essential traffic is Note: Relates to aircraft and not communication traffic.	QAI
	Am I near a prohibited area (orprohibited area)?	You are 1) near 2) flying over a prohibited area (or prohibited area).	QAQ
	-	Make a 360-degree turn immediately (turning to) the). or	QCI
	t i	I an making a 360-degree turn immediately (turning to the).	
	Shall I circle the aerodrome (or go around)?	Circle the aerodrome (or go around).	QHZ.

3D-13

#### ENCODE

SEE MEDo you see me? or Can you see the aerodrome? or (aircraft)?I see you at(cardinal or quandrantal point of direction).QGVSPEEDWhat is your speed? (Requests the speed of a ship or aircraft through the water or air respectively.)My speed isknots (or or I see(aircraft).QGVWhat is the speed (Requests the speed of a ship or aircraft through the water or air respectively.)My speed isknots (or the water or air respectively.)QTJWhat is the speed of your aircraft in relation to the surface of the earth?My speed isknots (or tively.)QTJTEERWhat is the Grid Course for me to steer to reach you (or)?The Grid Course for you to steer to reach me (or) isdegrees at hours.ZMV	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
TEERWhat is the speed of a sing or aircraft in relation to the surface of the earth?My speed isknots (or kilometers or statute miles per hour). (Indicates the speed of a ship or aircraft through the water or air respec- tively.)QTJTEERWhat is the Speed of your aircraft in relation to the surface of the earth?The speed of my aircraft in relation to the surface of the earth?QTKTEERWhat is the Grid Course for me to steer to reach you (or)?The Grid Course for you to steer to reach me (or) isdegrees at hours.QTKTEERWhat is the Grid Course for me to steer to reach you (or)?The Grid Course for you to steer to reach me (or) isdegrees at hours.QTKTEERWhat is the Grid Course for me to steer to reach you (or)?The Grid Course for you to steer to reach me off position for runway numberZMVIXE-OFFMay I assume position for take-off?Cleared to hold at take- of I am assuming take-off position for runway number and am holding.QEJAre you ready for immediate take-off?I am ready for immediate take-off.QEK UELMay I take-off (and make ahand turnYou are cleared to take- off (urn as follows after)QEL UEL	SEE ME	or Can you see the aerodrome? or Can you see	I see you at(cardinal or quandrantal point of direction). I can see the aerodrome. or	
What is the speed of your aircraft in relation to the surface of the earth?The speed of my aircraft in relation to the surface of the earth isknots (orkilometers orstatute miles per hour).QTKTEERWhat is the Grid Course for me to steer to reach you (or)?The Grid Course for you to steer to reach me (or) isdegrees at hours.QTKINE-OFFMay I assume position for take-off? or Have you assumed position for take-off?The Grid Course for you to steer to reach me (or) isdegrees at hours.QEJINE-OFFMay I assume position for take-off?Cleared to hold at take- of position for runway number or 	SPEED	(Requests the speed of a ship or aircraft through the water or	statute miles per hour). (Indicates the speed of a ship or aircraft through the water or air respec-	QTJ
Mate 1s the Grid Course for me to steer to reach you (or)?The Grid Course for you to steer to reach me (or) isdegrees at hours.ZMVCAKE-OFFMay I assume position for take-off? or Have you assumed position for take-off?Cleared to hold at take- off position for runway numberQEJCAKE-OFFMay I assume position for take-off?Cleared to hold at take- off position for runway numberQEJCAKE-OFFMay I assume position 		your aircraft in relation to the	The speed of my aircraft in relation to the surface of the earth isknots (orkilometers	
Course for me to steer to reach you (or)? CAKE-OFF May I assume position for take-off? Have you assumed position for take-off? Are you ready for immediate take-off? May I take-off (and make ahand turn Cleared to hold at take- of position for runway number Cleared to hold at take- of position for runway number or I am ready for immediate take-off. You are cleared to take- off (turn as follows after Cleared to take- of position for runway number and am holding. I am ready for immediate QEL				
Indy I assume position for take-off? or Have you assumed position for take-off?Cleared to hold at take- off position for runway numberQEJI am assuming take-off position for runway number and am holding.I am assuming take-off position for runway number and am holding.QEJAre you ready for immediate take-off?I am ready for immediate take-off.QEJMay I take-off (and make ahand turnYou are cleared to take- off (turn as follows afterQEJ	STEER	Course for me to steer to reach you	to steer to reach me (or) isdegrees at	ZMV
Indy I assume position for take-off? or Have you assumed position for take-off?Cleared to hold at take- off position for runway numberQEJI am assuming take-off position for runway number and am holding.OC or I am assuming take-off position for runway number and am holding.QEJAre you ready for immediate take-off?I am ready for immediate take-off.QEJMay I take-off (and make ahand turnYou are cleared to take- off (turn as follows afterQEJ	-			
immediate take-off?take-off.take-off.May I take-off (and make ahand turnYou are cleared to take- off (turn as follows afterQEL	AKE-OFF	for take-off? or Have you assumed	off position for runway number or I am assuming take-off position for runway number	QE.J
May I take-off (and make ahand turn off (turn as follows after		Are you ready for immediate take-off?	I am ready for immediate take-off.	QEK
		make ahand turn	You are cleared to take- off (turn as follows after	QEI

3D-14

ORIGINAL

(

(

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
TRAFFIC	What is the essential traffic? Note: Relates to air- craft and not communi- cation traffic.	The essential traffic is ••• Note: Relates to aircraft and not communication traffic.	QAI
ZONE	May I enter the (control area or zone) at(place)?	You may enter the (control area or zone) at(place).	QGL
		Leave the(control area or zone).	QGM
	· · · · · · · · · · · · · · · · · · ·		
	÷ .		
		• · · ·	
-			
		ć,	
		· ·	
		•	
			1
. I		•. *	
	3D-16	AF	
а.	30-10	ORIGI	NAL

#### SECTION E

#### ENCODE

	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
	What is the amount, type and height above official aerodrome elevation of the base of the cloud (at (place))?	The amount, type and height above official aero- drome elevation of the base of the cloud at(place) athours is:	QBB .
		•••eights (•••type) at •••(figures and units)*	
		height above official aerodrome elevation.	
	Note: The cloud amount, vertical distance informa sequence if several cloud the order of reporting be levels in accordance with layer specifications:	ation is reported in I layers are present,	
	<ul> <li>a) the lowest individual</li> <li>b) the next higher individual</li> <li>of which is three-eights</li> <li>eighth);</li> <li>c) the next higher individual</li> <li>which is five-eighths or eighth).</li> </ul>	dual layer the amount or more (to the nearest	
	Example: - QBB CYUL 1300	2 300 FT 3 1500 FT 6 9000 FT =	
- k t, o	Mat is the amount, ype and height above (datum) of the top f the cloud (at position or zone))?	Athours at (position or zone) the top of the cloud is: amounteighths (type) at(figures and units) height above(datum).	QBJ
	hat is the amount, he type and the height bove(datum) of the ase of the cloud at place, position or one)?	At (place	QFC
		-	
		r r	

#### SECTION E

#### ENCODE

#### METEOROLOGY

KEY	QUESTION	ANSLIED ADVITOR OF COM	· · · · · · · · · · · · · · · · · · ·
CI OID		ANSWER, ADVICE OR ORDER	SIGNAL
CLOUD	What is the amount, type and height above official aerodrome elevation of the base	The amount, type and height above official aero- drome elevation of the base of the cloud at(place)	QBB
	of the cloud (at (place))?	athours is: eights (type) at	
		•••(figures and units)* height above official	
	* Note. The gloud errort	aerodrome elevation.	•
	* Note: The cloud amount, vertical distance inform sequence if several clou the order of reporting b levels in accordance wit layer specifications:	ation is reported in Id layers are present, wing from low to bight	
	I museu is inte-eighting or	idual layer the amount or more (to the nearest idual layer the amount of	
•	eignen).	2 300 FT 3 1500 FT 6 9000 FT -	
	What is the amount, type and height above •••(datum) of the top of the cloud (at	Athours at(position or zone) the top of the cloud is: amounteighths (type)	QBJ
	(position or zone))?	at(figures and units) height above(datum).	
	What is the amount, the type and the height above(datum) of the base of the cloud at (place, position or zone)?	At(place, position or zone) the base of the cloud iseighthstype at(figures and units) height above(datum). Note: If several cloud	QFC
		layers or masses are pre- sent, the lowest is re- ported first.	
·			
	· · ·	1	

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
CLOUD (Cont'd)	Report the vertical distribution of cloud (at(position or zone)) as observed from your aircraft.	The vertical distribution of cloud as observed from my aircraft athours at (position or zone) is: lowest layer observed*	QMI
		eighths (type) with base of(figures and units) and tops of(figures and units)	
		(*and similarly in sequence for each of the layers ob- served.) height above (datum). Example: = QMI 1400 11 2	
CONDETTONO		CU 1000 FT 2500 FT 6 SC 6000 FT 10000 FT 5 AC 13000 FT 14000 FT ALT=	
CONDITIONS	Report meteorological conditions as observed from your aircraft (at (position or zone)) (athours).	The meteorological con- ditions as observed from my aircraft at(position or zone) athours at (figures and units) height above(datum) are Note: The information may be given in AIREP, or	QBC
-		Q Code form. When given in Q Code, the following se- quence of Q signal answer (or advice) forms is used: QMX, QNY, QAO, QDF, QMI, QFT and QNI.	
	Please report the present meteorological landing conditions (at(place)).	The present meteorological landing conditions at (place) are Note: When given in Q Code the information is sent in the following sequence: QAN, QBA, QNY, QBB, QNH and/or	QFY
		QFE and, if necessary, QMU, QNT, QBJ. It is not normally necessary to precede the QAN, QBA, QNY and QBB information by these Q signals but this may be done if considered de- sirable.	
DELIVERY		If more than one tropical wind warning message in this se- quence is awaiting transmission transmit highest serial number first. (Sequence/serial is un- denstood to include transact	ZPU
	·	derstood to include tropical warning name or number and con- secutive warning number).	-

#### ENCODE

	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
	DELIVERY (Cont'd)		If the earlier wind warn- wings identified by DTG(s) following this signal are awaiting transmission, file those warnings without fur- ther transmission.	ZPV
			This message canceled at time indicated. File without fur- ther transmission.	ZPW
•				
	•			
<b>م</b> ند				
·				
		-		
		· ·	E-2a CHANGE	 E NO. 1

.

( .

#### ENCODE

	QUESTION	ANSWER, ADVICE OR ORDER	SIG
FORECAST	What is the meteoro- logical forecast for (flight, route, section of route or zone) for the period hours until hours?	The meteorological fore- cast for(flight, route. section of route or zone) for the periodhours until hours is Note: When the forecast is given in Q Code the follow- ing sequence of Q signal answer (or advice) forms is to be given: QAO, QMX, QMI, QNY, QBA, QMW, QTT and QNI.	QF
	What is the aerodrome meteorological fore- cast for(place) for the periodhours untilhours?	The aerodrome meteorolog- ical forecast for(place) for the periodhours untilhours is Note: When given in Q Code the following sequence of Q signal answer (or advice) forms is to be used: QAN, QBA, QNY, QBB and, if necessary, QMU, QNT and QBJ.	QF
-	Have you any amend- ments to the flight forecast in respect of section of route yet to be traversed?	The following amendment(s) should be made to the flight forecast(If no amendments, signal QMZ NIL).	QMZ
	Can you give me in the following order inform- ation concerning: the direction in degrees TRUE and speed of the surface wind; visibility; present weather; and amount, type and height of base of cloud above surface elevation (place of observation)?	Here is the information requested:(the units used for speed and dis- tances should be indicated).	QUI
ICE	Between what heights above(datum) has ice formation been observed (at (position or zone))?	Ice formation has been observed at(position or zone) in the type of and with an accretion rate ofbetween (figures and units) and (figures and units) heights above(datum).	QFT

3E-3

(

 $\left( \right)$ 

(

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
OBSERVATION	What is the latest available meteoro- logical observation for(place)?	Meteorological observation made at(place) at hours was as follows Note: The information may be given in Q Code form or the AERO form of the inter- national meteorological figure code. When in Q Code, the information is to be given in the follow- ing sequence of Q signal answer (or advice) forms: QAN, QBA, QNY, QBB, QNH and/or QFE and, if neces- sary, QMU, QVT and QBJ. It is not normally neces- sary to precede the QAN, QBA, QNY and QBB inform- ation by these Q signals but this may be done if considered desirable. When in the AERO form of international meteorolo- gical figure code, the	QAM
PRESENT	What is the present weather and the in- tensity thereof at (place, position or zone)?	abbreviation AERO is to precede the information. The present weather and in- tensity thereof at(place, position or zone) athours is(See Notes a) and b)). Notes: a) When present weather in- formation is transmitted by a ground station, the infor- mation shall be selected from the present weather table (Table III) in PANS- MET (Doc 7605/MET/526). If none of these conditions prevail the reply shall be QNY NIL. b) When present weather in- formation is transmitted by a increaft the information	QNY
	-	an aircraft, the information shall be selected from Item 11, AIREP. If none of these conditions prevail the reply shall be QNY NIL or alterna- tively the appropriate answer (or advice) form of signals QBF, QBG, QBH, QBK, QBN or QBP. The alterna- tive may also be given in addition to present weather conditions when one of more of the con- ditions listed in Item 11 prevail.	•

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNA
PRESSURE	What is your D-Value at(position)? or What is the D-Value at(place or position) (at hours) for the millibar level?	My D-Value at(position) at(figures and units) height above the 1013.2 millibars datum is (D-Value figures and units) * (specify plus or minus) or The D-Value at(place or position) athours for themillibar level is (D-Value figures and units) * (specify plus or minus). *Note: When the true altitude (ratio al- titude) is greater than the pressure altitude PS (Plus) is used and when it is less MS (Minus) is used.	QDF
	(At(place)) what is the present at- mospheric pressure at official aero- drome elevation?	At(place) the atmos- pheric pressure at official aerodrome elevation is (or was observed athours to be)millibars.	QFE
	(At(place)) what is the present atmos- pheric pressure con- verted to mean sea level in accordance with meteorological practice?	At(place) the atmos- pheric pressure converted to mean sea level in accordance with meteoro- logical practice is (or was determined at hours to be)millibars.	Q.FF
	What indication will my altimeter give on landing at(place) athours, my sub- scale being set to l013.2 millibars (29.92 inches)?	On landing at(place) athours, with your sub- scale being set to 1013.2, millibars (29.92 inches), your altimeter will indi- cate(figures and units).	QNE
	What should I set on the sub-scale of my altimeter so that the instrument would indi- cate my elevation if I were on the ground at your station?	If you set the sub-scale of your altimeter to read millibars (or hundredths of an inch*), the instru- ment would indicate your elevation if you were on the ground at my station athours. *Note: When the setting is given in hundredths of an inch the abbreviation "INS" is used to identify the units.	QNH

3E-5

÷

---

ENCODE

	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
PRESSURE (Cont'd)	Will you give me the present barometric pressure at sea	The present barometric pressure at sea level is(units).	QUH
	level? Aeronautical Note: Stations of the	Aeronautical Note: Stations of the inter- national aeronautical	· .
	international aero- nautical telecommuni- cation service will interpret this signal	telecommunication service will interpret this signal as: The present atmospheric	
	as: What is the present atmospheric pressure at the present water	pressure at the present water level at(place or position) athours is(figures and units).	   
	level?	· ·	
RESPONSIBILI	Y Will you accept control (or responsibility) of (for)now (or at hours)?	I will accept control (or responsibility) of (for) now. (or athours).	QDP
· .			
SEA	Can you tell me the condition of the sea observed at	The sea at(place or co-ordinates) is	QUK
- 	(place or co- ordinates)?		
unication se: orm by the u	rvice will complete the answers se of a numbered alternative ing to the average wave heigh rmed waves of the wave system	as given hereunder, se- ht as obtained from the m being observed. If ob-	
.ected accord: .arger wellfo:	coincides with one of the lu	INILIS. PEDOPL LHE IOWEP	
ected accord arger wellfo erved height umbered alter	coincides with one of the li rnative, e.g. waves with a me be reported as "5".	ean maximum height of 4	
ected accord arger wellfo erved height umbered alten leters are to	rnative, e.g. waves with a me be reported as "5".	ean maximum height of 4 eight	
ected accord arger wellfo erved height umbered alten eters are to Number	rnative, e.g. waves with a me be reported as "5". He Meters Lm-glassy 0	ean maximum height of 4 eight Feet (approx.) 0	
ected accord arger wellfo erved height umbered alter eters are to Number 0 Ca 1 Ca	rnative, e.g. waves with a me be reported as "5". He Meters Lm-glassy 0 Lm-rippled 0-0.1	ean maximum height of 4 eight Feet (approx.) 0 0-1/3	
ected accord arger wellfo erved height umbered alten eters are to Number 0 Ca 1 Ca 2 Smi	rnative, e.g. waves with a me be reported as "5". He Meters Um-glassy 0 Im-rippled 0-0.1 both wavelets 0.1-0.5	ean maximum height of 4 eight Feet (approx.) 0-1/3 1/3-1 2/3	
ected accord arger wellfo erved height umbered alten eters are to Number 0 Ca 1 Ca 2 Sm 3 Sl: 4 Mos	rnative, e.g. waves with a me be reported as "5". He Meters 0 Im-rippled 0-0.1 both wavelets 0.1-0.5 ight 0.5-1.25 derate 1.25-2.5	ean maximum height of 4 eight Feet (approx.) 0-1/3 1/3-1 2/3 1 2/3-4 4-8	
ected accord: arger wellfo erved height umbered alten eters are to Number 0 Ca 1 Ca 2 Sm 3 Sl: 4 Mot 5 Roi	rnative, e.g. waves with a me be reported as "5". He Meters 0 im-rippled 0-0.1 both wavelets 0.1-0.5 ight 0.5-1.25 lerate 1.25-2.5 agh 2.5-4	ean maximum height of 4 eight Feet (approx.) 0-1/3 1/3-1 2/3 1 2/3-4 4-8 8-13	
ected accord arger wellfo erved height umbered alten eters are to Number 0 Ca 1 Ca 2 Sm 3 Sl: 4 Mo 5 Ro 5 Vel	rnative, e.g. waves with a me be reported as "5". He Meters Im-glassy 0 Im-rippled 0-0.1 both wavelets 0.1-0.5 ight 0.5-1.25 lerate 1.25-2.5 agh 2.5-4 ry rough 4-6	ean maximum height of 4 eight Feet (approx.) 0-1/3 1/3-1 2/3 1 2/3-4 4-8 8-13 13-20	
ected accord arger wellfo erved height umbered alten eters are to Number 0 Ca 1 Ca 2 Sm 3 Sl: 4 Mo 5 Ro 5 Ro 5 Vel 7 Hi	rnative, e.g. waves with a me be reported as "5". He Meters Im-glassy 0 Im-rippled 0-0.1 both wavelets 0.1-0.5 ight 0.5-1.25 lerate 1.25-2.5 agh 2.5-4 ry rough 4-6	ean maximum height of 4 eight Feet (approx.) 0-1/3 1/3-1 2/3 1 2/3-4 4-8 8-13	

3E-6

```
ENCODE
```

,

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
SWELL	Can you tell me the swell observed at (place or co- ordinates)?	The swell at(place or co-ordinates) is	QUL
telecommunica	Note: Stations of the inter tion service will complete m by the use of the following	the answer, information	I
Number	Length of Swell	Height	
0	- Short or average	-	
2	Long	Low	
2 3	Short	Moderate	
4	Average	Moderate	
5	Long	Moderate	
6	Short	Heavy	
7	Average	Heavy	
8	Long	Heavy	
9	Confused		
the use of the viation N, NE indicating swe	stations of the internation service may indicate the dj appropriate cardinal or qu , E, SE, etc. following the ell condition. The descripti tives are as follows:	irection of swell by landrantal point abbre- numbered alternate for	
	Length of	Swell	
	Meters	Eeet (annror)	

			neng ru	Ų1	
		Meters			Feet (approx.)
${\tt Short}$	=	0-100			0-300
Average	#	100-200			300-600
Long	=	0ver 200			Over 600
	•		Height	of	Swell
_		Meters		. *	Feet (approx.)
Low	#	0-2			0-7
Moderate	=	2-4			7-13
Heavy	=	Over 4			Over 13

When there is no swell, the numbered alternative "0" is used; when the swell is such that the length and height of the swell waves cannot be determined, the numbered alternative "9" is used.

3E-7

#### ORIGINAL

• 🔆 .

ENCODE

ΞΥ	QUESTION	ANSWER, ADVICE OR OPDER	SIGNAL
EMPERATURE	At(position or zone) what is (are) the height(s) above (datum) of the zero celsius isotherm(s)?	At(position or zone) the zero celsius iso- therm(s) is (are) at (figures and units) height(s) above(datum).	QYW
	What is the air temperature (at (position or zone)) (athours) at the (figures and units) height above (datum)?	At(position or zone) athours the air tem- perature is(degrees and units) at(figures and units) height above (datum). Note: Aircraft reporting QMX information will trans- mit the temperature figures as corrected for airspeed.	QMX
	What is the surface temperature at (place) and what is the dew point tem- perature at that place?	The surface temperature at(place) athours isdegrees and the dew point temperature at that time and place is degrees.	QMU
RBULENCE	Between what heights above(datum) has turbulence been ob- served at(position or zone)?	Turbulence has been ob- served at(position or zone) with an intensity ofbetween(figures and units) and(figures and units) heights above (datum).	QNI
SIBILITY	What is the horizontal visibility at (place)?	The horizontal visibility at(place) athours is(distance figures and units).	QBA
	How far, along the run- way, from the approach end, can the observer at the runway threshold see the runway lights which will be in opera- tion for my-landing (at(place))?	Athours, the observer at the threshold of runway numbercould see the run- way lights in operation for your landing (at(place)) for a distance of(figures and units) from the approach end. Note: If the station en- quired of is not equipped to make the special ob- servation requested, the reply to QBT IMI is	
	1	given by the signal QNO.	

3E-8

• ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGN
WEATHER CONTROLLED MESSAGE		This is a weather con- trolled message which is not to be transmitted in the clear over radio cir- cuits.	ZIK
		Pass this message to the nearest (or) weather central/control.	201
WIND	What is the surface wind direction and speed at(place)?	The surface wind direc- tion and speed at (place) athours is (direction)(speed figures and units). Note: Unless otherwise indicated in the question, answer (or advice), sur- face wind direction is given in degrees relative to MAGNETIC North.	QAN
	What is the wind direction in degrees TRUE and speed at (position or zone/s) at each of the (figures)(units) levels above (datum)?	The wind direction and speed at(position or zone/s) at the following heights above(datum) is: (vertical distance in figures and units) degrees TRUE(speed in figures and units) (vertical distance in figures and units) degrees TRUE(speed in figures and units).	QA0
	What is the maximum gust speed of the surface wind at (place)?	The maximum gust speed of the surface wind at (place) athours is(speed figures and units).	QNI
	36	-9 ORIG	<b>ENIAT</b>

#### SECTION F

#### ENCODE

(·

# COMMUNICATIONS EQUIPMENT AND CIRCUITS ADJUSTING AND TESTING

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNA
ACCURACY	What is the printing accuracy of my sig- nals (or those of )?	The printing accuracy of your signals (or those of) is (1. Totally corrupt; 2. Very corrupt; 3. Partly corrupt rendering traffic unacceptable; 4. Occasion- ally corrupt but traffic acceptable; 5. Perfect - no corruption).	ZBZ
AERIAL		I am about to wind in my	QBE
		aerial.	
		I am working on trailing aerial. or	QCY
	· · ·	Work on trailing aerial.	OFF
÷	· · ·	I am working (or am going to work) on a fixed aerial. or	QFX
		Work on a fixed aerial.	
AUTOMATIC	How do you receive my automatic trans- missions?	Your automatic trans- missions are(l. Good; 2. Fair; 3. Unreadable.).	ZHN
	What is your speed of automatic trans- mission in(1. Revolutions per minute; 2. Words per minute; 3. Bauds.)	My speed of automatic transmission in(l. Revolutions per minute; 2. Words per minute; 3. Bauds.) is	ZHO
	What is preventing automatic reception?	Automatic reception is prevented by	ZHP
	Is my speed of auto- matic transmission correct?	Your speed of automatic transmission is(1. Fast; 2. Slow; 3. Erratic; 4. Correct).	ZHR
	Are you ready for automatic operation?	I am ready for automatic operation. Send at words per minute.	QRR

ſ

٩

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
BIAS	What is my bias distortion?	Your bias distortion is (1. Excessive; 2per- cent (marking); 3per- cent (spacing); 4per- cent (total distortion).	ZTN
CALL	Shall I repeat the call on the calling frequency?	Repeat your call on the calling frequency; did not hear you (or have inter- ference).	QSR
CARRIER		Your carrier is (1. Over-suppressed; 2. Under-suppressed).	ZRS
CASE	Am I transmitting 1) in letters? 2) in figures?	You are transmitting 1) in letters. 2) in figures.	QJD
		You are transmitting in upper case.	ZBG
CHANNEL	Shall I revert to single channel working?	Revert to single channel working.	ZRK
÷.	Can you read me on (1. Channel A; 2. Channel B; 3. Channel (s); 4. All channels)?	I can read you on(l. Channel A; 2. Channel B; 3. Channel(s); 4. All channels; 5. No channels).	ZRO
		Transfer signal on channel to channel (Should only be used when order originates from a third working channel. See ZRV for use between directly connected working channels).	ZRP
		Transfer signal to channel	ZRV
CHARACTER	Is my character forma- tion correct?	Your character formation is (1. Correct; 2. De- fective in the start ele- ment; 3. Defective in the lst unit; 4. Defective in the 2nd unit; 5. Defective in the third unit; 6. De- fective in the 4th unit; 7. Defective in the 5th unit; 8. Defective in the stop element).	ZTO

#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGN
CHECK	<pre>Will you check your 1) transmitter dis- tributor? 2) auto-head? 3) perforator? 4) reperforator? 5) printer? 6) printer motor? 7) keyboard? 8) antenna system?</pre>	<ol> <li>will check my</li> <li>transmitter distributor.</li> <li>auto-head.</li> <li>perforator.</li> <li>reperforator.</li> <li>printer.</li> <li>printer motor.</li> <li>keyboard.</li> <li>antenna system.</li> </ol>	đις
	Will you check your?	I will check my	ZRJ
<b>2017</b>			-
CODE	Are you working on the correct code? Note: This meaning applies only to fre- quency shift diplex.	I am working on the correct code. Note: This meaning applies only to frequency shift diplex.	ZRL
·			
CONNECT	Are you (or is) connected to?	I am (oris) connected to	ZTK
÷			
DISCONNECT	Are you (or is) about to disconnect?	I am (oris) about to disconnect.	ZTL
EQUIPMENT		Broadcast transmitter indicated is about to be taken off forminutes (or until).	ZJT
		(1. Radio; 2. Visual; 3. Landline; 4. Teletype- writer (teleprinter); 5. Telephone; 6. Automatic; 7. Facsimile; 8. Shore telephone; 9. Shore tele- printer; 10. Radio tele- typewriter).	ZTA
		1	ł

*(* .

1

ENCODE

(EY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
WIPMENT Cont'd)		(1. Transmitter- distributor; 2. Auto- head; 3. Perforator; 4. Reperforator; 5. Printer; 6. Undulator; 7. Keyboard; 8. Fre- quency shift keyer; 9. Multiplexing carrier base 10. On line crypto device.	ZTB
		(class of emission/ type of transmission as indicated in Chapter 6).	ZTG
		(1. Receiver; 2. Trans- mitter; 3. Power supply; 4. Antenna system; 5. Radio direction finder).	ZTI
CILITIES	Is theradio facility at (place) in operation?	Theradio facility at (place) is in operation (or will be in operation inhours).	QFS
		or Please have theradio facility at(place) put in operation.	
	Is theradio facility still required?	Theradio facility is still required.	QLV
÷		Facility indicated can- not be operated at present.	ZLN
·	Is (are) facility (ies)operative at your station (or at)?	The followingfacility (ies) is (are) operative at this station (or at ). (1. Homing beacon; 2. Radar beacon; 3. Re- volving and/or Flashing beacon; 4. Radio beacon; 5. Instrument landing system; 6. Ground control approach; 7. Approach con-	210
	-	trol; 8. Tower transmitter (state which type LF, MF, VHF, or UHF); 9. MF Direc- tion finder; 10. VHF Direc- tion finder; 11. UHF Direc- tion finder; 12. Runway lights; 13. Sandra lights; 14. Radio track guide; 15. Radio range).	• • • •

#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	le rever
FREQUENCY (Cont [†] d)	Shall I increase fre- quency very slightly (orkHz) to clear interference?	Increase frequency very slightly (orkHz) to clear interference.	<u>SIGNAL</u> ZHB
	How does my frequency check?	Your frequency is (1. Correct; 2. Slightly (orhertz (or kHz)) high; 3. Slightly (or hertz (or kHz)) low; 4. Stable on steady mark; 5. Stable on steady space; 6. Unstable; 7. Erratic).	ZRA
		Check your (or's) fre- quency on this circuit (or onkHz (or MHz)).	ZRB
	What is the frequency of theradio facil- ity now in operation?	The frequency of the radio facility now in operation is	ZRD
	On what frequency do you hear me best? .	I hear you best onkHz (or MHz).	ZRE
	Will you send tuning signal on your present frequency (or on kHz (or MHz)) for 1 minute, or until AS is given?	Am about to send tuning signal on my present frequency (or onkHz (or MHz)).	ZRF
	When will a change of frequency (tokHz (or MHz)) be necessary?	A change in frequency (tokHz (or MHz)) will be necessary at approxi- mately	ZRG
	Are my tone frequencies correct?	Your tone for(1. Mark- ing and spacing are high; 2. Marking and spacing are low; 3. Marking and spacing are correct).	ZRU
EQUENCY	Is my frequency shift	Your frequency shift is	0.10
(1 <b>F.</b> L	1) too wide? 2) too narrow? 3) correct?	<ol> <li>too wide.</li> <li>too narrow (byhertz).</li> <li>correct.</li> </ol>	QJΕ
	Is my frequency shift correct?	Your frequency shift is (1. Too wide; 2. Too narrow; 3. Not linear; 4. Correct) (byhertz).	ZRH

3F-7

(

(

CHANGE NO. 1

.

#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
LINE	Will you(1. dis- connect your equip- ment from line and carry out local test, reconnecting to line inminutes; 2. connect your transmit line to your receive line to enable me to carry out a loop test forminutes)?	I will(1. disconnect (or I am disconnecting) my equipment from line and carry (or to carry) out local test reconnecting to line inminutes; 2. connect my transmit line to my receive line to enable you to carry out a loop test for minutes).	ZTR
	Is the line satis- factory?	The line is(l. satis- factory; 2. unsatis- factory).	ZTS
LINES	What is (are) the magnetic line(s) of shoot of the (facility)?	The magnetic line(s) of shoot of the(facility) is (are)degrees.	ZLP
LISTEN	•	Please listen for me onkHz (or MHz) and transmit to me on kHz (or MHz).	ZHQ
· •			
MARK/SPACE	Is my 1) tape ) 2) mark and space) reversed?	Your 1) tape ) 2) mark and space) is reversed.	QJA
	Will you transmit a continuous 1) mark? 2) space?	I am transmitting a continuous 1) mark. 2) space.	QJI
	Are you receiving 1) a continuous mark? 2) a continuous space? 3) a mark bias? 4) a space bias?	I am receiving 1) a continuous mark. 2) a continuous space. 3) a mark bias. 4) a space bias.	QJK `
		You and there is the	
		You are transmitting a continuous(1. Mark; 2. Space).	ZBC

3F-8

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGN
METHOD	<pre>Will you use 1) radio? 2) cable? 3) telegraph? 4) teletypewriter? 5) telephone? 6) receiver? 7) transmitter? 8) reperforator?</pre>	I will use 1) radio. 2) cable. 3) telegraph. 4) teletypewriter. 5) telephone. 6) receiver. 7) transmitter. 8) reperforator.	QJB
		(class of omission/ type of transmission as indicated in Chapter 6).	ZTG
MODULATION	What is the duration of your modulation cycle?	<ul> <li>The duration of my modulation cycle is <u>50 Baud Equipment</u></li> <li>1. 148 milliseconds (7.42 units) fast.</li> <li>2. 150 milliseconds (7.5 units) correct.</li> <li>3. 152 milliseconds (7.6 units) slow.</li> <li>4erratic per character. <u>45.5 Baud Equipment</u></li> <li>1. 161 milliseconds (7.35 units) fast.</li> <li>2. 163 milliseconds (7.42 units) correct.</li> <li>3. 165 milliseconds (7.5 units) slow.</li> <li>4erratic per character.</li> </ul>	ZTP
MONITOR	· · ·	My signal as checked by monitoris satisfactory  1) locally. 2) as radiated.	QJF
	Will you monitor station and report regarding range, qualitý, etc.?	I have monitored station and report (briefly) as follows	QLB
РАТСН	Will you patch me through to(via you or)?	I am about to patch you through to(via)	ZAF

- - .

# ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL	
POWER	Shall I increase trans- mitter power?	Increase transmitter power.	QRO	
	Shall I decrease trans- mitter power?	Decrease transmitter power.	QRP	(
	· ·	Maximum power is now being radiated.	ZPE	-
RADIATION		Your transmitter has strong radiation while idling.	ZPB	(
		Radiate full unmodulated power forminutes.	ZRT	ν.
REPAIRS	Are repairs completed?	Repairs completed.	ZTF	
SATELLITE		Satellite(s) is/are pre- empted fromZ toZ	ZCA	
-		Change to double-hop work- ing using satellites West andEast now (or athours)	ZCB	( -
		Establishon access channel (A/B) 1. 300 db Emergency patch. 2. Phase-reverse-keying.	ZCC	
		Weight your access to (call sign) bydb.	ZCD	
	-	<ul> <li>Access satellitenow (or at hours) with</li> <li>1. Spread Spectrum Modula- tion (normal allocation).</li> <li>2. Spread Spectrum Modula- tor changed to access</li> <li>3. Spread Spectrum Demodu- lator changed to access</li> </ul>	ZCE	(
		<ol> <li>Frequency modulation.</li> <li>Phase Shift Keying Modu- lation.</li> </ol>	1	(
		<ul> <li>Remove accessnow (or at hours)</li> <li>1. Spread Spectrum Modulation (1 - 40)</li> <li>2. Frequency Modulation.</li> <li>3. Phase-reverse-keying.</li> <li>4. Phase Shift Keying Modu-</li> </ul>	ZCF	(

#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
SATELLITE (Cont'd)	What is your frequency modulation deviation?	My frequency modulation is	ZCG
· ·	What is your tracking mode?	My tracking mode is 1. Autotrack.	ZCH .
		2. Manual tracking. 3. Hand barring.	
	<ul> <li>What is your?</li> <li>1. Total output power.</li> <li>2. Quality meter reading.</li> <li>3. Number of accesses.</li> <li>4. Frequency modulation access power.</li> </ul>	My 1 iswatts 2 is% 3 accesses. 4 watts.	2CI
	Are you experiencing equipment trouble?	I am experiencing trouble with my 1. Spread Spectrum Modula- tor.	ZCJ
		<ol> <li>Frequency division mul- tiplex equipment.</li> <li>Line modem.</li> <li>Time division multiplex equipment.</li> </ol>	
		5. Switching or patching. 6. Servo system. 7. Transmitter	
• •		8. Receiver. 9. Parametric amplifier. 10. Phase Shift Keying Modulator.	
	<ul> <li>Shall I loop my?</li> <li>1. Spread Spectrum Modulator channel (A/B)</li> <li>2. Line modem</li> <li>3. Time division multiplex equipment.</li> <li>4. Frequency division multiplex equipment.</li> </ul>	<ul> <li>Loop your</li> <li>1. Spread Spectrum Modulator channel</li> <li>2. Line modem.</li> <li>3. Time division multiplex equipment.</li> <li>4. Frequency division mul- tiplex equipment.</li> </ul>	ZCK
	Have you checked speed setting of all equipment on(channel/circuit)	I have checked speed setting on(channel/circuit).	ZCL
	<ul> <li>May I carry outon satellite?</li> <li>1. Spread Spectrum Modu- lation back-to-back check.</li> <li>2. Range measurement.</li> <li>3. Power Balance.</li> </ul>	<ul> <li>Carry outon satellite</li> <li>1. Spread Spectrum Modula- tion back-to-back check.</li> <li>2. Range measurement</li> <li>3. Power Balance.</li> </ul>	ZCM

( '

( ,

)

••

#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
SATELLITE (Cont'd)	Are you ready to synch- ronize Spread Spectrum Access?	I am ready to synchronize Spread Spectrum Access	ZCN
		<pre>On your FM/FDM Access 1. Suppress telegraph     channel (1 - 9) 2. Open telegraph channel    (1 - 9)</pre>	2C0
		<ul> <li>Change (total) radiated power</li> <li>1. On narrow-band to watts.</li> <li>2. On Spread Spectrum watts. Note: This power excluded that for access D or E.</li> <li>3. Of access(1-40,N1- N5, D or E) to (watts)</li> <li>4. Of access(1-40, RAE) to(0,3,6,9db) below full access at Combiner Unit.</li> </ul>	ZCP
- 		Change FM/FDM mode to Mode (A/D) with deviation kHz	ZCQ
· ·		I am about to initiate 1. Serial 2. Parallel synchronization of accesses and	ZCR
		Switch your Spread Spectrum Accessmodulator to 1. Code off 2. Search 3. Sync. 1 4. Sync. 2 5. Traffic 6. Channel A Normal On. 7. Channel B Normal On.	ZCS
		<ul> <li>My Spread Spectrum Access demodulator is</li> <li>1. CW tuned</li> <li>2. In short-code lock</li> <li>3. In long-code lock</li> <li>4. In long-code and data- lock on Channel A only</li> <li>5. In long-code and data- lock on both channels.</li> </ul>	ZCT

#### ENCODE

. •

SATELLITE (Cont'd) Set Spread Spectrum Accessto 1. Channel A and B retain- ing original radiated power for this access. Set speed of Spread Spectrum AccessChannel(A/B) to 1. 1300 bd. 4. 1200 bd 2. 2600 bd. 5. 2400 bd. 2. 2600 bd. 5. 2400 bd. 3. 600 bd. 6. 4800 bd. 1. Check yourand advise 2. I have lost 3. Perform back to back through 4. Bypass 5. I have bypassed 6. Reture demodulator To be used in conjunction with ZCX. 1. Test loop 1 2. Test loop 2 3. Test loop 2 3. Test loop 4 5. Paramp 6. High Power Amplifier 7. Demodulator 8. Mux Channel B 10. Demux Channel B 10. Demux Channel B 10. Demux Channel B 10. Demux Channel B 11. Coder 13. Decoder 14. Tracking (including side lobe) 15. 5 Miz standard 16. Synthesizer 17. Power Supply 18. Modulator 19. Satellite 20. Crypto Equipment 21. Patching DF 23. Patching HF 23. Patching Cleck	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
AccessChannel(A/B) to 1. 1300 bd. 4. 1200 bd 2. 2600 bd. 5. 2400 bd. 3. 600 bd. 6. 4800 bd. 1. Check yourand advise 2. I have lost 3. Perform back to back through 4. Bypass 5. I have bypassed 6. Retune demodulator To be used in conjunction with ZCX. 1. Test loop 1 2. Test loop 2 3. Test loop 3 4. Test loop 4 5. Paramp 6. High Power Amplifier 7. Demodulator 8. Mux Channel B 10. Demux Channel B 10. Demux Channel B 10. Demux Channel B 10. Demux Channel B 10. Coder 13. Decoder 14. Tracking (including side lobe) 15. 5 MHz standard 16. Synthesizer 17. Power Supply 18. Modulator 19. Satellite 20. Crypto Equipment 21. Patching DC 22. Fatching RF			Accessto 1. Channel A only. 2. Channel A and B retain- ing original radiated	ZCU
2. I have lost 3. Perform back to back through 4. Bypass 5. I have bypassed 6. Retune demodulator To be used in conjunction with ZCX. 1. Test loop 1 ZCX. 2. Test loop 2 3. Test loop 3 4. Test loop 4 5. Paramp 6. High Power Amplifier 7. Demodulator 8. Mux Channel A 9. Mux Channel A 10. Demux Channel B 12. Coder 13. Decoder 14. Tracking (including side lobe) 15. 5 MHz standard 16. Synthesizer 17. Power Supply 18. Modulator 19. Satellite 20. Crypto Equipment 21. Patching DC 22. Patching RF			AccessChannel(A/B) to 1. 1300 bd. 4. 1200 bd 2. 2600 bd. 5. 2400 bd.	ZCV
2. Test loop 2 3. Test loop 3 4. Test loop 4 5. Paramp 6. High Power Amplifier 7. Demodulator 8. Mux Channel A 9. Mux Channel B 10. Demux Channel B 10. Demux Channel B 12. Coder 13. Decoder 14. Tracking (including side lobe) 15. 5 MHz standard 16. Synthesizer 17. Power Supply 18. Modulator 19. Satellite 20. Crypto Equipment 21. Patching DC 22. Patching RF			<ol> <li>I have lost</li> <li>Perform back to back through</li> <li>Bypass</li> <li>I have bypassed</li> <li>Retune demodulator</li> <li>To be used in conjunction</li> </ol>	ZCW
<pre>11. Demux Channel B 12. Coder 13. Decoder 14. Tracking (including side lobe) 15. 5 MHz standard 16. Synthesizer 17. Power Supply 18. Modulator 19. Satellite 20. Crypto Equipment 21. Patching DC 22. Patching RF</pre>			<ol> <li>Test loop 2</li> <li>Test loop 3</li> <li>Test loop 4</li> <li>Paramp</li> <li>High Power Amplifier</li> <li>Demodulator</li> <li>Mux Channel A</li> <li>Mux Channel B</li> </ol>	ZCX.
19. Satellite 20. Crypto Equipment 21. Patching DC 22. Patching RF		-	<ul> <li>11. Demux Channel B</li> <li>12. Coder</li> <li>13. Decoder</li> <li>14. Tracking (including side lobe)</li> <li>15. 5 MHz standard</li> <li>16. Synthesizer</li> <li>17. Power Supply</li> </ul>	
			19. Satellite 20. Crypto Equipment 21. Patching DC 22. Patching RF	

3F-10c

ENCODE

Operate at(BPS) 1. 75 2. 84 3. 150 4. 168 5. 300 6. <u>336</u> 7. 672 8. 1200 9. 2400 10. 4800 11. 9600 To be used in conjunction	ZCY .
2. 84 3. 150 4. 168 5. 300 6. <u>336</u> (32) 7. 672 8. 1200 9. 2400 10. 4800 11. 9600 To be used in conjunction	
3. 150 4. 168 5. 300 6. 336 7. 672 8. 1200 9. 2400 10. 4800 11. 9600 To be used in conjunction	
4. 168 5. 300 6. 336 7. 672 8. 1200 9. 2400 10. 4800 11. 9600 To be used in conjunction	
5. 300 6. 336 7. 672 8. 1200 9. 2400 10. 4800 11. 9600 To be used in conjunction	
6. <u>336</u> 7. 672 8. 1200 9. 2400 10. 4800 11. 9600 To be used in conjunction	
<ol> <li>8. 1200</li> <li>9. 2400</li> <li>10. 4800</li> <li>11. 9600</li> <li>To be used in conjunction</li> </ol>	
<ol> <li>8. 1200</li> <li>9. 2400</li> <li>10. 4800</li> <li>11. 9600</li> <li>To be used in conjunction</li> </ol>	
9. 2400 10. 4800 11. 9600 To be used in conjunction	
10. 4800 11. 9600 To be used in conjunction	
11. 9600 To be used in conjunction	
To be used in conjunction	
with ZCZ	
1. Coded	ZCZ
2. Uncoded	ļ
3. Satellite Access Chan-	
nel atDBW	
4. Relinquish Satellite	
Access due to sole	
access	•
Access due to violation	
of Power Restrictions	·
	-
1 1	
···	
Channel toat DBW	
ll. Satellite	ZTA
I can receive(1. The un-	ZRM
I intend to transmit on	ZRN
(1. The upper sideband; 2.	
The lower sideband; 3. Both	
sidebands independently).	
Change to other sideband.	ZRQ
The tone of your trans-	QRI
	<ol> <li>Uncoded</li> <li>Satellite Access Channel atDBW</li> <li>Relinquish Satellite Access due to sole access</li> <li>Relinquish Satellite Access due to violation of Power Restrictions</li> <li>Increase Power toDBW</li> <li>Decrease Power toDBW</li> <li>NB ALPHA</li> <li>NB BRAVO</li> <li>Change Satellite Access Channel toat DBW</li> <li>Satellite</li> <li>can receive(1. The upper sideband; 2. The lower sideband; 2. The lower sideband; 3. Both sideband; 3</li></ol>

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGN
SIGNAL QUALITY (Cont'd)	What is the intelli- gibility of my signals (or those of)?	The intelligibility of your signals (or those of) is 1) bad. 2) poor. 3) fair. 4) good. 5) excellent.	QRK
		Your signals are (1. Fading badly; 2. Fading slightly; 3. Good for words per minute; 4. Getting stronger; 5. Getting weaker).	ZPC
	Is your signal as checked by monitor satisfactory (1. Locally; 2. As radiated)?	My signal as check by monitoris satisfactory (l. Locally; 2. as ra- diated).	ZPD
• •	What is the readabilit of the signals of the group (net) (or of)	signals of the group (net)	ZPF
- -	What is (are) signal strength(s) of group (net) (or of)?	Signal strength(s) of group (net) is (are) (or of) is (1 to 5)	ZPG
		This transmission is a transmitter pre-acceptance trial. Request expedi- tious strength and reada- bility reply.	ZPT
SIGNAL STRENGTH	What is the strength of my signals (or those of)?	The strength of your sig- nals (or those of) is 1) scareely perceptible. 2) weak. 3) fairly good. 4) good. 5) very good.	QSA
	Are my signals fading	Your signals are fading.	QSB
SPEED KEY		Your speed key is improper- ly adjusted.	ZAB
SPEECH		Your speech is distorted.	ZPA

#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL	
TAPE	Is my 1) tape ) 2) mark and space) reversed?	Your 1) tape ) 2) mark and space) is reversed.	QJA	
	Shall I run 1) my test tape? 2) a test sentence?	Run 1) your test tape. 2) a test sentence	QJH	
•	Shall I transmit 12 inches of blank tape at short intervals atwords per minute?	Transmit 12 inches of blank tape at short in- tervals atwords per minute.	ZAW	
		Youris reversed. (1. Tape; 2. Mark and space).	ZBN	
TECHNICIAN	Will you(l. get the Circuit Engineer/Facil- ity Control Technician to speak on this cir- cuit (or circuit); 2. hand the line over to the Circuit Engineer/ Facility Control Tech- nician for check)?	I will(1. get the Circuit Engineer/Facil- ity Control Technician to speak on the circuit; 2. hand the line over to the Circuit Engineer/ Facility Control Tech- nician for check and call you when check has been completed).	ZTQ	· · · · · · · · · · · · · · · · · · ·
TELETYPE RANGE	What is teletype range taken on my signal(s)?	Teletype range taken on your signal(s) isto	ZAU	•
TEST	Shall I run 1) my test tape? 2) a test sentence?	Run 1) your test tape. 2) a test sentence.	QJH	
		Run (1. Caller; 2. Test tape; 3. Synchronizing tape; 4. Traffic tape; 5. Marking signals; 6. Spacing signals; 7. Reversals; 8. Run tele-	ZAI	
		typewriter space bar signals). 9. Datel test atbd		

#### SECTION G

#### ENCODE

#### CIRCUIT DISCIPLINE AND NET CONTROL

NOWLEDGE	Can you acknowledge receipt?	I am acknowledging receipt.	QSL
	· · ·		
WER		Answer me (or) on kHz (or MHz).	ZBV
OMATTO	Shall I revent to	Revent to automatic	Q.J.G
UMATIC	automatic relay?	relay.	400 G
AK -		I have been unable to break in on your trans- mission. Will you inform(call sign) that I have been unable to break in on his transmission (on kHz (or MHz)).	QSI
		I have (orhas) been . unable to break you.	ZAJ
	· · ·	I am unable to receive you while I am trans- mitting. Do not use break-in procedure.	ZBL
Ŷ	Are you busy?	I am busy (or I am busy with). Please do not interfere.	QRL
	-		
L/CALL-	Shall I inform that you are calling him onco.kHz (or MHz)?	Please informthat I am calling him onkHz (or MHz).	QRW
	OMATIC AK Y L/CALL-	OMATIC       Shall I revert to automatic relay?         AK         Y       Are you busy?         L/CALL-       Shall I inform that you are calling him on s kHz (or	Y       Are you busy?       KHz (or MHz).         Y       Are you busy?       I am busy (or I am busy with). Please do not interfere.         Y       Are you busy?       I am busy (or I am busy with). Please do not interfere.

)

۲,

¢

#### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
CALL/CALLING (Cont'd)	When will you call me again?	I will call you again athours (onkHz (or	QRX
		MHz)).	
	Who is calling me?	You are being called by •••(onkHz (orMHz)).	QRZ
		Make preliminary call before transmitting traffic.	ZBH
		I am or have been (or is or has been) calling you (onkHz (or MHz)).	ZGI
	When will you call me again on present frequency (or on kHz (or MHz))?	I will call you again as soon as possible (or at ) on present frequency (or onkHz (or MHz)).	ZGJ
	When shall I call you again on present fre- quency (or onkHz (orMHz))?	Call me again aton present frequency (or on kHz (or MHz)).	ZGK
		••••will answer calls for me (or for••••).	ZGL
		Answer calls for me on present frequency (or onkHz (or MHz)).	ZGP
-			
CALL SIGN	What is your full call sign?	My full call sign is or	QCX
		Use your full call sign until further notice.	,
	What is my call sign for use on this cir- cuit only?	Your call sign for use on this circuit only is	ZGA
		Send (answer)(1. In alphabetical sequence of	ZGB
		call signs. Each station to make its call signs once (ortimes); 2. In the following sequence of call signs).	
		Two stations are using the same indefinite call sign onkHz (or MHz). Both stations are to select different call signs.	ZGD

36-2
.

## ENCODE

Ι.

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNA
CALL SIGN (Cont'd)		Send your call sign(s) once (ortimes) on this fre- quency (or onkHz (or MHz)).	ZGE
		Make call signs more dis- tinctly.	ZGF
	What is call sign of (1. Friendly striking force air- craft; 2. Friendly shadowing aircraft; 3. Incoming vessel; 4. Senior officer present afloat (or officer in tactical command); 5. Ship acting as flagship for)?	Call sign ofis (1. Friendly striking force aircraft; 2. Friend- ly shadowing aircraft; 3. Incoming vessel; 4. Senior officer present afloat (or officer in tactical command); 5. Ship acting as flagship for).	ZGG
CLOSING DOWN		I am closing down (until ) due to	ZAL
•	May I close down (until)?	<pre>(1. Close down (until); 2. I am closing down (until)).</pre>	ZKJ
	,		
COMMUNICATE WITH	May I establish com- munication with radio station on kHz (or MHz) now (or athours)?	Establish communication withradio station on kHz (or MHz) now (or athours). or I will establish communi-	QIC
		<pre>cation withradio station onkHz (or MHz) now (or athours).</pre>	
	Can you communicate withdirect or by relay?	I can communicate withdirect (or by relay through).	<b>QS</b> 0
· · ·	Can you communicate with my station by means of the inter- national code of signals?	I am going to communicate with your station by means of the international code of signals.	QTQ
		, , , , , , , , , , , , , , , , , , ,	

CHANGE NO. 1

۰.

.

### ENCODE

	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
	DELAY .		Transmission onkHz (or MHz) suspended until (or was suspended at) on account of electrical hazards (or).	ZAK
		What is cause of delay (or of bad transmission)?	Delay (or bad transmission) due to	ZBA
			I am using this trans- mitter to answer calls on two or more frequencies. Answer to calls may be delayed.	ZGH
	DISCIPLINE		You are not observing proper circuit discipline.	ZAA
		· · ·		
	FREQUENCY		My reception onfre- quency has broken down.	QCS
	÷.	What frequency isusing?	is usingkHz (or MHz).	QIF
-			Shift to transmit and re- ceive onkHz (or MHz); if communication is not established within 5 minutes, revert to present frequency.	омн
		Shall I change to transmission on another frequency?	Change to transmission on another frequency (or onkHz (or MHz)).	QSY
		Will you shift (or askto shift) to transmit onkHz (or MHz)?	I am (oris) shifting to transmit onkHz (or MHz).	ZBW
	· · ·	Will you shift (or askto shift) to receive onkHz (or MHz)?	I am (oris) shifting to receive onkHz (or MHz).	ZBX
	GROUPS	Shall I send each word or group more than once?	Send each word or group twice (ortimes),	QSZ
			· · · · · · · · · · · · · · · · · · ·	

(

•••

## ENCODE

agree with my ing of words? stop listening watch fre- forminutes? I stand guard for the frequency of (or MHz) (from hours)?	I do not agree with your counting of words; I will repeat the first letter or digit of each word or group. The last word (or group) (l. Received from you was; 2. Transmitted to you was). You may stop listening on the watch frequency for minutes. Stand guard for me on the frequency ofkHz (or MHz) (fromtohours). Take guard (for) (onkHz (or MHz)). I have taken over guard onkHz (or MHz). I have handed over guard (to) (onkHz (or MHz);)	QTB ZAQ QAR QTV ZKM ZKN ZKO
watch fre- forminutes? I stand guard for the frequency of (or MHz) (from	<ul> <li>(1. Received from you Was; 2. Transmitted to you was).</li> <li>You may stop listening on the watch frequency for minutes.</li> <li>Stand guard for me on the frequency ofkHz (or MHz) (fromtohours).</li> <li>Take guard (for) (onkHz (or MHz)).</li> <li>I have taken over guard onkHz (or MHz).</li> <li>I have handed over guard</li> </ul>	QAR QTV ZKM ZKN ZKO
watch fre- forminutes? I stand guard for the frequency of (or MHz) (from	<ul> <li>the watch frequency for minutes.</li> <li>Stand guard for me on the frequency of kHz (or MHz) (fromtohours).</li> <li>Take guard (for) (on kHz (or MHz)).</li> <li>I have taken over guard on kHz (or MHz).</li> <li>I have handed over guard</li> </ul>	QTV ZKM ZKN ZKQ
I stand guard for the frequency of (or MHz) (from	<ul> <li>Stand guard for me on the frequency ofkHz (or MHz) (fromtohours).</li> <li>Take guard (for) (onkHz (or MHz)).</li> <li>I have taken over guard onkHz (or MHz).</li> <li>I have handed over guard</li> </ul>	ZKM ZKN ZKQ
	<ul> <li>(onkHz (or MHz)).</li> <li>I have taken over guard</li> <li>onkHz (or MHz).</li> <li>I have handed over guard</li> </ul>	ZKN ZKO
	on•••kHz (or MHz). I have handed over guard	ZKO
	I have handed over guard	ZKO
	(serial number of last message received was).	
ı (or is) guard for kliz (or MHz))?	I am (oris) radio guard for(onkHz (or MHz)).	ZKP
	Indicate ships or stations for which you are (oris) guard. (1. Radio (on kHz (or MHz)); 2. Visual).	Z KQ
s I (or) eard?	Nothing heard from you (or) (since).	ZGN
	The identification signal which follows is super- imposed on another transmission.	QTT
	guard for kliz (or MHz))? As I (or)	I (or is) guard forI am (oris) radio guard for(onkHz (or MHz)).Ilz (or MHz))?Indicate ships or stations for which you are (oris) guard. (1. Radio (on kHz (or MHz)); 2. Visual).Is I (or) eard?Nothing heard from you (or) (since).The identification signal which follows is super- imposed on another

36-6

## ENCODE

	Your keying is defective.	QSD
	Your(1. Characters are indistinct; 2. Spacing is bad).	ZBP
	Your(1. Dots are too heavy; 2. Dots are too light; 3. Dots are varying in bias; 4. Dot spacing is bad; 5. Dots are missing; 6. Dots are burring.).	ZBS
36-7	CHANGE	, X0 1

	KEY	QUESTION	ANSWER, ADVICE OR ORDER	TSIGNAL
• .	INTERFERENCE	Are you experiencing communication diffi- culties through flying in a storm?	I am experiencing communi- cation difficulties through flying in a storm. Note: Attention is invited to the possible supplemen- tary use of signals QAR, QBE, QCS, QRM, QRN, QRX, QSZ or the signal CL to amplify the meaning asso- ciated with signal QAZ.	QAZ
		Are you being inter- fered with?	I am being interfered with.	QRM .
		Are you troubled by static?	I am troubled by static.	QRN
			You are(1. Causing in- terference. Listen before sending; 2. Causing inter- ference by inattention to order to wait; 3. Sending at the same time as (call sign); 4. Causing delay by slowness in answering; 5. Causing de- lay by slowness in answering my service or procedure messages; 6. Answering out of turn).	ZAX
	KEYING	Will you use simul- taneous keying on frequency and frequency?	I will now key simulta- neously onfrequency and frequency.	QLH
		Is my keying defec- tive?	Your keying is defective.	QSD
			Your(1. Characters are indistinct; 2. Spacing is bad).	ZBP
			Your(1. Dots are too heavy; 2. Dots are too light; 3. Dots are varying in bias; 4. Dot spacing is bad; 5. Dots are missing; 6. Dots are burring.).	ZBS
	4			

(

(

_____

(

(

ĺ

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
LEAVING NET		Station leaves net tempo- rarily (or forminutes) (to communicate with) (will be onkHz (or MHz))	ZKF
LINK		Act as radio link (relay- ing station) between me and(or betweenand ).	ZOD
LISTEN	Shall I listen for you (or for) on kHz (or MHz)? Note: If the fre- quency is given in megacycles, the abbreviation MC is to be used. (See also signal QSX).	Listen for me (or for) [onkHz (MHz). Note: If the frequency is given in megacycles, the abbreviation MC is to be used. (See also signal QSX).	QAP
	Will you listen to (call sign(s) on kHz (or MHz)?	I am listening to(call sign(s)) on kHz (or MHz.	QSX
		Listen for radiotelephony.	ZBI
ESSAGES	Hassent any message for me?	Here is the message sent byathours.	QBM
	Have you sent message	I have sent message to	QDB
	Have you anything for me?	I have nothing for you.	QRU
ETHOD	Shall I work 1. Simplex; 2. Du- plex; 3. Diplex; 4. Multiplex; 5. Single Sideband; 6. With automatic error correction system; 7. Without automatic error	Work(1. Simplex; 2. Duplex; 3. Diplex; 4. Multiplex; 5. Single Sideband; 6. With automatic error correction system; 7. Without automatic error cor- rection system).	ZAP
	correction system)?	Transmit traffic for me (or for) by broadcast method until further directed (or until).	ZAV

36-8

### ENCODE

(

(

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIG
METHOD (Cont [†] d)		Transmit traffic to me (or toonkHz (or MHz)) without waiting for re- ceipts. I (or) will receipt for traffic later (onkHz (or MHz)).	ZAY
	Shall I send by (1. Direct (R) method; 2. Broad- cast (F) method; 3. Intercept (I) method; 4. Repeat back (G) method)?	Send by(1. Direct (R) method; 2. Broadcast (F) method; 3. Intercept (I) method; 4. Repeat back (G) method).	ZB
OPERATING SIGNAL		Your operating signal (made at) received as (1. Not understood; 2. Not held).	ZAD
OPERATION	May I resume normal working?	Normal working may be resumed.	QUM
OPERATOR		Placeon watch on the frequency. (1. A qualified speed key operator; 2. A competent operator).	ZВМ
			Ì
PRECEDENCE		Transmit only messages of and above precedence	ZAN
	Of what precedence(s) and for whom is (are) your message(s)?	I have (orhas)(num- eral followed by precedence prosign for each precedence) message(s) for you (or for ).	<b>ZBO</b>
READY	Are you ready?	I am ready.	QRV
		· · ·	
RECEPTION		My reception onfre- quency has broken down.	QCS
	Can you hear me be- tween your signals and if so can I break in on your transmission?	I can hear you between my signals; break in on my transmission.	QSK

36-9

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNA
RECEPTION (Cont'd)	Did you hear me (or (call sign) onkHz (or MHz)?	I did hear you (or (call sign) onkHz (or MHz).	QSN
		I am unable to receive you. Receipt through	ZAE
	Are you receiving my traffic clear?	I am receiving your traffic(1. Clear; 2. Garbled).	ZBK
REPEAT	Will you repeat what you (or) sent (at)?	Following is what I (or) sent (at).	ZBD
·		Send tapes(1. Once; 2. Twice).	ZSO
REPORTING IN NET		I (or) report(s) into circuit (net).	ZKE
	• •		
SCHEDULE		Observe (or direct to observe) schedule withonkHz (or MHz) (at).	ZKG
•	Did you (or) ob- serve schedule with (at)?	I (or) observed schedule with(at).	ZKH
SPEECH		I cannot understand your speech. Use radiotelegraph.	ZAO
		Your speech is distorted.	ZPA
SPEED	Shall I send	Send faster (words per	QRQ
	faster? Shall I send more	minute).	
	slowly?	Send more slowly (words per minute).	QRS
	Shall I stop sending?	Stop sending.	QRT

3G-10

CHANGE NO. 1

ENCODE

(.

Ć

•	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
	SPEED KEY		Your speed key is improper- ly adjusted.	ZAB .
		· · ·	Cease using speed key.	ZAC
	STAND BY		Stand by.	ZUJ
	STATION IDENTITY	What is your full call sign?	My full call sign is or Use your full call sign	QCX
			until further notice.	
		What is the name of your station?	The name of my station is	QRA
-	STRENGTH, SIGNAL	What is the strength of my signals (or those of)?	The strength of your sig- nals (or those of) is 1) scarcely perceptible. 2) weak. 3) fairly good. 4) good. 5) very good.	QSA
*		Are my signals fading?	Your signals are fading.	QSB
	TAPE		Break(1. Go ahead with next tape; 2. Go back feet; 3. Advance your key tape to reference mark numberand repeat last transmission (or trans- mission).	ZAG
			Unable to relay message in present form. We file. Transmit correctly pre- pared tape under new number to all addressees (or to).	ZAH

EY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
PE Cont'd)		Run(1. Caller; 2. Test tape; 3. Synchronizing tape; 4. Traffic tape; 5. Marking signals; 6. Spacing signals; 7. Reversals; 8. Run tele- typewriter space bar signals).	ZAI
		I am unable to obtain re- ply from teleprinter switchboard(for con- nection to). Request you call him (or other intermediate switchboard) for me.	ZAM
		Rerun all tapes run on since(1. Your present frequency; 2kHz (or MHz); 3. Call sign; 4. This channel or channel).	ZAS
		Am preparing traffic (perforating tape) for transmission.	ZAT
• •		You are transmitting a continuous(l. Mark; 2. Space).	ZBC
*		You are transmitting in upper case.	ZBG
	•	Youris reversed. (1. Tape; 2. Mark and space).	ZBN
		Send tapes(1. Once; 2. Twice).	250
	What is the correct time?	The correct time is hours.	QTR
	What are the hours during which your station is open?	My station is open from tohours,	QTU
	· .		

## ENCODE

	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
	TRANSMIT	Shall I send or reply on this fre- nuency (or on kHz (or MHz)) (with emissions of class)?	Send or reply on this fre- quency (or onkHz (or MHz)) with emissions of class).	QSU
		Will you send on this frequency (or onkHz (or MHz)) (with emissions of class)?	I am going to send on this frequency (or on kHz (or MHz)) (with emissions of class).	QSW
•			Please listen for me on kHz (or MHz) and trans- mit to me onkHz (or MHz).	ZHQ
	TUNING	Shall I send a series of V's on this fre- quency (orkHz (or MHz))?	Send a series of V's on this frequency (or on kHz (or MHz)).	QSV
• •	TURN .		Delay is being caused by 1) your transmitting out of turn. 2) your slowness in answer- ing. 3) lack of your reply to my	QCB
		What is my turn? (Relates to commu- nication.)	Your turn is number (or according to any other indication). (Relates to communication.)	QRY
		What is my number and sequence in answering?	Your number is Answer after number (numbers to be separated by separa- tive sign).	ZGO
			• A	
	WAT CH		Have set continuous watch, or (1. Single operator period; 2. Two operator period; 3. General periods only; 4. Reduced single operator	ZIP
			periods) on broadcase indi- cated. First serial number received is/No number yet received.	

CHANGE NO. 1

280-069 O-67-12

(

1

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
WATCH (Cont'd)		Have ceased watch on Broadcast, last number received	ZIQ
		Set watch onkHz (or MHz)(l. Continuous; 2. Until further notice).	ZKI
		Assume radiotelegraph (wireless) organization forthwith (or at).	ZKK
		Resume normal radio com- munication now (or at).	ZKL
	On what frequencies are you (or) main- taining watch?	I am (oris) maintaining watch onkHz (or MHz).	ZKR
	What stations are keeping watch on kHz (or MHz) (or are in net)?	Following stations are keeping watch onkHz (or MHz) (or are in net).	ZKS
		Am keeping watch on kHz (or MHz) for(l. First five minutes in each half hour; 2. From 10 to 15 and 40 to 45 minutes past the hour; 3. Betweenand minutes past the hour).	ZKT
		I am (oris) maintain- ing continuous watch, or (1. Single operator period; 2. Two operator period; 3. General periods only; 4. Reduced single operator period) on (call sign)Broadcast.	ZKU
		I am (oris) standing splitphone watch on andkHz (or MHz).	ZKV
	36-14	CHANGE 1	VO. 1

### SECTION H

#### ENCODE

### MESSAGE HANDLING

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
ACCURACY		Accuracy of following message(s) or (message) is doubtful. Correction or confirmation will be forth- coming.	ZDG
		Accuracy ofportion of following message (or message) is doubtful. Correction or confirmation will be forwarded when re- ceived. (1. Heading; 2. Text; 3. Groupto)	ZEH
		Accuracy is doubtful of heading of message re- ceived as follows Check to station of origin if necessary and repeat.	ZEI
ACKNOWLEDGE	Request you acknow- ledge message	Message (or message) is acknowledged.	ZEV
		•	
ANSWER		No answer is required.	ZEK
ATTENTION INVITED		Your attention is invited, for(1. Action; 2. In- formation), to message which is in your files.	ZEW
BASEGRAM		Messageis being de- livered as a basegram message.	ZFO
		Basegram.	ZFP

3H-1

ORIGINAL

<u> </u>	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
BOOX MESSAGE		This is a multiple-address or book message tape con- tainingrouting indica- tors in the routing line which is to be routed in accordance with the estab- lished doctrine.	ZDR
		This is a multiple-address or book message tape con- tainingrouting indica- tors in the routing line for which the station call- ed in the pilot is respon- sible.	ZER
		This is a book message and may be delivered as a single-address message to addressees for whom you are responsible.	ZEX
		When delivery is effected of this book message to addressee by commercial means, or when copy is forwarded to confirm message previously de- livered by telephone, it is to be sent as a single address message. (May only be used in conjunction with ZEX).	ZEZ
BROADCAST		Pass(1. On Broadcast ; 2. On Broadcast single operator; 3. On Broadcasttwo operator period; 4. On Broadcast general periods only).	ZBY
	-	In addition to the regular broadcast times, this hydrographic message is to be transmitted on the fol- lowing hydrographic schedules(lsched- ules; 2. All schedules on (date); 3. All schedules fromto(dates inclu- sive)).	ZDW
	3н-2	ORIGIN	IAL

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGN
BROADCAST (Cont'd)		This message (or message ) has been (or will be put on thebroadcast schedules (serial number ).	ZEY
	Was there any traffic addressed to me on broadcast schedule between serial num- bersand?	Following traffic was addressed to you on broadcast schedule be- tween serial numbers and	ZFL
		Place this message (or message) on(l. Con- tinuous wave broadcast; 2. Radioteletype broad- cast) indicated by follow- ing specific broadcast designator(s)	ZON
	· · ·	This message (or message ) has been delivered to all broadcast areas (or to the following specific broadcast area(s) ).	ZOP
- - -		Deliver this message (or message) to all broad- cast areas (or to the fol- lowing specific broadcast area(s)).	ZOQ
		Broadcast this message at special watchkeeping periods for ships with (1. One radio operator; 2. Two radio operators).	20W
		Place this message (or message) on submarine broadcast indicated by following specific broad- cast designator(s)	zox
		This message (or message) is forwarded to you for screening and determination of need for broadcast prom- ulgation. Advise broadcast control commander of recom- mended message disposition.	ZPX
		This message (or message) has been screened by command authority and requires broad cast delivery.	ZP:

1

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL	
CALL SIGN	· · · · ·	The following group is a call sign, delivery group or address group. (Used	ZXA	
		in plain language texts of messages other than pro- cedure messages.)		.(
CONCERN	Does message (or station serial number) con- cern me (or)?	Message(or station serial number)l. Does not concern you (or); 2. No longer concerns you	ZFK	(
	-	(or).		
CONFIRMATION	· · · ·	Confirmation(1. Was omitted; 2. Differs from text).	ZDL	
		The following confirma- tory information as re- ceived is at variance with the text.	ZED	
				(
• •			-	
COPIES		For following message you will require a total of copies.	ZBB	
		For following message use large message forms.	ZBF	
CORRECTION	-	Request corrected copy of messagebe forwarded to	ZDH	(
·		Message (or message) which you have (orhas) just forwarded was in- correctly transmitted. Correct version of message (or part of portion) is	ZDS	(
	Is messagea correc- tion to message which was previously transmitted with doubtful or missing groups (words)?	This message is a correc- tion (to message) (transmitted by). Note: May only be used in conjunction with ZDG.	ZEL	(

#### ENCODE

KEY	QUESTION	·····	ANSWER, ADVICE OR ORDER	SIGNAL
CORRECTION (CONT'D)			Make messagesame chan- nel or station serial num- ber as this procedures message.	ZFS
			Correct version of the part of the last message (or message) which was sent incorrectly is(or will be found in).	ZWN
DELIVERY		·	Messagewas: (1. received by (addressee(s)-designa- tion) atZ. 2. Received by (addressee(s) designa- tion communications center) atZ. 3. Delivered to (addressee(s) designation) by broadcast atZ. 4. For- warded to (addressee(s) des- ignation) by commercial means atZ. 5. Mailed to (addressee(s) designation) atZ.	ZDF
			Report disposal of mes- sageyour station with any reason for delay.	ZDN
			On(date) message(s) was(were) mailed to (command(s)) bearing serial-numbers	ZDZ
	-		This message has been delivered by a separate transmission or by other means (1. Messenger/ courier; 2. Mail) to the addressee s) immediately following this operating signal.	ZEN
			Transmit this message by rapid means when no charges are involved and to all others by mail.	ZE0
			Messagehas been protected and no further action by is required.	ZET

(

Ċ

(

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
DELIVERY (Cont'd)		When delivery is effected of this book message to addressee by commercial means, or when copy is forwarded to confirm message previously de- livered by telephone, it is to be sent as a single address message. (May only be used in conjunc- tion with ZEX).	ZEZ
		Inform me when this message (or message) has been received by (addressee designation) or by(1. Action addressee(s); 2. Informa- tion addressee(s); 3. All addressee(s); 3. All addressees; 4. Action addressee's/addressees' message center; 5. In- formation addressee's/ addressees' message center; 6. All address- ees' message center). Note: Not authorized for used on general messages.	2FF -
	•	Originator has in- dicated that this message should be for- warded without service action on the text at relay or addressee stations, as the in- formation conveyed is (1. Perishable; 2. For information only and will be confirmed by other means).	ZNZ
·		Take (I will take) no further action regarding forwarding message Delivery of this message by mail in lieu of broad- cast permissable (to).	20В 20М
	3н-6	· · ·	GE NO. 4

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIG
DELIVERY (Cont'd)		If more than one tropical wind warning message in this sequence is awaiting transmission, transmit highest serial number first. (Sequence/serial is under- stood to include tropical warning name or number and	
		consecutive warning number). If the earlier wind warn- ings identified by DTG(s) following this signal are awaiting transmission, file those warnings with- out further transmission.	ZP
		This message canceled at time indicated. File with- out further transmission.	ZP
		This message is to be delivered to the addressee(s) in tape form.	zx
- -		This message has been de- livered to all action addressees whose desig- nations follow this operating signal.	ZX
		This message has been delivered to all infor- mation addressees whose designations follow this operating signal.	ZX
DUPLICATE		Messages up to and in- cluding serial (or cir- cuit) numberhave been previously transmitted.	ZD
		This message is a sus- pected duplicate.	ZFI
		This message is an exact duplicate of a message previously transmitted.	ZF

## ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
EXECUTION .	Does the last message (or message) re- quire a signal of execution?	Last message (or message ) requires a signal of execution.	ZDC
	Have you received (or sent) the executive signal ("Execute") for message?	Executive signal ("Execute") for last message (or following message) has been made (or was made at).	ZFC
EXERCISE		Exercise messages are not to be sent until further orders (or until).	ZDT
· ·		This message is not to be decrypted or reported out- side the communication center in(1. Aggressor force; 2. Friendly force).	ZEG
	· ·	Exercise (drill) message.	ZEU
GROUPS		The last word (or group) (1. Received from you was;2. Transmitted to you was).	ZAQ
	How do you count following text group(s)?	Text group(s)should be counted asgroup(s).	ZBT
	How many groups does your message contain?	I have a message contain- inggroups to transmit to you (or to).	ZDJ
	-	This message (or message ) was incompletely re- ceived. Each word or group missed, which is indicated by position of ZEP in the message, will be forwarded as soon as obtained.	ZEP
OLD		I am holding your message	ZDM
		Hold my message until correctness is confirmed.	ZDP
NCOMPLETE		Your messagehas been received(l. Incomplete; 2. Garbled.). Request re- transmission.	ZES

### ENCODE

INCOMPLETE			
(Cont'd)		Station(s) to whom this mes- age is routed obtain a com- plete copy of this inter- rupted transmission by ad- dressing a service message to the originating station. (This procedure shall not be used between networks ex- cept as bilaterally agreed.)	ZXB
·	· · ·	This interrupted trans- mission is cancelled. A complete retransmission from this station will follow without request.	ZPH
MERCAST		Place this message (or message) on(l. MER- CAST; 2. MERCAST one opera- tor period).	ZDI
•		Place this message (or message) on MERCAST indicated by following specific broadcast desig- nator(s)	Z00
MESSAGE, FORMAL		I have a formal message for you (Precedence is)	ZDA
MESSAGE, ICAO		This is a reprocessed ICAO message.	ZEB
MESSAGE, MISSENT		Messagehas been (1. Mis- sent to this station. Re- ceived atZ. Message protected; 2. Missent to this station and unable to	ZĒQ
		protect delivery due to Request you re-transmit to the appropriate called station(s); 3. Misrouted to	
· · ·		this station and has been rerouted toatZ. Recommend corrective action; 4. Misrouted to this sta-	
· ·		tion and unable to protect delivery (for)due to Request your station pro- tect delivery; 5. Routed to this station in format line 2, but without delivery responsibility in format	

.

•

Ì

Ę	N	С	0	D	E	

MESSAGE. NUMBERWhat is the number (or other indication) of the last message you received from you (or from me (or from(call sign))?The number (or other indi- cation) of the last message I received from you (or from(call sign)) isQUCIs (are) number(s) (to) blank?Message(s)number(s) (are) blank.ZFJWhat wasof your (or 's) number'totransmitted by you (or) to check serial numbers.ZIIWhat wasof your (or 's) number?My (or's) number had following(l. Date-time group; 2. Filing time)?ZIRMESSAGE SENT BYHassent any message for me?Here is the message sent bydl. herein to recept method).QBM YOUWETHODKON-DELIVERYNessageundelivered (l. Station closed until?; 2. Attempting later station to re-open (for Flash or Immediate precedence only); 3. Will not incerest cancel and file; 6. Give more complete address).ZDEKON-DELIVERYI could not send message sensition; 5. Will not contine further efforts. Request cancel and file; 6. Give more complete address).ZDO	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
Mathematical and the second		other indication) of the last message you received from me (or from(call	cation) of the last message I received from you (or	QUC
(to) blank?       (are) blank.         (are) blank.       (are) blank.         (are) blank.       ZIH         (are) blank.       ZII         (are) blank. <td></td> <td></td> <td>not transmitted on this schedule (or on schedule</td> <td>ZFJ</td>			not transmitted on this schedule (or on schedule	ZFJ
Numbertotransmitted by you (or) to check serial numbers.What wasof your (or 's) number? 1. Date-time group; 2. Filing time)?My (or's) number had following(1. Date-time group; 2. Filing time).Nessage(s)number (s) will no longer be broadcast but are effective and of interest (to units indi- cated).ZDRMESSAGE SENT BYHassent any message 			Number (s)(to) is (are) blank.	ZIG
's) number?       following(1. Date-time group;         1. Date-time group;       group; 2. Filing time).         2. Filing time)?       Message(s)number (s)         Wessage(s)number (s)       VII no longer be broadcast but are effective and of interest (to units indicated).         MESSAGE       Hassent any message for me?       Here is the message sent byathours.       QBM         METHOD       Send message foronkHz (or MHz) by(1. Receipt method; 2. Broadcast method; 3. Intercept method).       ZDE         MON-DELIVERY       Messageundelivered (1. Station closed untilZ; 2. Attempting alert station to re-open (for Flash or Immediate precedence only); 3. Will continue efforts to effect disposal; 4. Advise disposition; 5. Will not continue further efforts. Request cancel and file; 6. Give more complete address).       ZDO			numbertotransmitted by you (or) to check	ZIH
WESSAGE SENT BYHassent any message for me?Here is the message sent byathours.QBMMETHODSend message foronkHz (or MHz) by(1. Receipt method; 2. Broadcast method; 3. Intercept method).ZOHNON-DELIVERYMessageundelivered \ 		's) number? 1. Date-time group;	following(1. Date-time	211
SENT BY METHOD METHOD METHOD METHOD METHOD METHOD METHOD METHOD METHOD METHOD METHOD METHOD METHOD METHOD METHOD Message foronkHz (or MHz) by(1. Receipt method; 2. Broadcast method; 3. Intercept method). Messageundelivered \ (1. Station closed untilZ; 2. Attempting alert station to re-open (for Flash or Immediate precedence only); 3. Will continue efforts to effect disposal; 4. Advise disposition; 5. Will not continue further efforts. Request cancel and file; 6. Give more complete address). I could not send message ZDO	- -		will no longer be broadcast but are effective and of interest (to units indi-	ZRR
ON-DELIVERY ON-DELIVERY ON-DELIVERY ON-DELIVERY ON-DELIVERY ON-DELIVERY ON-DELIVERY Definition of the station of the st			Here is the message sent byathours.	QBM
<pre>Intersageundefivered ( ZDE (1. Station closed untilZ; 2. Attempting alert station to re-open (for Flash or Immediate precedence only); 3. Will continue efforts to effect disposal; 4. Advise disposition; 5. Will not continue further efforts. Request cancel and file; 6. Give more complete address). I could not send message ZDO</pre>	ÆTHOD		(or MHz) by(1. Receipt method; 2. Broadcast method;	ZOH
effect disposal; 4. Advise disposition; 5. Will not continue further efforts. Request cancel and file; 6. Give more complete address). I could not send message ZDO	ON-DELIVERY		(1. Station closed until2; 2. Attempting alert station to re-open (for Flash or Immediate precedence only);	ZDE
I could not send message ZDO			effect disposal; 4. Advise disposition; 5. Will not continue further efforts. Request cancel and file; 6. Give more complete	
			I could not send message	ZDO

CHANGE NO. 5

### ENCODE

[ •		ENCODE		
(	КЕҮ	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
(	OPERATING SIGNAL		Your operating signal (made at) received as (1. Not understood; 2.Not held).	ZAD
	PASS	·	Pass plain language copy toby secure means.	ZEA
(			Pass this message to (1. On arrival; 2. On return to base).	ZFB
	•		Pass message(which is in your files) to address- ee(s) for whom you are responsible using the in- dicated supplementary heading.	ZFE
	· .		This message (or message ) is being (or has been) passed to you (or) for (l. Action; 2. Infor- mation; 3. Comment) (at the request of).	ZFH
	-		Transmit (pass) this message (or message) to(for) (1. Action; 2. Information).	ZOG
	PRECEDENCE		Transmit only messages of and above precedence	ZAN
(			Transmit or handle this message at the lower pre- cedence to the station or address designator(s) which follow(s).	ZOT
	RADIOTELEPHONE	How many radiotele- phone calls have you to book?	I haveradiotelephone calls to book.	QRJ
(		Can you use telephony in(language), with interpreter if necess- ary; if so, on what frequencies?	I can use telephone in (language) onkHz (or MHz).	QUE

(

(

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
RECEIPT	When and on what fre-	Messagewas received	ZBQ
	quency was message	atonkHz (or MHz).	
	received?	% Messagewas: (1. received	ZDF
		by (addressee(s) designa-	201
		tion) atZ. 2. Received	
		by (addressee(s) designa-	
		tion communications center)	
		atZ. 3. Delivered to	
		(addressee(s) designation)	•
		by broadcast atA. 4. For-	•
		warded to(addressee(s) des-	
		ignation) by commercial	
		means atZ. 5. Mailed to	
		(addressee(s) designation)	•
		atZ.	
		Station to station receipts	ZGC
	· ·	are not required for this	200
		FLASH message. (Authoriza-	
		tion for use must be pre-	
		scribed by authoritics	
	ł	controlling networks/	
	· ·	systems).	
			-
RECEIVE/	Have you received	Message(1. Not re-	ZEC
INTERCEPT	message?	ceived; 2. Unidentified.	·
		Give better identifying	
-		data).	
		This message has been read	ZEF
		(received or intercepted)	
		from a ship at sea.	
		Following message has been	ZFA
		read (received or inter-	
		cepted).	
RELAY		% Unable to relay message	ZAH
		in present form (1. Not in	<b>Д</b> АП
		prescribed format; 2. For-	
		mat lineincorrect; 3. No	
		on-line facility available;	
		4. Call signs not encrypted;	·
		5. Text not encrypted). We	
		file. Transmit correctly	
		prepared message to all ad-	
		dressees (or to).	
			• •
•		Message was relayed to	ZDQ
		atby(onkHz or MHZ))	
	· ·	Station(s) called relay	ZOC
	· ·	this message to addressees	
		for whom you are responsible	- ·

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNA
RELAY (Cont'd)	Can you accept message for (1. on line; 2. off line).	Give me your message. I will dis- pose of it(1. on line; 2. off line).	ZOE
		Relay (pass) this message (or message) tonow (or at)	ZOP
•		Unable to relay message in present form(1. Call signs not encrypted; 2. Text not en- crypted).	Z0J
		Relay this message via	ZOK
		Relay this message only to the station(s) whose designation(s) precede this operating signal.	ZOY
		Relay this message (or message) in its present form without de- cryption.	20Z
		The text of this message is to be relayed in precisely the same for- mat as that in which it is re- ceived. No characters or machine functions are to be added, inserted or deleted and the relative posi-	ZP0
•		tions of the groups are to be retained.	
		Station called is responsible for relay or delivery to all stations in line two (2) or to stations indicated.	ZVA
		This message, relating to a warn- ing, an alert, distress, or an emergency, is authorized to be relayed via the facilities of your network without prior arrangement.	ZVQ
		Retransmit this message (or message) at once to all sub- ordinate stations.	ZVR
		No forwarding action to the desig- nation(s) immediately following is required.	ZWL
		I have messages (precedence) prepared in tape relay format for you (or for). (Consideration should be given to receiving this message directly on to a printing perforator/typing reperforator).	ZPR-
		3H-13 CHANGE	NO 4

## ENCODE

EY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
CLAY Cont'd)		Station called relay this mes- sage (or message) to in addition to predetermined res- ponsibilities.	ZXK
		transmit this message to the addressee(s) indicated by the numeral(s) following All addressees are to be counted consecutively as they appear (numbers to be separated by the Separative Sign).	ZXY
LEASE		Originator authorized the transfer of this message into the secure networks of all authorities addressed, pro- vided the networks are secure or approved for the classifi- cation of the message in- volved.	ZNM
EPET IT ION	Will you repeat what you (or) sent (at)?	Following is what I (or) sent (at).	ZBD
		Retransmit messageto (for) (1. Action; 2. In- formation).	ZBE
-	Will you repeat message(or portion ) (or will you re- run number)?	Following repetition (of) is made in accordance with your request.	ZDK
		Message(s) serial number(s) (to) which was (were) transmitted during unservice- ability of one or more trans- mitters, simultaneously keyed, will now be repeated.	ZFM
		Request you obtain retrans- mission of messagesfrom station	ZXO
PLY		Expedite reply(ies) to my (1. Previous operating signal; 2. Request(s) for repetition and correction; 3. Service message).	ZDB
		Replies to this message (or message) are to be sent now (or at).	ZEJ
	Is there any reply to message?	There is no reply to mes- sage	ZFI

### ENCODE

4

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGN
REQUEST		This is myrequest (or reply). (1. First; 2. Second; 3. Third; etc.).	ZAR
		Bring messageto the circuit.	ZDD
	· · ·	Request messagebe transmitted.	ZEE
ROUTING		<ol> <li>Route traffic for</li> <li>viaarea broadcast.</li> <li>Beginning attraffic for you (or) will be routed viaarea broad-cast.</li> </ol>	ZOR
	Request area routing for messages for?	Area routing for messages foris	zos
	How should traffic forbe routed?	Route traffic for through(onkHz (or MHz)).	ZOU
		Station designation pre- ceding this operating signal is the correct routing for this message rerouted by	Z01
SERIAL/CHANNEL NUMBER		Two messages (and) received under channel number (or station serial number) Both released.	ZF
		Cancel transmission (made under channel or station serial number ).	ZF
	•	Messagereceived with- out channel number (or station serial number) following message bear- ing channel number (or station serial number) Message released.	ZF
		Channel numbersand preceded messageLower number recorded and higher number blanked.	ZF

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
SERIAL/CHANNEL NUMBER (Cont [®] d)		Messagecontaining channel numbersepara- ted by portions of the message, released sub- ject to correction. Take necessary action to pro- vide corrected copy.	ZFV
		BLANK channel number(s) Forward messageas channel number	ZFW
		Channel number (or station serial number) is open.	ZFX
		This message (or message ) is being (or has been) passed out of proper sequence of station serial numbers.	ZIA
-	Two messages and(or group counts and time of origin and), both received as serial number What are correct serial numbers?	Change station serial number of messageto read numberOR Assign to messagestation serial number	ZIB
•	What is (are) station serial number(s) or channel number(s) of last message(s) you transmitted to me (or to)?	Station serial number(s) or channel number(s) of last message(s) trans- mitted to you (or to) is (are)	ZIC
	What is (are) station serial number(s) or channel number(s) of last message(s) re- ceived from me (or from)?	Station serial number(s) or channel number(s) of last message(s) received from you (or from) is (are)	ZID
		Station serial number(s) or channel number(s) (from) has (have) not been received. Repeat message(s) or cancel serial number(s) or channel number(s).	ZIE
		I (or) did not use serial number(s)	ZIF

3H-16

### ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNA
SERIAL/CHANNEL NUMBER (Cont'd)		I am now changing my channel number/letter. Last number sent in this series is that of this message	ZIJ
SUBMARINE SIGNAL		Message which follows is a submarine surfacing signal to be cleared on calling fre- quency.	ZPP
ТАРЕ		Rerun all tapes run on since(l. Your present frequency; 2kHz (or MHz); 3. Call sign; 4. This channel orchannel).	ZAS
		Am preparing traffic (per forating tape) for trans- mission.	ZAT
TELEGRAM	By what private en- terprise (or State administration) are accounts for charges for you station settled?	The accounts for charges of my station are settled by the private enterprise (or State administration).	QRC
•	Shall I send telegrams at a time?	Sendtelegrams at a time.	QSG
	What is the charge to be collected to including your in- ternal telegraph charge?	The charge to be collected toincluding my internal telegraph charge isfrancs.	QSJ
	Shall I repeat the last telegram which I sent you (or some pre- vious telegram)?	Repeat the last telegram which you sent me (or telegram(s) number(s)).	QSM
	Shall I cancel tele- gram number as if it had not been sent?	Cancel telegram number as if it had not been sent.	<b>QTA</b>
	How many telegrams -have you to send?	I havetelegrams for you (or for).	отс
		Pass the following(1. Private message (tele- gram); 2. Service Tele- gram) (Number of words charged for is).	ZDU
		Private message (telegram) received forRequest instructions.	ZÐV

3H-17

١

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
ELEGRAM Cont'd)		Private messages (tele- grams) are not to be sent until further orders (or until).	ZDY
			;   .
OLL	What is the charge to be collected to including our inter- nal telegraph charge?	The charge to be collected toincluding my inter- nal telegraph charge isfrancs.	QSJ
	Will you relay to free of charge?	I will relay tofree of charge.	QSP
	· · ·		•
			- <i>.</i>
			х • Х
	3H-18	CHANGE	NO. 1

### SECTION I

.

### ENCODE

## SECURITY AND CRYPTOGRAPHIC

	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
<i>.</i>	AUTHENTICA- TION	What is authentication of(1. Message; 2. Last transmission; 3)?	Authentication (of) is (1. Message; 2. Last transmission; 3).	ZNB
· ·			All transmissions will be authenticated (l. On all circuits; 2. On this circuit; 3. Onfrequency).	ZNC
			You are using authenticator incorrectly(l. Verify authenticator system key; 2. Check authentication of your last transmission).	ZND
			I am prepared to authenti- cate.	ZNE
	-	H.	This message (or message) received at this station (1. Without authentication (when authentication is in force); 2. Incorrectly authenticated; 3. Correctly authenticated).	ZNQ
			Following message has been authenticated(This signal is for use only over approved/on-line circuits).	ZNS
			Following message has NOT been authenticated(This signal is for use only over approved/on-line circuits).	ZNT
- -		-	This channel (orchannel/ circuit designated) is un- serviceable for classified traffic.	ZVF
	DECIPHER	· · ·	Plain-text tape of this message should be prepared during process of decipher- ment.	ZNH
			Unable to decrypt message (from indefinite call sign). Note: Only to be used under circumstances laid down in cryptographic instructions.	ZNO

ENCODE

(EY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
NCIPHER		You are encryptingin- correctly. (1. Operating signals; 2. Radio call signs; 3. Address groups).	ZNA
N-APPROVED RCUIT		Do not forward this message unencrypted by radio or non-approved circuit.	ZNY
	. <i>*</i>	This message may be for- warded without change by radio or non-approved circuit.	ZNR
ON-HOLDERS		Addressees who are not holders of the crypto- graphic system employed in the text need not decrypt (decipher), but	ZNF
-		shall sight (read) trans- lation at first opportunity and obtain copy if applic- able.	-'
		Commands who are included in the collective address used in this heading, who are not holders of the cryptographic system em- ployed in the text, are exempted.	ZNG
		Addressees who do not hold cryptographic facilities are exempted.	ZNK
			· · ·
PERATION		Shift to(l. On-line; 2. Plain)operation now.	ZNI
		Transfer operation of channel now to(l. Normal; 2. Top Secret; 3. Conference; 4. Engi- neering) on-line cipher operation. Note: This signal is for use only when already in on-line cipher operation.	ZNP

### ENCODE

· .

(

(

(

Ć

KEY	QUESTION		ANSWER, ADVICE OR ORDER	SIGNA
PERSONNEL			Message which follows is to be handled by(1. Officer Emergency Crypto- graphic team; 2. Ratings Emergency Cryptographic team; 3. Senior Communica- tions Rating; 4. Junior Communications Rating; 5. Coder (Educational).	ZXS
QUERY			Receiving Cryptographic Office concerned should refer queries relating to the text of this message (e.g., requests for verification) to (address designators except plain language). Note: to be used in co- dress messages when necessary to indicate	ZNL
-			originating crypto center and then normally limited to messages of Immediate precedence and above.	
RELAY		·	This message is not to be transmitted by radio tele- graph or radiotelephone in any form over part of its route.	ZXT
RELEASE			Originator authorized the transfer of this message into the secure networks of all authorities addressed provided the networks are secured or approved for the security classification of the message involved.	ZNM
			···	

KEY (	QUESTION	ANSWER, AL	VICE OR ORDER	SIGNAL
con ter cha	at are the security nditions of your rmination(s) of this annel (orchannel/ rcuit designated)?	<pre>(orchannel nated) are Restricted; 2 Confidential; Secret; 4. Se Secret). NOTE to this signa passed on cir for classifie This message mitted under atby st designation f By on-line ci</pre>	f this channel /circuit desig- (1. Secured for 3. Secured for 5. Secured for 5. The answer 1 may only be 5. The answer 1 may only be 5. Cleared 5. Cleared	ZVE ZNJ
WEATHER CONTROLLED MESSAGE		to be transmi	ther con- ge which is not	ZIK
			•	-
•				
	· · ·			
	-			
	-			
A U S. GOVERNMENT PRINTING OFFICE : 19	972 0-477-447 3I	. 1	CILIA N	GE NO. 4

## SECTION J

## ENCODE

### VISUAL

(

	KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
	CALL SIGN	What are the call signs of the ships in company with you?	Call signs of ths ships in company with me are(For visual use only).	ZJI
	EQUIPMENT		(1. Flaghoist; 2. Sema- phore; 3. 20 inch signaling projector; 4. 10 inch sig- naling projector; 5. ALDIS; 6. Intermediate; 7. Heather; 8. Daylight signaling lan- tern; 9. Masthead flashing light; 10. Infrared; 11.	ZJM
			Signal search light; 12. Omnidirectional flashing light; 13. Directional flashing light.	
			· ·	
•	EXERCISE		Intensive flag signalling will take place shortly (or in minutes).	ZXR
-				
÷.,	lights		Read signaling light of	ZJA
			Your light is unreadable (1. Not trained cor- rectly; 2. Not bright enough; 3. Too bright).	ZJH
-			Directional lights of minimum brilliancy are to be used for all visual traffic betweenand except for messages of precedence priority and above requiring trans- mission to two or more ships.	ZJS
	· .			
	MESSAGES		Messagehas been passed to those for whom I am res- ponsible (or to) (at) but "L" has not been re- ceived.	ZJN
				i

CHANGE NO. 1

۰.

•};

ENCODE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
MESSAGES (Cont'd)		Message which follows is to be encrypted and passed to all addressees (by). (Only to be used by visual not liable to interception.)	ZJP
PROCEDURES		Use double-flash procedure.	ZJJ
RELAY		Visual relaying station between senior officer (senior officer present afloat) (or) andis to be	ZJF
		Relay this message (or message) by visual (to).	ZOA
. ·	-	I will relay your call sign to senior officer present afloat, whose call sign is	ZOL
REPEAT		Repeat all flashing (or semaphore) messages made by the senior officer (senior officer present afloat).	ZJG
		Repeat back each group of the text of this message as it is transmitted.	ZJO
	-	Repeat signal (or message ) the senior officer (senior officer present afloat) (or ship indicated) is now transmitting or is about to transmit.	ZJQ
SEMAPHORE		Only semaphore is to be used for visual signaling betweenand(or from).	ZJR

3J-2

ENCODE

---

(

	КЕҮ	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
	SIGNAL	•	Repeat all flag signals made by the senior officer (senior officer present afloat).	ZJC .
			Hoist the following signal.	ZJL
	USE		Use(1. Better light; 2. Better background).	ZJD
	watch/guard	May I close down visual watch now (or at)?	Close down visual watch now (or at).	ZJB
		an a	Set visual watch now (or at).	ZJE
		Are you (or is) visual guard for ?	I am (oris) visual guard for	ZJK
		·		
1.			·	
		31-3	ORIGIN (Reverse Blau	IAL nk)
### SECTION K

# ENCODE

# EXERCISE AND MISCELLANEOUS

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
AFFIRMATIVE		Affirmative (Yes).	ZUE
AIR RAID		Air Raid(l. Warning; 2. In progress; 3. All clear).	ZUF
AIR SUPPORT		I have for you(1. A request for direct air support; 2. A reply to a support request; prece- dence is).	ZXP
AT		At	ZUB
ATTENTION		Your attention is invited to	ZUI
COMPLY, UNABLE		Unable to comply.	ZUH
CORRECT		You are correct.	ZWG
		Correct version of the part of the last message (or message) which was sent incorrectly is (or will be found in).	ZWN
CONFERENCE	(Appointment Code) desires key conversa- tion on this circuit with(Appointment Code). Will you indi- cate when you are ready?	(Appointment Code) is now ready to begin key conversation with (Appointment Code).	ZUK

3K-1

ORIGINAL

••

ENCODE

(EY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
DUTIES		Stations are to answer taking the following duties A;B,Cetc.	ZWJ
XERCISE		Indicate name of (1. Operator on watch; 2. Senior rating on watch; 3. Operator who transmitted last message (or message )). Note: This signal is authorized for use on connection with operator training only; it may not be used for any other purpose.	ZWB
		The following is to be taken as applying to per- sonnel on watch only.	ZWC .
		Carry out communication (visual exercise numberatsenior officer (or) is to conduct.	ZWD
-		Voluntary exercise (num- ber) may be carried out now (or at).	ZWE
		Answer last question (or question).	ZWI
		Following is answer to the last question (or question).	ZWK
		Correct answer to last question (or question) is(or will be found in).	ZWM
	-	Following message (or question, or exercise is for the exercise of (1. Junior operators; 2. Senior operators; 3. Ratings on watch).	<b>, Ζ₩Ο</b> · · ·

ORIGINAL

ENCODE

...

EXERCISE (Cont'd) FROM INCORRECT NEGATIVE	A junior operator is to carry out(1. A standard flashing exericse; 2. A standard semaphore exer- cise; 3. A standard radio- telegraphy transmitting exercise; 4. A standard radiotelegraphy receiving exercise). Fromto Incorrect. Negative (No).	ZWP ZUC ZWF
INCORRECT	Incorrect.	
		ZWF
NEGATIVE	Negative (No).	
		ZUG
ORDERS _	Until further orders (or until).	ZUD
RECONNAISSANCE	I have for you(1. A request for tactical reconnaissance; 2. A re- quest for photographic reconnaissance; 3. A request for artillery reconnaissance. Prece- dence is).	ZXQ
STANDBY	Standby.	ZUJ
3К-3	ORIGI	

(

(

ENCORE

KEY	QUESTION	ANSWER, ADVICE OR ORDER	SIGNAL
TIMING	Request a timing signal now (or. at).	Timing signal will be trans- mitted now (or at). The numerals indicating the time will be followed by a five- second dash terminating er-	ZUA
		actly at the time indicated.	
TRY AGAIN		Try again.	ZWH
USE	Shall I use?	Use	ZTD
	Are you (or is) able to use?	I am (oris) able to use	ZTE
		Cease using	ZTJ
		I am (oris) unable to use	ZTM
		· .	
· ~ .			
			۰.
		· · · ·	
	3K-4	ORIGIN	

# CHAPTER 4

# MISCELLANEOUS ABBREVIATIONS AND SYMBOLS

### SECTION A - DECODE

ABBREVIA- TION OR SYMBOL	SIGNIFICATION	ABBREVIA'- TION OR SYMBOL	SIGNIFICATION
		DCT	Direct (in relation to
AC	Altocumulus.		flight plan clearances
AAC	Area control.		and type of approach).
ACFT	Aircraft.	D.D.()	I am descending (to
AD	Aerodrome.	DES	(figures and units)
ADZ	Advise.		(figures and units)
AERO	Aero form of the International Code.	DF	height above(datum)). Your bearing athours
AGN	Again.		wasdegrees in the
AIR	Relative to air.		doubtful sector of this
ANT	Before.		station, with a possible
APP	Approach control.		error ofdegrees.
APR	After(time or place).	DG	Please advise me if you
ARFOR	Area forecast.		note an error in the
ARR	Arrive (or arrival).	ļ	bearing given.
AS	Altostratus.	DI	Bearing doubtful in
ASC	I am ascending (to		consequence of the bad
	figures and units)		quality of your signal.
	height above(datum)).	DJ	Bearing doubtful because
ATC	Air traffic control		of interference.
	(in general).	DO	Bearing doubtful. Ask
ATP .	At(time or place).	· ·	for another bearing
AWY	Airway.		later (or athours).
AWI	All way .	DP	Possible error of bear-
BABS	Beam approach beacon		ing may amount to
· DADO	system.		degrees.
BCST	Broadcast.	DRT	Keep straight ahead.
BOH	Break-off height.	DS	Adjust your transmitter,
BRF	Short (used to indicate	55	the minimum of your
BKF	the type of approach		signal is too broad.
	desired or required).	DT .	I cannot furnish you
<b>D</b> = 11		DI	with a bearing, the
BTN	Between.		minimum of your signal
	6		is too broad.
CB	Cumulonimbus.	. DU	Position not guaranteed.
CC	Cirrocumulus.	DY	This station is not
CEN	Degrees centigrade.	DI	able to determine the
CI	Cirrus.		sense of the bearing.
CLA	Clear type of ice		
	formation.		What is your approximate direction relative to
CLR	Cleared to		this station?
CS	Cirrostratus.		Your bearing is recip-
СТА	Control area.	DZ	
CTR	Control zone.		rocal. (To be used only
CU	Cumulus.		by the control station
			of a group of direction-
DB	I cannot give you a		finding stations when it
	bearing. You are not		is addressing stations
	in the calibrated		of the same group.
	sector of this station.	1	
DC	The minimum of your		
	signal is suitable for	1	· .
	the bearing.		

4A-1

CHANGE NO. 1

280-069 0 - 67 -

v

۰.

	SECTION A	- DECODE	•
ABBREVIA- TION OR SYMBOL	SIGNIFICATION	ABBREVIA- TION OR SYMBOL	SIGNIFICATION
Е	East or Eastern	INP	If not possible.
	longitude.	INS	Inches (dimensional
ER	Here	TO	unit).
	Aeronautical Note:		Ice on runway.
	In the international aeronautical tele-	IRL	Intersection of range
	communication service	IVB	legs.
	ER may also be used	1 IVD	If forward visibility
	to indicate Herewith		is less than(figures and units).
ERB	Landing off a runway	IVR	If forward flight
	is permitted.		visibility remains
ETA	Estimated time of	,	(figures and units).
	arrival.		(reparts and anitos).
ETD	Estimated time of	KC, KCS,	Kilocycles/kilohertz
	departure.	kHz	per second.
eer (	The information is	KG	Kilograms.
	estimated.	KM	Kilometers.
		.KMH	Kilometers per hour.
ран	Degrees Fahrenheit.	KT	Knots.
<b>FBL</b>	Light (used to qualify		
	icing, turbulence,	LB	Pounds (weight).
	interference or	LEFT	Left (direction of turn).
1.500	static reports.		Low frequency (30 to
TIFOR	Flight forecast.		300 kHz.).
FIR	Flight information	LNG	Long (used to indicate
זיק	región.	· .	the type of approach
PL	The indication of	TDC	desired or required).
•	vertical distance is given as flight	LRG	Long range.
2	level reference number.	LSA	Low intensity approach
ายสา	Flight.	ISB	lighting system.
- MA	Final approach.		High intensity approach lighting system.
TOT .	Units of English system.		righting system.
'S L	Full stop landing.	м	Meters.
Ϋ́Γ	Feet (dimensional unit).	MAG	Magnetic.
•		MB	Millibars.
CA	Ground controlled	MC, MCS or	
	approach system.	MHz	Megacycles/megahertz per second.
EO	Geographic or true.	MER	The indication of ver-
MT	Greenwich mean time.		tical distance is
ND	Relative to ground.		given as TRUE height
	<b>.</b>		above mean sea level
IBN	Hazard beacon.		(e.g. after applying
EL	Helicopter.		the correction for
IF	High frequency (3,000		ambient temperature
т	to 30,000 kHz.).		to the altitude reading
IR	Hours (period of time).		of a pressure altimeter set to QNH).
AR	Intersection of air	MET	Meteorological.
	routes.	MF	Medium frequency (300
D	Identification.		to 3,000 kHz.).
FR	Instrument flight rules.	MKR	Marker radio beacon.
LS	Instrument landing system.	ML	Statute mile(s).
MI	Interrogation sign	MN	Minute (or minutes).
	(question mark) ().	MNTN	Maintain.
MT	Immediately.	MOD	Moderate (used to
NA	Initial approach.		qualify icing, turbu-
NF	Below		lence, interference or

4A-2

	SECTION	A - DECODE		(
ABBREVIA- TION OR SYMBOL	SIGNIFICATION	ABBREVIA- TION OR SYMBOL	SIGNIFICATION	
STD	The indication of ver-	WX	Weather.	<b>.</b>
	tical distance is given as the reading,	xs	Atmospheric.	(
	without correction for ambient temperature, of a pressure altimeter having the sub-scale set to 1013.2 millibars (29.92 inches).	YD YR	Yards. Your.	
SUP SW	Above South-West.			(
TAF	Abbreviated aerodrome forecast.			
TAFOR TER	Aerodrome forecast. The indication of vertical distance is given as TRUE height			<b>^</b>
	above official aero- drome level (e.g. after applying the correction for ambient			.,
	temperature to the vertical distance read- ing of a pressure alti- meter set to QFE).			
TFZ TGL TIL TIP	Traffic zone. Touch and go landing. Until. Until past(place).		· ·	(
TO - TRB	To(place). It is not necessary to keep to the runways and taxiways after landing.		• • •	· · · ·
TT TWR	Teletypewriter. Aerodrome control.			
UAB UFN	Until advised by Until further notice.			
VAN VIA VIO	Runway control van. By way of Heavy (used to qualify interference or static reports).			. (
VFR VHF	Visual flight rules. Very high frequency (30,000 kHz. to 300 MHz.).			
VLR VOR	Very long range. VHF omnidirectional		·	
VSA	radio range. By visual reference to the ground.			
W	West or Western longitude.			

4A-4

### MISCELLANEOUS ABBREVIATIONS AND SYMBOLS

- ... . ____.

Ξ.

### <u>SECTION B - ENCODE</u>

SIGNIFICATION	ABBREVIA- TION OR SYMBOL	SIGNIFICATION	ABBREVIA- TION OR SYMBOL
A	BIIII)01	C	
Abbreviated aerodrome		Cirrocumulus.	CC
forecast	TAF	Cirrostratus	CS
Above	SUP	Cirrus.	CI
Adjust your transmit-		Clear type of ice	
ton the minimum of		formation.	CLA
ter, the minimum of		Cleared to	CLR
your signal is too	DS	Control area.	CTA
broad.			CTR
Advise.	ADZ .	Control zone.	CB
Aero form of the		Cumulonimbus.	
International Code.	AERO	Cumulus.	CU
Aerodrome.	AD	_	
Aerodrome control.	TWR	D	
Aerodrome forecast.	TAFOR	Degrees centigrade.	CEN
After(time or place).	APR	Degrees Fahrenheit.	FAH
Again.	AGN	Descent through cloud	
Relative to air.	AIR ·	(procedure).	PP
Aircraft.	ACFT	Direct (in relation to	
	HOLL	flight plan clearances	
Air traffic control	400		DCT
(in general).	ATC	and type of approach).	<b>D</b> 01
Airway.	AWY *		
Altocumulus.	AC	E	
Altostratus.	AS	East or Eastern longi-	
Approach control.	APP	tude.	E.
Area control.	ACC	Estimated time of	
Area forecast.	ARFOR	arrival.	ETA
Arrive (or arrival).	ARR	Estimated time of	
As soon as possible.	SAP	departure.	ETD
At(time or place).	ATP	acpar our cr	<b>— — —</b>
	XS	·	
Atmospherics.	л. <u>э</u>		FT
-		Feet (dimension unit).	FNA
В		Final approach.	
Beam approach beacon		Flight.	FLT
system.	BABS	Flight forecast.	FIFOR
Bearing doubtful. Ask		Flight information	
for another bearing		region.	FIR
later (or athours).	DO -	Full stop landing.	FSL
Bearing doubtful be-			
cause of interference.	DJ	G	
Bearing doubtful in		Geographic or true.	GE0
consequence of the bad		Greenwich mean time.	GMT
quality of your signal.	ÐI	Ground controlled	
	ANT		GCA
Before.		approach system.	oon
Below	INF		
Between	BTN	H	UDM
Break-off height.	BOH		HBN
Broadcast.	BCST	Heavy (used to qualify	
By visual reference to		interference or static	
the ground.	VSA	reports).	VIO
By way of	VIA	Helicopter.	HEL
		HereAeronautical	· ·
	,	Note: In the inter-	
		national aeronautical	
		telecommunication	
		service ER may also be	
		used to indicate	
		Herewith	ER

5.

i i

SIGNIFICATION	ABBREVIA-	SIGNIFICATION	ABBREVIA-
	TION OR SYMBOL	144 ···	TION OR SYMBOL
High frequency (3,000		Kilometers per hour.	кмн
to 30,000 kHz.)	HF	Knots.	КТ
High intensity approach	ten		
lighting system. Hours (period of time).	LSB HR	L Landing off a runway	
nours (perrou or orme);	•••••	is permitted.	ERB
I		Left (direction of	
I am ascending (to		turn).	LEFT
(figures and units)	ASC	Light (used to qualify	•
height above(datum)). I am descending (to	ABO	icing, turbulence, in- terference or static	
(figures and units)		reports).	FBL
height above (datum)).	DES	Long (used to indicate	
I cannot furnish you		the type of approach	
with a bearing, the		desired or required).	LNG
minimum of your signal is too broad.	DT	Long range. Low frequency (30 to	LRG
I cannot give you a		300 kl/z.).	LF
bearing. You are not		Low intensity approach	
in the calibrated	<b>T</b> ) <b>D</b>	lighting system.	ISA
sector of this station. Ice on the runway.	DB IR	м	•
Identification.	ID	Magnetic,	MAG
If forward flight visi-	:	Maintain.	MNTN
bility remains. (fig-	TUD	Marker radio beacon.	MKR
ures and units). If forward visibility	IVR	Medium frequency (300	MD
is less than		to 3000 kHz). Medium range.	MF MRG
(figures and units).	IVB	Megacycles/megahertz	MC, MCS or
I have nothing to send		per second.	MHz
to you. Indication of an order	NIL	Meteorological.	MET
Indication of an order. If not possible.	ORD INP	Meters Metric units.	M MTU
Immediately.	IMT	Millibars.	MB
Inches (dimensional		Minus.	MS
unit).	INS	Minute (or minutes).	MN
Initial approach.		Mixed type of ice for-	
Instrument flight rules. Instrument landing	IFR	mation (white and clear).	мх
system.	IIS	Moderate (used to	ri <b>A</b>
Interrogation sign		qualify icing, tur-	
(question mark) ().	IMI	bulence, interference	
Intersection of air routes.	IAR	or static reports).	MOD
Intersection of range	- nii	N	÷ ;
legs.	IRL	Nautical mile(s).	NM
It is not necessary to		Nimbostratus.	NS
keep to the runways and	TOD	No.	NO
taxiways after landing.	TRB	Non-directional radio beacon.	NDD
К		Normal.	NDB NML
keep straight ahead.	DRT	North (cardinal point	141123
Kilocycles/kilohertz	KC, KCS,	of direction).	NORTH
per second. Kilograms.	kHz KG		
(ilometers.	KM		

SECTION B - ENCODE

4B-2

### SECTION B - ENCODE

( ·

SIGNIFICATION	ABBREVIA- TION OR SYMBOL	SIGNIFICATION	ABBREVIA- TION OR SYMBOL
	NE	Short (used to indicate	
North-East.	NE		
North latitude. (to be		the type of approach	מחמ
used only with figures		desired or required).	BRF
indicating latitude,		Short range.	SRG
e.g. 4730N.) Aero-		Slow.	SLW
nautical Note: In the		South or Southern	
maritime mobile service,		latitude.	S
the abbreviation N		South-East.	SE
signifies No and is		South-West.	SW
used in that service to		Standard instrument	
give a negative sense to		approach.	SIA
Q signals.	N	Standard instrument	
North-West.	NW	departure.	SID
Number.	NR	Standard regional	
	1910	route transmitting	
Non-directional radio	NDB	frequencies.	RUT
beacon.	NUD		ML
	·	Statute mile(s).	мрн
	PSGR 5	Statute miles per hour.	STA
Passenger(s).	PSUN	Straight in approach.	SC
Please advise me if you		Stratocumulus.	ST
note an error in the	N <b>A</b>	Stratus.	51
bearing given.	DG		
Plus.	PS	1 T	m m
Position not guaranteed.	DU	Teletypewriter.	TT
Possible error of bear-		The control indicated	
ing may amount to		is Operational Control.	OPC
degrees.	DP	The control referred	
Pounds (weight)	LB	to is Radio Control.	RAD
Practice low approach.	PLA	The indication of ver-	
Procedure turn.	PTN	tical distance is	
		given as flight level	
. Q.		reference number.	FL
Quadrant.	QUAD	The indication of ver-	
actual and.	<b></b>	tical distance is	
R		given as the reading	
	RDO	without correction for	
Radio.	RNG	ambient temperature,	
Radio range.		of a pressure alti-	
Radio teletypewriter.	RTT		
Rapid.	RP	meter having the sub-	
Reach cruising altitude.	RCA	scale set to 1013.2 millibars (29.92	
Receiving only.	RON		C T D
Relative to air.	AIR	inches).	STD .
Relative to ground.	GND	The indication of ver-	
Reporting point.	REP	tical distance is given	х 
Right (direction of		as TRUE height above	-
turn).	RITE	official aerodrome level	
Route forecast.	ROFOR	(e.g. after applying	
Runway.	RNWY	the correction for	
Runway control van.	VAN	ambient temperature to	
		the vertical distance	
S		reading of a pressure	
Schedule.	SKED	altimeter set to QFE).	TER .
Severe (used to qualify			
icing and turbulence re-			
ports).	SEV		

4B-3

 $\tilde{Z}$ 

SIGNIFICATION	ABBREVIA-	<u>ON B - ENCODE</u> SIGNIFICATION	ABBREVIA-
SIGNIFICATION	TION OR	SIGNIFICATION	TION OR
······································	SYMBOL		SYMBOL
The indication of ver-		v	i.
tical distance is (or		Very high frequency	
is to be) replaced by		(30,000 kHz to 300	-
the indication of the		MHz).	VHF
pressure, expressed in		VHF omnidirectional	
millibars, at the level		radio range.	VOR
and the position of	•	Very long range.	VLR
the aircraft.	PRES	Visual flight rules.	VFR
The indication of ver-		, ibudi riight raibet	
tical distance is		W,	
given as TRUE height		Weather.	WX
above mean sea level		West or Western longi-	
(e.g. after applying		tude.	W
the correction for		White type of ice	
ambient temperature		formation.	OPA
to the altitude read-			
ing of a pressure		Y	
altimeter set to		Yards.	YD ·
QNH).	MER	Your.	YR
The information is	FILM,	Your bearing at	111
estimated.	ETI	hours wasdegrees	
The information re-	191 L	in the doubtful sector	
fers to forecast and		of this station, with	-
not to present con- ditions.	PREV	a possible error of	DF
The indication of ver-	I ILEV	degrees. Your bearing is reci-	DI
tical distance is		procal. (To be used	
		only by the Control	
given as the reading,		Station of a group of	
without correction		direction-finding	
for ambient tempera- ture, of a pressure		stations when it is	
altimeter set to QFE.		addressing stations	•
(The abbreviation should	1	of the same group).	DZ
·	L	of the same group,	DE
only be used in the vicinity of the station		· ·	
which provided the QFE			
setting.)	SOL		
The minimum of your			
signal is suitable for			
the bearing.	DC		
This station is not			
able to determine the			
sense of the bearing.			
What is your approxi-		ł .	
mate direction relative			
to this station?	DY		• •
TO(place).	TO		-
Touch and go landing.	ŤĞL		
Fraffic zone.	TFZ		
LI WELLO SUINCE			
U .			. •
Units of English			
	FOT		
system. Until	TIL		
Until. Until advised by	UAB		• • •
ANDAL ANVISED DV			
	UEN		
Until further notice. Until past(place).	UFN TIP		

CHANGE NO. 1

U.S. GOVERNMENT PRINTING OFFICE : 1967 0-280-069

### CHAPTER 5

(.

### SERIES ZYA - 222

(RESERVED FOR US USE)

SIGNAL	QUESTION	ANSWER, ADVICE, OR ORDER
ZYA		<ol> <li>This message is for DCS major relay stations only. Do not trans mit to connected minor relay or</li> </ol>
		tributary stations; 2. DCS major relay stations transmit to connect ed minor relay and tributary
		stations. Minor relays transmit to connected tributary stations.
ZYB		
		· · · · · · · · · · · · · · · · · · ·
ZYC		This message not to be transmitted on fleet broadcasts. Fleet broad- cast stations originate a service message to units copying, signify-
•	•	ing that the general message is of no concern.
ZYD -		Transmit this message to (1. All minor relay and tributary stations 2. Do not transmit this message to minor relay or tributary stations)
ZYE		Reserved for use by NSA.
, ·		
ZYF	-	Reserved for use by NSA.
<b></b>		
ZYG		Reserved for use by NSA.
	· · ·	· · · · · · · · · · · · · · ·

ORIGINAL

SIGNAL	QUESTION	ANSWER, ADVICE, OR ORDER
ZYH		Reserved for use by NSA.
ZYI		Reserved for use by NSA.
		·
		· . · ·
ZYJ		
		~
·		
ZYK		Station-to-station receipts are not
91N		required for this message. Not
		applicable to stations where auto- matic switching equipments are pro-
		grammed to acknowledge receipt of
		flash precedence messages.
0.111		· · · · · · · · · · · · · · · · · · ·
ZYL ·		
	ът за, т	
ZYM		· · · · · · · · · · · · · · · · · · ·
		·
ZYN		For U.S. State Department use only Automatic switching system will no
		retain this message in historical
		file. Direct service request to originating station.
		-
ZYO		Reserved for use by NSA.
		· · · · · · · · ·

ORIGINAL

5--2

SIGNAL ZYP		
ZYP	QUESTION	ANSWER, ADVICE, OR ORDER
	What is downgrading and/or declassifying marking for	Marking for message is l. (Date) (GDS)
	message ()	2. (Date) (ADS)
	message ()	3. XGDS 1 4. XGDS 2
		5. XGDS 3 6. XGDS 4
		Note: when use of one of above
		markings is not appropriate,
		state regarding instructions in
	• •	narrative form.
-		
ZYQ	·····	This message must be delivered to
	· · · · ·	the addressee(s) for whom you are
		responsible as a single address
	• •	message only.
ZYR		
	· · · ·	· · · · · · · · · · · · · · · · · · ·
		•1
	¥.,	
		· · · · ·
•		
ZYS		Reserved for use by NSA.
	· · · · · · · · · · · · · · · · · · ·	
		•
ZYT-		
		·
·		
ZYU		This is a narrative message (for
		use in AUTODIN).
	· .	
		·
	• • • •	
		<b>۶</b> ۴۰۰
7.417	<b> </b>	This is a service message (for us
ZYV		in AUTODIN).
		In norobing.
	1	
	·	
12 5 2 5 7		Whig maccage much be wightly
ZYW		This message must be visually inspected before submitting it to
ZYW		inspected before submitting it to
ZYW		This message must be visually inspected before submitting it to machine processing.
ZYW		inspected before submitting it to

ORIGINAL

.

5--3

(

SIGNAL	QUESTION	ANSWER, ADVICE, OR ORDER
ZYX .		
· · · · ·		1 · · · · · · · · · · · · · · · · · · ·
]		· · · · · · · · · · · · · · · · · · ·
ZYY		
•		· · · · · · · · · · · · · · · · · · ·
ZYZ		Your messagesubjected to
616		possible compromise. Message
		classification exceeded security
		clearance of your circuit.
-		
ZZA		For U.S. State Department use only.
		Computer reaction required.
	₩ · · · ·	
.		
ZZB		
	· .	
]		•
		· · ·
		All residents of this masses may
ZZC -		All recipients of this message may not be aware of the complete
		address composition of the AIG(s)
		listed in the original heading or
Ĩ		readdressal heading(s). This
[	-	information should not be required by all recipients. However, if
	•	absolutely essential, the address
		composition(s) may be obtained from
	·	the message originator, or from the
		readdressal authority as
		readdressal authority as appropriate.
ZZD		readdressal authority as appropriate. This is a composite message, formed
ZZD		readdressal authority as appropriate. This is a composite message, formed by combining several short
ZZD		readdressal authority as appropriate. This is a composite message, formed by combining several short messages, all for the same
ZZD		readdressal authority as appropriate. This is a composite message, formed by combining several short
ZZD		readdressal authority as appropriate. This is a composite message, formed by combining several short messages, all for the same addressee, under this single
ZZD		readdressal authority as appropriate. This is a composite message, formed by combining several short messages, all for the same addressee, under this single autodin header (for use in AUTODIN
		readdressal authority as appropriate. This is a composite message, formed by combining several short messages, all for the same addressee, under this single autodin header (for use in AUTODIN only).
ZZD ZZE		readdressal authority as appropriate. This is a composite message, formed by combining several short messages, all for the same addressee, under this single autodin header (for use in AUTODIN only). No major category of AUTODIN content indicator code has been
		readdressal authority as appropriate. This is a composite message, formed by combining several short messages, all for the same addressee, under this single autodin header (for use in AUTODIN only). No major category of AUTODIN content indicator code has been assigned to cover this message (for
		readdressal authority as appropriate. This is a composite message, formed by combining several short messages, all for the same addressee, under this single autodin header (for use in AUTODIN only). No major category of AUTODIN content indicator code has been

ORIGINAL

5-4

IGNAL	QUESTION	ANSWER, ADVICE, OR ORDER
ZZF		· · · ·
		· · · ·
ZZG	· · · · · · · · · · · · · · · · · · ·	This message is an alternatively
		routed collective call message.
		Deliver a copy to addressee(s) for whom you are responsible. Do not
		reintroduce into the system as a
	-	collective call message.
ZZH		This is a Department of State
554		message (for use in Diplomatic
1		Telecommunications System (DTS) of
. 1		the NCS).
	-	
ZZI	· · · · · · · · · · · · · · · · · · ·	
l		
ļ	· · ·	میں اور
]		
1		· · ·
ZZJ		· · · · · · · · · · · · · · · · · · ·
÷		· · ·
<u>`</u>		
ZZK		Delivery of this immediate precedence message to the following
		specific routing indicator(s) or
		specific address designator(s) is
		required regardless of time, day or
		night.
ZZL	· · · · · · · · · · · · · · · · · · ·	(For ACP 127 format) this message
	· · ·	is forwarded under the provision of EFTO Policy. Disregard the
		conflicting security warning
	·	operating Signals. (For JANAP 128
<b>!</b> .		format) this message is forwarded
		under the provision of EFTO policy.
	·	
ZZM		Reserved for use by the U.S.
	- ···	Department of State. To be used by
		the DTS automatic switches to
		indicate catastrophic failure of a
		indicate catastrophic failure of a switch within the DTS.

..

ORIGINAL

5~5

ZŻN	QUESTION	ANSWER, ADVICE, OR ORDER
		Reserved for use by U.S. Departmen
		of State. To be used by the DTS
1		satellite system for component
		failure within satellite network.
Z 20		Reserved for use by U.S. Departmen
		of State. To be used by the DTS
· ·		satellite system for component
1		failure within satellite network.
ZZP		Reserved for use by U.S. Departmen
<i></i>	•	of State. To be used by the DTS
·		satellite system for component
		failure within satellite network.
		Latture wreath satering network.
ZZQ	······································	Reserved for use by U.S. Departmen
	· · · · · ·	of State. To be used by the DTS
	<b>-</b>	satellite system for component
		failure within satellite network.
ZZR		Reserved for use by NSA.
2011	· ·	
	••	المحاصر والمحاج المحاج الم
		· ·
_		
ZZS -		Reserved for use by NSA.
·		· ·
		. ,
		Reserved for use by U.S. Departmen
2 2 T		Reserved for use by 0.5. Departmen
2 2 T		of State. To be used by the DTS
ZZT		of State. To be used by the DTS
22T		of State. To be used by the DTS satellite system for component
227		of State. To be used by the DTS
<b></b>		of State. To be used by the DTS satellite system for component failure within satellite network.
<b></b>		of State. To be used by the DTS satellite system for component failure within satellite network. Your messagehas been received
<b></b>		of State. To be used by the DTS satellite system for component failure within satellite network. Your messagehas been received with incorrect card count(1.
<b></b>		of State. To be used by the DTS satellite system for component failure within satellite network. Your messagehas been received with incorrect card count(1. Card count short; 2. Card count
<b></b>		of State. To be used by the DTS satellite system for component failure within satellite network. Your messagehas been received with incorrect card count(1.
22T 22U		of State. To be used by the DTS satellite system for component failure within satellite network. Your messagehas been received with incorrect card count(1. Card count short; 2. Card count over). Request rerun.
		of State. To be used by the DTS satellite system for component failure within satellite network. Your messagehas been received with incorrect card count(1. Card count short; 2. Card count over). Request rerun. Reserved for use by U.S. Departmen
z z u		of State. To be used by the DTS satellite system for component failure within satellite network. Your messagehas been received with incorrect card count(1. Card count short; 2. Card count over). Request rerun. Reserved for use by U.S. Departmen of State. To be used by the DTS
z z u		of State. To be used by the DTS satellite system for component failure within satellite network. Your messagehas been received with incorrect card count(1. Card count short; 2. Card count over). Request rerun. Reserved for use by U.S. Departmen of State. To be used by the DTS satellite system for component
z 2U		of State. To be used by the DTS satellite system for component failure within satellite network. Your messagehas been received with incorrect card count(1. Card count short; 2. Card count over). Request rerun. Reserved for use by U.S. Departmen of State. To be used by the DTS

ORIGINAL

.

(...

5~6

SIGINAL	QUESTION	ANSWER, ADVICE, OR ORDER
2 Z W		
Z Z X		
2 2 Y		For use on U.S. Department of State privacy telegrams that have been authorized on-line transmission.
222	н.	

5<del>~</del>7

ORIGINAL (Reverse Blank)

# CHAPTER 5

### SERIES ZYA-ZZZ

(Reserved for intra-nation, intra-service, or intracommand use.)

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZYA		
ZYB		
ZYC L		
	<b>»</b> ? •	
ZYD	· · · ·	
ZYE	· · · · · · · · · · · · · · · · · · ·	
ZYF		
ZYG		·····
216		
ZYH		
ZYI	<u> </u>	
		•
ZYJ		
V		
	······	<u> </u>

Deletes 12/4

٠

ŧ

ORIGINAL

.

÷,

IGNAL	QUESTION		ANSWER,	ADVICE OR	ORDER		ł
YK							N.
	· . ·						
YL	، بي						-
							(
	·····						
îM			****				
							~
CN .							(
/						-	-
· · · · · · · · · · · · · · · · · · ·	······································		· · · · · · · · · · · · · · · · · · ·				•
		· ···					
				• . •			
Р					. <u></u>		
2-							
Q.	·						
V -							(.
R			······································				
s							
						•	
			· · · · · · · · · · · · · · · · · · ·		:	•	
					÷		
							(
U V			•		<u>.</u>	nd.	
~					.1	nd, tý	
I	· · · · · · · · · · · · · · · · · · ·				50	Ţ	
	Delited,				•		/
	(	24					(
	Doliker						

5-2

ORIGINAL

<u>)</u>



5-3

Y

4

ORIGINAL

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER	- (
ZZH 🗸			
			ı .
ZZI			(
ZZJ		· · · · · · · · · · · · · · · · · · ·	•
			. (
ZZK			
ZZL			
		ъ.	
	, , , , , , , , , , , , , , , , ,	······································	
ZZM		· · ·	
ZZN	· · · · · · · · · · · · · · · · · · ·		•
46.0			
	-		(
	•		
ZZ0		· ·	
ZZP		· · · · · · · · · · · · · · · · · · ·	· .
00-			
		· · · · · · · · · · · · · · · · · · ·	
ZZQ			
		4 . · · · ·	
		· · ·	(
ZZR		<u>                                       </u>	. (
ZZS	·		
1			/
1			(
		<u></u>	
	$( \land )$		

٠..

ACP 131(B)

Deleted 14 5-4

ORIGINAL

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
ZZT		
ZZU		
22V		
ZW		
ZX	••••••••••••••••••••••••••••••••••••••	
	<b>x</b> ;	
	· · ·	· · · · · · · · · · · · · · · · · · ·
ZY		
zz		
66		

(

(

ł

Deleter 12/4

ORIGINAL (Reverse Blank)

5-5

Symbol.

#### CHAPTER 6

### (Extract from Radio Regulations, Geneva, 1959)

### DESIGNATION OF EMISSIONS

#### Section I. Classification

105 2. Emissions are classified and symbolized according to the following characteristics: (See Note)

(1) Type of modulation of main carrier

(2) Type of transmission

(3) Supplementary characteristics

Note: As an exception to the provisions of Nos. 106 to 108, damped waves are designated by B.

106	З.	(1)	Types of modulation of main carrier:	Symbol.
			a) Amplitude	A
			b) Frequency (or Phase)	F
			c) Pulse	Р
107		(2)	Types of transmission:	
			a) Absence of any modulation intended to carry information	0
			b) Telegraphy without the use of a modulating audio frequency	3.
			c) Telegraphy by the on-off keying of a modulating audio frequency or audio fre- quencies, or by the on-off keying of the modulated emission (special case: an unkeyed modulated emission)	2
			d) Telephony (including sound broadcasting)	3
			e) Facsimile (with modulation of main carrier either directly or by a frequency modulated sub-carrier)	4.
			f) Television (vision only)	5
			g) Four-frequency diplex telegraphy	۰ <u></u> 6
			h) Multichannel voice-frequency telegraphy	7
			i) Cases not covered by the above	9

ORIGINAL

(3)	Supplementary characteristics:	Symbol
	a) Double sideband	(none)
	b) Single sideband:	
	reduced carrier	A
	full carrier	Н
	suppressed carrier	J
	c) Two independent sidebands	В
	d) Vestigial sideband	С
	e) Pulse:	
	amplitude modulated	D
	width (or duration) modulated	Е
	phase (or position) modulated	F
	code modulated	G



108

Type of Modulation of Main Carrier	Type of Transmission	Supplementary Characteristics	Symbol
Amplitùde Modulation	With no modulation Telegraphy without the use	,	AO
	of a modulating audio fre- quency (by on-off keying)		A1
· · ·	Telegraphy by the on-off keying of an amplitude- modulating audio frequency or audio frequencies, or by the on-off keying of the mo- dulated emission (special case: an unkeyed emission amplitude modulated)		A2
	Telephony	Double sideband Single sideband, reduced carrier	A3 A3A
		Single sideband, suppressed carrier	
		Two independent sidebands	АЗВ

6-2

ORIGINAL

\

Type of Transmission	Supplementary Characteristics	Symbol
Facsimile (with modulation of main carrier either directly or by a frequency modulated sub-carrier		A-4:
	Single sideband, reduced carrier	A-4A
Television	Vestigial sideband	A5C
Multichannel voice- frequency telegraphy	Single sideband, reduced carrier	A7A
Cases not covered by the above, e.g. a combination of telephony and tele- graphy	Two independent sidebands	A9B
Telegraphy by frequency shift keying without the use of a modulating audio frequency: one of two fre- quencies being emitted at any instant	· · · · · · ·	Fl
Telegraphy by the on-off keying of a frequency mo- dulating audio frequency or by the on-off keying of a frequency modulated emission (special case: an unkeyed emission, fre- quency modulated)	· .	F2
Telephony		F3
Facsimile by direct fre- quency modulation of the carrier		F4.
Television		F5
Four-frequency diplex tele- graphy		F6
Cases not covered by the above, in which the main carrier is frequency modu- lated		F9
	Facsimile (with modulation of main carrier either directly or by a frequency modulated sub-carrier Television Multichannel voice- frequency telegraphy Cases not covered by the above, e.g. a combination of telephony and tele- graphy Telegraphy by frequency shift keying without the use of a modulating audio frequency: one of two fre- quencies being emitted at any instant Telegraphy by the on-off keying of a frequency mo- dulating audio frequency or by the on-off keying of a frequency modulated emission (special case: an unkeyed emission, fre- quency modulated) Telephony Facsimile by direct fre- quency modulation of the carrier Television Four-frequency diplex tele- graphy Cases not covered by the above, in which the main carrier is frequency modu-	Type of TransmissionCharacteristicsFacsimile (with modulation of main carrier either directly or by a frequency modulated sub-carrierSingle sideband, reduced carrierTelevisionSingle sideband, reduced carrierMultichannel voice- frequency telegraphySingle sideband, reduced carrierCases not covered by the above, e.g. a combination of telephony and tele- graphyTwo independent sidebandsTelegraphy by frequency shift keying without the use of a modulating audio frequency: one of two frequency or by the on-off keying of a frequency modulated emission (special case: an unkeyed emission, frequency modulated)—Telephony—Facsimile by direct frequency modulation of the carrier—Television—Four-frequency diplex tele- graphy—Cases not covered by the above, in which the main carrier is frequency modu-—

ORIGINAL

# 6-3

#### Mr. .

ACP 131(B)

Type of	I	1	1	· (
Modulation of Main Carrier	Type of Transmission	Supplementary Characteristics	Symbol	
Pulse Modulation	A pulsed carrier without any modulation intended to carry information (e.g. radar)		PO	
	Telegraphy by the on-off keying of a pulsed carrier without the use of a modu- lating audio frequency		PID	
	Telegraphy by the on-off keying of a modulating audio frequency or audio frequencies, or by the on-off keying of a modu- lated pulsed carrier (special case: an unkeyed modulated pulsed carrier)	Audio frequency or audio fre quencies modu lating the am- plitude of the pulses	P2D	(
		Audio frequency or audio fre- quencies modu- lating the width (or duration) of the pulses	P2E	
  -		Audio frequency or audio fre- quencies modu- lating the phase (or position) or the pulses	P2F	
	Telephony	Amplitude modu- lated pulses	P3D	
		Width (or dura- tion) modulated pulses	P3E	
		Phase (or posi- tion) modulated pulses	P3F	
		Code modulated pulses (after sampling and quantization)	P3G	(
	Cases not covered by the above in which the main carrier is pulse modu- lated		P9	(

6-4

ORIGINAL

★ U.S. GOVERNMENT PRINTING OFFICE : 1984 O - 741-413

.

# LIST OF EFFECTIVE PAGES

(

(

(

Page Numbers	Change in Effect	Page Numbers	Change in Effect
I (Reverse Blank)	Original	3D-1 to 3D-6	Original
III (Reverse Blank)	Original	3D-7, 3D-8	
V (Reverse Blank)	Original	3D-9 to 3D-16	Change No. 1
VII, VIII	Original		Original
IX, X		3E-1 to 3E-2a (Reverse	
1-1, 1-2	Change No. 4	Blank)	Change No. ]
1-3, 1-4	Change No. 5	3E-3 to 3E-9 (Reverse	
	Change No. 1	Blank)	Original
2A-1 to 2A-4	Change No. 1	3F-1, 3F-2	Change No. 5
2A-5, 2A-6	Original	3F-3 to 3F-8	Change No. 1
2A-7 (Reverse Blank)	Change No. 1	3F-9 to 3F-10d	
2A-9 to 2A-13 (Reverse			Change No. 5
Blank)	Change No. 1	3F-11, 3F-12	Change No. 5
2A-15 to 2A-25 (Reverse	onange No. 1	3F-13 (Reverse Blank)	Change No. 1
		3G-1 to 3G-14	Change No. 1
$\frac{Blank}{2}$	Change No. 1	3H-1, 3H-2	Original
2A-27 to 2A-31 (Reverse		3H-3, 3H-4	Change No. 5
Blank)	Change No. 1	3H-5, 3H-6	
2A-33 to 2A-37 (Reverse		3H-7 to 3H-10	Change No. 4
Blank)			Change No. 5
2A-39 to 2A-42		3H-11 to 3H-14	Change No. 4
2A-43, $2A-44$	Change No. 1	3H-15 to 3H-18	Change No. 1
2A-45 to 2A-49 (Reverse		3I-1 to 31-4	Change No. 4
		3J-1, 3J-2	Change No. 1
Blank)	Change No. 1	3J-3 (Reverse Blank)	Original
2A-51 to 2A-58		3K-1 to 3K-4	Original
B-1, 2B-2		4A-1 to 4A-4	
B-3 to 2B-5 (Reverse		4B-1 to $4B-4$	Change No. 1
Blank)			Change No. 1
B-7 to 2B-16	Change No. 1	5-1 to 5-5 (Reverse	
B-17 (Reverse Blank)	Change No. 5	Blank)	Original
B 10 OD 00		6-1 to 6-4	Original
B-19, 2B-20	Change No. 5	LEP-1 (Reverse Blank)	Change No. 5
B-21 to 2B-23 (Reverse			onange No. 5
Blank)	Change No. 1		· · · ·
B-25 to 2B-29 (Reverse)	9		
Blank)	Change No. 1		
B-31 to 2B-38	Change No. 1		
B-39 to 2B-42			
B-43, $2B-44$	Change No. 4		ſ
B-45, 2B-46	Change No. 1		
$B_{AD}$ (Dave - The set	Change No. 4		1
B-47 (Reverse Blank)	Change No. 5		l l
B-49, 2B-50	Change No. 1		. <b>(</b>
B-51 to 2B-53 (Reverse)	-		
Blank)	Change No. 4	1	
B-55, 2B-56	Change No.1	1	ļ
B-57, 2B-58			•
$B_{50}$ (Revence $D_{1}^{1}$	Change No. 5	4	1
B-59 (Reverse Blank)	Change No. 1	[	
B-61 to 2B-65 (Reverse	ł	l	-
Blank)	Change No. 1	ł	
B-67 to 2B-71 (Reverse			· [
Blank)	Change No. 1		
A-1, 3A-2	Change No. 1	ł	
A-3, 3A-4			i i
A-5, 3A-6	Original		
	Change No. 1	l l	
B-1, 3B-2	Original		
B-3, 3B-4	Change No. 1	1	ł
C-1 to 3C-4	Change No. 1		1

LEP-1

CHANGE NO. 5 (Reverse Blank)

•

.

AU.S. GOVERNMENT PRINTING OFFICE: 1976-209-894

.

.

.

- -

.

ť

:

Č)

### LIST OF EFFECTIVE PAGES

Subject Matter	Page Numbers	Change In Effect
S National Letter of Promulgation	V, VI	Original
ecord of Changes and Corrections		
ext	IX, X	Original
Chapter 5	5-1 to 5-7(Reverse Blank)	Original
ist of Effective Pages	LEP-1 (Reverse Blank)	Original
	`.	
		• •
		· · · .
	· .	
		`•
· · ·		
		· · · ·

LEP-1

ORIGINAL (Reverse Blank)

# LIST OF EFFECTIVE PAGES

Subject Matter	Pago Numbers	Change in Effect
Title Page	I (Reverse Blank)	Original
Foreword dated 10 July 1964	III (Reverse Blank)	Original
National Letter of Promulgation	V (Reverse Blank)	Original
Record of Changes and Corrections	VII, VIII	Original
Table of Contents	IX, X	Change No. 4 -
Text		
Chapter 1	1-1, 1-2 1-3, 1-4	Change No. 3 Change No. 1
Chapter 2 Section A	2A-1 to 2A-4 2A-5, 2A-6	Change No. 1 Original
	2A-7 (Reverse Blank) 2A-9 to 2A-13 (Reverse Blank) 2A-15 to 2A-25(Reverse Blank)	Change No. 1 Change No. 1 Change No. 1
	2A-27 to 2A-31(Reverse Blank) 2A-33 to 2A-37(Reverse Blank) 2A-39 to 2A-49(Reverse Blank) 2A-51 to 2A-58	Change No. 1 Change No. 1 Change No. 1 Change No. 1
Section B	2B-1, 2B-2 2B-3 to 2B-5 (Reverse Blank) 2B-7, 2B-8 2B-9, 2B-10 2B-11 (Reverse Blank) 2B-13, 2B-14 2B-15, 2B-16 2B-17 (Reverse Blank) 2B-29, 2B-20 2B-21 to 2B-23(Reverse Blank) 2B-25 to 2B-29(Reverse Blank) 2B-31 to 2B-38 2B-39 to 2B-42 2B-43, 2B-44 2B-45, 2B-46 2B-47 (Reverse Blank) 2B-49, 2B-50 2B-51 to 2B-53(Reverse Blank) 2B-55 to 2B-59(Reverse Blank) 2B-61 to 2B-65(Reverse Blank) 2B-67 to 2B-71(Reverse Blank)	Change No. 4 Change No. 1 Change No. 1 Change No. 1 Change No. 1 Change No. 1 Change No. 1 Change No. 3 Change No. 1 Change No. 1

LEP-1

CHANGE NO. 4 (Reverse Blank) LIST OF EFFECTIVE PAGES

ACP 131(B)

Subject Matter	Page Numbers	Change In Effect
Chapter 3 Section A	3A-1, 3A-2 3A-3, 3A-4 3A-5, 3A-6	Change No. 1 Original Change No. 1
Section B	3B-1, 3B-2 3B-3, 3B-4	Original Change No. l
Section C	3C-1 to 3C-4	Change No. 1
Section D	3D-1 to 3D-6 3D-7, 3D-8 3D-9 to 3D-16	Original Change No. l Original
Section E	3E-1 to 3E-2a(Reverse Blank) 3E-3 to 3E-9(Reverse Blank)	Change No. l Original
Section F	3F-1, 3F-2 3F-3 to 3F-13(Reverse Blank)	Change No. 4 - Change No. 1
Section G	3G-1 to 3G-14	Change No. l
Section H	3H-1 to 3H-4 3H-5, 3H-6 3H-7, 3H-8 3H-9 to 3H-14 3H-15 to 3H-18	Original Change No. 4 Change No. 3 Change No. 4 Change No. 1
Section I	3I-1 to 3I-4	Change No. 4
Section J	3J-1, 3J-2 3J-3 (Reverse Blank)	Change No. 1 Original
Section K	3K-1 to 3K-4	Original
Chapter 4 Section A	4A-1 to 4A-4	Change No. 1
Section B	4B-1 to 4B-4	Change No. 1
Chapter 5	5-1 to 5-5 (Reverse Blank)	Original
Chapter 6	6-1 to 6-4	Original
List of Effective Pages	LEP-1 (Reverse Blank) LEP-3 (Reverse Blank)	Change No. 4 Change No. 4

LEP-3

CHANGE NO. 4 (Reverse Blank)

.

LIST OF EFFECTIVE PAGES

Subject Matter	Page Numbers	Change in Effect
Section C	3C1 to 3C4	Change No. 1
Section D	3D-1 to 3D-6 3D-7, 3D-8 3D-9 to 3D-16	Original Change No. 1 Original
Section E	3E-1 to 3E-2a(Reverse Blank) 3E-3 to 3E-9(ReverseBlank)	) Change No. 1 Original
Section F	3F-1, 3F-2 3F-3 to 3F-13 (Reverse Bland	Original c) Change No. 1
Section G	3G-1 to 3G-14	Change No. )
Section K	3H-1 to 3H-4 3H-5, 3H-6 3H-7, 3H-8 3H-9 to 3H-12 3H-13, 3H-14 3H-15 to 3H-18	Original Change No. 1 Original Change No. 1 Change No. 2 Change No. 1
Section I	3I-1, 3I-2 3I-3, 3I-4	Change No. 2 Change No. 1
Section J	3J-1, 3J-2 3J-3 (Reverse Blank)	Change No. 1 Original
.tion K	3K1 to 3K-4	Original
hapter 4		
Section A	4A-1 to 4A-4	Change No. 1
Section B	4B-1 to 4B-4	Change No. 1
apter 5	5-1 to 5-5 (Reverse Blank)	Original
anter S	- 6-1 to 6-4	Original.
† of Effective Pages	LEP-1 (Reverse Blank) LEP-3 (Reverse Blank)	Change No. 2 Change No. 2
	·······	I

LEP-3

CHANGE NO. 2 (Reverse Blank)