

Information Management: Telecommunications
TACTICAL RADIO OPERATIONS

HISTORY. This regulation supersedes III Corps & FH Regulation 105-8, 1 August 1986 with change 1, 3 November 1987.

SUMMARY. This regulation establishes uniform procedures for tactical radio operations

APPLICABILITY. This regulation applies to all assigned, stationed, or otherwise present at Fort Hood regular Army units, which intend to operate tactical radio equipment at Fort Hood; or during movement to any location other than Fort Hood, and all Reserve and National Guard units, which intend to operate tactical radio equipment at Fort Hood.

SUPPLEMENTATION. Local supplementation of this regulation is prohibited without prior approval by the Assistant Chief of Staff (ACofS), G6, AFZF-CE.

INTERIM CHANGES. Interim changes to this regulation are not official unless they are authenticated by the Directorate of Information Management (DOIM). Users will destroy interim changes on their expiration dates unless sooner superseded or rescinded.

SUGGESTED IMPROVEMENTS. The proponent of this regulation is the ACofS, G6. Users are invited to send comments and suggested improvements to the Commander, III Corps and Fort Hood, ATTN: AFZF-CE, Fort Hood, TX 76544-5056.

TABLE OF CONTENTS

Title	Block	Page
Overview		
Purpose .....	.1a	1
References .....	.1b	1
Abbreviations .....	.1c	1
Responsibilities for Combat Net Radio (CNR) Operations		
ACofS, G3 .....	.2a	1
ACofS, G6 .....	.2b	1
MSCs .....	.2b	1
Fixed Call Words		
Policy	3a	2
Secure Variable Management		
AK	4a	2
MK	4b	2
Replacement of TEK	4c	2

Title	Block	Page
Antenna Safety		
Vehicular Antennas .....	.5a	2
Erected Antennas .....	.5b	2
Antenna Marking .....	.5c	3
Responsibilities for Frequency Management		
ACofS, G6 .....	.6a	3
Units .....	.6b	3
Policy for Frequency Management		
Emergency Requests .....	.7a	3
Frequency Assignments .....	.7b	3
Tactical and Fixed Mode Frequencies .....	.7c	3
Frequency Change Time .....	.7d	3
Electronic Countermeasures (ECM) Assignments		
ECM Training .....	.8a	4
Frequencies Cleared for ECM .....	.8b	4
ECM Operation Requests .....	.8c	4
Broadband Jamming .....	.8d	4
ECM Restrictions .....	.8e	4
Appendix A. Standard Frequency Action Format .....		.5 .

OVERVIEW

1

Purpose

This regulation

- establishes uniform procedures for tactical radio operations.
- delineates command net structure.
- prescribes secure variable key exchange.
- outlines procedures for requesting radio frequency assignments.
- establishes uniform radio frequency assignment requesting procedures for emitters.

NOTE: An emitter is equipment that radiates into space an electromagnetic wave of frequencies lower than 3,000 gigahertz.

1a

References

ACP 190 Guide to Frequency Planning
 AR 25-10 Reduction and Control of Information Transfer in an Emergency
 AR 105-86 Performing Electronic Countermeasures in the United States and Canada

1b

Abbreviations

Abbreviations used in this regulation are explained in the glossary.

1c

RESPONSIBILITIES FOR COMBAT NET RADIO (CNR) OPERATIONS

ACofS, G3

The ACofS, G3

- provides the Net Control Station for the Corps Command Net.
- distributes the Corps Key to Phantom Command and Corps Staff.
- maintains copies of major subordinate command (MSC) signal operation instructions (SOIs), implementing instructions, authentication tables, and supplemental instructions.
- conducts unscheduled radio checks and publishes results.

2a

ACofS, G6

The ACofS, G6 distributes the Corps Key to all MSCs

2b

MSCs

MSCs

- maintain a station in the Corps Command Net.
- ensure the net control station has adequate copies of unit SOIs, implementing instructions, authentication tables, and supplemental instructions to meet operational needs.
- conduct weekly internal radio checks.
- ensure MSC commander's vehicle conducts a weekly radio check with the Net Control Station (NCS).

2c

FIXED CALL WORDS

3

Policy Approved Fixed Call words are authorized to be used within III Corps only on secure communication nets.

Only call signs and suffixes as prepared by the National Security Agency (NSA) or Revised Battlefield Electronic Communications-Electronics Operation Instructions (CEOI) System (RBECS) SOI will be used on nonsecure tactical radio nets within III Corps.

3a

SECURE VARIABLE

4

AK The Corps FM Traffic Encryption Key (TEK) is transmitted electronically during Automatic Keying (AK).

NCSs will provide appropriate Key Encryption Key (KEK) as required to all net members.

4a

MK Any unit requiring Manual Keying (MK) or failing to receive AK will individually contact the NCS for key transfer.

4b

Replacement of TEK When required due to age of TEK or because of compromise, the TEK will be replaced whenever possible by AK.

Net members who have compromised KEK must be physically rekeyed.

AK or MK with compromised KEK is prohibited.

4c

Command Net All stations operating in any command net will use the Corps Common Key (CCK).

Whenever possible the CCK will be electronically generated and disseminated.

4d

Other Nets MSCs desiring to operate nets such as administration and operations/intelligence (OPS/INTEL) will generate and disseminate their own TEK/KEK for those nets.

4e

ANTENNA SAFETY

5

Vehicular Antennas Vehicular antennas will be secured in the down position while operating in the cantonment area.

All antennas will have safety caps installed on tips.

5a

Erected Antennas Erected antennas will have safety caps applied to all portaging antenna elements.

5b

Antenna Marking Erected antennas over 75 feet in height will be marked with engineer tape for daytime operations and visible lighting for nighttime operations.

5c

RESPONSIBILITIES FOR FREQUENCY MANAGEMENT

6

ACofS, G6 The III Corps and Fort Hood ACofS, G6 is the

- sole tactical frequency assignment authority at Fort Hood.
- primary action officer for those units designated in the applicability statement.

6a

Units Units will prepare all requests for assignment according to

- the Standard Frequency Action Format (SFAF) at appendix A.
- ACP 190.
- AR 25-10.

Submit request to the Commander, III Corps and Fort Hood, ATTN: AFZF-CE

- in triplicate.
- not later than (NLT) 60 days prior to off-post operations.
- NLT 45 days prior to operations conducted on Fort Hood.

6b

POLICY FOR FREQUENCY MANAGEMENT

7

Emergency Request Emergency requests, for which requirements can not be foreseen,

- are processed immediately upon receipt.
- can be sent telephonically when the security classification permits.
- must be restated in writing within 24 hours.

7a

Frequency Assignments

Frequencies will

- be assigned on a shared, noninterference basis to other government and nongovernment users.
- not be used outside the Fort Hood boundaries unless so stated and authorized in the assignment.

7b

Tactical and Fixed Mode Frequencies

All tactical frequencies issued for use at Fort Hood will be nonfixed mode (changing daily).

The only users of fixed mode frequencies (nonchanging) will be those used for safety only, such as LIFESAVER and RANGE CONTROL.

7c

Frequency Change Time

The frequencies and call sign change time will be 2400 local, daily.

7d

ELECTRONIC COUNTERMEASURES (ECM) FREQUENCY ASSIGNMENTS

8

ECM Training ECM training operations on Fort Hood may be conducted on assigned frequencies providing such operations are land based, do not exceed the bandwidth, power, or any other restrictions of the original assignment.

8a

Frequencies Cleared for ECM A limited number of HF and FM frequencies are

- cleared ECM.
- available for use on Fort Hood.
- cleared for maximum power output of 550 watts and 30 kHz bandwidth (3kHz for HF).

Requests for use of these frequencies will be submitted per format in appendix A, to arrive NLT 60 working days prior to the proposed training dates.

8b

ECM Operation Requests Submit requests for ECM training operations on Fort Hood using

- equipment which exceeds the authorized bandwidth or power limitations of the original frequency assignment and which can not be satisfied by block 8b, in the SFAF format (appendix A) to arrive NLT 60 days prior to the proposed training dates.
- Chaff radars or in-flight ECM, filed according to AR 105-86, to arrive NLT 75 days prior to the proposed training dates.

8c

Broadband Jamming Broadband jamming will not be cleared for

- Fort Hood.
- Camp Bullis.
- any designated Army post in the Army Frequency Management Office (AFMO) Continental United States (CONUS) Control.

8d

ECM Restrictions All ECM operations are subject to the following restrictions

- ECM operations will be subject to immediate termination upon notification of harmful interference to other users.
- coordination will be initiated with commands concerned before use of shared frequencies for ECM purposes.
- "STOP BUZZER" will be implemented in accordance with (IAW) III Corps SOI.
- ON-OFF control officers will be available at all times at listed phone numbers during active ECM operations.
- the officer's name and telephone number will be noted on the SFAF, paragraph 803.

8e

Appendix A
STANDARD FREQUENCY ACTION FORMAT

SECTION 1. Format.

OFFICE SYMBOL

MEMORANDUM FOR:

SUBJECT: TACTICAL RADIO FREQUENCY REQUEST-STANDARD FREQUENCY FORMAT

005. CLASSIFICATION: U

REQUESTED FREQUENCIES EQUIPMENT	STATION CLASS	EMISSION DESIGNATOR	POWER OUTPUT	TYPE
110A. <u>2Btwn M-2-30</u>	113A. <u>FX</u>	114A. <u>3K00J3E</u>	115A. <u>W40</u>	340A. <u>AN/GRC 142</u>
110B. <u>3Btwn M30.75.95</u>	113B. <u>ML</u>	114B. <u>30KOP3E</u>	115B. <u>W35</u>	340B. <u>AN/VRC-12</u>
110C. <u>4 Btwn 116-149.95</u>	113C. <u>MA</u>	114C. <u>6K00F3C</u>	115C. <u>W8</u>	340C. <u>AN/ARC-115A</u>
110D. _____	113D. _____	114D. _____	115D. _____	340D. _____

140. START DATE: 940101

141. END DATE: 940128

207. OPERATING UNIT: HHC 3d Sig Bde

300. TRANSMITTER LOCATION: Fort Hood, TX

400. RECEIVER LOCATION: Fort Hood, TX

502. DESCRIPTION OF REQUIREMENT: Frequencies required for unit training exercise

803. POINT OF CONTACT: SFC Audie Murphy

PHONE NUMBER: 287-0000

IMPORTANT: All blocks must be filled in completely for valid request.

Section 2. SFAF PREPARATION INSTRUCTIONS.

005. SECURITY CLASSIFICATION: (if classified, declassification instructions are required).

U = Unclassified
C = Confidential
S = Secret

110. FREQUENCY:

a. As required, enter requested:

- (1) Discrete frequencies.
- (2) Amount of frequencies required in a specific band.
- (3) Frequency band.

b. Precede the frequency value with indicators as follows:

- (1) K - if frequency is less than 30 MHz.
- (2) M - if frequency is 30 MHz but less than 100 GHz.
- (3) G - if frequency is at least 100 GHz but less than 3 THz.
- (4) T - if frequency is 3 THz or greater.

c. If more than one type or band of frequencies are required, enter the first as item 110A, the second as 110B, and so forth (see example below). Use the same item identifiers in items 113, 114, 115, and 340 as were entered in item 110 (see example below).

113. STATION CLASS: Enter appropriate Station Class Symbol, examples are:

FX - Fixed Station (example is "long-haul HF").
MA - Air-to-Air/Ground.
ML - Land Mobile.
LR - Transportable Radio Location Service.
RL - Radio Navigation.

114. EMISSION DESIGNATOR: The emission designator contains the necessary bandwidth and the emission classification symbols. Enter the necessary bandwidth with the unit designator in the position the decimal would normally occupy. Unit designators are:

H - if value is less than 1000 Hz.
K - 1 kHz to values less than 1000 KHz.
M - 1 MHz to values less than 1000 MHz.
G - 1 GHz or greater.

115. TRANSMITTER POWER: Express the power to a maximum of five decimal places and precede the entry with the unit designator as follows:

- W - if the power is less than 100 watts.
- K - if the power is at least 1 KW but less than 1000 KW.

For additional information on items 110, 114, 115, use FM 24-54 or the technical manual on that piece of equipment.

140. START DATE: Enter the year, month and day (YYMMDD) assignment is required.

141. END DATE: Enter YYMMDD the assignment will end.

207. OPERATING UNIT: Entering the organization using the frequency assignment.

300. TRANSMITTER LOCATION: Enter the name of the location of the transmitter, state and city or military installation, also the military 6 digit grid coordinate to include grid zone designator.

400. RECEIVER LOCATION: Enter the name of the location of the receiver if different than item 300 above (an example is a high frequency net between Fort Hood and Fort Bliss).

340. EQUIPMENT NOMENCLATURE: Enter the standard military nomenclature.

502. DESCRIPTION OF REQUIREMENT: Give a brief summary of the requirement, include any additional information that would expedite authorization of assignment, such as, two FM nets, one command, one maintenance, four HF nets, one intelligence, one command, one staff weather office (SWO), and one TACFIRE.

803. POINT OF CONTACT: Provide name and telephone number of individual submitting request.

Glossary

ACofS	Assistant Chief of Staff
ACP	Allied Communications Publications
AFMO	Army Frequency Management Office
AK	Automatic Keying
AM	amplitude modulation
ATTN	attention
CCK	Corps Common Key
CEOI	Communications-Electronics Operation Instructions
CNR	Combat Net Radio
CONUS	Continental United States
DOIM	Directorate of Information Management
ECM	electronic countermeasures
FM	frequency modulation
FH	Fort Hood
GHz	gigahertz
HF	high frequency
Hz	hertz
IAW	in accordance with
KEK	Key Encryption Key
kHz	kilohertz
KW	kilowatt
MK	Manual Keying
MSC	major subordinate command
NCS	net control station
NLT	not later than
NSA	National Security Agency
OPS/INTEL	operations/intelligence
RBECS	Revised Battlefield Electronic CEOI System
SFAF	Standard Frequency Action Format
SOI	signal operation instructions
SWO	staff weather office
TACFIRE	tactical fire direction system
THz	terra hertz
TEK	Traffic Encryption Key

The proponent of this regulation is the ACoS, G6.

FOR THE COMMANDER:



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