

REGION 5 USAF MARS TRAINING LESSON 3

CHAPTER 2

OPERATIONS

1-2.1. Radio Operator Circuit Discipline.

1-2.1.1. Only authorized transmissions will be made.

1-2.1.1. Specifically forbidden practices are:

1-2.1.2. Violation of radio silence.

1-2.1.2.1. Unauthorized conversation between operators.

1-2.1.2.2. Transmissions in a directed net without permission.

1-2.1.2.3. Excessive tuning and testing.

1-2.1.2.4. Use of other than authorized prosigns and prowords.

1-2.1.2.5. Use of operators names (addressing them) during a directed net.

1-2.1.2.6. Transmissions on unauthorized frequencies and beyond authorized tolerances.

1-2.1.2.7. Profane, indecent, or obscene language.

1-2.1.2.8. Use of VOX or RIT clarifier.

1-2.1.2.9. Transmission of political or pecuniary traffic.

1-2.2. Type Of Nets.

1-2.2.1. *All nets in Air Force MARS are directed nets.*

1-2.2.2. Informal communications are strictly limited to no more than 5 minutes.

1-2.2.3. Administrative discussions may exceed the five minute limit but MUST be confined to AF MARS business and include one or two officials.

1-2.3. Drafting messages. When a message that shouldn't be transmitted via MARS *is accepted in error* and transmitted via MARS, it is the fault of the originating station. The originating station operator; therefore, is the person who must employ guidelines relative to acceptance of messages. The text of the message should be brief, clear and accurate. The text is normally restricted to 50 groups or words. Initial death notices will be sent **ONLY** through the American Red Cross or a local clergyman and not through MARS channels. All such unauthorized messages must be pulled from the system and forwarded to the Region MARS Director or their designated authority.

1-2.4. American Radio Relay League (ARRL) Numbered Text Message. ARRL numbered text messages will be used to reduce the length of message texts when possible. These messages will be fully written out showing the actual meaning, before the message is delivered to the addressee. The prefix ARL, followed by a number, denotes an ARRL numbered text message. Identifying numbers denoting ARRL texts described in USAF MOD will be transmitted as words (spelled out) rather than figures. For example, "ARL fifteen" or "ARL thirty one", are sent as: ALFA ROMEO LIMA FIFTEEN, I SPELL FOXTROT INDIA FOXTROT TANGO ECHO ECHO NOVEMBER - FIFTEEN; OR ALFA ROMEO LIMA THIRTY, I SPELL TANGO HOTEL INDIA ROMEO TANGO YANKEE - THIRTY, ONE, I SPELL OSCAR NOVEMBER ECHO - ONE.

1-2.5. Phonetic Alphabet. When it is necessary to identify any letter of the alphabet the International Telecommunications Union (UTC) phonetic alphabet will be used. Phonetics should not be used when the actual word might be more readily understood. An example:

FIGURES "two six degrees West" might be better than FIGURES "two six delta echo golf romeo echo echo sierra INITIALS whisky echo sierra tango."

1-2.6. Operating Signals. Operating signals (Q and Z) are not ordinarily used in the MARS circuits. They may be used in some digital modes when necessary for brevity and clarification.

1-2.7. Punctuation Abbreviations. Punctuation abbreviations must not be confused with operating signals. In order to assure accuracy, written punctuation will be used where it is deemed necessary. When used, the punctuation will be included in the group count and always be pronounced phonetically.

COMMON PUNCTUATIONS:

PUNCTUATION WRITTEN AS SYMBOL PHONETICS

PERIOD PD . pa-PAH delta

COMMA COM , Charlie Oscar Mike

COLON CLN : Charlie Lima November

OPEN PARENTHESSES PAREN (pa-PAH Alpha Romeo Echo November

CLOSE PARENTHESSES UNPAREN) Uniform November pa PAH Alpha Romeo
Echo November

QUOTATION MARKS QUOTE " Quebec Uniform Oscar Tango November

END OF QUOTATION UNQUOTE " Uniform November Quebec Uniform Oscar
Tango Echo

HYPHEN DASH - Delta Alpha Sierra Hotel

STROKE / SLANT BAR SLANT / Sierra Lima Alpha November Tango

QUESTION MARK QUERY ? Quebec Uniform Echo Romeo Yankee

1-2.8. Station Identification. The proper identification of stations is extremely important and is required not only by military procedures but by national and international regulations as well. The following procedures will always apply when identifying Air Force MARS stations:

1-2.8.1. Complete call sign will be used and never abbreviated. They will be used at the beginning of ALL transmissions. Phonetics will be used initially and spoken letters and figures thereafter. It is NOT necessary to use phonetics every time your callsign is given. When a new communication begins with the same or another station, phonetic callsigns will be given during the initial transmission *ONLY* as indicated above.

1-2.9. Station Configuration Modification. It is the affiliate member's responsibility to notify the RMD through the SMD of any changes in station configuration (FCC amateur license changes, address changes etc.) In all instances outlined below submit two copies to the SMD as soon as possible.

1-2.9.1. If the change involves an address change notify your SMD. When you receive your updated amateur license send two copies to the SMD.

1-2.9.2. Any changes to your amateur license, send two copies to the SMD when you receive the updated, changed license from the FCC.

1-2.10. Mail Address Element. When using AFMARS provided postage stamps the return address will be your own address with "Official Business" typed below as shown in 2.10.1.

Address for correspondence to Chief MARS, or designated authority, is shown in paragraph 2.10.2:

1-2.10.1. Joe I. America, AFA3AA
123 Elm St

Tonka, KS 66010-9877

Official Business

1-2.10.2. HQ AFCA/ECFP (MARS) (Or designated Headquarters of AF MARS)

203 W LOSEY STREET

ROOM 3100

SCOTT AFB, IL 62225-5222

1-2.11. Telephone procedures. Do not service message because the telephone number is incorrect or not given as part of the addressee's information. Make an effort to find the number.

1-2.11.1. Use your telephone directory. Sometimes looking for the street address will help you find the number.

1-2.11.2. Use Directory Assistance. Please note that some telephone companies charge for this service. The number of free directory assistance calls depends on your local telephone company.

1-2.11.3. If the telephone number is unlisted or not in the directory, mail the message using official mail media (only if the message originated at an overseas location.) Messages that cannot be delivered will be serviced back when all alternate methods have been exhausted. Messages that cannot be phoned (outside of local calling area) or mailed (originated in CONUS) should be sent to VHF, PACKET, or other MARS circuits.

1-2.11.4. Try the use of Amateur or *other means* before considering servicing the message back to the originating station. "Official" traffic may be mailed if necessary.

1-2.12. TRANSCON Check-In. After training requirements have been met it is permissible to check-in on TRANSCON traffic nets. Only technician class or higher license holders are granted this privilege. Stations going to TRANSCON should have regional day and night frequency capability and/or be able to pass the traffic for relay to a local MARS member with regional frequency capability. Frequencies can be obtained from your SMD or RMD. See TRANSCON procedures section in this manual.

1-2.13. Use Of Frequency Designators. Listings of frequencies and their designators can be obtained from your SMD, Training Manager or RMD. Frequency designators should always be used. Actual frequencies are *NEVER* transmitted on the air. (Exceptions being air-to-ground Phone Patch transmissions to the pilot concerned).

1-2.14. Station Logs. Station logs are available through the AF MARS program – contact your SMD. However, each affiliate MARS operator may use the amateur log form he/she presently in use in his/her station. Most operators prefer the amateur log form. It is suggested that MARS operations be recorded on a separate log form. These forms must be retained for one year.

1-2.15. Off-Frequency Operation. USAF MARS operating procedures require very accurate frequency operation. If the NCS or FYMON calls your station informing you of off-frequency operation, a count will be given for tuning purposes. Respond with: "THIS IS (your call sign) ONE TWO THREE FOUR FIVE, FIVE FOUR THREE TWO ONE, OVER." Comments such as "How now, etc." are incorrect and are *not* authorized. The counting procedure outlined above gives the NCS or FYMON an adequate amount of your transmission to listen to and check to determine if you are within the established frequency tolerance. Allowed tolerance is now plus or minus 20 Hz.

1-2.16. Group Counts.

1-2.16.1. Establishing A Group Count (Optional): Assigning an accurate group count can not be over-emphasized. It is one of the primary means to determine if the message has been correctly received.

1-2.16.1.1. Count text groups only between each break in the message.

1-2.16.1.2. Punctuation prowords (comma, colon, period, etc. and abbreviations (COMM, CLN, PD, etc.) are counted as groups.

1-2.16.1.3. A sequence of characters not interrupted by a space is counted as one group.

Example pronounced without phonetics as: "scr-211" and spoken phonetically as: 'initials sierra, charlie, romeo, hyphen, two, one, one' and pronounced again as "scr-211" without phonetics.

1-2.16.1.4. The group count is written and transmitted in conjunction with the proword "GROUPS" when used.

1-2.16.1.5. The group count that is established by the transmitting (originating) station is final. When the group count does not agree, the receiving station should verify the group count and the message by requesting the sender to letter the text. This operation requires the sending station to read phonetically the first letter or figure of each group in the text. If the group count cannot be resolved, an operator's note should be attached to the message noting the difference in the group count.

1-2.16.2. Questioning the group count: See paragraph 2-16.a.(5) above. If the number of groups copied does not agree with that of the originator, the operator must question and resolve it *before* receipting for the message. For GROUPS SERVICE, see page 22 describing service messages.

1-2.17. USAF MARS Broadcast. The USAF MARS broadcast originates periodically at HQ Scott AFB (MARS), or their designated authority, and is directed to all Military and Affiliate MARS members. The broadcast provides general information, instructions and new policy to all member stations, which is official until expiration date or superseded by another broadcast or official declaration. The broadcast will also be read on all 2S1 voice nets and on digital nets. SMDs and net managers are responsible for having the broadcast read on state HF and VHF administrative nets. They may set policy and should be kept on file for future reference.

NOTE: ECOM broadcasts and RMD Bulletins will also be issued as necessary.

1-2.18. Digital Nets. Daily nets on both AMTOR FEC mode and MFSK mode are held at 1000 and 1900 ES(D)T on net TRR as propagation dictates. The net (TRR) begins on MFSK for the first hour (plus or minus) and then switches to AMTOR FEC, MT-63, PACTOR II and RTTY if necessary for the second hour. Stations check in from other Regions in the CONUS. These nets are classified as TRANSCON and are open to all MARS services. Frequencies used are TDB for mornings and TDC for evenings. The TDA frequency is used as an alternate. All nets are attended nets and are all called the TRR net (Transcontinental Radio Relay). The attending NCS will respond to any digital mode operated on the frequencies indicated. If any member does not have the MFSK (or whatever is being used at the time), the NCS may respond to voice USB to resolve any problems. Members interested in digital BBS operation should contact AFF#K. Changes in these schedules, frequencies and modes will be announced when and if necessary and may occur at any time. See detailed procedures in digital operations which are discussed later in another section of this manual.

1-2.19. Transmission Of Numbers And Spelling

1-2.19.1. **Transmission of Numerals.** The proword "FIGURE(s)" must precede numerals except in a few special cases (such as the date time group and in the group count). Numbers are transmitted digit by digit. For example: "127" is transmitted as "FIGURES ONE TWO SEVEN". In the case of mixed groups of figures and letters, the proword appropriate for the first character of the group will be used. For example: 6U8 is transmitted as 'FIGURES SIX UNIFORM EIGHT', whereas "A35" would be transmitted as "INITIALS ALPHA THREE FIVE."

NOTE: The use of words "ZIP" or "ZIP CODE" has been deemed unnecessary in message address transmission. In transmitting the address, only the proword "FIGURES" need precede the ZIP code. Do not say "ZIP FIGURES" or "ZIP CODE FIGURES."

NOTE: When giving the DTG always precede the group with the PROWORD "TIME." The proword 'FIGURES' is never used before the DTG. All figures are said phonetically. The month is NOT said phonetically. The year figures are said phonetically and given in four digits."

1-2.19.2. **Spelling.** Three steps are used for spelling words:

1-2.19.2.1. Pronounce the word.

1-2.19.2.2. Say "I spell" then spell the word phonetically.

1-2.19.2.3. Pronounce the word again.

1-2.19.3. Say the word: "SMITH" then: "I SPELL SIERRA MIKE INDIA TANGO HOTEL" then say: "SMITH" again.

1-2.19.4. Always spell names, addresses, and any unusual words. Try to anticipate problem words, and words which can be easily confused with others. When spelling a word, remember to give the receiving station time to catch up to that part of your traffic. It won't help very much if you are spelling a word at the end of a sentence while the receiving station is writing the first part of the sentence.

1-2.19.5. Occasionally spell a simple word out to allow the receiving station time to catch up, in case the receiving station is copying behind.

END OF LESSON 3