

USAF MARS

National HF Voice (TRANSCON) Operations Guide



30 December 2005

PREREQUISITE TRAINING

- On-the-Air Training—Operating as an Alternate or Assistant Net Control on the TRANSCON HF Voice Net with an experienced TRANSCON Net Control Station Operator

DOCUMENTATION

Trainees and instructors must have the documentation listed below, including all updates.

- USAF/MARS Operating Instructions
- USAF/MARS National Emergency Communications Plan
- USAF/MARS National Training Plan

GOALS AND OBJECTIVES

Net Control Station operators are vital to the successful execution of the USAF/MARS mission.

USAF/MARS is in business to handle messages. Whether the messages are priority emergency traffic, MARSgrams, or routine training traffic, our job is to process messages as expeditiously as possible.

USAF/MARS Net Control Station Operators must be able to:

- Serve as a model for MARS members to emulate in all aspects of MARS operations
- Open and close nets
- Direct traffic flow
- Take a Minimum of One Two Hour NCS Session per Week

In order to successfully complete this Net Control Station training, the trainee must demonstrate on-the-air ability to:

- Open a net on time and on frequency
- Acknowledge check-ins and list traffic
- Process all traffic listed on the net
- Conduct other net business
- Close the net

REQUIREMENTS FOR NET CONTROL STATIONS (NCS)

- 1). Aspirant Net Control Station (NCS) Operators must be willing to serve and commit the time and effort to run a two hour Net Control Session.
- 2). Aspirant NCS Operators must have a Personal Computer and an E- Mail Account capable of sending and receiving attachments.
- 3). New Net Control Station Operators must acquire and learn how to use the "MARSTIME" program for reporting Station Participation Times. Our NCS roster and participation has increased to the point that we have to use it for reporting. The Net Manager and Deputy Net Manager do not have the time to continue typing in the participation times manually for Net Control Stations. Using "MARSTIME" only takes a few keystrokes to create the necessary Participation Reports to accomplish this in a few seconds.
- 4). For training purposes an Aspirant Net Control Station (NCS) Operator should serve as Alternate to an experienced NCS Operator until the experienced NCS Operator feels that the Aspirant NCS Operator is ready to assume the duties of a Primary Net Control Station Operator. Also, the Aspirant NCS Operator should also feel comfortable enough to take on the duties of a Primary Net Control Station Operator.
- 5). Alternate Net Control Station (ANCS) Operators should be as far away from their Primary Net Control Station (NCS) Operators as necessary to maintain Continuous or Near-Continuous Communications between them. The preferred propagation between the Primary and Alternate Net Control Stations is Good & Readable to Loud & Clear; however, with propagation being what it is currently, fades to Weak & Readable will be adequate.

REQUIREMENTS FOR ALTERNATE NCS OPERATORS (ANCS) OR MONITOR STATIONS

- 1). USAF/MARS Operators serving strictly as Alternate Net Control Station (ANCS) Operators or TRANSCON Monitor Station (MONSTA) Operators will not be required to use MARSTIME for Net Participation Reports; however, they will be required/requested to send E-Mail Reports to their Primary Net Control Station (NCS) Operators for whom they are filling in or to the Deputy TRANSCON Net Manager.
 - a). These E-Mail Reports will include the following information on Participating Stations (along with the Date and NCS Session Times):
 - Station Call Sign, State, Inclusive Times/Total Participation Time:
 - b). The Primary Net Control Station (NCS) Operator or Deputy TRANSCON Net Manager will then be responsible for including these Participation Times with his/her own Monthly Report to the Net Manager and Deputy Net Manager.
- 2). Army MARS and/or Navy/Marine Corps MARS Operators who serve as Alternate Net Control Station (ANCS) Operators and who lose contact with the Primary Net Control Station during a particular NCS Net Session will be "requested" to send the same information to the Primary Net Control Station as indicated in Paragraph 1a above.

DUTIES/RESPONSIBILITIES FOR THE NET CONTROL STATION OPERATOR INCLUDE:

- Open and close nets on the correct frequency, at the scheduled times.
- Direct network activities in accordance with published USAF/MARS operational requirements.
- Initiate and terminate radio silence, as required.
- Limit transmissions to essential length.
- Expeditiously clear all traffic in the net.
- Resolve disputes incident to traffic handling and net procedures.
- Correct procedural discrepancies.

- As necessary, identify stations with email capability and directing actual incident EEI reports to these stations for immediate relay to the National ECOM Manager and/or the Director of Military Support (DOMS)
- Maintain a complete and accurate station log.
- Submit Net Participation Reports to the Net Manager and Deputy Net Manager by E-Mail.

TRANSCON NET CONTROL SESSIONS, NET TIMES & FREQUENCIES

- The TRANSCON Voice Net Operating Hours are from 1300Z through 2300Z Monday through Friday and 1700Z through 2100Z on Saturday and Sunday. Net Control Station Sessions are mostly Two Hour Sessions; however, on Thursdays there is a Four Hour Session (1700-2100Z) and on Fridays there are two Three Hour Sessions (1500-1800Z; 1800-2100Z).
- Extended Hours (after 2300Z and before 1300Z) are on an “as needed” basis during emergency situations (such as the Hurricane Season).
- TRANSCON Net Sessions start at one minute past the hour and end at 59 minutes past the hour for the specific Net Control Session. For Example, the 1300-1500Z Session begins at 1301Z and ends at 1459Z; the 2100-2300Z Session begins at 2101Z and ends at 2259Z; etc.
- TRANSCON Voice Nets are used for traffic, emergencies, and exercises.
- TRANSCON HF Voice Net Frequencies are shown in the USAF/MARS Frequency Listing in Attachment 9 of the National ECOM Plan 2005-1.

NETWORK OPERATIONS

- All TRANSCON Nets will be opened as directed nets, under the control of a Net Control Station (NCS).
- A Net Control Station is a station in a radio net designated to control traffic and be responsible for circuit discipline within a given net.
- Only MARS business is to be conducted on MARS nets. Our primary business is message handling, and that takes precedence over all other activities.
- Full call signs for both the net control station and net members are to be spoken phonetically on initial calls. Abbreviated call signs are not authorized.
- Addressing net members by name, after contact is established using full call signs, is authorized.

NET CALLS AND RADIO CHECKS

- Net Control Stations should make a Net Call for Additional Stations to check into the TRANSCON Voice Net at least every Ten Minutes.
- Net Control Stations should make Roll Call/Radio Checks every thirty minutes during their Net Sessions.
- Alternate NCS Operators may also make Net Calls at the direction of the Primary Net Control Station and/or assist in the Roll Call/Radio Checks.
- By Prior Agreement with the Primary Net Control Station Operator, *regularly scheduled* Alternate Net Control Station Operators may also make periodic Net Calls for Net Control.

STATION LOGS

- All MARS stations are required to keep a station log.
- It is particularly important for NCS operators to keep complete and accurate station logs so that monthly Net Participation Reports can be submitted to the Net Manager and Deputy Net Manager.

ESTABLISHING A TRANSCON NET SESSION

- 1). TRANSCON, TRANSCON, this is (Your Personal MARS Call Sign). Is there a Frequency Monitor Present? Over. (If a FYMON is present, have the FYMON set the frequency and continue).
- 2). TRANSCON, TRANSCON, this is (Your Personal MARS Call Sign), located (in or near the closest Metropolitan Area, Your State). This is a USAF Military Affiliate Radio Systems Net. Please Tune to my Count: ONE, TWO, TREE, FOUR, FIFE, SIX, SEVEN, EIGHT, NINER, ZERO. A Thirty Second Clear Period Follows for Transmitter Adjustment. Out.
- 3). TRANSCON, TRANSCON, this is (Your Personal MARS Call Sign), Net Control Station for the (insert the inclusive times: 1300-1500Z, 1500-1700Z, 1500-1800Z, 1700-1900Z, 1700-2100Z. 1800-2100Z, 1900-2100Z, 2100-2300Z, etc.) Session of the TRANSCON HF Voice Net.
This is a Directed Net and Stations will not transmit unless otherwise directed by the Net Control Station or his Alternate.
Be advised: Between Net Calls and Roll Call/Radio Checks, the Net Control Station or his Designated Alternate may announce FREE TIME to allow direct contacts between stations checked into the Net without going through the Net Control Station. Stations are reminded to keep their informal contacts under five minutes in duration and pause between contacts. FREE TIME contacts MUST NOT interfere with any Net Business.
All Stations Wait. Out.
- 4). TRANSCON, TRANSCON, this is (YOUR PERSONAL MARS CALL SIGN). Are there any Stations with PRIORITY Traffic? Over.
- 5). TRANSCON, TRANSCON, this is (YOUR PERSONAL MARS CALL SIGN). Are there any Stations operating on EMERGENCY Power? Over.
- 6). TRANSCON, TRANSCON, this is (YOUR PERSONAL MARS CALL SIGN). Are there any Mobile Stations to enter the Net? Over.
- 7). If this is the First NCS Session of the Day, skip to Paragraph “8)”, otherwise continue with 7a).
 - a). TRANSCON, TRANSCON, this is (YOUR PERSONAL MARS CALL SIGN). Stations continuing in the net from the Previous Session, please give your Call Sign, State, and list your traffic. Over.
 - b). TRANSCON, TRANSCON, this is (YOUR PERSONAL MARS CALL SIGN). Additional Stations to enter the net with or without Traffic, please give your Call Sign, State, and list your traffic. Over.
 - c). Go to Paragraph “9)”.
- 8). TRANSCON, TRANSCON, this is (YOUR PERSONAL MARS CALL SIGN). Stations to enter the net with or without Traffic, please give your Call Sign, State, and list your traffic. Over.
- 9). TRANSCON, TRANSCON, this is (YOUR PERSONAL MARS CALL SIGN). Are there any relays for stations wishing to check into the Net? Over.
- 10). TRANSCON, TRANSCON, this is (YOUR PERSONAL MARS CALL SIGN). No Stations Heard. We have No Traffic Listed. The Net is on Free Time. Out.

Note: The TRANSCON Net Preamble is available as a separate document upon request.

LISTING CHECK-INS AND TRAFFIC

Stations check into the net call in random order by transmitting THIS IS followed by a pause to ensure they are not interfering with another station, then transmit their call sign and state, list their traffic, and then say the proword OVER.

Example:

THIS IS <pause> AFA1LE, PENNSYLVANIA, NO TRAFFIC. OVER

THIS IS <pause> AFA2ZX, FLORIDA, ONE ROUTINE REGION ONE. OVER

THIS IS <pause> AFA4CU, TEXAS, NO TRAFFIC OVER

THIS IS <pause> AFA4LL, MISSISSIPPI, ONE ROUTINE FOR ROSWELL, NEW MEXICO. OVER

THIS IS <pause> AFA6PF, CALIFORNIA, REQUEST INFORMAL WITH AFA4CU. OVER

THIS IS <pause> AGA2PA, FLORIDA. NO TRAFFIC. OVER

THIS IS <pause> AFA1MM. OVER.

Net Control Station, AFA2DT, now calls the net to inform all stations that their transmissions have been heard and that their traffic, if any, has been listed.

Example:

TRANSCON, TRANSCON THIS IS AFA2DT. ROGER THE FOLLOWING STATIONS: AFA1LE; AFA2ZX, AFA4CU, AFA6LL, AFA6PF, AGA2PA. AFA1MM. OUT.

When members initially check into the net, they must always identify their traffic status, even if they list NO TRAFFIC.

If a member checks in and fails to list traffic or identify his/her state, the NCS will request that information by transmitting: <Member station call sign>, this is <NCS call sign>. List your traffic and state. Over.

Example:

AFA1MM, THIS IS AFA2DT. PLEASE GIVE YOUR STATE AND LIST YOUR TRAFFIC. OVER

AFA1MM would then answer:

THIS IS <pause> AFA1MM, NEW YORK. NO TRAFFIC. OVER

NCS would respond:

ROGER, AFA1MM, NEW YORK, WITH NO TRAFFIC. OUT.

Note: When Military Base Stations check into the TRANSCON HF Voice Net, the NCS should get the personal USAF/MARS Call Sign of the Station Operator for Participation Reporting.

Once initial check-ins have been completed, the NCS may ask for additional check-ins and/or relays.

For example:

TRANSCON, TRANSCON, THIS IS AFA2DT. ARE THERE ANY OTHER STATIONS THAT HAVE NOT BEEN RECOGNIZED OR ARE THERE ANY RELAYS FOR STATIONS CHECKING INTO THE NET? OVER.

If a station attempts to check into the net and is not clearly heard or recognized by the NCS, the NCS will transmit the most appropriate of the following examples:

TRANSCON, TRANSCON, THIS IS AFA2DT, CONFIRM YOUR CALL SIGN AS AFA6ES, OVER.

TRANSCON, TRANSCON, THIS IS AFA2DT, UNKNOWN STATION, PLEASE CALL AGAIN, OVER.

TRANSCON, TRANSCON, THIS IS AFA2DT, STATION WITH CALL SIGN AFA6?? (Say "question mark" on part not understood). PLEASE SAY AGAIN YOUR CALL, OVER.

TRANSCON, TRANSCON, THIS IS AFA2DT, PLEASE REPEAT TWICE YOUR CALL SIGN, OVER.

When the NCS cannot copy (hear) a station or stations, the NCS may ask for a relay.

Examples:

TRANSCON, TRANSCON, THIS IS AFA2DT, STATION NOT HEARD, DO I HAVE A RELAY? OVER

If a station is capable of providing a relay(s), then the relay station will say, for example:

THIS IS AFA4CU, RELAY, OVER.

The NCS will reply: AFA4CU, THIS IS AFA2DT, YOUR RELAY PLEASE, OVER

The relay station will give the call sign of the station(s) he heard by saying

THIS IS AFA4CU, I RELAY INTO THE NET AFA6ES, ARIZONA, OVER

After all relays are provided, the NCS will say:

THIS IS AFA2DT, ROGER BY RELAY AFA6ES, ARIZONA. THANKS FOR THE RELAY. OUT

Once stations are acknowledged and checked-in to the net, they are required to obtain NCS approval and directions to relay traffic, contact other stations, move to an alternate frequency or close their stations.

ALTERNATE NET CONTROL STATION (ANCS)

Immediately following initial check-ins, the NCS may assign an ANCS, if needed. If an ANCS has not been scheduled prior to the net, the NCS should appoint an Alternate NCS before any net business is conducted. If possible, the ANCS should be at a different geographical location than the NCS. The ANCS should be prepared to assume control of the net as directed by the NCS, or automatically, if the NCS is unable to continue due to technical difficulty or propagation conditions. The ANCS will remain operational until the net is closed or until released by the Primary Net Control Station.

TRANSCON MONITOR STATIONS (MONSTA)

Some USAF/MARS, Army MARS, and Navy-Marine Corps MARS stations regularly monitor the TRANSCON Calling Frequency (TVE) during the day when TRANSCON Net Sessions are scheduled. When the scheduled Net Control Station is not on-the-air or is not readable and an Alternate Net Control Station has not picked up the Net, TRANSCON Monitor Stations may make note of MARS Stations who attempt to check into the net and should contact with those stations. The TRANSCON Monitor Stations will then record the stations checking in along with their inclusive participation times and send EMAIL Reports to the TRANSCON National HF Voice Net Manager and Deputy Net Manager for inclusion in their Monthly Participation Reports.

CLEARING TRAFFIC

All TRANSCON National HF Voice Nets are established as formal, directed nets. Informal contacts between net members can be listed when checking-in or at any time during the net. Informal contacts are not allowed during the formal traffic-handling portion of the net. Informal contacts will be handled only after all traffic and training is completed. Contacts, whether formal or informal, are limited to MARS matters.

When all check-ins have been acknowledged and traffic listed, the NCS operator will commence to clear traffic in order of precedence and time of listing. Traffic is cleared in the following order:

Priority (“P”)—such as Actual Event EEI Reports or other Priority or Higher Precedence Messages

Routine (“R”)—such as Exercise EEI Reports and Morale & Welfare MARSGRAM Messages

Example:

AFA2ZX, this is AFA2DT, call AFA1LE for Readability Check. OUT.

After AFA2ZX gets a favorable Readability Check from AFA1LE, Net Control AFA2DT will send the two stations to the Traffic Frequency (TVF), as follows:

AFA2ZX, this is AFA2DT, Net Control Station. Please change to TVF to pass traffic to AFA1LE. Out.

Both AFA2ZX and AFA1LE change to frequency TVF. The two stations check readability on TVF and, if favorable, AFA2ZX passes his traffic to AFA1LE. After passing the traffic, both stations report back to the Net Control Station on the Calling Frequency (TVE).

AFA2DT, this is AFA1LE back on frequency. Over.

AFA2DT, this is AFA2ZX back on frequency. Traffic complete. Over.

Net Control Station AFA2DT will then acknowledge the two stations back on frequency and that the traffic is complete. The Net Control station will also clear the other traffic by sending the appropriate stations to the Traffic Frequency (TVF) to pass the traffic or instruct them to send the traffic on the Calling Frequency (TVE). If the traffic load is light or if readability conditions are poor, the Net Control Station may have the traffic handled on the Calling Frequency.

BULLETIN MESSAGES

Electronic Mail (E-Mail) and Digital Radio (TRANSCON Pactor Net) are the preferred modes for distributing TRANSCON Voice & Digital Bulletins and ECOM Bulletins from the National Net Managers (AFN3AT—TRANSCON Digital; AFN4VN—TRANSCON Voice; and AFN1EC—ECOM Bulletins) to the USAF/MARS Members. However, when appropriate, these Bulletins are also to be read on TRANSCON HF Voice Frequencies during regularly scheduled TRANSCON Net Sessions,

If bulletins are read (at reading speed) over the TRANSCON Voice Net, it should not be necessary for stations to individually acknowledge them. The station reading the bulletins should ask if anyone needs fills.

Example: "THIS IS (sender call sign), DOES ANY STATION NEED FILLS, OVER?" The word "Fills" is an abbreviated way to ask if anyone needs the NCS to "fill in" what the member did not copy in the transmission. Asking only for fills will save time needed for training, passing traffic and providing other information on the nets. The NCS does not necessarily give the fills. The station sending the message or giving the information would give the fills.

There may be times, such as during emergency operations, when bulletins must be copied. In this case the message will be read at copying speed, as with any other traffic message.

DECLARING “FREE TIME” ON THE TRANSCON HF VOICE NET

After all traffic has been cleared or if no traffic is listed, the NCS may open the Net for FREE TIME between Net Calls and Roll Call/Radio Checks by transmitting one of the following:

TRANSCON, TRANSCON this is <NCS call sign>. No Additional Stations Noted. We have no Traffic Listed. The net is now on FREE TIME. Out.

Example:

TRANSCON, TRANSCON, THIS IS AFA4CU. NO ADDITIONAL STATIONS HEARD. WE HAVE NO TRAFFIC LISTED. THE NET IS ON FREE TIME. OUT.

Notes:

- The TRANSCON HF VOICE NET is NOT a Free Net. At the discretion of the Net Control Station Operator, the NCS may allow FREE TIME during his/her Net Session.
- FREE TIME allows stations to contact one another directly for short contacts without going through the Net Control Station, but ONLY at times when the Net Control Station has announced FREE TIME.
- If during FREE TIME, a station checks into the net WITH TRAFFIC, the Net Control Station will acknowledge the station and then clear the traffic before putting the net back on FREE TIME.
- Net members who have requested contact with another station on the net may do so at the direction of the Net Control Station or may do so during announced FREE TIME

CLOSING TRANSCON NET SESSIONS OR CLOSING THE TRANSCON VOICE NET

The Net Control Station will close the net session by transmitting the following:

TRANSCON, TRANSCON, this is <NCS call sign>, this session of the TRANSCON Voice Net is closed

The Net Control Station will close the net by transmitting the following:

TRANSCON, TRANSCON, this is <NCS call sign>. The TRANSCON Voice Net is closed. Out.

Examples:

TRANSCON, TRANSCON, THIS IS AFA4CU. THIS SESSION OF THE TRANSCON VOICE NET IS CLOSED. OUT

TRANSCON, TRANSCON THIS IS AFA2DT. THE NET IS CLOSED. OUT

//signed//

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//signed//

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