

Section II

Voice Net Control Training Guide

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Preface

To all MARS members:

Every USAF MARS member who has completed training is assumed to be capable of being a Net Control Station (NCS) whether or not they have completed a formal NCS training course. It's actually not that difficult to be an NCS – after you conquer the nervousness, you probably may find it more enjoyable to be an NCS than to sit and listen to static for the entire scheduled net time.

There are ample opportunities to practice your skills as an NCS. You do not have to commit to being an NCS every week.

Occasionally, the scheduled NCS will have conflicts that prevent him/her from being present for a scheduled net. Why not volunteer to pick up the net on those occasions?

The scheduled NCS for a multi-hour net might appreciate a break from the NCS duties. Why not offer to relieve the NCS – even if it is only for a fairly short period of time?

The best way to hone your NCS skills is through practice. As your skills grow you may find that you really enjoy being an NCS. When that happens, contact the Net Manager and discuss the possibility of becoming the scheduled NCS for a specific net.

LISTEN, LISTEN, LEARN IS GOOD ADVICE!

On the nets you will pick up useful information and observe procedures and duties of the NCS, but be careful that this information and procedures are correct. When in doubt, ask someone like your Training Director, State MARS Director (SMD) or a Area/Region official. Remember, we are all here to assist you in any way we can.

“There is no such thing as a dumb question!” The only dumb question is one that is not asked.

FROM YOUR DIRECTOR AND TRAINING DIRECTOR

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INTRODUCTION

On 22 Nov 2007 the Chiefs of Air Force, Army and Navy-Marine Corps MARS promulgated a document entitled *Standard Operating Procedure for Calling and Operating a Voice Net* (generally referred to as the “*Voice SOP*”) setting forth the procedures that would be required to be used on MARS nets as of 01 Jan 2008. The *Voice SOP* supersedes the previous procedures for all Air Force, Army and Navy-Marine Corps MARS voice nets. A copy of the *Voice SOP* may be found in Attachment 6.

The purpose of the *Voice SOP* is to provide a set of standard procedures that will serve to encourage and support interoperability among the various MARS services. Having standardized procedures allows stations from one MARS service to participate in nets hosted by another MARS service without requiring additional training on the “unique” procedures of the host service. Such interoperability is not only desirable but may be crucial when fulfilling the role of providing emergency communications support.

It is assumed that every MARS member who has completed training is capable of performing the duties of the Net Control Station (NCS). You may choose to volunteer to perform the NCS function or you may be assigned, at any time, to perform the duties of NCS. Thus it is important that you are familiar with the procedures in the *Voice SOP*. This guide only summarizes the most common NCS functions. The *Voice SOP* details additional possible NCS actions such as imposing SILENCE, directing use of FULL and ABBREVIATED PROCEDURE, etc.

To minimize confusion, this manual will use the same terms and substitutions as in the *Voice SOP*:

1. A1B2 is a sample net designator
2. NCS is the net control station (this would be substituted with the net control’s actual call sign)
3. FRQ1 represents a frequency designator
4. AAA, BBB, CCC, etc represent stations on the net. (**Note:** these are not abbreviated call signs. Abbreviated call signs are not authorized on USAF MARS nets.).

GENERAL OPERATING PRINCIPLES

All USAF MARS are directed nets unless declared otherwise by the NCS. This means every station must have NCS permission to transmit.

Nets are under the direct and immediate control of the net control station (NCS). The NCS is responsible to maintain net discipline and to ensure that all stations are operating within prescribed frequency tolerance.

It is often expedient to have an Alternate Net Control station (ANCS) assigned in advance, or for NCS to designate an ANCS station at the start of the net. The NCS could suddenly, and without warning, be gone from the net.

Stations must first be checked into a net before they may conduct any business on the net.

Once checked in stations are expected to maintain constant watch on the net, be prepared to respond when called, and be prepared to receive traffic at any time. Stations are expected to remain for the duration of the net unless granted permission by NCS to close down sooner.

Superfluous wording must be eliminated from transmissions. Stations are expected to use prescribed procedures at all times. Transmissions shall be short and concise, consistent with clarity.

Stations will use only authorized prowords and in accordance with their proper meaning only.

Stations should not expect pleasantries or unnecessary explanations during a directed net. The use of personal names is not authorized while a net is in a formal status.

Record traffic must first be listed with the NCS, shall be passed to another station only at the direction of NCS, and only when the net is in directed net status.

PRIOR TO OPENING THE NET

Check In of ANCS

If ANCS(s) are assigned for the upcoming net, the NCS will call each in order to determine readability and traffic status: e.g.

BBB THIS IS AAA, RADIO CHECK, LIST YOUR TRAFFIC, OVER

BBB would respond to the Radio Check and traffic listing: e.g.

THIS IS BBB, LOUD AND CLEAR, NO TRAFFIC, OVER

And AAA will acknowledge: e.g.

THIS IS AAA, LOUD AND CLEAR, ROGER, OUT

And then proceed to call other assigned ANCS(s).

If no ANCS is assigned for the net or the NCS is unable to contact assigned ANCS(s), the NCS will appoint ANCS(s) after opening the net. See “**Appointing an ANCS**” on page 5.

OPENING A NET

Every net has a net designator as determined by type, administrative level, and location of the net. The net designator not only identifies a specific net, it also serves as a special case of collective call sign representing all stations checked into a net, or wishing to check in.

NCS will make sufficient call ups at the start of the net in an effort to capture all the stations wishing to check in. NCS then proceeds with handling listed traffic, then any other net business and comments between stations. Training should be conducted as required, or as directed by competent authority. Training will always be done with the net in directed net status.

Frequent call ups are important throughout the net.

At the designated time the Net Control Station (NCS) will call the net as follows:

Conditions good: NCS starts the net with a call up by transmitting:

A1B2, A1B2 THIS IS NCS OVER

Note: The net designator is stated twice only in the first call up. This call up serves multiple functions. It announces the net, puts the net in directed net mode, and authorizes stations to transmit for such purposes as checking in and listing traffic.

Conditions Poor: When conditions are poor NCS will transmit the call up using words twice, without use of the proword WORDS TWICE. e.g.
A1B2, A1B2 THIS IS NCS, NCS OVER

Subsequent call ups are made as follows:

Conditions good: A1B2 THIS IS NCS OVER

Conditions poor: A1B2, A1B2 THIS IS NCS, NCS OVER

Note: It is good practice to give the NCS call sign and net designator in full phonetics on all net calls.

Stations wishing to check in do so.

NCS must acknowledge all check ins. This should be done in the order stations checked in. NCS transmits:

AAA, BBB, EEE, CCC, GGG THIS IS NCS, ROGER, OUT

If NCS did not fully hear a station, example CCC, NCS withholds acknowledging that station, finishes the remainder of the acknowledgements, then transmits:

CCC THIS IS NCS, SAY AGAIN OVER

If NCS heard a station but did not hear the call sign, or only part of the call sign, NCS transmits an unknown station call up. Note that only stations who attempted check in, but were not acknowledged are authorized to transmit at this time. NCS transmits:

UNKNOWN STATION THIS IS NCS, OVER.

If necessary, NCS may call another station on the net to relay an unknown station's transmission.

If NCS hears no stations during a net call, he/she may transmit: e.g.

THIS IS NCS, NOTHING HEARD OUT

and continues conducting net operations.

Limiting Check-ins

It may be desirable on larger nets to limit check-ins by type or geographic area. This must be approved for each net or series of nets (e.g. all Region ECOM nets) by the respective director or Chief MARS (authority to approve may be delegated if authorized by the respective Chief MARS).

These check in limiters shall not be used except where a large number of check-ins is anticipated and their use serves to help reduce doubling, save air time, and minimize confusion. Their use, when authorized, is not mandatory, unless so prescribed by competent authority. They exist as a tool to aid NCS in maintaining net control and discipline. Only authorized phrases shall be used to modify the call up process.

Each subsequent call up may use a different limiter, such as calling for stations one state at a time. Use of a limiter does not require that NCS always use limiters on every call up. This should be based on a logical balance of the extra air time required versus the benefit of reducing problems.

The limiting call up would be:

A1B2, A1B2 THIS IS NCS, (insert phrase here) OVER

The following are authorized phrases to limit check-ins and would replace the "insert phrase here" in the above call up.

- STATIONS WITH RECORD TRAFFIC ONLY
- STATIONS WITH PRIORITY TRAFFIC ONLY (this would include any traffic of higher precedence. May be used in combination with a geographic area, example DADE COUNTY FLORIDA STATIONS WITH PRIORITY TRAFFIC ONLY)
- ALL NEW YORK ARMY MARS STAFF ONLY (substitute Navy or AF as appropriate. Replace "NEW YORK" with any logical MARS administrative or operational zone such as Region Five, or Central Area)
- ALL ALABAMA STATIONS (substitute ALABAMA with any generally understood geographic area including, but not limited to, state, county, borough, or city)
- ALL STAFF REGION ONE (this could be further limited by requesting only ECOM staff, only training staff, or any logical limitation of station type); or,
- by use of a collective call sign if that is most expedient.

FREE AND DIRECTED NET STATUS

All nets will always begin in directed net status. This means every station must have NCS permission to transmit. Record traffic may only be passed when the net is in directed net status.

After all traffic, training, and net business has been handled NCS may put the net into Free Net status if Free Net is authorized by transmitting e.g.

A1B2 THIS IS NCS THE NET IS FREE OUT

Free Net means stations may contact each other directly without prior permission of NCS. A station may exchange informal comments with another station with the following limitations:

- (1) All comments must, in some way, relate to MARS business or the mission of MARS;
- (2) Comments need to be brief, consistent with clarity.
- (3) Stations must pause between turnovers in transmission to allow for another station to break in.
- (4) NCS may interrupt an exchange at any time and stop the exchange by calling a directed net.

The NCS may return the net to directed status by transmitting: e.g.

A1B2 THIS IS NCS THE NET IS DIRECTED OUT

or by making a net call: e.g.

A1B2 THIS IS NCS OVER

ABBREVIATED CALL SIGNS

Abbreviated call signs are not authorized on USAF MARS nets.

ALTERNATE NET CONTROL STATION (ANCS)

It is often expedient to have an Alternate Net Control station (ANCS) assigned in advance, or for NCS to designate an ANCS station at the start of the net. The NCS could suddenly, and without warning, be gone from the net.

The primary duties of the ANCS are:

- Serve as a back up to the NCS by logging check ins
- Assume NCS duties if the NCS is gone from the net
- Other duties assigned by the NCS

Appointing an ANCS

An NCS may appoint any station checked into the net as an ANCS. Usually this appointment should be made fairly early in the net to maximize the availability of the ANCS. To appoint BBB, for example, as an ANCS the NCS would transmit: e.g.

BBB THIS IS NCS, ASSUME ALTERNATE NET CONTROL OVER

To which BBB would respond: e.g.

THIS IS BBB, WILCO OVER

And NCS will confirm with: e.g.

ROGER OUT

Note: The appointment as an ANCS is a directive of the NCS rather than a request. Stations refusing to accept appointment as an ANCS must provide justification why he/she can not accept the appointment.

CHANGING NET CONTROL STATION

Occasionally it may be necessary or desirable to transfer net control to another station. This could be for a brief period or for the duration of the net. Assuming CCC is NCS and wishes to transfer control to AAA:

AAA THIS IS CCC, ASSUME CONTROL, OVER

CCC THIS IS AAA, ROGER OUT.

AAA is now NCS. AAA will immediately make a call up

A1B2 THIS IS AAA, OVER

This notifies the net that AAA has assumed control, puts the net in directed status, and authorizes stations to check in or otherwise contact NCS.

Variations could include some instruction from NCS to AAA such as:

AAA THIS IS CCC, ASSUME CONTROL FOR 10 MINUTES, OVER, or

AAA THIS IS CCC, ASSUME CONTROL UNTIL (state a time), OVER

When CCC returns and wishes to resume control CCC will, at a call up or on a free net, transmit:

AAA THIS IS CCC I ASSUME CONTROL, OVER

At this point AAA will acknowledge CCC and notify CCC of any changes in net status, new traffic listings, traffic passed, and stations that checked in or closed down while AAA was net control. CCC will acknowledge this information then make a call up. (It is never acceptable for CCC to tell AAA, "I was monitoring the entire time and have all the information." This does not confirm to AAA that CCC in fact does have all the information.)

Loss of NCS

It may happen that NCS suddenly, and without warning, disappears from the net. This could be due to equipment failure, power outage, sudden change in propagation, or any number of reasons. If an ANCS has been assigned in advance and he or she suspects something has happened to NCS, that station will first attempt to contact NCS. If no contact is made ANCS will ASSUME CONTROL, make a call up, and proceed as outlined above. If no ANCS has been designated any station who hears the net well shall assume NCS duties.

PASSING TRAFFIC

When ready NCS will call stations to pass their traffic based on the precedence of each message and the availability of addressee(s) or another station to relay that traffic. NCS will then direct the holding station on how to proceed.

Example A:

AAA THIS IS NCS, CALL BBB PASS ONE PRIORITY SAA OUT
BBB THIS IS AAA, ONE PRIORITY OVER

Assuming BBB copies AAA well, he/she sends

AAA THIS IS BBB, OVER

THIS IS AAA MESSAGE, RELAY PRIORITY (continue with the message header and text, pausing approximately ever 20 seconds to allow for a station with higher precedence traffic to break in.)

AAA ends his/her transmission with
OVER

or in the case where there are additional messages to send to this station,
MORE TO FOLLOW, OVER

Assuming BBB copied the message completely and does not need repetitions he sends

THIS IS BBB, ROGER OUT

Or, to accept another message

THIS IS BBB, ROGER OVER

Example B:

If BBB does not copy well he must notify AAA of the problem using correct radio check prowords

AAA THIS IS BBB, WEAK READABLE, OVER

Or

AAA THIS IS BBB, UNREADABLE, OVER

BREAKING THE NET

A station may interrupt the current flow of communications on a net if he or she has a communication of higher precedence which must be conveyed as quickly as possible. Such communications includes:

- (a) record traffic of a higher precedence than the traffic being passed;
- (b) non-record traffic communication for one or more stations that is urgent, time sensitive, and may impact the safety of persons or property.

The station wishing to break the net should wait for the next natural pause in the communication currently taking place; preferably waiting for the end of that communication. The content of the breaking station's communication should be the determining factor for establishing urgency, not simply that the station has, for example, a PRIORITY precedence message and a ROUTINE message is currently being sent. Breaking the net is a rare event. Normally, waiting a minute or two is not going to make a difference. If the breaking station knows the current communication is lengthy or several messages are going to be sent then interrupting may be necessary.

EXAMPLE:

When a station has determined it is essential to break the net he or she shall wait for a pause in the current transmission. He or she will then transmit the precedence of his/her traffic three times, e.g.:

PRIORITY, PRIORITY, PRIORITY (pause) NCS, THIS IS AAA, OVER

(The pause is to see that the other station has heard and is not continuing his or her transmission.)

NCS will transmit:

AAA, THIS IS NCS, OVER

AAA will then list his or her traffic or reason for breaking the net.

If it is evident that NCS does not hear the breaking station any station on the net may relay by calling NCS and advising him or her of the breaking station. This should normally be one of the stations being interrupted. If NCS hears the breaking station, but it appears the station currently engaged in communications did not, NCS will acknowledge the breaking station by transmitting

AAA, THIS IS NCS, WAIT OUT

NCS will then take steps to regain control of the net.

NET CONTINUITY CHECK (Roll Call/Radio Check)

On most nets, with a duration of longer than one hour, the NCS may hold a Net Continuity Check. The purpose of the Net Continuity Check is to ascertain propagation conditions between the NCS and those stations checked into the net. This consists of a roll call of the stations checked in. Stations's response will be a Radio Check. (MARS term for signal report). The NCS will announce that a Roll Call will follow and then proceed calling each station by their call sign only. Stations called will answer with an abbreviated call and a Radio Check: e.g.

THIS IS AFA3AA LOUD AND CLEAR OVER

Other Radio Check reports are —

GOOD AND READABLE

WEAK BUT READABLE

WEAK BARELY READABLE

WEAK UNREADABLE

Note: Do not include phrases such as “I have you”, “You are”, “Your signal is”, etc.

Roll Calls are held at the discretion of the NCS but usually not more than once an hour. On traffic nets of two hour duration roll is called approximately 5 minutes into the second hour. If the NCS for a one hour net chooses to make a Roll Call, this Roll Call will usually be at the half-hour.

CLOSING DOWN THE NET

At the appointed time for a net to end, and NCS is satisfied that all traffic has been handled, NCS will close the net as follows: e.g.

A1B2 THIS IS NCS, CLOSE DOWN, OUT

It is imperative that NCS be aware whether a net is authorized to continue on past the designated end time. If it is not, NCS must arrange with stations holding traffic to dispose of that traffic on another net. This must be done well enough in advance of net end time to adequately take care of this business.

In some cases NCS may be authorized to close down a net before the designated end time. For example, B1C3 net is assigned a one hour slot, but is authorized to close down after 30 minutes of operation if there is no further traffic or business to handle.

Once the net is closed down no further transmissions are authorized.

REPORTING NET ACTIVITY

It is the duty of the NCS to report the activity of his/her net including:

- stations that checked into the net
- actual time each station participated in the net
- traffic handled on the net

The routing of net reports varies from USAF MARS area/region to area/region. Contact your Region or Area Records Manager for guidance as to format and routing.