Alabama MARS
New Member Guide
August 2009

INTRODUCTION.
This Guide is not intended to replace any existing instruction or manual. It is rather a method of giving help, early on in the experience of the new MARS member. Hopefully, it is in an easy to understand language. Frequent reference to extant instructions are encouraged and is a must in order to become fully qualified. Each member's personal goal should be to become well qualified as a military communications operator (ref: NTP 8(D) para 106.b.(5)).

SOURCES OF INFORMATION.
Navy-Marine Corps MARS Communications Instructions NTP 8(D)
Central Area Operations Guide
Alabama Net Operations Guide
The MARS Operator (correspondence course)
General messages:
      Chief MARS (sample title: CHNAVMARCORMARS BCST 11-Ø4)
      Director, Region Four (sample title: REGION FOUR BCST Ø1/Ø6)
      Alabama State Director (sample title: ALABAMA BCST Ø9/Ø5)
Each member is urged to read, maintain and update as appropriate, each of these items to the best of his ability, making changes as they are issued. Refer frequently to these sources. Each new member is required to act as Net Control Station three times before dropping his temporary status.

An Alabama MARS member has been assigned to you as your "Elmer." That member stands ready to help with your questions. It is your duty to ask for the help you need.

STRUCTURE OF MARS.
There are three MARS organizations: Army, Air Force and Navy-Marine Corps. Messages are sometimes interchanged between the various organizations under the interoperability arrangements set forth in NTP 8(D), Annex J. Unless specifically noted to the contrary, any mention of MARS in this document refers to Navy-Marine Corps MARS.

Navy-Marine Corps MARS is divided into Areas, Regions and States. Each Area consists of several Regions and each Region consists of several States. We are located in the Central Area, Region Four which is comprised of the states of: AL, FL, GA, KY, MS, NC, SC, TN, and Puerto Rico/Caribbean Area. Our State of Alabama not only covers the state of Alabama but also includes northwest Florida (that section of FL in the Central Time Zone). In this Guide 'Alabama' or 'State' refers to this MARS combination of the state of Alabama plus northwest Florida.

The chain of command (top down) begins with Chief MARS, NNNØASA, whose radio station

has the call sign NAV. He has a number of assistants with various call signs. The second level of command is Director, Central Area, NNNØASG, whose radio station has the call sign of NAV FOUR. Again there are a number of assistants to the Area Director with call signs as prescribed in NTP 8(D) paragraph 223. The third command level is Director, Region Four, NNNØAS4, who has assistants similar to those of the Area Director. The fourth command level is the State Director, NNNØGAA, whose radio station's call sign is that of the individual member who fills the position of State Director. The State Director also has staff assistants with call signs similar to those of the Area and Region Directors. For example, NNNØGAA TWO is the Assistant for Emergency Communications; NNNØGAA FOUR is the Assistant for Training; etc. When communicating, always begin at the lowest possible level of the chain of command. For more information see NTP 8(D) Chapter 2 and Annex K, and the Central Area Operations Guide, Annex A.

MESSAGE LIMITATIONS AND ELIGIBLE MARS USERS.

Messages include: administrative traffic between MARS members, official or quasi-official military traffic, drill or emergency traffic, and personal messages (MARSGRAMS - sometimes referred to as "third-party" messages). MARSGRAMS may be sent by: active duty, reserve and retired military personnel and their dependents; patients and staff of VA hospitals; DoD employees; MARS members; and, persons receiving a MARSGRAM may send a reply. MARSGRAMS must be in English and contain not more than 50 words in the text. Personal messages relating to military operations, legislative or political matters or to business (commercial) matters are forbidden as are initial notification messages concerning a death in the immediate family or of a person in *loco parentis*. Death notification messages of other persons should be sent to the military person's commanding officer, OINC or chaplain (ref: NTP 8(D) para 540). Contents of messages must not be revealed to unauthorized personnel.

MARS FREQUENCIES.

The terms dial frequency and assigned frequency often cause some confusion. The Navy has long operated on the premise that all transmissions are centered on the assigned frequency. During the days of AM the situation took care of itself. Then came SSB with its emission on only one sideband (upper sideband for MARS). In order to center this transmission on the assigned frequency the operator has to shift his dial to a slightly different frequency. As the Navy assumes 3 kHz as the typical voice range, the operator has only to shift down half that amount, 1.5 kHz. His dial now reads 1.5 kHz less than the assigned frequency.

When operating in a digital mode, new figures creep in. For example, the PK 232 multi-mode controller has a center frequency (between the tones) of 2110 Hz. Therefore if the operator shifts his dial down (again operating on USB) 2.11 kHz, the ensuing transmission will be centered on the assigned frequency. It is entirely possible for a TNC to operate with a different frequency as long as the shift between the tones remains about 170 - 200 Hz. In that eventuality, each operator will have to calculate his own shift from assigned frequency. Standard practice is to announce or publish the assigned frequency (not the "dial" frequency).

You should note that in MARS the operator does not operate within a band of frequencies as in the amateur radio service. We operate on specific military frequencies outside of the amateur bands. A permissible margin of error exists, a tolerance one must not exceed. Operating on a frequency below 30 MHz at 100 watts power (typical), there is an allowable error of plus or minus 20 Hertz (B521, NTP 8(D)). MARS practice is for the Net Control Station (NCS) to establish the correct frequency and ensure that net stations conform to it. See NTP 8(D) Annex B for a more thorough discussion on this subject.

For security purposes MARS frequencies are not transmitted in the clear on the air nor published in any documentation not protected in some way from access by the general public. MARS frequencies should not be disclosed to anyone not in the MARS program. In order to transmit frequencies on the air or publish them in generally available documentation, MARS of all services use a frequency matrix unique to that service MARS. These matrices give an alpha or alphanumeric group for each MARS authorized frequency.

LOGGING.

You are required to keep a log of all on-air MARS activity. As a minimum this log should contain the following: date and time in Zulu time (Coordinated Universal Time (UTC)), call sign of the net control station (NCS), frequency of operation, net designator, ending time of the net, and a record of any traffic handled.

PREPARATION FOR THE FIRST NET.

PROWORDS have a special meaning and are used carefully and specifically to make communications easier. You should be a frequent reader of Annex C of NTP 8(D), OPERATING SIGNALS PROSIGNS AND PROWORDS. Voice communications use PROWORDS, digital communications use PROSIGNS

It is frequently necessary to spell words phonetically when communications are difficult. Learn the phonetic alphabet (ref: NTP 8(D) para 642). No other phonetic substitutes are acceptable!

As you have noticed, Navy-Marine Corps MARS call signs begin with "NNNØ" and end in three letters. In addition a new member carries an extra letter, a "T" as a "Tango" member. Once the membership is permanent, the T is dropped. The call sign NNNØBADT would be spoken on the air as, "En En En Zero Bravo Alpha Delta Tango." Note that only the letters following the zero are pronounced phonetically. It will help you to say your call sign a number of times so that you are very accustomed to it.

Equipment must be checked to be certain that the net frequency can be tuned. Your equipment is no better than your antenna. Do not ignore it! A horizontal wire is recommended, preferably as long as one-half wave length for the lowest frequency. The antenna need not be mounted especially high; 10-15 feet up at the ends and 15-20 feet at the feed point is quite satisfactory. Some type of tuner is almost mandatory in order to allow you to tune-up on several frequencies.

The Alabama nets meet at 0700 and 2100 (local time) each day. You should be tuned up (with minimal power while tuning) prior to the net time; do not tune up on an active net (see NTP-8(D) para 509 for other forbidden practices). You are reminded that your application to MARS included the assertion that you could operate voice SSB on at least two HF MARS frequencies. It would also be to your advantage to have AMTOR, PACTOR and MT-63 capability. Information on these digital modes is available on the Alabama NAVMARCORMARS web site at http://www.navymars.org/central/reg4/al.

CHECKING INTO A NET.

At the beginning of a net the Net Control Station (NCS) will give instructions and ask for some special stations to check in. Then the NCS will ask for stations with traffic to check in and finally, any other stations. You will probably fit in the last category of stations. If you have a message to send, you should check in with the second group. If the NCS is NNNØBIG and your call sign is NNNØHIM, you would check in as follows:

> EN EN EN ZERO BRAVO INDIA GOLF (pause to listen for another station talking; if none, proceed) THIS IS EN EN EN ZERO HOTEL INDIA MIKE, MYTOWN, NO TRAFFIC, OVER.

The prior check in assumes you have no message to send and have only voice capability. If you had a message and MT-63 capability, your check in might go like this:

> EN EN EN ZERO BRAVO INDIA GOLF (pause) THIS IS EN EN EN ZERO HOTEL INDIA MIKE, MYTOWN, MT-63. I LIST ONE ROUTINE ANNISTON, SIERRA CHARLIE DELTA (Single Channel Data, if you are prepared to send the message by some digital mode)

The first part of the net will be a directed net. That means that a station may transmit only when directed to do so by the NCS. The NCS will usually announce "abbreviated call signs are authorized." Then you should use just the last three characters of your call sign - HOTEL INDIA MIKE - and the last three characters of the call sign of the station you call. After the directed net the NCS may announce a Free Net. This means you may call another station without the permission of the NCS, but you must use full call signs during the Free Net period. Also, NCS will always use his/her full call sign and you must always use the full call sign of NCS (ref: NTP 8 (D) para 731).

In MARS, procedure is tighter than in the ARS. When calling another station, say his call sign , then your call sign "THIS IS NNNØHIM (or your abbreviated call sign), OVER." Once contact has been established with the other station you may simply begin your transmission with "THIS IS NNNØHIM," omitting his call sign . Each transmission must start with your call sign and be ended with either an OVER or an OUT. OVER indicates you expect him to reply to you; OUT indicates that your present contact with the station is concluded.

Two other prowords frequently used are ROGER and WILCO. ROGER simply acknowledges the transmission was received by you. It does *not* mean yes. WILCO includes the meaning of ROGER and further indicates that you will comply with the request.

An example of a typical MARSGRAM (often called 'third-party') follows. Note its content and format. Line numbers are shown to explain contents.

```
R 271346Z FEB 2ØØ6                                    1
FM LT GEORGE SMITH PENSACOLA FL/NNNØNIG AL            2
TO MRS MARY SMITH                                     3
233 N MAIN ST                                         4
VILLAGE AL 36611                                      5
3Ø6-212-3467                                          6
BT                                                    7
UNCLAS                                                8
EXPECT TO ARRIVE AT NINE TUESDAY MORNING              9
BT                                                    10
```

Explanation of message lines follows (ref: NTP 8(D), paragraphs 603 and 604):

Line 1: R means routine precedence. The next series of numbers indicates a Date-Time-Group (DTG) of the 27th of the month, 46 minutes past one p.m., Universal Time, in Feb. of 2ØØ6. It would be assigned just prior to the originator's transmission of the message.

Line 2: the From line: title, full name, and city/state or locale of the sender and the call sign of the originating MARS station with its State or locale.

Line 3: the To line: title and full name of message recipient.

Line 4: street address or post office box of the recipient

Line 5: city, state and zip code of recipient

Line 6: telephone number including area code of recipient

Line 7: and 10: BT, pronounced "break" sets off message text

Line 8: unclassified, but written and spoken as "unclas"

Line 9: actual text of message

Let us suppose the NCS directs NNNØAAA to send this message to NNNØBBB for delivery to the ADDEE. The NCS has authorized abbreviated call signs. The following would ensue:

```
BRAVO BRAVO BRAVO THIS IS ALPHA ALPHA ALPHA, ONE ROUTINE, OVER

ALPHA ALPHA ALPHA THIS IS BRAVO BRAVO BRAVO, OVER

THIS IS ALPHA ALPHA ALPHA, MESSAGE FOLLOWS. RELAY, ROUTINE, TIME
TWO SEVEN ONE THUHREE FOUR SIX ZULU FEBRUARY TWO ZERO ZERO SIX.
FROM LIEUTENANT GEORGE SMITH PENSACOLA FLORIDA SLANT EN EN EN
ZERO NOVEMBER INDIA GULF ALABAMA. TO MRS. MARY SMITH FIGURES TWO
THUHREE THUHREE NORTH MAIN STREET VILLAGE ALABAMA FIGURES THUHREE
SIX SIX ONE ONE FIGURES THUHREE ZERO SIX DASH TWO ONE TWO DASH
THUHREE FOUR SIX SEVEN. BREAK. UNCLAS. EXPECT TO ARRIVE AT NINE
TUESDAY MORNING. BREAK. OVER.

THIS IS BRAVO BRAVO BRAVO, ROGER, OUT.
```

If BBB does not receive the message perfectly, he must request repetitions from AAA, using such Prowords as, SAY AGAIN, ALL AFTER, ALL BEFORE, WORD AFTER, WORD BEFORE. AAA may need to spell some words phonetically. In transmitting the message, AAA would pause after every phrase or so, unkeying his transmitter for a moment. He should send slowly enough for AAA to write down the message. Note that each message sent must be ROGERed by the receiving station (ref: NTP-8(D) para 745).

REQUIREMENT FOR AND REPORTING OF PARTICIPATION.

MARS members are required to attain a minimum participation of 18 hours each calendar quarter. Of this, at least 12 hours must be in participation on an HF net. Time spent in study, equipment upkeep, message delivery, etc. count for participation also as "Other" time. Participation is reported to the State Director prior to the 5th of each month using the following *pro forma* (a set format) message (Line numbers are shown to explain contents.):

```
R 272133Z FEB 2006                                       1
FM NNN0ABC AL                                            2
TO NNN0GAA AL                                            3
BT                                                       4
UNCLAS                                                   5
SUBJ: PARTICIPATION REPORT FOR FEB                       6
1. 6                                                     7
2. 0                                                     8
3. 5                                                     9
4. 2                                                    10
5. STATION CLOSED 3 THRU 7 FEB                          11
BT                                                      12
```

Explanation of message lines follows:
Line 1: Precedence and Date-Time-Group
Line 2: FROM line: Individual member's call sign
Line 3: TO Line: Alabama State Director's call sign
Lines 4 and 12: BT to set off message text
Line 5: Message classification
Line 6: Subject line
Line 7: Hours on State HF nets
Line 8: Hours on Region HF nets
Line 9: Hours "Other" time
Line 10: Hours "Other Services" nets (omitted if no information to report).
Line 11: Administrative information (omitted if no information to report).

LISTING TRAFFIC.

Traffic to be delivered on a net is listed in several ways:
MARSGRAM for delivery within the State: quantity, precedence, city, (SCD if digital mode ready).

Example: 1 ROUTINE PACE (SCD if so)

Admin traffic for delivery within State: quantity, precedence, call sign of recipient.

Example: 1 ROUTINE NNNØHIM (SCD if so)

Traffic for delivery within Region Four but outside the State: quantity, precedence, Out of State .

Example: 1 ROUTINE OUT OF STATE (SCD if so)

Traffic for delivery outside Region Four except for ships: quantity, precedence, Out of Region . This includes Chief MARS traffic.

Example: 1 ROUTINE OUT OF REGION (SCD if so)

Traffic for persons aboard ship: quantity, precedence, Afloat

Example: 1 ROUTINE AFLOAT (SCD if so)

NOTE: if the message is to be passed by voice, no announcement to that effect is necessary.

TRAFFIC REPS AND TRAFFIC FLOW

Traffic handling and flow should be considered as occurring in three zones: in Alabama, out of State but within Region Four, and everything exterior to Region Four.

Any Alabama member: handles traffic within State (normally, toll- free)

4X1B and 4X9B Reps: take Out of State traffic to and pick up incoming traffic from their assigned Region net (0800 or 2000 local, respectively)

Traffic Rep: pick up traffic from the WL2K Traffic System and brings it to the State nets; take high precedence (Priority and above), Out of Region, and Afloat traffic to a WL2K RMS. PACTOR capability is required.