NAVAL TELECOMMUNICATIONS PROCEDURES

U.S. NAVY–MARINE CORPS MILITARY AFFILIATE RADIO SYSTEM (MARS)

COMMUNICATIONS INSTRUCTIONS

NTP 8 (A)

Commander, Naval Telecommunications Command
4401 Massachusetts Ave., NW
Washington, D.C. 20390

June 1981

DEPARTMENT OF THE NAVY
NAVAL TELECOMMUNICATIONS COMMAND
4401 MASSACHUSETTS AVENUE, N.W.
WASHINGTON, D.C. 20390

LETTER OF PROMULGATION

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7. This publication has been reviewed and approved in accordance with SECNAV Instruction 5600.16A.

R. O. Simon
Deputy

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U.S. NAVY-MARINE CORPS MILITARY AFFILIATE RADIO SYSTEM (MARS)
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CHAPTER 1

MISSION AND POLICY

NAVY-MARINE CORPS MARS

01.01.0100 Definition

Navy-Marine Corps Military Affiliate Radio System (MARS) is a program conducted by the Department of the Navy in which licensed U.S. amateur radio stations and operators voluntarily participate and contribute to the mission of providing auxiliary communications on a local, national or international basis as an adjunct to normal Naval Communications. "MARS" in this instruction refers only to the Navy-Marine Corps MARS Program unless MARS (Army or Air Force) is specified.

01.01.0200 History

01.01.0210 Army and Air Force MARS

MARS was originally known as the Military Amateur Radio System. This system was established on 26 November 1948 by authority of the Secretaries of the Army and the Air Force in Joint Regulations (SR 105-75-1 and AF 102-3, Communications Military Amateur Radio System). Subsequently, by order of the Secretaries of the Army and Air Force, the identity of MARS was changed to the "Military Affiliate Radio System".

01.01.0220 Navy's Early Associations

The U.S. Navy's association with amateur radio dates back to the very inception of the art of wireless communications. With the commissioning of Navy Radio, Arlington, "NAA", in 1913, another source of practice for continuous wave (CW) was born, and many of the "old timers" cut their "CW" teeth on the weather reports, time signals, and notices to mariners emanating from the old landmark.

The U.S. Navy realized immediately the immense potential to be gained by a close relationship with amateur radio and assumed a policy of encouragement and support.

Within ten days of the United States' entry into World War I on 7 April 1917, 500 of the 6000 U.S. radio amateurs were enlisted for duty in the U.S. Navy and, before the end of the war, another 3500 amateurs had joined the armed forces.

World War II saw over 25,000 amateur radio operators serving with the armed forces and many thousands more assisting in industry and war research work.

These early associations with amateur radio have been the basis of a long and continuing close relationship between the U.S. Navy and the amateur radio fraternity.

01.01.0230 Navy-Marine Corps MARS Authorized

On 17 August 1962, the Honorable Fred Korth, Secretary of the Navy, approved a recommendation made by the Chief of Naval Operations to organize a Navy-Marine Corps MARS program to be implemented on 1 January 1963.

01.01.0240 Department of Defense Support

On 30 November 1968, the Department of Defense issued a directive formalizing the composition, mission and functions, and the organization of the Military Affiliate Radio System (MARS), and set forth policies concerning Department of Defense support of both MARS and civil Amateur Radio activities.

01.01.0300 Mission and Functions

01.01.0310 MARS Mission

The mission of the Military Affiliate Radio System (MARS) is to provide Department of the Navy sponsored emergency communications on a local, national, and international basis as an adjunct to normal Naval Communications.

01.01.0320 Functions

Provide auxiliary communications available to military, civil and/or disaster officials during periods of emergency.

Assist in effecting normal Naval commuications under emergency conditions.

Handle morale and quasi-official record and voice communications traffic for armed forces and authorized U.S. Government civilian personnel stationed throughout the world.

Create interest, and furnish a means of training members in Naval communications procedures.

Provide a potential reserve of trained radio communications personnel for military duty when needed.

Conduct, in conjunction with the MARS Programs of the Departments of the Army and Air Force, an appropriate Amateur Radio program as a part of the annual celebration of Armed Forces Day.

01.01.0400 MARS Policy

It shall be the policy of the Military Affiliate Radio System (MARS) to:

Support and encourage MARS and Amateur Radio activity within the Department of the Navy and to avoid any action which would tend to jeopardize the independent prerogatives of the individual amateur radio operator.

Recognize the technical and operating proficiencies inherent in the possession of a valid amateur radio license issued by the Federal Communications Commission or other competent U.S. authority.

Encourage and cooperate in the development of amateur and private communication activities of the United States toward the enhancement of their military and civil value.

Maintain liaison with the Departments of the Army and Air Force, recognized U.S. Amateur Radio organizations and the Federal Communication Commission on matters concerning the MARS Program.

01.01.0500 Primary Concept

The primary concept of the MARS is to meet the requirements of training for any communications emergency. To this end, organization, methods and facilities must be adequate to meet any emergency requirements and must be flexible in order to provide for rapid expansion. Normal methods must be such that only minor changes will be required when shifting to an emergency status.

Based upon the above concept, the following principles have been proven under all conditions. Reliability, security and speed are the three fundamental requirements of MARS communications. Reliability is always paramount. It must never be sacrificed to achieve security or speed.

The most detailed instructional publications and the most up-to-date equipment in no way lessen the need for initiative, common sense and good judgment in the planning and conduct of MARS communications. Correct methods of operation and precise use of established procedures are essential for effective appreciation of how, when, and where to send messages. Rapid communications must be limited to the minimum required for the successful accomplishment of the operational task assigned.

The procedures established in the following chapters and annexes have been based primarily on standard military communication procedures. However, due to the unique nature of the Military Affiliate Radio System, certain procedures contained in this publication will vary from those established in Allied Communications Publications (ACPs), Naval Telecommunication Publications (NTPs), etc. New members who plan on entering military service in a communications field, or those members currently on active duty, should refer to official correspondence courses or those publications mentioned above when undertaking a course of study leading toward military promotion/advancement.

CHAPTER 2

ORGANIZATION

01.02.0100 COMMAND AUTHORITY

01.02.0110 CENTRAL COORDINATOR

The Commander, Naval Telecommunications Command under the command of the Chief of Naval Operations, is assigned as the Central Coordinator to act for the Secretary of the Navy in carrying out MARS responsibilities, exercising authority over the Military Affiliate Radio System (MARS), and appointing a Chief, MARS on his staff to act as his representative. The Chief, MARS is vested with the necessary authority to carry out the Department of the Navy's responsibilities in consonance with DOD Directive 4650.2 of 24 November 1972.

The Commandant of the Marine Corps, Director, Telecommunications Division is assigned as the cognizant Headquarters, Marine Corps staff agency for administration and operational planning for the MARS Program within the Marine Corps.

01.02.0120 CHIEF NAVMARCORMARS

The Commander, Naval Telecommunications Command has designated an Officer on his staff to act as the Chief, Navy-Marine Corps MARS. Chief, NAVMARCORMARS is vested with the necessary authority over Navy-Marine Corps MARS activities to insure maximum effectiveness and is responsible for the management, control, technical guidance, supervision and operation of the program.

01.02.0130 MARINE CORPS MARS LIAISON OFFICER

A Marine Corps MARS Liaison Officer, on the Staff of the Commandant, Marine Corps, is assigned to coordinate Marine Corps participation and assist the Chief, MARS in the administration of the program.

01.02.0200 ACTIVE DUTY ORGANIZATION

01.02.0210 COMMUNICATIONS

Communications of a non-policy nature relative to MARS shall be handled within the framework of the MARS active duty organization. A block diagram of the Active Duty structure is contained in Figure 2-1.

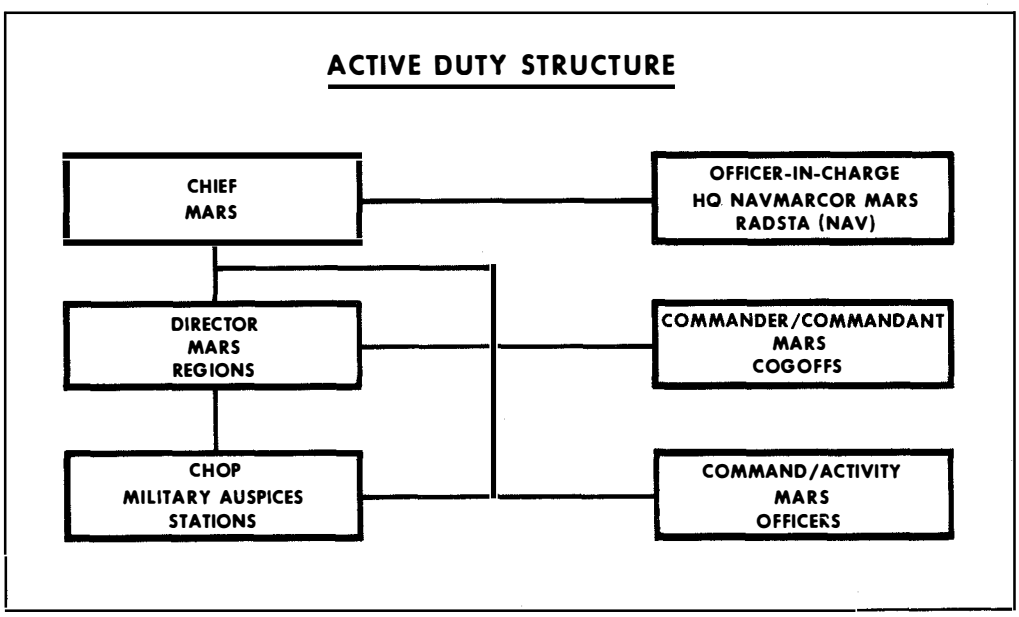

Figure 2-1

01.02.0220 CHIEF, NAVMARCORMARS

Chief, NAVMARCORMARS, assigned the management responsibilities for the program, will provide technical and administrative direction to the MARS Region Directors and direct the operations of the MARS Radio Networks throughout the world.

01.02.0221 RESPONSIBILITIES

Provide assistance to and coordinate with the Bureau of Naval Personnel in the assignment of active duty personnel to the MARS program.

Develop and prepare MARS Program resource requirements for submission to SECDEF in the annual SECNAV Program Objectives Memorandum (POM) or other appropriate Program Change Request (PCR).

Determine the need for and advise and assist with the preparation, coordination and revision of Navy Directives and operating instructions relating to the MARS Program.

Maintain liaison with the MARS Cognizant Officer on the staffs of Fleet and Force Commanders, Naval District Commandants and Command Activity MARS Officers in matters relating to MARS operations and administration.

Allocate MARS call signs and distribute MARS publications to MARS Directors for distribution to new members.

Coordinate and direct the operations of the MARS Radio Teletypewriter Relay System; supervise networks and make recommendations for and implement changes.

Coordinate and consult with the Department of Defense, Army, Air Force, and civilian organizations on matters pertaining to MARS operations and activities.

Supervise all aspects of the MARS Equipment Program as outlined in COMNAVTELCOM Instruction 2090.1 and approve requisitions associated therewith.

Maintain primary cognizance of fiscal and equipment procurement matters.

Consult with representatives of the Utilization Division, Defense Property Disposal Service, DSA, the Utilization and Sales Division, General Service Administration, and appropriate Department of the Navy commands and offices on policy matters relative to the MARS Equipment Program.

Inspect MARS records maintained by MARS Region Directors.

Represent MARS at national and regional conventions and meetings of the American Relay League (ARRL) and other communications-electronics organizations.

Prepare radio frequency documents and coordinate frequency assignments relating to the MARS Program.

Review MARS Regional activities on a periodic basis to determine the effectiveness and efficiency on their programs.

Initiate plans and execute staff actions to improve and increase the effectiveness and efficiency of the MARS Program.

Prepare or direct preparation of press releases on matters relating to MARS Program.

Coordinate Navy's participation in an appropriate amateur radio program as a part of the annual celebration of Armed Forces Day.

01.02.0230 HEADQUARTERS,NAVY-MARINE CORPS MARS RADIO STATION

Headquarters, Navy-Marine Corps MARS Radio Station is a shore (field) activity in an active operating status under an Officer in Charge. Commander, Naval Telecommunications Command (COMNAVTELCOM) through Chief, Navy-Marine Corps MARS has

been delegated command and primary support responsibilities for HQ NAVMARCORMARS RADSTA CHELTENHAM MD. The mission of the station has been set forth in COMNAVTELCOMINST 5450.42 (series) - "To maintain and operate the facilities and provide the services necessary to support the Military Affiliate Radio System (MARS) policies of Commander, Naval Telecommunications Command (Chief, MARS) and to promote amateur radio within the Department of the Navy consistent with the policies of the Chief of Naval Operations."

01.02.0240 MARS COGNIZANT OFFICER

A MARS Cognizant Officer is assigned as a collateral duty on the Staff of each Fleet Commander in Chief, Naval Force Commander, Naval District Commandant, or other competent authority for the purpose of maintaining appropriate administrative MARS liaison between the Commander/Commandant and the Commander, Naval Telecommunications Command.

01.02.0250 MARS REGION DIRECTOR

MARS Region Directors are active duty personnel, normally from the Radioman rating who possess an amateur radio license and/or a Navy Enlisted Classification code (NEC) 9577. They are assigned to COMNAVTELCOM billets, but come under various Commanders/Commandants for administrative and military jurisdiction. MARS Region Directors are responsible for the administration and operation of the MARS Program within their assigned Regions.

01.02.0251 CRITERIA

In view of the nature of the duties and responsibilities outlined herein, the following criteria are established for the enlisted billets designated as MARS Region Directors. The personnel assigned to these billets will:

Be utilized only for the duties prescribed by the Commander, Naval Telecommunications Command through the authority vested in the Chief, NAVMARCORMARS.

Possess a Navy Enlisted Classification Code (NEC) 9577 and/or a technician or higher class amateur radio license issued by the Federal Communications Commission.

Possess a personality/character suitable for independent type duty.

01.02.0252 RESPONSIBILITIES

The MARS Region Director is responsible to Chief, NAVMARCORMARS and the MARS Cognizant Officer for the proper administration and operation of the MARS Program within the assigned MARS Region.

01.02.0253 DUTIES

In order to fulfill the above responsibilities, MARS Directors are expected to perform the following duties:

Operate and maintain a Region MARS Radio Station in order to facilitate program administration and be available as an adjunct to the Naval Communication System.

Monitor and supervise Region MARS networks in order to ensure compliance with established procedures and frequency tolerances.

Maintain individual member activity files.

Administer to the MARS afloat program as assigned.

Coordinate and implement MARS frequency assignments.

Establish and disestablish MARS radio networks necessary to conduct training and emergency communications.

Prepare and promulgate net directories, bulletins and other forms or publications as supplements to MARS Directives.

Maintain a system to facilitate the mailing of bulk correspondence to MARS members within the assigned Region.

Provide administrative support to their volunteer staff members, MARS Volunteer Area Coordinators and selected MARS members in the form of "Postage and Fees Paid" indicia envelopes, naval message forms, logs and other office supplies required to fulfill official MARS business in connection with their volunteer duties.

Administer the MARS Program in accordance with this instruction, NAVTELCOMINST 2090.1 and supplementary instructions issued by Chief, NAVMARCORMARS. (This includes screening of excess property listings, selection of equipment applicable to the program, preparation of requisitions and accountability forms, the handling of associated correspondence, and the maintenance of Equipment Program records).

Provide manpower for the handling of equipment, stowage and issue.

Coordinate MARS activity with offices of the American Red Cross, Civil Defense, Amateur Radio Emergency Corps, Radio Amateur Civil Emergency Service and other service MARS programs.

Represent Chief, NAVMARCORMARS when attending MARS, amateur radio and other public activities in the interest of public affairs and furtherance of the MARS Program.

Conduct field trips on a regular basis in order to maintain close liaison with volunteer staff members, MARS Area Coordinators and participating Naval activities.

Provide transportation for delivery and pick-up of MARS equipment when conveyance by other means is either uneconomical or inappropriate.

Provide technical assistance and appropriate coordination necessary to accomplish special MARS projects such as slow-scan TV and VHF repeater operations.

Prepare and promulgate emergency communication plans based upon those of higher authority.

Perform special coordination duties assigned by the Chief, NAVMARCORMARS.

Perform such other duties as directed and/or necessary to further the MARS Program.

01.02.0260 COMMAND/ACTIVITY MARS OFFICER

A Command/Activity MARS Officer is assigned as a collateral duty at each U.S. Navy and Marine Corps activity sponsoring a MARS Station. The MARS Officer, as the representative of the Commanding General/Commanding Officer/Officer in Charge, provides the necessary supervision for the operation and administration of the Command/Activity MARS Station.

01.02.0270 MARS CHIEF OPERATOR

A MARS Chief Operator is assigned as either a primary or collateral duty at each U.S. Navy and Marine Corps Command/Activity with an established MARS Station. The Chief Operator provides direct supervision for the operation and administration of the Command/Activity Navy-Marine Corps MARS Station.

01.02.0280 MILITARY AUSPICES STATION CUSTODIAN

The Station Custodian is appointed as a collateral duty at each U.S. Navy and Marine Corps Command/Activity with an established MARS Station. The custodian is responsible for the accountability of the equipment and security of the station. The MARS Officer or the Chief Operator may be appointed custodian at the discretion of the Command/Activity.

01.02.0300 VOLUNTEER ORGANIZATION

01.02.0310 COMMUNICATIONS

Members are to direct all communications of a non-policy nature in accordance with paragraph 01.03.0800. A block diagram of the Volunteer structure is contained in Figure 2-2. MARS operations beyond the Continental limits of the United States are organized in a manner similar to the volunteer organization. When no active duty director is assigned to a region, the volunteer Deputy Director will act as the region director, until such time as an active duty director is assigned to the Region. Such volunteer organization will be under the directions of the active duty Director assigned to the adjacent MARS Region. Unless otherwise assigned, the selection of the Volunteer Area Coordinators will be a function of the Region Director, subject to the endorsement of the senior Department of the Navy Command in the area. Operations shall be subject to the directives of the Naval Force Commander/Naval District Commandant when operating in areas within his jurisdiction.

VOLUNTEER STRUCTURE

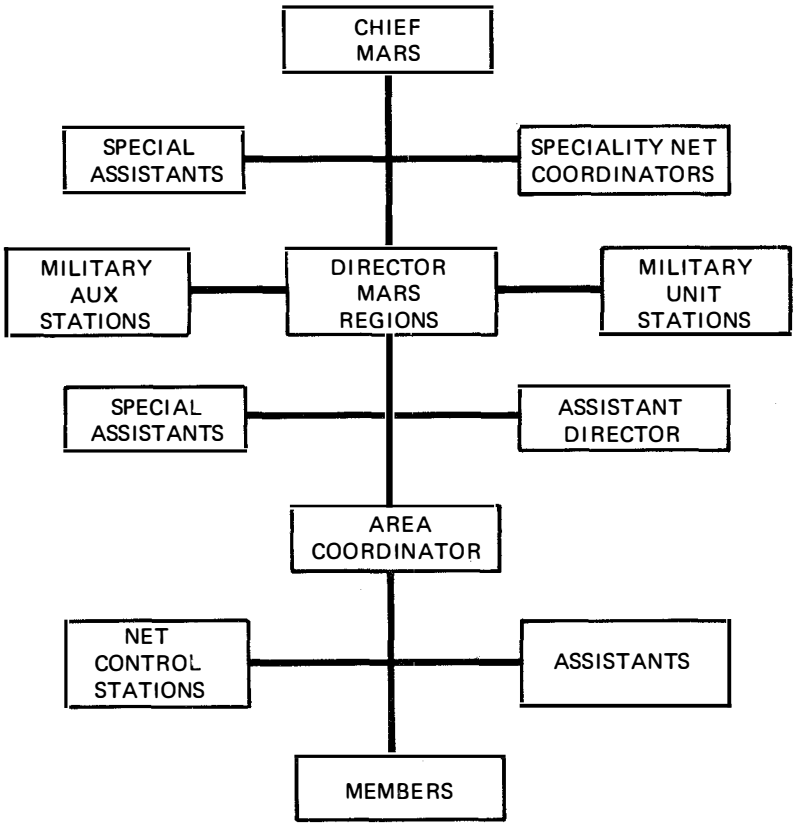

Figure 2-2

01.02.0320 SPECIAL ASSISTANTS TO CHIEF, NAVMARCORMARS

Chief, NAVMARCORMARS may appoint qualified volunteer MARS members as Special Assistants when deemed necessary to assist and/or coordinate matters pertaining to the appointment. Special Assistants are considered members of Chief, NAVMARCORMARS Advisory Staff.

01.02.0330 SPECIAL NETWORK COORDINATOR

A specialty Network Coordinator is appointed by and responsible to Chief, NAVMARCORMARS for organizing, administering and supervising the operation of the network to which assigned.

01.02.0331 QUALIFICATIONS

MARS Specialty Network Coordinator appointments are voluntary and therefore military orders per se cannot be enforced. However, it is reasonable to assume that the individual accepting the appointment will have no compunction against fulfilling the duties and carrying out the responsibilities of the position. The appointments are responsible positions, therefore, it is desirable that selected individual have the following qualifications:

Have been a member of the MARS Program for at least one year.

Possess a General or higher class amateur radio license issued by the Federal Communications Commission.

Have a broad background of experience in the radio communication specialty for which the appointment is made and be familiar with the mission, functions and operations of the MARS Program.

Be skillful in dealing with others.

Possess administrative ability.

01.02.0332 RESPONSIBILITIES

A MARS Specialty Network Coordinator is responsible for providing advice and assistance to Chief, NAVMARCORMARS for the operation and administration of the Specialty Network to which assigned. He provides the necessary coordination among the Chief, NAVMARCORMARS, appropriate Directors, Area Coordinators, and stations assigned, in accordance with NTP 8 (series), NAVTELCOMINST 2090.1 (series) and appropriate directives and instructions issued by Chief, NAVMARCORMARS.

01.02.0333 DUTIES

In order to fulfill the above responsibilities, the MARS Specialty Network Coordinators are expected to perform the following duties:

Maintain and operate a MARS radio station capable of operating in the mode(s) and on frequencies authorized for the Specialty Network for which the appointment is made.

Assign and schedule stations to the network within the area of assigned responsibility.

Advise Chief, NAVMARCORMARS on frequency assignments.

01.02.0340 DIRECTOR APPOINTMENT

The Director selects and issues appropriate appointments to qualified individuals from the volunteer membership as special assistants who will serve a principal assistants and advisors to the Director and provide the necessary coordination for the supervision over matters pertaining to the appointments as follows:

Assistant Director

Area Coordinator(s)

Assistant to the Director for Emergency Communications

Assistant to the Director (Net Operations)

Assistant to the Director (VHF FM Repeater Systems)

Assistant to the Director (Frequency Management)

Assistant to the Director (Training)

Other assistants as deemed appropriate or necessary

01.02.0341 ASSISTANT DIRECTOR

A volunteer Assistant Director acts as an advisor and assistant to the Director and provides continuity between the Director and his successor when required. In the absence of the Director, when no provision has been made for active duty assumption of Director responsibilities, the Assistant Director will provide liaison and coordination among the Commander/Commandant, Chief, MARS, Volunteer Director appointees, Area Coordinators and individual members to ensure continued network operations. The Assistant Director is a qualified volunteer member who is selected by the Director and nominated for the appointment to the Chief, NAVMARCORMARS via the cognizant Commander/Naval District Commandant.

01.02.0342 QUALIFICATIONS

The Assistant Director appointment is voluntary and therefore military orders per se cannot be enforced. However, it is reasonable to assume that the individual accepting the appointment will have no compunction against fulfilling the duties and carrying out the responsibilities of the position. This is a highly responsible position, therefore, the following qualifications are desirable:

Have been a member of the MARS Program for at least four years.

Possess a General or higher class amateur radio license issued by the Federal Communications Commission.

Have a broad background of experience in radio communications, and be thoroughly familiar with the mission, functions and operations of the MARS Program.

Be particularly skillful in dealing with others.

Possess a high degree of administrative ability.

01.02.0343 RESPONSIBILITIES

The MARS Assistant Director is responsible for providing advice and assistance to the Director and provides continuity between the Director and his successor when required. In the absence of the Director, when no provision has been made for active duty assumption of Director responsibilities, the Assistant Director will assume the appropriate administrative and operational duties of the Director in consonance with paragraph 01.02.0253 and in accordance with NTP 8 (series), NAVTELCOMINST 2090.1 and other directives and instructions issued by the Chief, NAVMARCORMARS and the Director. The MARS Assistant Director shall also provide liaison and coordination among the Commander(s)/Commandant(s), Chief, NAVMARCORMARS, volunteer Director appointees, Area Coordinators and individual members to ensure continued network operations.

01.02.0344 DUTIES

In order to fulfill the above responsibilities, the MARS Assistant Director in addition to the administrative and operational duties listed in paragraph 02.0250 are expected to:

Maintain and operate a MARS Radio Station, capable of operating on high frequencies (HF) in order to facilitate program administration and be available as an adjunct to the Director's Radio Station.

Maintain, insofar as possible, a duplicate file and record system (less individual membership files and equipment records) to that of the Director in order to effectively assume, temporarily, the duties of the Director.

In the absence of the Region Director, screen, freeze and when necessary, initiate acquisition documents for equipment and materials, which appear on GSA listings and other source listings, in accordance with Annex India to meet the immediate needs of the Program.

Perform such other duties as requested by appropriate authority and/or as necessary to further the MARS Program.

01.02.0350 AREA COORDINATOR

The Area Coordinator is a qualified volunteer member who is appointed by the Director. The Area Coordinator is responsible to assist the MARS Region Director for the operation and administration of the program within his assigned area. The appointment is normally for a two year period which may be extended upon the mutual agreement between the Director and the Appointee.

01.02.0351 QUALIFICATIONS

The MARS Area Coordinator appointment is voluntary and therefore military orders per se cannot be enforced. However, it is assumed the individual accepting the appointment will have no compunction against fulfilling the duties and carrying out the responsibilities of the position. This is a highly responsible position, therefore, the following qualifications are desirable:

Have been a MARS member for at least two years.

Possess a General or higher class amateur radio license issued by the Federal Communications Commission.

Be thoroughly familiar with the mission, functions and operations of the MARS Program.

Be particularly skillful in dealing with others.

Possess a high degree of administrative ability.

01.02.0352 RESPONSIBILITIES

The MARS Area Coordinator is responsible to the Director for the operation and administration of the MARS Program within his assigned area in consonance with the Director's responsibilities and duties listed in paragraph 01.02.0253 and in accordance with NTP 8 (series), NAVTELCOMINST 2090.1 and other directives and instructions issued by the Chief, NAVMARCORMARS and the Director.

01.02.0353 DUTIES

In order to fulfill the above responsibilities, the MARS Area Coordinators are expected to perform the following duties:

Maintain and operate a MARS radio station capable of operating on HF frequencies in order to facilitate program administrtion.

Recommend to the Director the establishment and disestablishment of radio networks, assigning net control stations (NECOS), within the area to fulfill requirements to meet the MARS mission and to carry out the functions of the program.

Monitor and supervise area networks in order to ensure compliance with established procedures and frequency tolerances.

Maintain individual membership files in accordance with Chapter 3.

Effect assignment to networks and other activities of member stations within his area of responsibility.

Review quarterly, individual member participation. Recommend termination of membership of members failing to maintain minimum participation requirements, and those who fail to abide by the rules and regulations governing MARS, in accordance with

Chapter 3.

Determine the need for equipments and materials to meet area requirements, based on program requirements and individual member's ability.

Prepare and promulgate an area emergency communication plan based on those of higher authority and NTP 8 (series) Annex D, to fulfill the MARS mission. In this regard, such plans will be submitted to the Director for approval before promulgation.

Coordinate MARS activity with local amateur radio clubs, office of the American Red Cross, Civil Defense, Amateur Radio Emergency Corps, local military authorities and other service MARS Programs.

Perform such other duties as requested by appropriate authority and/or as necessary to further the MARS Program.

01.02.0360 ASSISTANT TO THE DIRECTOR (EMERGENCY COMMUNICATIONS)

The Assistant to the Director (Emergency Communications) is a qualified volunteer member appointed by the Director. The Assistant to the Director (Emergency Communications) is responsible to the MARS Director for assisting in coordinating, planning and supervising matters concerning emergency communications.

01.02.0361 QUALIFICATIONS

The Assistant to the MARS Director (Emergency Communications) appointment is voluntary and therefore military orders per se cannot be enforced. However, it is reasonable to assume that the individual accepting the appointment will have no compunction against fulfilling the duties and carrying out the responsibility of the position. This is a highly responsible position, therefore, the following qualifications are desired:

Have been a MARS member for at least two years.

Possess a general or higher class amateur radio license issued by the Federal Communications Commission.

Have a broad background of experience in radio communications, and be thoroughly familiar with the mission, functions and operations of the MARS Program.

Should have previous military communication or emergency communication planning experience, such as, responsible position in Civil Defense (CD), Amateur Radio Emergency Corps (AREC), Radio Amateur Emergency Service (RACES) etc.

Be skilled in dealing with others.

01.02.0362 RESPONSIBILITIES

The Assistant to the MARS Director (Emergency Communications) is responsible to assist and advise the Director and coordinate such matters among the volunteer Director appointees, Area Coordinators and individual members to ensure the Region's requirements, capability and readiness to respond to any emergencies in fulfilling the MARS mission.

01.02.0363 DUTIES

Prepare and maintain an up-to-date Emergency Communication Plan to meet all emergencies, both military and civil, on a national and local basis. The Emergency Communication Plan and Changes thereto, should be prepared based on those of higher authority and Annex Delta. Proposed plans shall be submitted to the Director for approval and promulgation.

Coordinate among and provide advice and assistance to the Director, Area Coordinators and their volunteer appointees on matters concerning Emergency Communications. Advice and assistance shall be in accordance with the provisions of NTP 8 (series), NAVTELCOMINST 2371.1, and other directives and instructions issued by the Chief, NAVMARCORMARS and the Director.

Plan and program emergency communication requirements to meet the MARS mission.

Perform such other duties as requested by appropriate authority and/or as necessary to further the MARS Program.

01.02.0370 AREA COORDINATOR APPOINTMENTS

The Area Coordinator selects and appoints qualified individuals from the volunteer membership within his jurisdiction as special assistants to provide necessary coordination for and supervision over matters pertaining to the appointments as follows:

Area Emergency Communications Coordinator
Area VHF FM Repeater Systems Coordinator
Other assistants as deemed appropriate or necessary

01.02.0380 TYPES OF MARS MEMBER STATIONS

Navy-Marine Corps MARS consists of the following type member stations:

Stations under Military Auspices:

Military Unit Station: A station operated by active duty military or civilian personnel who are serving in a MARS billet as a primary duty.

Military Auxiliary Station: A station which is manned by volunteer personnel.

Individual Station: A station operated by an individual who has affiliated with the MARS.

Club Station: A station operated by members of an Amateur Radio Club in which the trustee and at least two members are affiliated as individual members with MARS.

CHAPTER 3

ADMINISTRATION

01.03.0100 MEMBERSHIP CRITERIA

01.03.0110 STATIONS UNDER MILITARY AUSPICES

An amateur radio license is not required for MARS affiliation. However, all activities are encouraged to maintain a valid amateur radio license. Stations under Military Auspices are of two types as follows:

01.03.0111 MILITARY UNIT STATION

A station which is manned and operated by military and/or civilian personnel who are serving in a MARS billet as a primary duty.

01.03.0112 MILITARY AUXILIARY STATION

A station which is manned and operated by volunteer personnel.

01.03.0120 INDIVIDUAL AND CLUB STATIONS

Acceptance of membership is subject to the needs of MARS and the satisfactory completion of a 90 day trial period. The term of membership is concurrent with the member's valid amateur radio license unless sooner modified or revoked. In order to meet the criteria for membership, the applicant must:

Possess a valid amateur radio license issued by the Federal Communications Commission or other competent U.S. Authority which will remain valid for a minimum of 1 year subsequent to the date of application.

Not be a member of Army or Air Force MARS.

Possess a station in operation capable of operating on, or which will be modified to operate on a minimum of two (2) MARS frequencies within the 2-30 Mhz range.

Agree to operate, in accordance with the rules and regulations governing MARS, for a minimum of 18 hours per quarter, 12 of which must be on established Region/Area nets. No more than 12 hours per month may be credited toward the 18 hours. In this regard, maintenance of the minimum 18 hours requirement does not in itself ensure continued eligibility for membership.

In addition to the criteria above, the following also applies:

Individual MARS Membership. The applicant must be 14 years of age or older and must be a citizen of the United States or have been lawfully admitted to the United States for permanent residence under the provisions of Chapter 12 of Title 8, United State Code. Applicants with a novice class amateur license will be granted a 180 day trial period during which time they will be required to up-grade their amateur license to technicians class or higher. If restructuring of amateur license occurs, then the member will be required to up-grade to the class license next after novice. Transmit power of novice stations will not exceed their class license. In this regard, at least one half of the minimum of 18 hours per quarter must be met by the use of the CW mode. Novice members joined under past criteria will be granted a two year grace period to up-grade their amateur license. The grace period will commence upon release of this publication.

Club MARS Membership. The club trustee and at least two club members must be members of the MARS Program and the designated MARS station trustee will be responsible for the proper administration and operation of the station.

01.03.0130 US COAST GUARD AUXILIARY STATIONS

Due to the volunteer nature of the US Coast Guard Auxiliary, the membership

criteria will be the same as required of "Individual and Club Stations", see paragraph 01.03.0120. A US Coast Guard Auxiliary Radio Operator's Certificate may be accepted in lieu of the amateur radio license.

01.03.0200 MEMBERSHIP APPLICATIONS AND ACCEPTANCE

Applications for MARS membership must be submitted in triplicate on DD Form 630, "Application for Membership in Military Affiliate Radio System", accompanied by MARS Questionnaire, Form NM-630-3. Applications should be submitted for the type of station concerned as follows:

01.03.0210 STATIONS UNDER MILITARY AUSPICES

ASHORE:

Forward completed DD Form 630 (Figure 3-1) and NM 630-3 by letter of transmittal originated by the command exercising military jurisdiction to Chief, Navy-Marine Corps MARS, 4401 Massachusetts Avenue, N.W., Washington, D.C. 20390. Information copies of the transmittal letter shall be addressed to the chain of command. In block 7 of DD Form 630, in addition to Military Auspices, insert the word "UNIT" or "AUXILIARY", as applicable, in accordance with paragraphs 01.03.0111 and 01.03.0112. The unit identification code (UIC), which may be obtained from the supply officer, should be included. In the block designated "REMARKS", enter the name, rank and address of the MARS officer assigned in accordance with Chapter 2. The date and signature of the station custodian is required in the blocks provided on the reverse of the application. Other blocks on the application should be completed as applicable.

SEE PRIVACY ACT STATEMENT ON REVERSE SIDE

THIS SPACE FOR OFFICIAL USE ONLY		AMATEUR LICENSE/STATION DATA			APPLICATION FOR			
1. MARS CALL	2. DATE APPROVED	6. AMATEUR CALL	7. CLASS	8. EXPIRATION DATE		ARMY	X	NAVY/ MARINE CORPS
		WB4QGP	MILITARY AUSPICES UNIT	4-15-83		AIR FORCE		NEW
						RENEWAL	X	MODIFY
3. AREA/DISTRICT			9. PERSONAL STATION	X	10. MILITARY STATION			
			11. CLUB STATION		Trustee: Member: Member:			
4. APPROVING AUTHORITY DATE:		NOTE: Trustee and two club members must be affiliated with the MARS program for which this application is submitted. Enter MARS call signs above.				DO YOU POSSESS A STATION CAPABLE OF OPERATING OR WHICH CAN BE MODIFIED TO OPERATE ON AT LEAST TWO HF FREQUENCIES DESIGNATED BY APPROPRIATE AUTHORITY.		
5. MEMBERSHIP TERMINATION		12. MILITARY STATUS OF APPLICANT, CUSTODIAN OR TRUSTEE				[X] YES [ ] NO		
		ARMY	GRADE/RANK		REGULAR			
		NAVY			RESERVE			
		MARINE CORPS			ACTIVE DUTY			
		AIR FORCE			INACTIVE DUTY			
		COAST GUARD			RETIRED			
		NAT'L GUARD & A.N.G.			OTHER			
13. FORMER MARS AFFILIATION (If Any)		14. STATION LOCATION (Mailing Address) DEPOT COMMUNICATIONS OFFICE MCRD PARRIS ISLAND, SC 29905 UIC M00263				15. TELEPHONE (Area code, Prefix & Number) OFFICE XXX 234-5678 AUTOVON (if applicable)		
16. NAME IN FULL (Individual, Military Unit or Club) DEPOT COMMUNICATIONS OFFICE						REMARKS 1st LT JOHN DOE SAME AS ITEMS 16 THRU 18.		
17. MAILING ADDRESS (Number Street) MARINE CORPS RECRUIT DEPOT								
18. CITY, STATE, ZIP CODE PARRIS ISLAND, SC 29905								
DO NOT FOLD OR BEND INSTRUCTIONS ON BACK SIDE		DEPARTMENT OF DEFENSE APPLICATION FOR MEMBERSHIP IN MILITARY AFFILIATE RADIO SYSTEM (MARS)				FORM APPROVED BUDGET BUREAU NR. 22 R0103		

DD FORM 1 AUG 76 630 EDITION OF 1 OCT 68 IS OBSOLETE

Figure 3-1

AFLOAT:

U.S. Navy ships desiring to operate MARS stations will apply by routine message in accordance with existing Fleet Commander policy. The Director, NAVMARCORMARS Region Two, Charleston, S.C. will issue licenses for ships operating in the Atlantic/Mediterranean/Caribbean/Great Lakes areas and the Director, NAVMARCORMARS Region Five, San Diego, CA will issue licenses for ships operating in the

Pacific/Indian Ocean areas.

If no objection to the request is interposed by the operational chain of command within ten working days, the appropriate MARS Director will reply by official routine message assigning the MARS call sign. The station license and a Network Operations Guide will follow in the mail.

01.03.0211 INDIVIDUAL AND CLUB MEMBERSHIP

Potential members should first contact the Area Coordinator responsible for MARS operations in the area in which they are located in order to ascertain if MARS activities are such that would permit active participation and to determine if there is a need for their station capabilities.

01.03.0212 INDIVIDUAL MEMBERSHIP

Civilian and military personnel located outside the jurisdiction of a military command, who apply for establishment of a MARS station, shall complete DD 630 Forms (Figure 3-2) and NM 630-3, and submit them to the Area Coordinator responsible for the area in which they are located. Applicants whose stations are located within the jurisdiction of a military command should forward them by letter of transmittal originated by the command exercising military jurisdiction. Information copies of the transmittal letter should be addressed to the chain of command. Application must be signed on the reverse of DD 630 Forms.

SEE PRIVACY ACT STATEMENT ON REVERSE SIDE

THIS SPACE FOR OFFICIAL USE ONLY		AMATEUR LICENSE/STATION DATA			APPLICATION FOR	
1. MARS CALL	2. DATE APPROVED	6. AMATEUR CALL	7. CLASS	8. EXPIRATION DATE	ARMY	X NAVY/MARINE CORPS
		W4AA	EXTRA	8-24-83	AIR FORCE	X NEW
					RENEWAL	MODIFY
3. AREA/DISTRICT		X 9. PERSONAL STATION		10. MILITARY STATION		
		11. CLUB STATION		Trustee: Member: Member:		
4. APPROVING AUTHORITY	DATE:	NOTE: Trustee and two club members must be affiliated with the MARS program for which this application is submitted. Enter MARS call signs above.			DO YOU POSSESS A STATION CAPABLE OF OPERATING OR WHICH CAN BE MODIFIED TO OPERATE ON AT LEAST TWO HF FREQUENCIES DESIGNATED BY APPROPRIATE AUTHORITY	
5. MEMBERSHIP TERMINATION		12. MILITARY STATUS OF APPLICANT, CUSTODIAN OR TRUSTEE			X YES	NO
		ARMY / NAVY / MARINE CORPS / AIR FORCE / COAST GUARD / NAT'L GUARD & A N.G.	GRADE/RANK	REGULAR / RESERVE / ACTIVE DUTY / INACTIVE DUTY / RETIRED / OTHER		
13. FORMER MARS AFFILIATION (If Any)		14. STATION LOCATION (Mailing Address)			15. TELEPHONE (Area code, Prefix & Number)	
ARMY		1234 MAIN STREET HOMETOWN, SC 29902			HOME 803-234-5678	
16. NAME IN FULL (Individual, Military Unit or Club)					REMARKS	
SAMUEL A. SMITH						
17. MAILING ADDRESS (Number Street)						
1234 MAIN STREET						
18. CITY, STATE, ZIP CODE						
HOMETOWN, SC 29902						
DO NOT FOLD OR BEND INSTRUCTIONS ON BACK SIDE		DEPARTMENT OF DEFENSE APPLICATION FOR MEMBERSHIP IN MILITARY AFFILIATE RADIO SYSTEM (MARS)			FORM APPROVED BUDGET BUREAU NR. 22 R0103	

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Figure 3-2

01.03.0213 CLUB STATIONS

Club stations shall complete DD 630 Forms (Figure 3-3) and NM 630-3 and submit them to the Area Coordinator responsible for the area in which they are located. In the block designated "Remarks", insert the name and address of the club custodian/trustee. If the club station is within the military jurisdiction of a command and is not a military auspices station, the application will be forwarded via the Commanding General/Commanding Officer/Officer in Charge concened. The application shall be signed by the club station trustee on the reverse of DD 630 Forms. In the event the

club does not have an amateur station license, insert the call sign of the club station custodian/trustee in Block 6 on the DD Form 630.

SEE PRIVACY ACT STATEMENT ON REVERSE SIDE

THIS SPACE FOR OFFICIAL USE ONLY		AMATEUR LICENSE/STATION DATA			APPLICATION FOR			
1. MARS CALL	2. DATE APPROVED	6. AMATEUR CALL	7. CLASS	8. EXPIRATION DATE		ARMY	X	NAVY/ MARINE CORPS
		W3XYZ	CLUB	5-24-84		AIR FORCE	X	NEW
						RENEWAL		MODIFY
3. AREA/DISTRICT		9. PERSONAL STATION		10. MILITARY STATION				
		X 11. CLUB STATION		Trustee: Member: Member:	DO YOU POSSESS A STATION CAPABLE OF OPERATING OR WHICH CAN BE MODIFIED TO OPERATE ON AT LEAST TWO HF FREQUENCIES DESIGNATED BY APPROPRIATE AUTHORITY.			
4. APPROVING AUTHORITY DATE:		NOTE: Trustee and two club members must be affiliated with the MARS program for which this application is submitted. Enter MARS call signs above.						
		12. MILITARY STATUS OF APPLICANT, CUSTODIAN OR TRUSTEE						
5. MEMBERSHIP TERMINATION		ARMY / NAVY / X MARINE CORPS / AIR FORCE / COAST GUARD / NAT'L GUARD & A.N.G.	GRADE/RANK: MSGT	REGULAR / RESERVE / ACTIVE DUTY / INACTIVE DUTY / X RETIRED / OTHER	X YES	NO		
13. FORMER MARS AFFILIATION (If Any)		14. STATION LOCATION (Mailing Address) CITY HALL BUILDING, ROOM 501 ANYTOWN, PA 19115			15. TELEPHONE (Area code, Prefix & Number) OFFICE XXXXXXXXXXXXXXXXXXXX 814-345-6789			
16. NAME IN FULL (Individual, Military Unit or Club) ANYTOWN AMATEUR RADIO CLUB					REMARKS S.A. SMITH TRUSTEE 987 WEST ROYAL OAKS ANYTOWN, PA 19115			
17. MAILING ADDRESS (Number Street) P.O. BOX 1115 MAIN STREET STATION								
18. CITY, STATE, ZIP CODE ANYTOWN, PA 19110								
DO NOT FOLD OR BEND INSTRUCTIONS ON BACK SIDE		DEPARTMENT OF DEFENSE APPLICATION FOR MEMBERSHIP IN MILITARY AFFILIATE RADIO SYSTEM (MARS)			FORM APPROVED BUDGET BUREAU NR. 22 - R0103			

DD FORM 1 AUG 76 630 EDITION OF 1 OCT 68 IS OBSOLETE

Figure 3-3

01.03.0214 RENEWAL APPLICATIONS

Military Auspices Stations: Military Auspices Stations affiliation is for an indefinite period of time without expiration. Renewal applications therefore are not required. In this regard, see Modification applications.

Individual and Club Stations: MARS membership is concurrent with a member's valid amateur radio license. Therefore, MARS membership must be renewed upon receipt of renewed amateur radio license. A MARS member is allowed to continue MARS participation for 60 days after the expiration of MARS license.

In the event the amateur license renewal has not been received during the 60 day period, the period may be extended by the Area Coordinator and/or Director upon notification by the member. Complete DD 630 Forms (Triplicate) and submit to the Area Coordinator responsible for area in which they are located. Members who are located in areas overseas where MARS is not operational, should submit their forms to the responsible Director maintaining their MARS membership record. See Modification applications below.

01.03.0215 MODIFICATION APPLICATIONS

Whenever there is a change to the information contained on a member station's current application (DD 630), 3 new DD 630 forms shall be completed indicating "Modify" and submitted as follows:

Military Auspices Stations, to Chief, MARS.

Individual and Club Stations, if the modification does not involve a change of address outside of an area, to the Area Coordinator. If the modification involves a change of address to another area, to the Former Area Coordinator accompanied with MARS Questionnaire, NM-630-3.

Individual Stations overseas where MARS is not operational, to the Director maintaining his record. In the event the modification involves a change of address to an area where MARS is operational, the application shall be accompanied with a MARS Questionnaire, NM 630-3.

Change of address: Any MARS member who is transferred or who moves his station permanently from one location to another within the same area will notify the Area Coordinator and Director within 10 days of such move. Any move from one MARS Area to another will be reported to the Area Coordinators and Directors concerned. Upon his arrival at his new address, he will submit the appropriate forms in accordance with the above.

01.03.0216 REINSTATEMENT

Reinstatement of MARS membership is limited to former members who resigned and who have been out of the Program less than one year. Their former MARS call sign will be reassigned. Former members who were disenrolled for reasons of non-participation or cause are subject to the provisions of paragraphs 03.0120 and 03.0200. Applications shall be submitted with a letter containing a statement of justification for consideration for re-enrollment.

01.03.0217 MEMBERSHIP APPROVAL

New: All applications (DD 630 Forms) shall be accompanied by a MARS Questionnaire (NM-630-3). The application shall be reviewed to ensure that the application is submitted in triplicate, properly completed, dated, signed and witnessed, as appropriate, and that the applicant meets the membership criteria. The MARS Questionnaire shall be reviewed to determine if the potential member's field(s) of interest and/or station capability are such that will enhance and/or meet the needs of the Program. Should a member indicate on the Questionnaire that he has not discussed with the Area Coordinator or a responsible member concerning MARS activity available in the Area, the member shall be provided such information prior to acceptance of membership. Applications improperly completed, failure to substantiate eligibility for membership or without the MARS Questionnaire shall be returned to the applicant. Additionally, applications including the MARS Questionnaire, submitted by a potential member who has been determined as not within the needs of the program shall be returned to the applicant with sufficient explanation.

The MARS call sign shall be assigned by the approving authority. The letter "T" indicating "Trial member" shall be added as the fourth suffix of the call, to permit immediate identification "on-the-air" in order that assistance may be offered by other members.

The expiration date of a temporary member's trial period will always be on the last day of the month which will allow a minimum of 4 consecutive months. This period of time is to permit the applicant a minimum of 30 days for receipt of his assignment and preparation and 90 days to meet the minimum requirements. Example: A member is approved on 10 April, the expiration date would be 31 August. The trial member will be notified of his acceptance as a member subject to the satisfactory completion of the 90 day trial period. In this regard, the first 18 hours must include successful completion of a basic training program. After notification of successful completion, the Director will issue the MARS license, Membership Card (NM-630-2) (Figure 3-4), and other appropriate information.

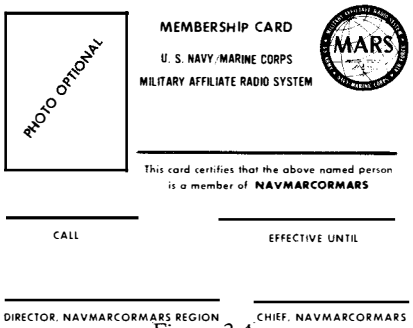


Figure 3-4

Novice Class: Applicants holding a novice class amateur license will be granted a trial membership not to exceed 180 days as outlined in paragraph 01.03.0120. The expiration date of a temporary novice members trial period will coincide with the issuance of a FCC amateur license of higher than novice class provided he/she has successfully completed the required 90 day trial period.

Current Members: Applications (DD 630) submitted by current members for renewal and/or modification of membership and addressed otherwise, shall be readdressed in accordance with paragraph 03.0215. Applications indicating a change of address to a different area must be accompanied by a MARS Questionnaire (NM-630-3). The Area Coordinator shall review the member's record for satisfactory participation. If a member has been authorized inactive status in accordance with this chapter, it will be considered as satisfactory participation. In the event a regular member has failed to meet the requirements, the member may be recommended to the MARS Region Director for discontinued membership.

01.03.0300 PARTICIPATION

01.03.0310 MILITARY AUSPICES STATIONS NETWORK ASSIGNMENTS

Military Unit Stations. Network assignments will normally be made by the Director and/or Chief, MARS. Such assignments will be made provided the sponsoring command does not interpose objection. Assignments, once accepted, shall be regarded as bonafide communication responsibilities. In the event that circumstances necessitate relief from assignments, the Chief, MARS and the appropriate Director shall be notified. The notification shall provide sufficient time in order that the responsibilities of the station may be met.

Military Auxiliary Stations. In view of the volunteer manning of a Military Auxiliary Station, network assignments will be similar to those for individual and Club stations. Other wetwork assignments will be consistent with emergency communication planning and with regard to the availability of operating personnel.

01.03.0320 INDIVIDUAL AND CLUB STATION NETWORK ASSIGNMENTS

Upon the acceptance of a member station or the arrival of a current member into an Area, the Area Coordinator will assign the member to a network. Each MARS member will be expected to be an active participant and to make worthwhile contributions to his network and MARS.

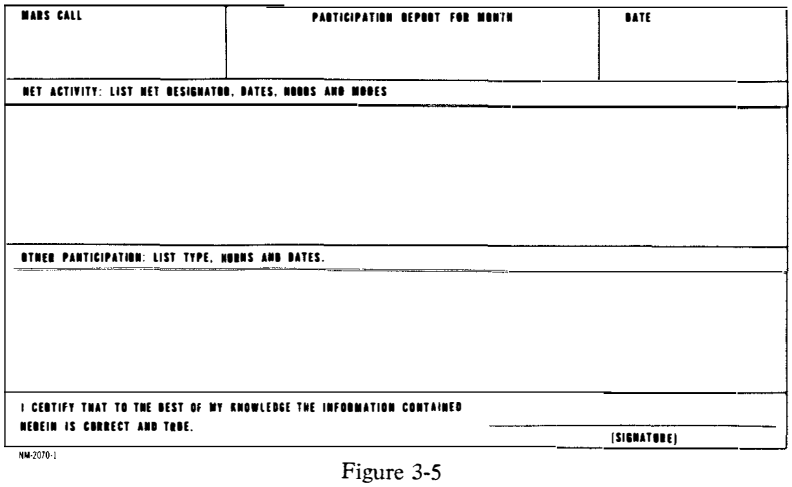
01.03.0330 CREDIT

Each member shall attain a minimum participation of 18 hours each quarter. Credit can be obtained through many forms of participation. The recommendations of net control stations and Area Coordinators will be the determining factor in evaluating a member's contribution to MARS. While MARS membership does not impose a mobilization assignment, each MARS member does have a moral obligation to participate as directed by competent authorities during periods of national crsis.

Credit Guidelines. No more than 6 hours per quarter for "off-the-air" participation should be credited toward meeting the minimum 18 hours per quarter.

01.03.0331 NETWORK PARTICIPATION

It is the responsibility of the individual member to report net participation to the area coordinator using Form NM-2070-1 (Figure 3-5). If a member participates from a station other than his/her own, such as a club or military auspices MARS station, this participation must also be reported in order that proper credit is obtained.



MARS CALL	PARTICIPATION REPORT FOR MONTH	DATE
NET ACTIVITY: LIST NET DESIGNATOR, DATES, HOURS AND MODES		
OTHER PARTICIPATION: LIST TYPE, HOURS AND DATES.		
I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE INFORMATION CONTAINED HEREIN IS CORRECT AND TRUE. (SIGNATURE)		

NM-2070-1

Figure 3-5

01.03.0332 SPECIALTY AND OTHER NETWORK PARTICIPATION

It is the responsibility of the individual member to report other forms of activity in which he has participated. The activity should be reported using Form NM-2070-1 (Figure 3-5) in accordance with the following guidelines:

Copying Broadcast: List type (NAVMARCORMARS, AREA, etc.,) appropriate broadcast number(s), Date/Time (GMT) of receipt of each and number hours credit claimed.

Monitoring Activity: List net designator, NECOS, Date/Time (GMT) and number hours credit claimed.

Studying NTP 8 and other MARS related Instructions: List chapter(s)/Annex(s), etc., and number of hours credit claimed.

Correspondence courses: List course title, NAVPERS number, lesson number(s), grade(s) attained and number hours credit prorated per lesson of the total credit allowed for complete course.

"Off-the-air" activity required of members who have been appointed, designated or assigned to a position, function or responsibility.

Time involved originating and delivering messages.

MARS activities that may be waived on a case-by-case basis by the Director.

Other "off-the-air" activities: List what, when, who, how, etc., as appropriate and the number hours credit claimed.

Exceptions to the participation requirement stated in paragraph 01.03.0120 may only be made with the written approval of the members regional director. The letter of approval will explain the reason for the exception and define the specific period of time covered. The member shall retain the original letter of approval with a copy retained by both the cognizant area coordinator and regional director.

01.03.0333 EMERGENCY

Time spent in actual disaster communications should be reported in the summary report filed with the Area Coordinator. Such participation will be credited to the member at twice the rate of normal participation.

01.03.0334 CORRESPONDENCE COURSES

MARS membership established eligibility for receiving unclassified correspondence courses from the Naval Education and Training Program Development Center, Pensacola, Florida. Application forms (NAVPERS 1550/4 or NAVEDTRA 1550/1) and catalogs

of available courses may be obtained from the Area Coordinator, or from the nearest Navy or Naval Reserve activity. The member will receive participation credit in hours equal to the number of retirement points authorized for the course. The credit will be prorated on each lesson completed during the month in which the graded answer sheet is returned to the member. It is the responsibility of the individual member to report the completion and grade received to the Area Coordinator in accordance with paragraph 01.03.0332. Affiliate members become eligible to receive correspondence courses upon successful completion of initial 90 day trial period and meet all other membership criteria as set forth in paragraph 01.03.0120.

01.03.0335 RETIREMENT CREDIT

MARS participation will qualify Naval Reservists to receive retirement credit provided the Reservist has made application and received from his Regional Naval Reserve Readiness Command (NAVRESREDCOM) the necessary training and support duty without pay orders. The MARS Regional Director will provide the necessary participation certification as specified in the orders. Copies of orders and associated correspondence shall be forwarded to the MARS Regional Director concerned. Retirement points will be granted to qualified participants in accordance with BUPERSINST 5400.42 (series).

01.03.0336 INACTIVE MEMBERSHIP

Oversea Areas: When MARS is not operational in oversea areas, including shipboard, MARS members are excused from meeting the 18 hours minimum participation requirement for a duration not to exceed two years unless the member informs the cognizant Director otherwise. This waiver will be automatic, unless otherwise requested, upon receipt of DD 630 Forms reflecting an appropriate APO/FPO address. Such members records will be maintained by Directors as follows:

APO/FPO San Francisco/Seattle - Director, Region EIGHT

APO/FPO New York - Director, Region TWO

In areas where MARS is operational, a waiver may be granted by the cognizant Director upon written request. The request shall include the member's location, the duration of his assignment, sufficient reason for inactivity and, if appropriate, new DD 630 Forms showing the member's change of address.

During the period of inactivity, the member will be ineligible for equipment issue, but remains an active member in all other respects.

Other than Overseas. From time to time, an individual MARS member may face personal or professional problems, illness, or equipment failures, etc., which will temporarily prevent him from meeting the minimum participation requirements. A period of inactivity up to 180 days at any one time may be granted by the cognizant Area Coordinator or the MARS Director upon written request. The request shall include the period of inactivity desired, the reason(s) and, if appropriate, new DD 630 Forms showing the member's change of address. During the period of inactivity, the member will be ineligible for equipment issue, but remains an active member in all other respects.

01.03.0400 DISENROLLMENT

MARS membership is effective concurrent with an individual or club member's valid amateur radio license. However, disenrollment can be effected through resignation, non-participation or cause. MARS membership termination will be the responsibility of the Region Director. When disenrollment occurs, the member will be notified by letter from the Region Director. Disenrollment for reason of non-participation or cause will normally be initiated by the Area Coordinator. It is the responsibility of each individual member to keep the appropriate Area Coordinator informed of any modification to his record or any information that would affect his participation to preclude inadvertent termination.

01.03.0410 TERMINATION FOR NON-PARTICIPATION

Membership may be terminated when a member has failed to maintain a minimum

of 18 hours of creditable participation per any normal period of 3 consecutive months without prior notification and sufficient reasons. Normal 3 months periods will correspond to the quarterly periods, beginning on 1 January.

01.03.0420 TERMINATION FOR CAUSE

When a member is being recommended for termination for willful failure to abide by the rules and regulations governing MARS, the letter to the Director shall explain in detail the circumstances involved. The letter shall include as enclosures all pertinent documents and/or appropriate affidavits to substantiate the infraction(s) of the rules and regulations. Pending disposition of the request for termination, or compiling of same, the Area Coordinator, with approval of the Director, may suspend the member's MARS activity. When a member's amateur license has been revoked, only a notification with sufficient documentation will suffice. Disenrollment for cause, failure to abide by the rules and regulations governing MARS, includes but is not necessarily limited to the following:

Excessive reports on violation of frequency tolerance and/or operating rules.

"On-the-air" conduct or other actions causing embarrassement to or that which is not in the best interest of, the U.S. Government. This includes formal or informal comments which are critical of the U.S. Government, The Department of the Navy, MARS and its various echelons.

Members will be informed of their recommendation for disenrollment. If in the opinion of the member being recommended for termination there exists mitigating circumstance which are not apparent, he should provide this information on the return of the initial notification. Should disenrollment occur, the member may appeal to Chief, MARS via the Area Coordinator and Director by providing sufficient justification for reconsideration. Pending results of an appeal, however, the member will cease all MARS activity.

01.03.0430 RESIGNATIONS

Letters of resignation of membership in MARS shall be addressed to the Region Director via the cognizant Area Coordinator. Military auspices stations will not be disenrolled unless officially requested by the sponsoring command. Official requests for disestablishment shall be addressed to Chief, MARS for appropriate action, via the cognizant Director.

01.03.0440 EXPIRATIONS

MARS membership is effective concurrent with an individual or club member's valid amateur radio license. Therefore, it is necessary for a member to renew his MARS membership upon the receipt of the renewed amateur license. In the event renewal applications (DD 630 Forms) are not received within a 60 day period after a member's amateur license has expired and unless otherwise notified by the member, it will be assumed that he does not desire continued membership. The Area Coordinator will recommend disenrollment to the MARS Region Director. In this regard, in the event the member possesses government owned equipment considered economical to return and is needed within MARS, it shall be recalled in accordance with Annex India.

01.03.0500 SPECIAL MEMBERSHIP CATEGORIES

In recognition of substantual contributions made to MARS, Chief, MARS is authorized to make the following appointments:

Associate Member - A member who has contributed substantially to MARS in the past as a Director, Assistant Director, Area Coordinator, other assistants or as a devoted/dedicated member, who because of circumstances can not meet participation requirements for continued membership. In this regard, members in a position in the military or the civilian community who have/can contribute indirectly shall be given full consideration.

Honorary Member - A person who does not possess the required amateur radio license or otherwise does not meet membership criteria and is contributing

substantially to MARS directly or indirectly. An Honorary Member may be authorize to participate in MARS network operations, but is not eligible for the MARS Equipment Program.

Recommendations for the appointments shall be submitted to chief, MARS via the appropriate Area Coordinator and Region Director. The recommendation shall contain sufficient justification and accompanied by DD 630 Forms, Application for Membership in MARS (Triplicate).

01.03.0600 MEMBERSHIP RECORDS

Upon the acceptance of a trial member as a regular member, the Area Coordinator and Director shall establish a membership record. The record will be used to record a member's association and activities in MARS, and to file related documents and information, such as, the completed MARS Questionnaire, MARS Application, Member Data Record, equipment issue custody receipts, station capability etc. In this regard, it is the member's responsibility to ensure that information concerning his station capability and other activity information is provided to the Area Coordinator to keep his file up-to-date.

01.03.0610 MEMBER DATA RECORD (NM-630-1)

The individual and club member will complete the applicable blocks contained on the member data record (NM-630-1) (Figure 3-6) and return to the Area Coordinator for inclusion in the member's record. This form will be used to record the member's participation and other pertinent information. The Area Coordinator will transcribe from the individual participation reports and/or the net control station reports, the member's participation in hours in the appropriate blocks, and to record the member's MARS experience.

NM-630-1

NAVMARCORMARS MEMBER DATA RECORD

1. RECORD OF PARTICIPATION

YEAR	JAN	FEB	MAR	APR	MAY	JUN	YEAR	JAN	FEB	MAR	APR	MAY	JUN
19___	JUL	AUG	SEP	OCT	NOV	DEC	19___	JUL	AUG	SEP	OCT	NOV	DEC
19___	JAN	FEB	MAR	APR	MAY	JUN	19___	JAN	FEB	MAR	APR	MAY	JUN
	JUL	AUG	SEP	OCT	NOV	DEC		JUL	AUG	SEP	OCT	NOV	DEC

2. SPECIAL ASSIGNMENTS

3. MARS EXPERIENCE (COORDINATOR; NET CONTROL STATION; TRAFFIC REP; CORRESPONDENCE COURSES ETC.)

4. REMARKS:

5. EQUIPMENT AND CAPABILITY

HOME PHONE	BUSINESS PHONE	TELETYPE CAPABILITY	YES	MOBILE	YES	NO
			NO	EMERG PWR	YES	NO

MARS CALL	AMATEUR CALL	HOME ADDRESS	CITY	COUNTY	STATE	ZIP

Figure 3-6

01.03.0620 RECORD TRANSFER

Records will only be transferred upon receipt of a modification/renewal application (DD-630) (triplicate) by a member's former Area Coordinator indicating a change of address from one Area/Region to another. The Area Coordinator shall review the member's record and either approve or disapprove the member's continued membership

on the application forms. The member's record and the three application forms will be forwarded to the region director. The region director will review and forward the records and make distribution of the application forms to the members new area coordinator or regional director as appropriate.

01.03.0700 REPORTS

01.03.0710 NET CONTROL STATIONS/NET MANAGERS

Each net control station/net manager as appropriate, shall make a station participation and frequency usage report to his Area Coordinator or Speciality Network Coordinator as soon after the last net of the month as possible. Reporting period 26th to 25th of each month. (i.e. 26 June - 25 July)

01.03.0720 AREA COORDINATORS

01.03.0721 FREQUENCY USAGE REPORT

Each Area Coordinator shall make a report of all MARS frequency usage within his area to the MARS Director. The report shall be submitted to the Director no later than the first day of the month. Reporting period from 26th to the 25th of the month.

01.03.0722 AREA QUARTERLY ACTIVITY SUMMARY REPORT

Each Area Coordinator shall make an Area Quarterly Activity Summary report on activity within his area to the Director, using forms supplied by Chief, MARS through the MARS Director. The report will be submitted at the end of the third month of each quarter beginning 1 January, 1 April, 1 July and 1 October.

01.03.0723 TRAFFIC REPORTS

Overseas Area Coordinators shall report message and radiotelephones traffic handled by all MARS stations within their area to Chief, MARS and their Director. The report shall be made by MARS message no later than the first day of each month using the following format:

STATION CALL SIGNS	RADTEL CALLS	MSG
TOTAL_____	TOTAL_____	

01.03.0724 OTHER REPORTS

Other reports as directed by competent authority.

01.03.0730 ASSISTANTS AND SPECIAL COORDINATORS

Each Assistant and Special Coordinator shall provide a detailed monthly report of activity/progress on matters concerning their appointment to the official to whom they are responsible. Other reports shall be submitted when directed by competent authority.

01.03.0740 MARS DIRECTORS

01.03.0741 FREQUENCY USAGE REPORT

Directors shall submit Frequency Usage Reports in duplicate using OPNAV Form 2400/4 in accordance with OPNAV INSTRUCTION 2400.7 (series). The report shall be submittted monthly to Chief, MARS to arrive no later than the fifth working day of the succeeding month.

01.03.0742 QUARTERLY ACTIVITY SUMMARY REPORT

Each Director shall make a quarter activity summary report on activity within his area of responsibility to Chief, MARS, using forms supplied by Chief, MARS.

The report will be submitted at the end of each quarter after the receipt of the Area Coordinators summary reports, but not later than the 15th of the month following the end of the reporting period.

01.03.0743 OPTAR FUND REPORT

All Region Directors shall submit a quarterly OPTAR fund report by official correspondence to the Chief, NAVMARCORMARS. If submitted by official message, include COMNAVTELCOM WASHINGTON DC as an information addressee. If by official letter, COMNAVTELCOM will be included as "copy to." The report will be made in the following format:

A. Expenditures during the past quarter:

1. TAD _____

2. Vehicle(s) _____

3. Supplies/Services _____

4. Spare parts _____

5. Equipment _____

Total

B. Balance of OPTAR funds carried over from previous quarter.

C. Total OPTAR funds available at beginning of the new quarter.

01.03.0744 MARS STATION EQUIPMENT INVENTORY

An inventory of equipment installed in their Headquarters, MARS station shall be conducted by category in accordance with Annex India, annually, on 31 December and/or upon the occasion of a change in Director. The results of the inventory shall be forwarded to Chief, MARS not later than 15 Days after the completion of the inventory.

01.03.0745 Other Reports

Other reports shall be made as directed by competent authority.

01.03.0750 STATIONS UNDER MILITARY AUSPICES

01.03.0751 FREQUENCY USAGE REPORT

Each military auspices station, except those overseas where there is a military Area Coordinator assigned, shall make a report of all MARS frequency usage by the station to their MARS Director. Stations overseas where a military Area Coordinator is assigned shall report to him. The report shall be submitted for the period 26th to the 25th of each month not later than the last day of the month using the following format:

Frequency	Total Hours (transmit only) Total Hours (guard including transmit)

01.03.0752 TRAFFIC REPORT

Overseas military auspices stations shall report message and radiotelephone traffic handled by the station to the Area Coordinator no later than the last day of the month for the period 26th to the 25th of the month. This report may be combined with the frequency usage report above using the following format:

Frequency	Total Hours	RADTEL CALLS	MSGS

01.03.0753 EQUIPMENT INVENTORY

An inventory of equipment received through the MARS Equipment Program shall be conducted by category in accordance with Annex India, annually, on 31 December and/or upon the occasion of a change in station custodian. The inventory list and the results of the inventory shall be forwarded to the cognizant Director not later than 15 days after the completion of the inventory.

01.03.0760 INDIVIDUAL AND CLUB STATIONS

01.03.0761 PARTICIPATION/ACTIVITY REPORT

Each Individual and Club station member shall submit to their Area Coordinator when necessary, a monthly participation/activity report in accordance with this chapter.

01.03.0762 FREQUENCY USAGE AND TRAFFIC REPORT

Each Individual and Club station member in overseas areas shall submit a frequency usage and traffic report similar to those under paragraph 01.03.0750.

01.03.0800 CORRESPONDENCE

01.03.0810 DIRECTION

Correspondence concerning MARS shall be handled within the framework of the MARS organization. However, if it is considered that the subject or the nature of the correspondence should be addressed otherwise, such correspondence shall be addressed to the Commander, Naval Telecommunications Command, as the command exercising authority over MARS. MARS members are to correspond with the lowest echelon of the MARS organization from which an answer can be expected, via all individual subordinate activities. The ultimate addressee may forward correspondence to a higher echelons if deemed appropriate or necessary. When it is obvious to the originator of correspondence that intermediate echelons would only forward correspondence, because comment or approvals are not required, the originator may send the correspondence directly to the ultimate addressee with copies to intermediate echelons. When initiating correspondence, the member should include his MARS call sign for additional identification and consider limiting the subject matter to a single topic to promote a rapid response.

01.03.0820 POSTAGE AND FEES PAID ENVELOPES AND LABELS

Postage and Fees Paid envelopes and labels will be provided to individual and club members by the MARS Director on an "as needed basis". MARS members' use of the postage and fees paid, indicia, other than through the authorized use of envelopes provided by the Director, is strictly forbidden. Such envelopes and labels shall have the printed activity and address of the Director appearing in the return address portion. The member will insert his or her assigned MARS call sign under the return address.

01.03.0830 COMMUNICATION CONTENT

To preclude any misunderstanding and to enhance the image of the individual as well as MARS, the content of any communication, including press releases, must be accurate and based on fact.

01.03.0840 NEWS MEDIA

The term News Media is considered synonymous with information media and public information agencies, and shall mean publicizing, broadcasting, telecasting, or pictorial feature services, newspaper periodicals, radio broadcasting, telecasting organizations, and newsreel companies. The local release of information concerning MARS to the media by an individual MARS member will be accurate and factual to preclude incorrect interpretation by the public and will be reviewed/approved by the Region Director prior to release. The release of information by personnel of a military auspices station shall be in accordance with the U.S. Navy Public Information Manual and directives issued by the parent command. Copies of news releases concerning MARS shall be provided to Chief, MARS via the appropriate MARS Director. Information

concerning MARS of a national interest or proposed release to national news media should be forwarded to Chief, MARS for appropriate coordination and release.

01.03.0900 EQUIPMENT AND FUNDING

01.03.0910 EXCESS PERSONAL PROPERTY

The MARS Equipment Program was implemented to supplement existing facilities at MARS stations in order to enhance their ability to fulfill the MARS mission. Accordingly, Chief, MARS is authorized to issue excess personal property to MARS member stations in accordance with the policy and procedures governing the MARS Equipment Program contained in Annex India. Issues will be limited by quantities available and by the eligibility requirements.

01.03.0920 EQUIPMENT AND SUPPLIES PROCUREMENT

As the occasion arises , Chief, MARS will program for the procurement of equipment and supplies applicable to techniques and/or modes of operation. Such equipment and supplies acquired through other than the procedures contained in Annex India are not within the MARS Equipment Program. Therefore, accountability must necessarily be in accordance with the NAVCOMPT Manual and other appropriate directives.

01.03.0930 SUPPORT

In addition to the normal support provided for the operations of the Headquarters Navy-Marine Corps MARS Radio Station (NAV) as a Navy shore (field) activity, the Commander, Naval Telecommunications Command will provide support for the administration and operations of MARS and the radio stations maintained by the MARS Directors. The support of other military, club and individual MARS radio stations, must necessarily be providedby the appropriate military command, agency or individual, except for materials, as available through the MARS Equipment Program in accordance with Annex India. Military Commands sponsoring a MARS Station should budget for the operations and maintenance of their station through the utilization of appropriated and/or non-appropriated funds in accordance with current directives.

CHAPTER 4

TRAINING AND QUALIFICATIONS

01.04.0100 TRAINING

01.04.0110 SUCCESSFUL COMMUNICATIONS

The keystone of successful communication operations is the qualification and training of communication personnel at all levels. In order for MARS to achieve maximum communication effectiveness, enhancing the Program's mission, it is necessary that the members have the opportunity to receive thorough training in military communication procedures and techniques to increase their skills and ability.

01.04.0120 TRAINING OBJECTIVE

There is a natural tendency to keep an individual in a job that he knows best. This stems from a desire to achieve and maintain a smooth working team. Such action limits the scope of knowledge of the individual, and does not provide for replacement or for advancement to positions of greater responsibility within MARS. To offset this tendency, there should be a plan for rotating personnel to ensure complete coverage of all necessary assignments and appointments. Training is a major factor contributing to effective communication operations and readiness. The prime objective of training is to increase the ability of individuals to operate and administer MARS effectively under all conditions. Training objectives for members must contain provisions for general training in military communications and operations in addition to administration, including a means for recognizing the member's attained skills. To meet training requirements, an effective training program must be conducted on a continuous basis. Each Director and Area Coordinator must pursue a vigorous training program, consistent with requirements, to achieve maximum results of each member's performance.

01.04.0130 RESPONSIBILITY

The Director through the Area Coordinators, volunteer appointees and Net Control Stations, is responsible for the administration of a productive training program which provides an effective communication team.

01.04.0140 CONSIDERATION

In fulfilling training responsibility, the following must be considered:

Know the individual's present qualifications, potential and his station capability.

Know the mission and concepts of MARS.

Know the communication requirements, capabilities and limitations of the area of responsibility.

Thoroughly plan the communication training objectives.

Be cognizant of all means of training facilities available. (e.g. correspondence courses, local-area training networks, etc.).

Assign competent and qualified members as Net Control Stations, special assistants and instructors.

Make frequent checks on training progress.

In developing an effective training program, the following factors must be considered:

Some training is more effective when based on opportunity rather than on a rigidly scheduled program.

Training can be effected during the course of network participation.

Rotating assignments is an effective method of training members.

Discussions during training or questionnaires effectively measure knowledge and ability.

Proper indoctrination of newly appointed Net Control Stations, assistants and appointees.

01.04.0150 TRAINING GUIDE

The training guide listed below contains syllabuses of communication training which should be used in establishing a training program and geared consistent to the individual's ability and capability. A record of an individual's capabilities and progress should be made a permanent part of the individual's MARS record:

R-1 Logs and Records
R-2 Message Formats
R-3 Radiotelegraph Procedures
R-4 Radiotelephone Procedures
R-5 Radioteletypewriter Procedures
R-6 Tape Relay Procedures
R-7 Emergency Communications

The training guide listed below contains syllabuses of administrative training which should be used in establishing a training program and geared consistent to the individual's ability. This training guide should be used, in particular, for individuals who are being considered as appointees for a volunteer post within MARS.

A-1 Correspondence

a. Naval Letter Format
b. Messages
c. Business Form
d. Accuracy and Fact in content
e. Policy
f. Direction

A-2 Files and Records

a. Membership
b. Equipment issue
c. Subject file

A-3 Publicity

01.04.0160 SOURCE OF TRAINING MATERIAL

There are many sources from which training materials may be obtained. One major source, which should be considered, is the various Naval Training Course books which are available through the MARS Director.

01.04.0200 QUALIFICATIONS

01.04.0210 MORSE RADIOTELEGRAPH SPEED-KEY OPERATOR QUALIFICATIONS

In the interest of morale and pride of accomplishments, sequential numbered speed-key certificates (Figure 4-1) will be awarded by the Chief, MARS to MARS members who have met the following qualifications using a semi-automatic non-electronic speed-key or semi-automatic electronic speed-key (less computerized):

Send and receive clearly the headings of messages, with hand and speed key, at 15 wpm, for a period of one minute. One error, by hand key or speed key, properly corrected, may be allowed in each transmission.

Send and receive distinctly with hand key 20 code groups in 70 seconds. One

error, properly corrected, may be allowed, provided the total time of transmission, including corrections, does not exceed 70 seconds.

Send and receive distinctly with speed key 25 code groups in 75 seconds. Two errors, properly corrected, may be allowed, provided the total time of transmission does not exceed 75 seconds. Code groups shall consist of five letter/digits each.

Send and receive, distinctly, with speed key 60 words of plain language in two minutes. Two errors, properly corrected, may be allowed, provided the total time of text does not exceed two minutes. Each consecutive five letters of plain language shall be counted as one word.

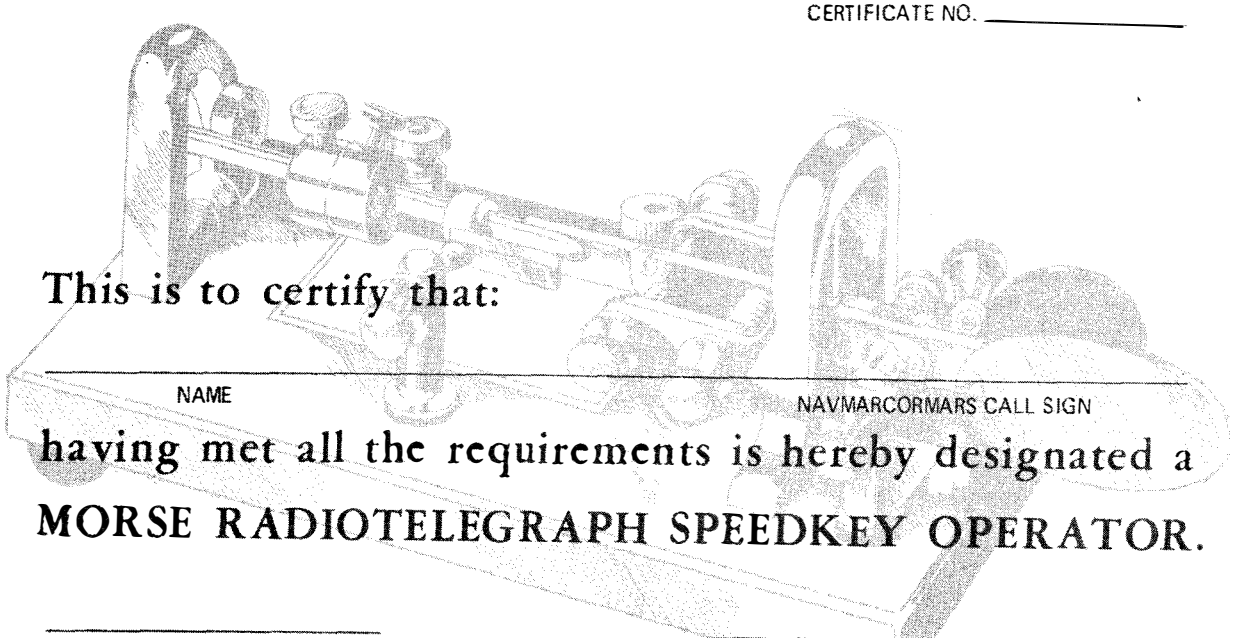
The speed key used to complete the above requirements must be adjusted to make not more than twelve dots per second.

Speed key certificates issued by competent authority within the past two years will qualify a member for the MARS certificate without an examination. The original or facsimile thereof should be submitted to Chief, MARS via the Cognizant Director.

The examination may be conducted by radio. The examiner will transmit the necessary examination information to the examinee just prior to the conducting of the examination.

Examiners will be appointed by the Chief, MARS.

CERTIFICATE NO. _____



This is to certify that:

_____

NAME NAVMARCORMARS CALL SIGN

having met all the requirements is hereby designated a

MORSE RADIOTELEGRAPH SPEEDKEY OPERATOR.

_____ _____

DATE

CHIEF, NAVY-MARINE CORPS
MILITARY AFFILIATE RADIO
SYSTEM (MARS)

Figure 4-1

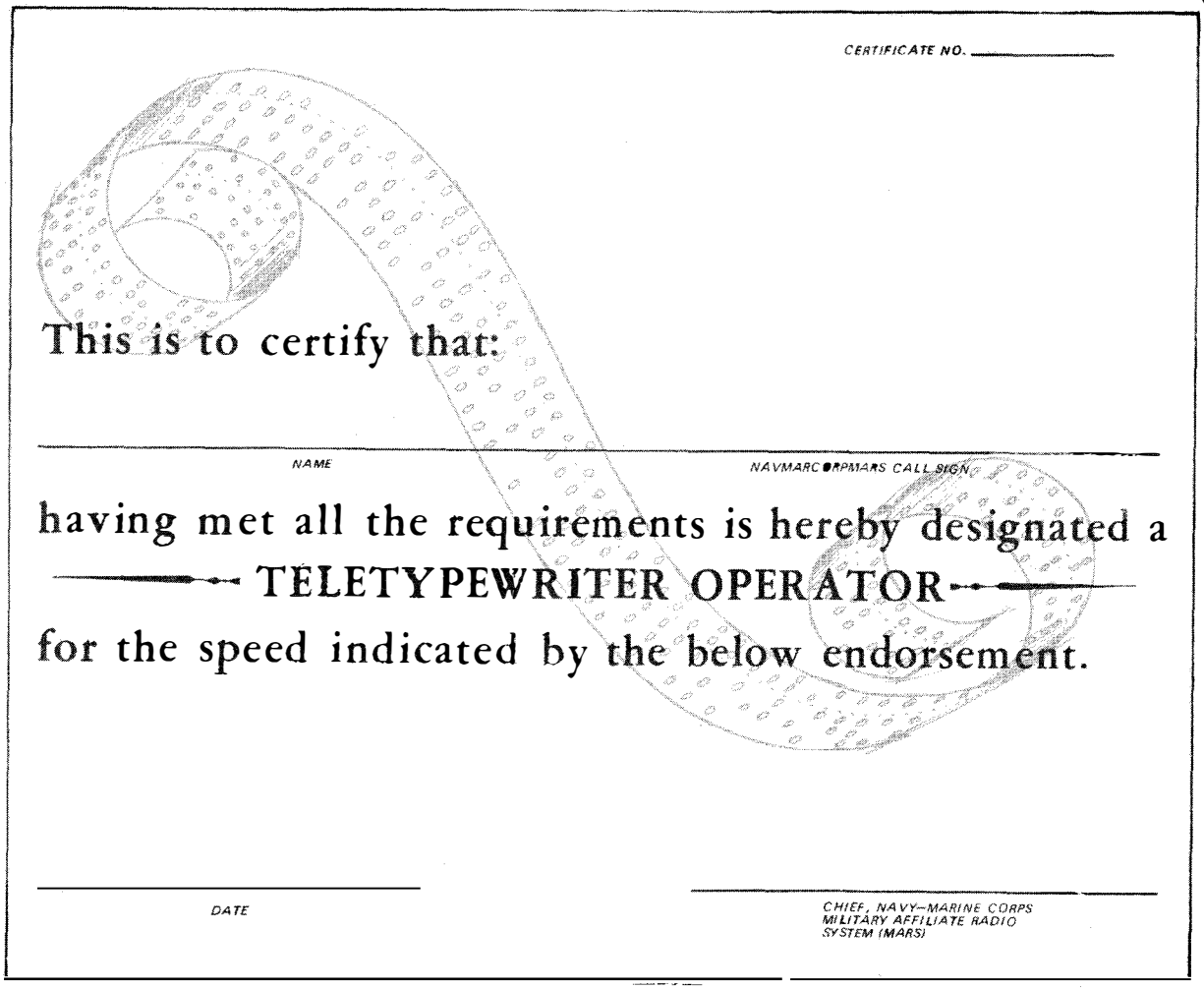


Figure 4-2

01.04.0220 TELETYPEWRITER OPERATOR QUALIFICATIONS

A sequential numbered certificate, (Figure 4-2), of accomplishment with endorsements for 60 and 100 words per minute operations will be awarded to MARS members by Chief, MARS who have met the following qualifications:

The examination will consist of 600 words or 3000 teletypewriter functions (five functions to a word), in three messages, to be completed as follows:

(Three uncorrected errors will be allowed)

60 WPM Teletypewriter	14 Minutes
100 WPM Teletypewriter	10 Minutes

The examiner administering the examination will prepare the test messages in accordance with Chapter 9, and will be guided by the following:

Format lines 2 and 3 must be letter perfect. Any errors will constitute a failure.

In format lines 5 through 13, a maximum of three uncorrected errors will be allowed during the examination, provided they are not numbers, symbols, or unpronounceable words, in which case an error will constitute a failure.

Transposed characters will count as one error only.

The examinee may correct any errors detected in format lines 5 through 13 by making the error sign and typing the word or words correctly.

The examinee will not have to place endorsements such as TOD, circuit used and initials on any message.

The examination may be conducted by radio teletypewriter, however, tapes will not be used. The examiner will transmit the necessary examination information to the examinee just prior to the conducting of the examination.

When the examination is conducted in the presence of the examiner, the examination may be conducted by tape, using the above guidelines in addition to the following:

Line 2 will start with 5 spaces, 2 carriage returns and 1 line feed.

Lines 3 and 4 must be letter and function perfect. Between each routing indicator will be one space with the exception of the last routing indicator in a line, which will be followed by 2 carriage returns and 1 line feed.

Line 15 will end with 2 carriage returns, 4 line feeds, 4 N's and letters (more than 12 letters will not constitute an error).

Each line will end with 2 carriage returns and 1 line feed, with the exceptions noted above.

A teletypewriter certificate issued by competent authority within the past two years will qualify a member for the issue of the MARS certificate with the 100 WPM endorsement without an examination. The original or facsimile thereof should be submitted to Chief, MARS via the cognizant Director.

01.04.0300 NAVMARCORMARS OPERATOR (NMO)

01.04.0310 PURPOSE

In recognition of a member's achievements and operating ability, a MARS member may be designated as a NAVMARCORMARS Operator upon meeting the requirements for the class operator listed below. Before a member attains the higher class NAVMARCORMARS Operator, he must first meet the requirements and have been designated to those of the lower classes. It should be clearly understood that the rating of NAVMARCORMARS Operator is strictly a means of recognition and does not carry any specific responsibility or authority in the NAVMARCORMARS Organization. Applications should be submitted to the Chief, MARS via the cognizant Area Coordinator and Director, who shall verify the member's qualifications and endorse accordingly.

01.04.0320 THIRD CLASS NAVMARCORMARS OPERATOR (NMO3)

Before a member can become a Third Class NAVMARCORMARS Operator he must:

Be a member of MARS for at least 3 months.

Attain and record in his MARS record, a minimum participation credit of 40 hours during the past 3 months.

Complete the Navy Correspondence Course, Basic Electricity, Part I with an average grade of 3.4.

Send and receive international Morse Code at a speed of 13 WPM for a period of 2 minutes each. Three uncorrected errors are permitted.

01.04.0330 SECOND CLASS NAVMARCORMARS OPERATOR (NMO2)

Be a member of MARS for at least 6 months, and have been designated NMO3 for three months.

Attain and record in his MARS record a minimum participation credit of 80 hours during the past six months.

Complete the Navy Correspondence Course "Basic Electricity Part II", with an average grade of at least 3.4, and possess an FCC Conditional/General Class Amateur Radio License, or higher.

Complete the Navy Correspondence Course "Radioman 3 and 2" with an average grade of at least 3.4.

Send and receive international Morse Code at a speed of 15 WPM for a period of 2 minutes each. Three uncorrected errors are permitted.

01.04.0340 FIRST CLASS NAVMARCORMARS OPERATOR (NMO1)

A member of MARS for at least one year, and have been designated NMO2 for six months.

Attained and recorded in his MARS record a minimum participation credit of 80 hours during the past six months.

Complete the Navy Correspondence Course "Naval Electronics, Part 1B" with an average grade of at least 3.4, or possess an FCC Advanced Amateur Radio License or higher.

Send and receive international Morse Code at a speed of 18 WPM for a period of 2 minutes each. Three uncorrected errors are permitted.

01.04.0350 CHIEF NAVMARCORMARS OPERATOR (NMOC)

A member of MARS for at least 2 years, and have been designated NMO1 for one year.

Attain and record in his MARS record a minimum participation credit of 80 hours during the past six months.

Complete the Navy Correspondence Course "Electronic Technician 3 and 2", with an average grade of 3.4, or possess an FCC Extra Amateur Radio License and/or FCC First Class Radiotelegraph License.

Send and receive international Morse Code at a speed of 20 WPM for a period of 2 minutes each. Three uncorrected errors are permitted.

01.04.0360 SENIOR CHIEF NAVMARCORMARS OPERATOR (NMOSC)

Successful candidates will be assigned a special NAVMARCORMARS call sign.

A member of MARS for at least 3 years, and have been designated NMOC for one year.

Possess either the Morse Radiotelegraph Speed-Key Certificate or the Teletypewriter Certificate.

01.04.0370 MASTER CHIEF NAVMARCORMARS OPERATOR (NMOMC)

Successful candidates will be assigned a special NAVMARCORMARS call sign.

A member of MARS for at least 4 years, and have been designated NMOSC for one year.

Possess both the Morse Radiotelegraph Speed-Key and Teletypewriter Certificates.

CHAPTER 5

OPERATIONAL CONCEPT

01.05.0100 NETWORKS

01.05.0100 ESTABLISHMENT

To enable MARS to fulfill its mission, it is necessary that both intra and inter region networks be established and maintained to meet the requirements for effective and efficient communications. The Chief, MARS will direct, through the MARS Directors and Area Coordinators, the operations of the MARS networks throughout the world. Networks will be established and/or disestablished to meet requirements of the program by the MARS Directors. Networks are categorized with respect to the usage for which the network was primarily established, however, all networks are to be available to meet the requirements of the MARS mission. Net designators will be assigned to each network in accordance with the provisions of Annex A.

01.05.0120 TYPES OF NETWORKS

Administrative Net. A net primarily established for administrative purposes linking any echelon of authority with immediate subordinates and such other stations as may be specifically designated.

Traffic Net. A net primarily established to handle record message traffic.

Training Net. A net primarily established to promote technical and procedural training in matters pertaining to military communications.

Specialty Net. A net primarily established for a purpose other than administrative traffic or training. Third Party voice communications, Slow Scan TV, and facsimile operations are examples of MARS activities considered to be within this category. Specialty nets are established only under the cognizance of Chief, MARS.

01.05.0130 OPERATIONAL CONTROLS

Net Control Station (NECOS). The Net Control Staton (NECOS) is a station designated by appropriate authority to direct and control the operation and flow of all traffic on the net. The station serving as the NECOS will function to exercise circuit discipline and expedite traffic and is charged with the following responsibilities:

Expediting traffic on the net
Maintaining circuit discipline
Limiting transmissions to the minimum essential
Monitoring traffic to determine and initiate corrective action on procedural discrepancies.

Authority of the NECOS extends only to the net operations. Within its scope of authority, decisions of the NECOS are final. The NECOS does not have jurisdiction over the administration of the individual stations within the net, except for reporting network participation.

Alternate Net Control Station (ALNECOS). The Alternate Net Control Station (ALNECOS) will assume the duties of NECOS when directed or when NECOS has failed to answer after three successive calls. When assuming Net Control Station duties, the ALNECOS will announce assumption (ZKA) by a transmission to "All Stations this Net".

In the event the NECOS or ALNECOS are not present, a member of the net should assume the duties of NECOS until such time as the NECOS or ALNECOS report into the net. A participation report shall be made to the appointed NECOS upon completion of the net.

01.05.0140 NET OPERATION

Free Net. When operating conditions permit, the NECOS may direct that the net may be operated as a free net. Member stations are therefore authorized to transmit traffic to other net stations without obtaining prior permission from the NECOS. Free

net operation does not relieve the NECOS of the authority and responsibility for circuit discipline.

Directed Net. Net stations must obtain the NECOS permission prior to transmitting traffic.

01.05.0200 SUB-SYSTEMS

01.05.0210 RADIO TELETYPEWRITER RELAY SYSTEM (MARSTELSYS)

A MARS Radio Teletypewriter Relay System will function to facilitate the handling of record message traffic among MARS major areas. The system will operate in accordance with the provisions of Annex E.

01.05.0220 MARS VHF FM REPEATER SYSTEMS (MARSREPSYS)

A MARS VHF FM Repeater System will function to facilitate the handling of record and voice communications using VHF communication and to be responsive to the requirements for disaster communications. Repeater stations will be installed in accordance with Annex F.

01.05.0300 REFILE NETWORKS

01.05.0310 TRI-SERVICE MARS REFILE POINTS/STATIONS

To increase the traffic handling capability of the overall MARS system and to encourage and facilitate cooperation among the three MARS Programs, refile points/stations are authorized.

MARS Directors are authorized to enter into informal refile point agreements with comparable Army and Air Force MARS Directors. Such agreements will be made with the understanding that they are subject to immediate termination by either party.

Refile points/stations are to be established for the sole purpose of facilitating and expediting the flow of message traffic within the MARS system.

The establishment of refile points/stations will be based on a definite known traffic requirement.

Refile points will be conducted only on frequencies designated by Chief, MARS.

MARS stations participating in refile operations will be specifically authorized by the appropriate MARS Director, and shall submit monthly, a frequency usage and traffic report. Participation reports should be submitted in accordance with paragraph 03.0300.

The MARS Directors will keep Chief, MARS informed as to details of refile agreements consummated with comparable echelons of Army and Air Force MARS.

01.05.0320 AMATEUR REFILE POINTS/STATIONS

MARS members may engage in MARS/Amateur refile, for the purpose of accepting amateur radio service messages addressed to armed forces personnel. Messages for refile shall be in accordance with the instructions contained in paragraph 01.05.0660 and 01.05.0670 and in accordance with refile procedures contained in paragraph 06.0600. MARS members participating in this activity should provide their Director the following information for dissemination to the appropriate responsible organizations:

Amateur Radio Call Sign
Frequency (ies)
Schedule(s), (Date and times in GMT)
Name of Amateur Network (if any)

The participation in MARS/Amateur Refile activity may be credited for participation. Participation reports should be submitted in accordance with paragraph 01.03.0300.

01.05.0330 MARS/NAVAL TELECOMMUNICATION SYSTEM REFILE POINTS

The Directors, coordinating with the appropriate Commanders/Naval District Commandants and/or Navy and Marine Corps Commands/Activities, shall be responsible to establish and designate Region and Major Area primary MARS/Naval Telecommunication System refile points to facilitate efficient and effective message refile in time of need. The Headquarters MARS Radio Station (NAV) is the designated World-Wide Primary MARS/Naval Telecommunication System Refile station.

01.05.0400 CALL SIGNS

01.05.0410 ASSIGNMENT

MARS has been assigned the block of call signs with the NNN0 prefix. All MARS stations will be assigned a call sign from this block. Requests for special assignments are not desired. Call signs are allocated by Chief, MARS on a sequential basis beginning with NNN0AAA except as listed below. Assignments are made by Chief, MARS, Directors and Area Coordinators.

Marine Corps Military Auspices Stations	NNN0MAA - NNN0MZZ
Navy Military Auspices Stations	NNN0NAA - NNN0NZZ
Area Coordinators	NNN0GAA - NNN0GEZ
Senior Chief NAVMARCORMARS Operators	NNN0GFA - NNN0GJZ
Master Chief NAVMARCORMARS Operators	NNN0GKA - NNN0GOZ
Chief MARS Staff, Directors and Assistants	NNN0ASA - NNN0ASZ
Speciality Net Coordinators	NNN0PPA - NNN0PPZ

01.05.0420 AUTHORITY

MARS call signs are authorized for use on MARS networks only except when needed during actual communication emergencies or when other wise authorized by competent authority. The use of Amateur Radio call signs on MARS networks is not authorized. Navy and Naval Reserve call signs may be used on MARS networks during actual or exercise communication emergencies and when otherwise authorized by competent authority.

01.05.0500 FREQUENCIES

01.05.0510 ASSIGNMENT

MARS frequencies are assigned by the Director, Navy Electromagnetic Spectrum Center to Chief, MARS. The Chief, MARS, will coordinate and effect implementation of MARS frequency assignments. Frequency assignments must be utilized so as to avoid interference with other Naval Communications, which take precedence.

01.05.0520 EMISSIONS

Emissions used on frequencies assigned to the MARS networks will be limited only to those authorized, and shall be maintained within the prescribed tolerances in accordance with Annex B.

01.05.0530 POWER

Frequencies assigned for MARS use, are shared, in most cases, among the various MARS areas and Regions as well as with other authorized users. Therefore, minimum power shall be used consistent with that required for good communications in order to reduce mutual interference. At no time, however, shall power be used in excess of that authorized.

01.05.0600 MESSAGE HANDLING

01.05.0610 RESPONSIBILITY

No person shall knowingly or willfully originate, accept for transmission, transmit, deliver or cause to be delivered, spurious or misleading messages. Each MARS member is responsible to screen and determine that messages accepted for transmission via MARS are in accordance with the criteria contained in paragraph 01.05.0640.

The originator of a message is the person or command by whose authority a message is sent. An originating station is the station from which a message was originally transmitted. MARS members are authorized to originate messages within the message criteria. The originator has the following definite responsibilities:

Designate the addressees. Keep addressees to a minimum.

Assign the precedence. Reserve high precedence for messages requiring immediate action.

Properly draft the message. Keep the text brief. Brevity will be achieved through proper choice of words and good writing techniques. Abbreviations will not be used unless the originator is certain that the meaning is clear and unmistakable by all addressees. In the interest of brevity, the NMAT or ARRL abbreviated text should be used for morale type messages, when possible.

01.05.0620 SAFEGUARDING OF COMMUNICATIONS

Official messages are inviolable. Their contents shall not be revealed to anyone except as designated by the addressed Commander, Commanding Officer, or designated representative. The transmission or revelation to an unauthorized person of information affecting the National Defense of the United States is prohibited by law. Espionage Laws, Title 18, U.S.C., Sections 793 and 794 apply.

All personal and commercial messages handled by naval communications are equally inviolable. Contents of such messages shall not be revealed to anyone but the person addressed and as necessary for communication processing. Unauthorized disclosure of the contents of any personal or commercial message is prohibited by law and punishable under the Federal Communications Act of 1934.

No person is entitle to knowledge or possession of classified or unclassified communications solely by virtue of his rank, position, office or security clearance.

01.05.0630 ACCEPTANCE

The station accepting a message for transmission and/or delivery is responsible for the message until it has been relayed or delivered to the addressee. When a station is unable to relay or unable to effect delivery, the originating station must be notified. Instructions from the originating station to take no further action relieves the accepting station of any further message responsibility.

01.05.0640 MESSAGE CRITERIA

Members must consider the capabilities of MARS facilities when accepting messages for transmission via MARS. Types of messages authorized for transmission on MARS networks will be restricted to the following unclassified messages:

Administrative Traffic pertaining to MARS.

Traffic of an official, semi or quasi official nature.

Exercise traffic (drill messages).

During periods of local, national, or international emergencies, any message relative to the emergency may be transmitted.

Personal and third party messages addressed to and/or from Armed Forces personnel and authorized government employees.

Only personal and third party record messages in the English language that are of non-business nature and which would not normally be sent by available commercial means may be handled. Format line six (FM LINE) of such messages must always contain the name of the person who actually originates the contents of the text.

Serious Illness or Death. Messages concerning the initial notification of serious illness or death of a member of the immediate family (wife, child, mother,

father, brother or sister) or Loco Parentis (Guardian or parent substitute) will not be handled via MARS. Individuals desiring to originate such messages should be immediately referred to the American Red Cross. Messages concerning plans or inquiries thereto, or messages concerning notification of serious illness or death of other relatives or close friends are not normally handled by the American Red Cross. Therefore, such messages are permissible on MARS networks provided they would not normally be sent by available commerical means and are addressed to the Commanding General/Commanding Officer/Officer in Charge or to the Chaplain of the unit or activity in which the party concerned is assigned and the relationship of the deceased is indicated. For civilian addressees, deliver to a clergyman for personal delivery or consult the local law enforcement officials and request that they assume responsibility for delivery. Under no circumstances will MARS members deliver such messages direct to the party concerned. An example of such a message: "Inform Seaman John Doe, uncle Harry Smith passed away--etc."

Legislative matters. No messages will be handled by MARS which relate to legislative matters. In this regard, a message addressed to a Legislator which circumvents the normal military chain of command is strictly forbidden.

Military Operations. Personal and third party messages which relate to military operations will not be handled by MARS. Any message concerning the following specified information is prohibited:

Military information pertaining to unit designation, strength, composition, function, or logistical matters.

Location and movement of units, aircraft, ships, supplies, and personnel.

Information of economic, politcal, or morale nature pertaining to troops or nationals of the United States or any foreign country.

Casualty information relating to injuries and deaths from enemy action.

Business matters. Any message which may result in financial or material gain is considered business in nature and will not be handled via MARS networks.

Avoidance of postage fees. Messages deemed to be an obvious attempt to avoid postage fees will not be accepted by the originating MARS station.

Any additional information as may be designated by appropriate authority.

The applicable provisions of this article also apply to RADIO - TELEPHONE Communications.

01.05.0650 MESSAGE SOLICITATION

A MARS member may publicize his personal message handling capabilities, but will not actively solicit third party messages for transmission via MARS. In this regard, MARS members may, however, request permission to establish a portable station for the purpose of accepting message traffic, provided that such a station is co-located with an appropriate MARS display that depicts the purpose of MARS and the station will be in conjunction with a convention or program sponsored by national or local government or sanctioned civilian amateur radio organization. Request for permission to establish such a station shall be addressed to the Chief, MARS via the Area Coordinator and Director. Requests should include the following information:

Convention or Program Sponsor.

Location of Proposed Station.

Call Sign(s) of Station(s). If a joint MARS operation, the Call Sign of other stations involved.

Duration and hours of operation.

Anticipated traffic.

Station custodian and MARS members participating.

Proposed network to dispose of traffic.

Business firm(s) involved (if any).

Under no circumstances will message blanks or solicitation of traffic be advertised by the news media, as defined in paragraph 03.0840.

01.05.0660 MARS TO AMATEUR REFILE

Except as provided for in paragraph 01.05.0640, the file or refile of MARS administrative, official, semi or quasi-official traffic into the amateur radio service is STRICTLY FORBIDDEN. Only personal third party messages may be refiled into the amateur radio service. MARS members may refile messages into the amateur radio service only when it is impracticable to effect delivery via MARS channels without undue delay. Before refile is effected, it is necessary that the message be converted into the proper format. Under no circumstances will a MARS message be refiled in the military format.

01.05.0670 AMATEUR TO NAVY-MARINE CORPS MARS REFILE

Messages that are to be refiled from the amateur radio service to the MARS Networks must meet the message criteria in accordance with paragraph 01.05.0640. Before effecting refile, it is necessary that the message be changed to the MARS format in accordance with Chapter 6.

01.05.0680 CANCELLATION OF MESSAGES

A message can only be cancelled by the originating station. Cancellation of a message which has been transmitted may be accomplished only by a new message, which may be a message taking the place of the one cancelled. Operating signals shall not be used to cancel a message which has been receipted.

01.05.0700 RECORDS

01.05.0710 ESTABLISHMENT

01.05.0711 MESSAGE FILE

The message file will contain a copy of every message sent or received. Messages will be filed in Date-Time-Group order. Messages processed without a date-time-group will be filed behind DTG messages for the same date. Separate incoming and outgoing files may be maintained at the option of the station.

01.05.0712 STATION FILE

Stations involved in message relay may establish a station file which will contain a copy of every message relayed. Messages processed will be filed in date-time-group order.

01.05.0713 GENERAL MESSAGE FILE

The General Message File contains a copy of all general messages that require retention by the member. This file is subdivided by title of each general message and filed in serial number order.

01.05.0714 CONSOLIDATION OF FILES

The message and station files may be combined, if desired, for convenience of storage, filing and referencing.

01.05.0715 COMMUNICATION LOGS

The following logs must be maintained where applicable to the communication capability of the station. Instructions for maintaining these logs are contained in the Chapter on the respective modes of operation.

Morse Radiotelegraph (CW) logs contain a record of every Morse radiotelegraph transmission on each radio frequency guarded, covered, or copied and is manually prepared.

Teletypewriter log is the page copy or perforated tape that is automatically produced by TTY equipment. A log sheet may be manually prepared which must contain all pertinent information.

Specialty net Radiotelephone log contains a brief of all transmissions made. The stations involved, brief of the transmission and the times of transmissions shall be recorded. In the event the transmissions involve radiotelephone calls, the telephone number and the names of the parties involved shall be recorded.

01.05.0720 RECORDS DISPOSAL

Communication files and logs shall be retained for the period stated, then they may be destroyed:

Messages incident to distress or disaster - three years.

Messages incident to or involved in any claim or complaint of which the station has been notified - two years, or until complaint or claim has been fully satisfied.

Messages of historical or continuing interest - permanently. When no longer needed for local reference, these messages shall be transferred to Chief, MARS.

General Messages - until superseded or cancelled.

All other messages - six months.

Logs, record sheets, registers of incoming and outgoing messages, and facsimile files shall be retained/destroyed in accordance with the preceding provisions for messages containing similar information.

Tape relay station monitoring tapes or page copies of outgoing messages and service rerun records (relay station log records of all messages) - thirty days.

Monitor tapes of page copies and incoming messages (relay stations), message tapes for relay purposes - twenty-four hours.

01.05.0800 COMMUNICATIONS IMPROVEMENT

01.05.0810 COMMUNICATION IMPROVEMENT MEMORANDUM (CIM)

In the interest of improvement of communications within the MARS networks, and to enhance Naval Communication Training, Communication Improvement Memorandum (CIMs) may be exchanged between stations to point out message discrepancies and procedural errors. CIMs are intended to aidtrainingby indicating where improvement is needed, not a means for criticism, and should be taken as such. CIMs exchanged between members must include complete identification of message or incident involved, and a concise explanation of the errors made and reference made to the appropriate paragraph of the governing publication. CIMs should be mailed, without delay, directly to the station concerned with a copy to the Director or his training assistant, who shall use the information only in compiling data for training purposes.

01.05.0820 PRACTICES FORBIDDEN

The following practices are forbidden:

"On the air" conduct or other actions causing embarassment to, or that which is not in the best interest of the U.S. Government including MARS and members.

Violation of radio silence whenever imposed.

Violation of MINIMIZE when in effect.

Use of profane, indecent or obscene language, either spoken or implied.

Exceeding the specific power ratings placed on MARS frequencies.

Use of other than authorized prosigns, prowords, or operating signals.

01.05.0900 MINIMIZE

01.05.0910 DEFINITION

MINIMIZE is a condition wherein normal message and radiotelephone traffic is drastically reduced in order that messages connected with an actual or simulated emergency shall not be delayed.

01.05.0920 AUTHORITY

The Chief, MARS shall be the only authority to impose MINIMIZE on MARS networks. The decision to impose MINIMIZE shall be based, in part, upon the following considerations:

The advice or information received from the Director and/or his staff.

Impact incoming traffic is having on local MARS Radio Stations and their ability to effect delivery.

Degree of operational necessity, based upon present indications or past experience.

01.05.0930 APPLICATION OF MINIMIZE

MINIMIZE may be imposed in a specific area or MARS world-wide, to include either or both record message and radiotelephone traffic. Depending on the circumstances, MINIMIZE may also include either or both incoming and outgoing traffic to the area. When it has been determined that MINIMIZE is necessary, a message will be originated by the Chief, MARS and transmitted by the Headquarters, MARS Radio Station (NAV) to All MARS Regions. The message ordering MINIMIZE shall include the word "MINIMIZE" specifying the scope and the reason, if required. The message may also contain the duration if known.

When MINIMIZE is imposed on MARS networks, the criteria set forth below shall be followed by all stations:

The release of welfare and routine traffic destined for the emergency area shall be forbidden.

Routine traffic already in the system and destined for the emergency area shall be held by the respective station until MINIMIZE is lifted.

Stations shall continue to transmit any message that is Priority or above via normal channels.

Official communications will normally be handled ahead of personal third party messages regardless of precedence.

The Chief, MARS shall cancel MINIMIZE at such time as conditions permit.

01.05.1000 COMMUNICATION SECURITY

01.05.1010 DEFINITION

Communication security is the protected condition of communications resultng from the application of various measures to prevent or delay the unauthorized disclosure of military information from U.S. communications.

01.05.1020 GENERAL

Communication security is a means, not an end. Rules governing communication security do not guarantee security and do not attempt to meet every conceivable situation. Operational requirements limit the secuirty measures that can be employed. With operational efficiency, it is possible to obtain a satisfactory degree of security with a minimum of delay or interference.

01.05.1030 ELEMENTS OF COMMUNICATIONS SECURITY

Transmission Security - That component of communication security which results from all measures designed to protect transmissions from unauthorized interception, traffic analysis, and imitative deception.

Crytographic Security - That component of communication security which results from the provision of technically sound cryptosystems and their proper use.

Physical Security - That component of communication security which results from all physical measures necessary to safeguard classified equipment, material, and documents from access or viewing by unauthorized persons. Effective physical security is attained only when all established methods and procedures are diligently carried out. This entails proper handling by everyone concerned, proper storage of equipment and material when not in use, and when necessary, proper destruction.

01.05.1040 CLASSIFIED MATTER

Classified matter is official information or material in any form or of any nature which requires protection in the interest of national defense.

01.05.1050 SENSITIVE INFORMATION

Sensitive information is that information which may not necessarily be classified but could be harmful to the United States interests, activities, or policies if improperly disclosed. The following specified information is considered in this category and the transmission of such information over a Navy-Marine Corps MARS network is prohibited:

Military unit designation, strength, composition, function, or logistical matters.

Location and movement of units, aircraft, ships, supplies and personnel.

Economic, political, or morale nature pertaining to troops or nationals of the United States or any foreign country.

Casualty information relating to injuries and deaths from enemy action.

International problems or political discussions.

01.05.1060 LOSS OR UNAUTHORIZED DISCLOSURE

Each person who has knowledge, or custody, of classified information is responsible for preventing its loss or unauthorized disclosure. MARS members accepting third party communications for transmission via MARS are responsible to assist in preventing the unauthorized disclosure by screening message content or by instructing radiotelephone users in regards to security.

01.05.1070 REPORTING LOSS OR UNAUTHORIZED DISCLOSURE

Any person discovering a suspected loss or unauthorized disclosure of classified matter should notify the MARS Director, or in the case of an operator at a Military Auspices Station, his immediate superior or other appropriate authority as rapidly as possible. The subject shall not be discussed over the air or telephone. Non-military MARS member, after the initial notification, shall await further instructions from the appropriate authority.

CHAPTER 6

GENERAL COMMUNICATION OPERATING INSTRUCTIONS

01.06.0100 MESSAGE

01.06.0110 DEFINITION

A message is any thought or idea expressed briefly in plain or cryptic language, prepared in a form suitable for transmission by any means of communication. Communications requiring delivery normally are prepared for transmission as brief and concise messages.

01.06.0120 BASIC FORMS

A message may be drawn up in one of the following forms:

01.06.0121 PLAINDRESS

A message in which the originator and addressee designations are indicated externally of the text. Unless the call serves as the address, a PLAINDRESS message contains all the components shown in the basic message schematic diagram contained in paragraph 01.06.0130, except that the prefix may be omitted. A PLAINDRESS message always must include the following elements:

Precedence

Date-Time-Group

01.06.0122 ABBREVIATED PLAINDRESS

Operational requirement for speed of handling a message may require abbreviation of PLAINDRESS message headings. In such a case, any or all of the following may be omitted:

Precedence

Date

Date-Time-Group (A time-group consisting of the hour and minutes may be used either in the message heading or at the message ending, following the BT prosign).

Group count

01.06.0123 CODRESS

A Codress message carries in the encrypted text the entire address, i.e., originator and all addressees. The heading contains all components shown in the message schematic diagram except the address. When such messages are handled via MARS, upon receipt of the message in the Region of destination, the message will be refiled into the Naval Communication System at or by one of the designated MARS/Naval Communication System refile points/stations.

01.06.0130 SCHEMATIC DIAGRAM

Messages prepared for transmission will be either PLAINDRESS, ABBREVIATED PLAINDRESS OR CODRESS and will have three "PARTS".

Heading

Text

Ending

Message "PARTS" have certain "COMPONENTS" which are broken down into

"ELEMENTS".

In the following diagram, it should be noted that every element is indicated in the order of appearance in the message, but the contents of the various elements are not necessarily indicated as they will appear. For radiotelephone operations, the prosigns and operating signals shall be substituted with the corresponding prowords and phrases.

PARTS	COMPONENTS	ELEMENTS	FORMAT LINE	CONTENTS
		Handling Instructions	1	
HEADING	Procedure	Call	2,3	Station(s) called (Prosign XMT, exempted calls). Prosign DE and station calling.
		Transmission identification		Station serial number.
		Transmission Instructions	4	Prosign T; G; F; Operating signals; Call signs; Address groups, plain language.
HEADING	Preamble	Precedence date-time group; message instructions	5	Precedence prosign; date and time expressed in digits, and zone suffix; month & year, operating signals and prosign IX.
HEADING	Address	Originator's sign; Originator	6	Prosign FM; Originator's designator. (call sign or plain language).
		Action addressee sign; action addressee	7	Prosign TO; action addressee designator. (call sign or plain language).
		Information addressee sign; information addressee	8	Prosign INFO, information addressee designator. (call sign or plain language).
		Exempted addressee sign; exempted addressee	9	Prosign XMT; exempted addressee designator. (call sign or plain language).
	Prefix	Accounting information; group count	10	Accounting symbol; group count
BREAK			11	Prosign BT
TEXT	Text	Subject Matter	12	Internal instructions; basic idea of the originator.

BREAK			13	Prosign BT
E N D I N G	Procedure	Time Group	14	Hours and minutes expressed in digits and zone suffix, when appropriate
		Final instructions	15	Prosigns B; AS; C; Operating Signals.
		Ending sign	16	Prosign K; $\overline{AR}$

01.06.0131 ELEMENTS OF MESSAGES

Handling Instructions - This element is used only in tape relay procedure and is covered in Chapter 9.

Call - Contains the call sign(s) of the station(s) called, the prosign XMT and exempted call sign(s) if required, the prosign DE and the call sign of the calling station: NNN0ALS XMT NNN0ADD NNN0BBB DE NNN0AAA....etc.

Transmission Identification - Transmission identification is a number assigned by operating personnel to a message to facilitate its identification and handling while it is in transit. Transmission identification may be employed only on fixed station networks, broadcast schedules and ship-shore nets. It is not used in ship-to-ship communications and harbor nets. It is not used when indefinite or encrypted call signs are employed. In radiotelegraph, the transmission identification is called the station serial number. On ship-shore nets, station serial numbers are assigned consecutively to each outgoing message on a given circuit to a given station. A new set of station serial numbers is begun at 0001Z each day. Fixed station nets, the use of station serial numbers is at the discretion of the Net Control Station (NECOS). When used, each station will assign a consecutive serial number to each outgoing message without regard to the station to which the message is transmitted. Example: NNN0ALS XMT NNN0ADD NNN0BBB DE NNN0AAA NR1-F...etc.

Transmission Instructions - Transmission instructions consist of prosigns, address designations and operating signals concerning the routing, relaying and delivery of a message. When not in direct communication with all addressees, transmission instructions must be used except when routing indicators are assigned, or when the station called has fixed responsibility for delivery and when passing instructions are contained in the text. Example: NNN0ALS XMT NNN0ADD DE NNN0AAA NR1-F...etc.

Precedence - Precedence is assigned and handled in accordance with paragraph 01.06.0300 and is indicated by the appropriate prosign. Dual precedence may be used. The higher precedence (for action addressees) is indicated first. Example: NNN0ALS XMT NNN0ADD NNN0BBB DE NNN0AAA NR1-F-P-R..etc.

Date-Time-Group - The date-time-group is expressed as six digits, a zone suffix, followed by the abbreviation of the month and the two last digits of the year. The first two digits denote the date; the second pair, the hour, and the third pair, the minutes. UCT is normally used and the zone suffix therefore would normally be Z (ZULU). The first to the ninth day of the month is represented by 01 to 09. Abbreviated PLAINDRESS messages may carry no date-time-group or the DTG may be replaced by a time group, omitting the date, and transmitted after the precedence designation or before the final instructions. To convert the local time to Universal Coordinated Time (UCT), the Time Table used in conjunction with the World Time Chart may be used. The plus (+) and minus (-) indicate the number of hours to add or subtract to or from the local time. Example: Local time 1000 in zone 67 1/2W to 82 1/2W, +5 Letter designation R. The UCT (Z) time is 1500. Example: NNN0ALS XMT NNN0ADD NNN0BBB DE NNN0AAA NR1-F-P-R 131500Z MAR 79..etc. Each message originated by a station shall be assigned a different date-time-group. The time 0000Z shall not be used and patterns of even times should be avoided.

Message Instructions - The message instructions contain any operating signal which pertains to the message itself, and which must be transmitted to all addressees. Example: NNN0ALS XMT NNN0ADD NNN0BBB DE NNN0AAA NR1-F-P-R 13100Z MAR 79 ZEL..etc.

Address Elements - The elements in the address component of a message use address designators which include call signs, address groups, plain language titles (including abbreviated titles), and routing indicators. Any combination of letters and numerals or pronounceable words designated for use in message headings to identify a command, authority, unit, or communication facility, or to assist in the transmission and delivery of messages, may be classed as an address designator. Plain language address designators are normally confined to abbreviated titles of commands and activities. All numerals in abbreviated short titles shall be spelled out except numbers one through nineteen which will be spelled or written as such. For example:

Commandant Thirteenth Naval District .....COMTHIRTEEN Seattle WA
Commander Task Force 140 .....CTF ONE FOUR ZERO
Commander Destroyer Squadron 10 .....COMDESRON TEN
Marine Transport Squadron 353 .....MARTRANSRON THREE FIVE THREE

The use of both plain language and call sign designators in a message address is not authorized. However, to improve efficiency in the handling of third party communication within MARS, third party messages may contain the call sign of the originating station and the plain language designator of the addressee. The address should include the telephone number, if any. This only applies to third party messages and does not preclude the use of passing instructions to be included in the text if delivery via a specific MARS station is desired.

Example:
R 131601Z MAR 79
FM MRS JOSEPH P JONES ALEXANDRIA VA/NNN0ATS VA
TO MR JOSEPH P JONES
1234 Main Street N E
Peaksville S C 29400
803-324-5522

Originator - Contains the originator prosign, FM followed by the originnator's designation. In the interest of brevity, call signs shall be used when possible. Example: NNN0ALS XMT NNN0ADD NNN0BBB DE NNN0AAA NR1-F-P-R-131500Z MAR 79 FM NNN0ASA..etc.

Action Addressee - Contains the action prosign TO followed the action addressee(s) designation(s). Example: NNN0ALS XMT NNN0ADD NNN0BBB DE NNN0AAA NR1-F-P-R- 131500Z MAR 79 FM NNN0ASA TO NNN0ALS..etc.

Information Addressee - Contains the information prosign INFO followed by the information addressee(s) designation(s). Example: NNN0ALS XMT NNN0ADD NNN0BBB DE NNN0AA NR1-F-P-R-131500Z MAR 79 FM NNN0ASA-TO NNN0ALS INFO NNN0ALD.

Exempted Addressee - The exempted addressee is only used in conjunction with collective calls, i.e. NNN0ALL, NNN0ALS, NNN0ALD, and the originator desires station(s), included in the collective call sign to be exempt. The exempt addressee contains the Prosign, XMT followed by the addressee designation(s) of the exempted station(s). Example: NNN0ALS XMT NNN0ADD NNN0BBB DE NNN0AAA NR1-F-P-R-131500Z MAR 79-FM NNN0ASA-TO NNN0ALS INFO NNN0ALD-XMT NNN0ADD NNN0BBB..etc.

Accounting Information - Accounting information is used only on messages for refile with commercial facilities through the designated refile stations within the Naval Communication system.

Group Count - The group count is normally contained in coded group messages only. However, when used in plain language messages, groups are to be counted in accordance with the following rules:

Count text groups only.

Time Conversion Table

PREVIOUS DAY																									SAME DAY
1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	
1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	
2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	
2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	
2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	
2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	
SAME DAY																									NEXT DAY
0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	
0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	
0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	
0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	
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0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	
0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	
0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	
0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	
1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	
1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	
1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	
1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	
1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	
1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	
1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	
Y	X	W	V	U	T	S	R	Q	P	O	N	Z	A	B	C	D	E	F	G	H	I	K	L	M	
+12	+11	+10	+9	+8	+7	+6	+5	+4	+3	+2	+1	0	−1	−2	−3	−4	−5	−6	−7	−8	−9	−10	−11	−12	

Time zone chart of the world

Punctuations and symbols are not counted unless spelled out or abbreviated.

Sequence of characters not interrupted by a space is counted as one group.

The proper names of countries, cities, or streets consisting of two or more separate words should normally be written and counted as one group, i.e. SanSalvador, SanDiego, SaltLakeCity, but when written separately, they will be transmitted and counted as separate groups.

Examples:	Group Count
Date-time-group	1
Date time group	3
NewYork	1
New York	2
(Joseph Smith)	2
Paren Joseph Smith unparen	4
Chief, Navy-Marine Corps MARS	4
Chief, NAVMARCORMARS	2

Example:

NNN0ALS XMT NNN0ADD NNN0BBB DE NNN0AAA NR1-F-P-R-131500Z MAR 79-FM NNN0ASA-TO NNN0ALS INFO NNN0ALD XMT NNN0ADD NNN0BBB GR23 BT TEXT BT..
etc.

Text - The text format will be in accordance with paragraph 01.06.0140.

Time Group - The Time Group contains the hour and minutes expressed in four digits and the Zone suffix. The time group is normally used only in Abbreviated PLAINDRESS.

Final Instructions - Contains the prosigns B; C; CFN; AS; Operating signals and address designations as required.

Ending Sign - The ending sign is to indicate the end of the message and contains the prosign K or AR. The two prosigns will NOT be used in any one transmission, i.e. K AR.

01.06.0140 MESSAGE TEXT FORMAT

Each message text, except tactical and proforma messages, shall be in the following sequence. Where elements listed are omitted, the sequence shall be adjusted accordingly.

Classification or the abbreviation UNCLAS.

Exercise identification (EXERCISE SPEEDCOMM) (DRILL)

Passing instructions or other indication of message distribution (NNN0ASA NOT ADDEE, PASS ACTION TO LT W.T. DOORE).

Subject line, concise identification of subject matter not to exceed one line (SUBJ: MARSTELSYS OPERATIONS)

Reference(s), identified by letter(s). (A. NNN0ASA 120500Z MAR 79)

When a referenced letter or message is not held by an addee and not needed, the reference shall be followed by the word "NOTAL". (A. NNN0ASA 120500Z MAR 79 NOTAL)

When a reference is not held by an addee and needed, the reference shall be followed by the word "PASEP" and the reference passed to the ADDEE(S) by forwarding a copy of a letter or readdressing the message.

If a referenced message was forwarded by Mail or Courier, so indicate. (A. NNN0ASA 120500Z MAR 79 MAIL)

Expression of the thought. In the interest of brevity, abbreviations which are well known and/or those contained in Annex H should be used.

Paragraphs are numbered.

Subparagraphs are lettered or numbered as appropriate.

The American Relay Radio League (ARRL) and/or NMAT abbreviated text may be used in Third Party messages, following the above format as necessary.

Example:

R 130732Z MAR 79
FM MATTHEW G HARPER ALEXANDRIA VA/NNN0ATS VA
TO MR HAROLD P HARPER
123 MAIN STREET
NEW YORK NY 01007
212-344-6828
BT
UNCLAS
1. ARL SIXTY THREE
2. MAT SENDS
BT

Service messages need not adhere to the format prescribed.

01.06.0200 TYPES OF MESSAGES

01.06.0210 SERVICE MESSAGE

A service message is a short, concise message between communication personnel which is used to obtain information regarding the handling of communication matters. A service message is a bonafide message and shall be accorded prompt attention. If action cannot be completed within a reasonable time, the station originating the service will be so notified. Prosigns and operating signals will be used to the maximum extent to obtain and provide corrections, or repetitions. Service messages are normally assigned a precedence the same as the message being serviced. A service message may be identified by one of the following:

Reference to another service message.

The abbreviation SVC as the first word of the text following the classification, (UNCLAS).

Example:

Request

R 120803Z MAR 79
FM NAV MD
TO NNN0ASL HI
BT
UNCLAS SVC
ZDE 4 NNN0ASL 112201Z MAR 79
BT
(ZDE4 - Message..undelivered. Give more complete address)

Reply

R 130011Z MAR 79
FM NNN0ASL HI
TO NAV MD
BT
UNCLAS SVC
ZUI YOUR 120803Z MAR 79 - HAROLD W SMITH 2212 JONES STREET
ARLINGTON VA 22040 Telephone 703-524-3515
BT

(ZUI - Your attention is invited to..)

01.06.0220 READDRESSAL

When it is determined that an additional addressee requires or needs to have the information contained in a message, the message may be addressed to the additional addressee(s) by a supplemental heading. It will show the readdressing addressee as the originator, action and/or information addressees, a precedence prosign, a date-time-group, and, when necessary, message instructions and transmission instructions.

That part of the original message preceding the preamble is omitted.

The new precedence assigned applies to the supplementary heading.

The preamble of the original message indicated the beginning of the original message.

Readdressed messages are filed under the original DTG. The readdressal DTG will not be used as a message reference.

A message received for information (INFO) may only be readdressed for information (INFO). A message received for action may be readdressed for action (TO) or information (INFO).

If it is necessary to inform any of the original addressees or the originator that a message has been readdressed, they may be included in the supplementary heading.

An originator desiring to add addressees to a message previously transmitted will normally do so by readdressal.

Example:

Original message:

```
R 130505Z MAR 79
FM NNN0ASA DC
TO NNN0ASC SC
INFO NNN0ASF TX
NNN0ASE SCA
BT
```

Readdressal:

```
R 141122Z MAR 79
FM NNN0ASF TX
INFO NNN0ASI EPA
NNN0ASB DC
R 130505Z MAR 79
FM NNN0ASA DC
..etc..
```

01.06.0230 SINGLE ADDRESS

A single address message is one destined for only one addressee.

01.06.0240 MULTIPLE ADDRESS

A multiple address message is one which is destined for two or more addressees, each of whom must be informed of all the addressees. Originators of messages should limit the number of addressees, whether action of information, to those for whom the information contained in the text is essential. Overaddressing of messages can lead to a burden on those who handle the message.

01.06.0250 BOOK MESSAGE

A book message is one which is destined for two or more addressees and is of

such a nature that the originator considers that addressees need not be informed of other addressees. However, each addressee will be indicated as an action or information recipient. A book message is identified by the operating signal "ZEX" (and ZEZ if appropriate), in format line 5.

Addressees of book messages are divided into groups according to the relay stations which serve them. For each group of addressees, a separate message is prepared and transmitted. Each book message is assigned a new station serial number but retains the same date-time-group for all books of the same message.

A receiving relay station may further reduce the book message to a single address message to its stations of responsibility, if desired. This applies whether the message is delivered by rapid means or by mail and includes all confirmation copies.

Addressees shall not readdress book messages outside their area of responsibility.

Example:

As originated:

```
R 132218Z MAR 79 ZEX
FM NNN0ASA DC
TO NNN0ASC SC
   NNN0ASI EPA
   NNN0ASE SCA
   NNN0ASF TX
   NNN0ASG IL
BT
```

As prepared for transmission over different channels:

```
R 132218Z MAR 79 ZEX
FM NNN0ASA DC
TO NNN0ASE SCA
BT
```

```
R 132218Z MAR 79 ZEX
FM NNN0ASA DC
TO NNN0ASC SC
NNN0ASF TX
BT..ETC..
```

01.06.0260 GENERAL MESSAGES

A general message is one which has a wide distribution. It is assigned an identifying title. Each message of a given title carries a serial number in a sequence which covers a calendar year. A general message content may be directive in nature or promulgate information to the addressees.

NAVMARCORMARS	Addressee:	All Navy-Marine Corps MARS Stations (NNN0ALL)
	Originator:	Chief, Navy-Marine Corps MARS
	Content:	Directive and general information.
ALNAVMARCORMARSSTA	Addressee:	All Navy-Marine Corps MARS Stations (NNN0ALL)
	Originator:	Chief, Navy-Marine Corps MARS
	Content:	Message changes to NTP 8 series.
ALNAVMARCORMARSREG (Region number)	Addressee:	All Navy-Marine Corps MARS Stations in Region

indicated. (NNN0ALL NNN0____)
Originator: Director of the NAVMARCORMARS Region indicated.
Content: Directive and general information.

01.06.0270 TRACER MESSAGES

A tracer message is a form of a service message, by which action is initiated to determine the reason for inordinate delay in delivery or nondelivery of a message. Tracer action must commence within 30 days from the date of the message being traced. All tracer messages must be acted upon promptly. A station's failure to respond to tracer action can only be construed to mean that the fault lies within that station. All tracer messages shall include the Chief, MARS and the appropriate Director as information addressees.

01.06.0271 DELAYED MESSAGE

The MARS Station making the ultimate delivery to the addressee will initiate tracer action by notifying the originator of the inordinately delayed message. The stations will first carefully examine their records and the message heading to determine if the cause can be ascertained and adequately explained prior to commencing tracer action. Cognizance must be taken of any adverse circuit or traffic conditions previously known or reported by intermediate relay stations which would have caused delay before initiating such action. If the cause for delay cannot be locally established, the originating station of that message will normally transmit a routine tracer message to the first relay station which the delayed message was transmitted, citing the message date-time-group, station serial number, the date and time the message was transmitted (TOD) and other amplifying data as required. Tracer action will continue on a station-to-station basis until the cause of delay has been determined. Upon receipt of an excessive delay tracer, each station will examine it records for time of receipt and time of transmission of the message being traced. This information will be compiled and transmitted with the tracer action to the next station in the relay path and information to the station which originated the tracer, Chief, MARS and the Director. If any station which handled the tracer message caused delay, the reason for the delay and a resume of corrective action will be stated in the report.

Examples:

Excessive delay tracer to first relay by originating station

```
R 160230Z JUN 79
FM NNN0AAB SCA
TO NAV MD
INFO NNN0ASE SCA
NNN0EFB SC
BT
UNCLAS SVC
ZUI NNN0AAB 101425Z JUN 79 NNN0EFB TOR 15/1028Z.  5 DAYS DELAY. ZDN
BT
(ZDN - REPORT DISPOSAL OF MESSAGE URSTA WITH ANY REASON FOR DELAY)
```

Relay station's report on an excessive delay tracer

```
R 160250Z MAR 79
FM NAV MD
TO NNN0RSE SC
INFO NNN0AAB SC
     NNN0ASE SCA
     NNN0EFB SC
BT
UNCLAS SVC
ZUI AVE0150 NNN0AAB 101425Z MAR 79 NNN0EFB TOR 15/1028Z.
5 DAYS DELAY. TOR 10/1438Z ZDQ NNN0RSE 10/2347Z.  9 HOURS
DELAY THIS STA DUE SKED.  ZDN
BT
```

01.06.0272 LOST MESSAGE

Upon verification of non-receipt of a message, the originating station will retransmit the message as a duplicate (ZFG) to the station(s) claiming non-delivery and transmit a service message tracer to the first relay station involved with the original transmission. The latter station, after determining that mishandling was not involved, will then transmit the tracer to the next relay station for action and to the originating station, the station claiming non-delivery, Chief, MARS, and the Director for information. Such action will be continued on a station-to-station basis until the cause for the lost message has been determined and reported to the originating station, station(s) claiming non-delivery, Chief, MARS, and to the Director. The following is a sample of a recommended SVC message text to be used when initiating or continuing tracer action regarding non-deliveries:

R 141521Z MAR 79
FM NNN0JPJ SCA
TO NNN0TEF ND
INFO NNN0ASE SCA
NNN0PPC SCA
BT
UNCLAS SVC
NNN0PPC CLAIMS NON DLVY NNN0JPJ 091410Z MAR 79 ZDQ NNN0TEF 09/1422Z 4001.5 KHZ. TRACE TO DESTINATION AND ADVISE
BT

01.06.0280 UNDELIVERABLE MESSAGE

A message that cannot be delivered due to incorrect/incomplete addressee will be serviced back to the originating station. The service message should state that the message was not delivered and show the portion of the heading in question as received (with maximum utilization of "Q" and "Z" signals).

EXAMPLE:

BT
1. ZUI YOUR 100001Z AUG 79, ZDE4 ZEI. MRS JOHN SMITH, 2001 NOWHERE STREET, SOMEWHERE USA 22204. WE ZOB.
BT

01.06.0300 PRECEDENCE

01.06.0310 ASSIGNMENT

The assignment of the precedence to a message is the responsibility of the originator and is determined by the subject matter of the text and the time factor involved. Precedence designations are employed to indicate the relative order in which a message of one precedence designation is handled with respect to all other precedence designators, as follows:

To the Originator - The required speed of delivery to the addressee.

To Communication Personnel - The relative order of handling and delivery.

To the Addressee - The relative order in which he should note the message.

Precedence assigned to multiple address messages having both action and information addressees, may either be assigned a single precedence in which case it indicates the precedence is for all addressees, or they may be assigned two precedences, one precedence for all action addressees and a lower precedence for all information addressees. The higher precedence will always be placed first in the preamble.

FLASH(Z). FLASH precedence is reserved for initial enemy contact messages or operational combat messages of extreme urgency. Brevity is mandatory. FLASH messages will be hand carried, processed, transmitted and delivered in the order received and ahead of all other messages. Messages of lower precedence will be interrupted on all circuits involved until handling of the FLASH message is completed.

IMMEDIATE(O). IMMEDIATE is the precedence reserved for very urgent messages relating to situations which gravely affect the security of national forces or populace. IMMEDIATE precedence may be used on messages concerning the amplification of initial enemy contacts, logistical support when essential to sustain operations, widespread civil disturbance, warning of grave natural disaster (earthquake, flood, storm, etc.), and distress assistance. IMMEDIATE messages are processed, transmitted and delivered in the order received and ahead of all messages of lower precedence. If possible, messages of lower precedence will be interrupted on all circuits involved until the handling of the IMMEDIATE message is completed.

PRIORITY(P). PRIORITY is the precedence reserved for messages concerning the conduct of operations in progress and for other important and urgent matters when ROUTINE precedence will not suffice. This is the highest precedence which normally may be assigned to administrative or third party messages: PRIORITY messages will be processed, transmitted and delivered in the order received and ahead of all messages of ROUTINE precedence. Routine messages being transmitted should not be interrupted unless they are extra long and a very substantial portion remains to be transmitted.

ROUTINE(R). ROUTINE is the precedence to be used for all types of messages which justify transmission by rapid means but are not of sufficient urgency and importance to require a higher precedence. ROUTINE messages will be processed, transmitted and delivered in the order received and after all messages of a higher precedence.

01.06.0320 SPEED OF SERVICE OBJECTIVES

The established goal of these objectives is to insure the fastest communications support possible is provided. Regardless of the objectives established, it is realized that within the Military Affiliate Radio System (MARS) message traffic will be handled as rapidly as possible consistent with security (when required) and accuracy. The objectives apply to the total elapsed handling time between Writer and Reader (Time of file to time of delivery).

Precedence	Prosigns	Objective
FLASH	Z	As fast as humanly possible with an objective of less than 10 minutes.
IMMEDIATE	O	30 minutes - 1 hour
PRIORITY	P	1 - 6 hours
ROUTINE	R	3 hours - next working day.

01.06.0400 PUNCTUATION, PHONETIC AND ABBREVIATIONS

01.06.0410 PUNCTUATION

Punctuation shall be used when essential for clarity. Punctuation marks used in naval messages shall be limited to the symbols listed below, which have Morse equivalents, and appear on standard typewriter and teletypewriter keyboards. Punctuation marks shall be processed and transmitted exactly as drafted, provided the means of communication permits. Otherwise, communication personnel shall substitute authorized abbreviations or spell out the punctuation mark.

Punctuation equivalents:

Name	Symbol	Abbreviation	Morse		Spoken
Apostrophe	'	APOS	.----.		Apostrophe
Colon	:	CLN	---...	(OS)	Colon
Comma	,	CMM	--..--	(MIM)	Comma
Hyphen or Dash	-		-....-	(DU)	Dash
Parenthesis/Left	(	PAREN	-.--.	(KN)	Paren
Parenthesis/Right	)	UNPAREN	-.--.-	(KK)	UNParen
Period	.	PD	.-.-.-	(AAA)	Period
Question Mark	?	QUES	..--..	(IMI)	Question Mark

Quotation Mark	""	QUOTE/UNQUOTE	.-..-.	_____	Quote/Unquote
Slant Sign	/	SLANT	-..-.	(XE)	Slant

The following symbols appear on the standard typewriter and teletypewriter keyboards and may be used:

Ampersand	&	None	None	And
Dollar Sign	$	DOLS	None	Dollars

01.06.0420 PHONETIC ALPHABET

a. When necessary to identify any letter of the alphabet, the standard phonetic alphabet shall be used. This alphabet is listed below:

LETTER	PHONETIC	SPOKEN AS	LETTER	PHONETIC	SPOKEN AS
A	ALFA	AL FAH	N	NOVEMBER	NO VEM BER
B	BRAVO	BRAH VOH	O	OSCAR	OSS CAH
C	CHARLIE	CHAR LEE or SHAR LEE	P	PAPA	PAH PAH
D	DELTA	DELL TAH	Q	QUEBEC	KEH BECK
E	ECHO	ECK OH	R	ROMEO	ROW ME OH
F	FOXTROT	FOKS TROT	S	SIERRA	SEE AIR RAH
G	GOLF	GOLF	T	TANGO	TANG GO
H	HOTEL	HOH TELL	U	UNIFORM	YOU NEE FORM or OO NEE FORM
I	INDIA	IN DEE AH	V	VICTOR	VIK TAH
J	JULIETT	JEW LEE ETT	W	WHISKEY	WISS KEY
K	KILO	KEY LOH	X	XRAY	ECKS RAY
L	LIMA	LEE MAH	Y	YANKEE	YANK KEY
M	MIKE	MIKE	Z	ZULU	ZOO LOO

(NOTE: Syllables underlined carry the accent.)

These equivalents are desirable in expressing lettered designations and in spelling words in radiotelephone operations. They will not be used:

When the actual word might be used; 26 degrees West instead of 26 degrees Whiskey.

When the abbreviation is readily recognizable and authorized; such as USN, USMC, MARS, NMAT, ARL, etc.

Personal initials shall be spoken phonetically prefixed by the word "INITIAL" or "INITIALS" - Example: "G M Smith" shall be spoken "INITIALS GOLF MIKE SMITH."

Letter-Figure/Figure-Letter combinations are governed by Article 01.08.0161.

01.06.0430 NUMBERS

To distinguish numerals from written and spoken letters, figures and similarly pronounced words, the following written and pronunciation will be observed:

WRITTEN NUMERAL	SPOKEN AS	WRITTEN NUMERAL	SPOKEN AS	WRITTEN NUMERAL	SPOKEN AS
1	WUN	4	FOW-ER	7	SEV-EN
2	TOO	5	FIFE	8	AIT
3	TREE REE	6	SIX	9	NIN-ER
				0	ZE-RO

To distinguish the letters I and Z from the numbers 1 and 2, the letters should be written as i or I and ƶ.

The decimal point is to be spoken as "DAY-SEE-MAL" Example: 123.4 is spoken "FIGURES WUN TOO THUH-REE DAY-SEE-MAL FO-WER".

01.06.0440 MONTH ABBREVIATIONS

The abbreviations for the months of the year are as follows:

January .....JAN	May .....MAY	September .....SEP
February ....FEB	June .....JUN	October .....OCT
March .....MAR	July .....JUL	November .....NOV
April .....APR	August ...AUG	December .....DEC

Where appearing, Month and Year will be spoken as: "January Seven Niner", or "April Eight Zero".

01.06.0450 STATE ABBREVIATIONS (MARS ONLY)

Following are the authorized two and three letter abbreviations.

ALABAMA	AL	MONTANA	MT
ALASKA	AK	NEBRASKA	NE
ARIZONA	AZ	NEVADA	NV
ARKANSAS	AR	NEW HAMPSHIRE	NH
CALIFORNIA, SOUTHERN	SCA	NEW JERSEY	NJ
		NEW MEXICO	NM
CALIFORNIA, NORTHERN	NCA	NEW YORK, SOUTHERN	SNY
		NEW YORK, NORTHERN	NNY
COLORADO	CO	NORTH CAROLINA	NC
CONNECTICUT	CT	NORTH DAKOTA	ND
DELAWARE	DE	OHIO	OH
DISTRICT OF COLUMBIA	DC	OKLAHOMA	OK
FLORIDA, SOUTHERN	SFL	OREGON	OR
FLORIDA, NORTHERN	NFL	PENNSYLVANIA, EAST	EPA
GEORGIA	GA	PENNSYLVANIA, WESTERN	WPA
GUAM	GU	PUERTO RICO	PR
HAWAII	HI	RHODE ISLAND	RI
IDAHO	ID	SOUTH CAROLINA	SC
ILLINOIS, SOUTHERN	SIL	SOUTH DAKOTA	SD
ILLINOIS, NORTHERN	NIL	TENNESSEE	TN
INDIANA	IN	TEXAS, EAST	ETX
IOWA	IA	TEXAS, WEST	WTX
KANSAS	KS	TEXAS, SOUTH	STX
KENTUCKY	KY	UTAH	UT
LOUISIANA	LA	VERMONT	VT
MAINE	ME	VIRGINIA	VA
MARYLAND	MD	VIRGIN ISLANDS	VI
MASSACHUSETTS	MA	WASHINGTON	WA
MICHIGAN	MI	WEST VIRGINIA	WV
MINNESOTA	MN	WISCONSIN	WI
MISSISSIPPI	MS	WYOMING	WY
MISSOURI	MO		

01.06.0460 FOREIGN COUNTRIES AND OTHER ABBREVIATIONS (MARS USE ONLY)

AFLOAT ATLANTIC	AA
AFLOAT PACIFIC	AP
ANTIGUA ISLAND	AN
AZORES	AO
ANTARCTICA	AT
BERMUDA	BI
CUBA	CU
DIEGO GARCIA	DG
ELEUTHERA ISLAND, BAHAMAS	EL
GERMANY, REPUBLIC OF	GE
GREECE	GR
GRAND TURKS ISLAND, WEST INDIES	GT
ICELAND	IC
ITALY	IT

IWO JIMA	IJ
JAPAN	JA
MARCUS ISLAND	MC
MIDWAY ISLAND	MW
OKINAWA	OA
PANAMA	PN
KOREA, REPUBLIC OF	RK
PHILLIPINES, REPUBLIC OF	RP
SPAIN	SP
THAILAND	TH
CHINA, GOVERNMENT OF THE REPUBLIC (TAIWAN)	TW

01.06.0500 PROSIGNS/PROWORDS

01.06.0510 DEFINITION

Prosigns are procedure sign consisting of one or more letters or characters or combinations thereof. They are used to facilitate rapid communication by conveying in condensed standard form certain frequently used orders, instructions, requests, reports and information related to communications.

Prowords are word equivalents of prosigns, for use in radiotelephone procedure.

01.06.0520 USE

Operating personnel shall not under any circumstances substitute prosigns, prowords or combinations thereof for the textual component of a message received for transmission without the consent and approval of the originator.

01.06.0530 PROSIGN/PROWORD LIST

The following authorized list of prosigns and prowords will be used as prescribed. (A bar over a prosign indicates that the prosign is to be transmitted on CW as a single character - that is, without pause between letters):

PROSIGN	MEANING	PROWORD
$\overline{AA}$	Unknown station	UNKNOWN STATION
AA	All after	ALL AFTER
AB	All before	ALL BEFORE
$\overline{AR}$	End of transmission, no receipt required.	OUT
$\overline{AS}$	I must pause for a few seconds.	WAIT
$\overline{AS}$ $\overline{AR}$	I must pause longer than a few second, will call you back.	WAIT OUT
B	More to follow.	MORE TO FOLLOW
$\overline{BT}$	Break.	BREAK
C	Correct.	CORRECT
DE	From.	THIS IS
	That which immediately follows is the time or date-time group of this message.	TIME

EEEEEEEE	Error	CORRECTION
EEEEEEEE AR	This message is in error, disregard it.	DISREGARD THIS TRANSMISSION, OUT
F	Do not answer.	DO NOT ANSWER
FM	Originator's sign.	FROM
G	Repeat this entire transmission back to me.	READ BACK
	The following is my response to your instructions to read back.	I READ BACK
GR (Numerals)	Group count.	GROUPS (Numerals)
GRNC	The groups in this message have not been counted.	GROUP NO COUNT
HM HM HM	Emergency silence Sign - SILENCE	SILENCE, SILENCE, SILENCE
	Resume normal transmissions, (Silence can be lifted only by the station imposing it or by higher authority; when an authentication system is in force, transmissions lifting silence are to be authenticated).	SILENCE LIFTED
	Your transmission is at too fast a speed. Reduce speed of transmission.	SPEAK SLOWER
II	Separative sign.	
IMI	Repeat.	SAY AGAIN
	I am repeating transmission or portion indicated.	I SAY AGAIN
	I shall spell the next words phonetically.	I SPELL
	Communication is difficult. Transmit (ting) each phrase (or each code group) twice. This proword may be used as an order, request, or as information.	WORDS TWICE
INFO	The address designations immediately following are addressed for information.	INFO
INT	Interrogative.	
J	Verify with originator and repeat.	VERIFY
	Message or portion indicated has been verified.	I VERIFY

K	Go ahead; or this is the end of my transmission to you and a response is necessary.	OVER
	Message requiring recording follows.	MESSAGE FOLLOWS
NR	Station serial number.	
	Numerals or numbers follows.	FIGURES
O	Immediate precedence	IMMEDIATE
P	Priority precedence.	PRIORITY
R	I have received your last transmission satisfactorily.	ROGER
R	Routine precedence.	ROUTINE
T	Transmit this message to all addressees or to the address designations immediately following.	RELAY (TO)
TO	Action addressee.	TO
	I have received your message, understand it, and will comply. (This proword will be used only when replying to a request for acknowledgement).	WILCO
WA	Word after.	WORD AFTER
WB	Word before.	WORD BEFORE
	Your last transmission was incorrect. The correct version is _____.	WRONG
XMT	Exempt.	EXEMPT
Z	Flash precedence	FLASH

01.06.0540 DESCRIPTION AND USE OF PROSIGNS

$\overline{AA}$ - UNKNOWN STATION. The prosign $\overline{AA}$ is used in lieu of a call sign in establishing communication with a station whose call sign is not known or is not recognized.

Example:

NAV hears its own call sign but misses the call sign of the calling station. NAV transmits: $\overline{AA}$ DE NAV K

AA - ALL AFTER: AB - ALL BEFORE. The prosigns AA and AB are used after the prosigns IMI, INT, C, J, and certain operating signals to identify a portion of a message.

If a word or group used to identify part of a message occurs more than once in the message it is to be assumed that the first occurrence of that word or group is implied. If otherwise intended, amplifying data such as adjacent words or groups must be included. Parts of messages are identified as follows:

AB $\overline{BT}$ denotes all before the text.

AA PLUXO $\overline{BT}$ denotes the message ending, where PLUXO is the last group in the message.

AA $\overline{BT}$ denotes the complete text and the message ending.

$\overline{AR}$ - OUT. The prosign $\overline{AR}$ means, THIS IS THE END OF MY TRANSMISSION TO YOU AND NO RESPONSE IS REQUIRED OR EXPECTED. When $\overline{AR}$ is used, although no station may receipt, it does not preclude requests if necessary for repetitions or verifications.

Example: NAV DE NNN0RAL R $\overline{AR}$

Example:
R - 142155Z MAR 79 BT
PKRWQ ZBMUG
$\overline{BT}$
$\overline{AR}$

$\overline{AS}$ - WAIT. When the called station is not prepared to accept traffic, the prosign AS may be employed.

$\overline{AS}$ made during a transmission and without an ending sign indicates a short pause.

NNN0RRZ DE NAV
-R- 182100Z MAR 79
GR8
$\overline{BT}$
UNCLAS
PASS TO GEO $\overline{AS}$

When the calling station is ready to resume, it commences with a repetition of the last group already sent. GEO K MURKY etc.

$\overline{AS}$ followed by the prosign $\overline{AR}$ means YOU ARE TO WAIT, or I AM OBLIGED TO WAIT as applicable.

$\overline{AS}$ followed by a numeral and $\overline{AR}$ means the expected delay in minutes is represented by the numeral following $\overline{AS}$.

A station having received AS shall wait for the prosign K before transmitting, unless in the meantime it has been given a message of high precedence to transmit, or it appears the station has been overlooked.

B - MORE TO FOLLOW. In the final instructions, the prosign B means MORE TO FOLLOW.

NAV indicates that it has more to send to NNN0TUG by transmitting:

NNN0TUG DE NAV -
R - 211340Z MAR 79
GR 29
$\overline{BT}$
TEXT
$\overline{BT}$
B
K

NNN0SJK has just received a message from NAV. When receipting, NNN0SJK indicates that he has traffic to send to NAV as follows:

NAV DE NNN0SJK R B K

A precedence prosign, except R, may follow B to indicate the precedence of the

message on hand:

NAV DE NNN0SJK R B P K

B followed by a call sign in the final instructions means MORE TO FOLLOW TO STATION INDICATED.

NNN0RAG, NNN0RBP, NNN0RDY, and NNN0RFZ are in the same net. NNN0RAG transmits a message to NNN0RBP and NNN0RDY for which he requires a receipt and at the same time indicates to NNN0RDY that more for him is to follow.

NNN0RDP NNN0RDY DE NNN0RAG
-R - 140315Z MAR 79
GR 34
BT
TEXT
BT
B NNN0RDY
K

During a transmission, B followed by a numeral means MORE TO FOLLOW, TOTAL NUMBER OF GROUPS TRANSMITTED THUS FAR IS AS INDICATED.

NAV, transmitting a message of 170 groups to NNN0YYO stops after transmitting the 100th group, indicates that there is more to follow and requests a receipt for the portion transmitted, as follows:

NNN0YYO DE NAV
-R - 272205Z MAR 79
GR170
BT
(...FIRST 100 GROUPS) -
B 100
K

NNN0YYO, having received the portion, transmits:

DE NNN0YYO R K

Should NNN0YYO require any repetitions, these areasked for and given before receipting for the portion. NAV then sends the number of the first group with which the portion begins and completes the transmission as follows:

NNN0YYO DE NAV 101 -
TEXT (101 TO 170 inclusive)
BT
K

BT - BREAK. The prosign BT is used to indicate the separation between the text and other parts of a message. It immediately precedes and follows the text.

NAV transmitting a message to NNN0STT (for which receipt is not desired).

NNN0STT DE NAV
P - 221311Z MAR 79
GR22
BT
TEXT
BT
AR

In procedure messages, BT is not used except when a date-time-group is employed. NAV transmits a procedure message to NNN0TAA in abbreviated form (receipt is desired):

NNN0TAA DE NAV INT ZDK 211400Z K

C - CORRECT . The prosign C used alone means YOU ARE CORRECT.

NAV transmits a message to NNN0REL who questions the accuracy of the fifth group:

NAV DE NNN0DEL INT 5 - BOLOE K

If the questioned group is correct, NAV transmits:

NNN0REL DE NAV C K

NNN0REL transmits a repeat back message to NAV. After NNN0REL repeats the message back correctly, NAV transmits:

NNN0REL DE NAV C AR

C followed by identification data means THIS IS A CORRECT VERSION OF THE MESSAGE, OR PORTIONS INDICATED.

Correcting a portion of the message in the final instructions:

WILL BE SHOPPED TODAY
BT
C WA BE - SHIPPED -
K

Before receipting for a message from NAV, NNN0RAG questions the reception of the fifth group:

NAV DE NNN0RAG INT 5 - TELAO K

NAV checks and finds the group is incorrect. NAV transmits:

NNN0RAG DE NAV C 5 - TELGO K

DE - THIS IS. The prosign DE is used only in the call and means THIS TRANSMISSION IS FROM THE STATION WHOSE DESIGNATION FOLLOWS.

A complete preliminary call (to establish communications):

NAV DE NNN0RBB K

EEEEEEEE - CORRECTION. To correct errors, a succession of eight or more E's is transmitted and means AN ERROR IN TRANSMISSION HAS JUST BEEN MADE. In correcting errors in the heading the error sign will be made, the operator will retransmit the last prosign or operating signal that was correctly transmitted, and the transmission will continue. To correct an error within the text the error sign is made, the last word or group correctly transmitted is retransmitted, and transmission is continued.

NOTE: The phrase "eight or more E's is intended to facilitate operations. It shall not be construed as permitting transmission of an excessive number of E's.

NNN0RAA, transmitting a message, makes and corrects an error in the heading:

NNN0RAB DE NNN0RAA -
R - 130830Z MAR 79
FM NAV MD
TO NNN0RAA
NNN0RAG EEEEEEEE
TO NNN0RAA SCA
NNN0RBG SCA
INFO NNN0RAB ETX
GR18
BT etc.

NNN0RZO, transmitting a message to NNN0RZQ, makes and corrects an error in

the text:

NNN0RZQ DE NNN0RZO -
R - 201827Z MAR 79
GR14
BT
UNCLAS
SHIPMENT OF GA EEEEEEEE OF GEAR REPORT ETC.

NNN0RZZ transmitting to NNN0RZO, makes and corrects an error in the text of a procedure message:

NNN0RZO DE NNN0RZZ IMI AB 2 EEEEEEEE AB 32 K

NNN0RZZ transmitting to NNN0RZO, makes and corrects an error in the preliminary call:

NNN0RZB EEEEEEEE NNN0RZO DE NNN0RZZ K

NNN0RZO DE NNN0BEEEEEEEE DE NNN0RZZ K

To cancel transmission while in progress, a succession of eight E's followed by the prosign AR means THIS TRANSMISSION IS IN ERROR, DISREGARD IT. This method of cancelling a transmission cannot be used after the transmission has been receipted for. A procedure message containing operating signals or a service message must be used for this purpose.

NNN0RAB, while transmitting a message to NNN0RZO, discovers that the message should not be sent and cancels the transmission:

NNN0RZO DE NNN0RAB -
R - 171525Z MAR 79
FM NNN0RAB - VA
TO NNN0RBL SC
EEEEEEEE AR

The above procedures is not applicable to tape relay operations.

The equivalent proword for EEEEEEEE is CORRECTION. The equivalent proword for EEEEEEEE AR is DISREGARD THIS TRANSMISSION.

F - DO NOT ANSWER. F means "STATIONS CALLED ARE TO MAKE NO TRANSMISSION IN RESPONSE TO, NOR IN CONNECTION WITH, THIS MESSAGE." Transmissions containing the prosign "F" are to be made through, each transmission being separated by the prosign "IMI" or proword "I SAY AGAIN"

EXAMPLE:

NNN0RYE DE NNN0JUH
-F-
R221627Z MAR 79
FM NAV MD
TO NNN0RYE SC
GR16
BT
TEXT
BT
IMI (I SAY AGAIN)
NNN0RYE DE NNN0JUH
-F-
R 221627Z MAR 79
FM NAV MD
TO NNN0RYE SC
GR16
BT
TEXT
BT

AR (OUT)

FM - FROM. The prosign FM means THE ORIGINATOR OF THIS MESSAGE IS INDICATED BY THE DESIGNATION IMMEDIATELY FOLLOWING.

G - READ BACK. The prosign G means REPEAT BACK THE ENTIRE MESSAGE. It is placed in the transmission instructions. It is used by the transmitting station to ensure that the receiving station has received the message as transmitted, particularly if the message is of great importance or of a type which is difficult to transmit and receive.

NNN0RAB desires NNN0RZQ to repeat back a message NNN0RAB transmits:

NNN0RZQ DE NNN0RAB -
G -
O - 221813Z MAR 79
GR12
BT
K

NNN0RZQ complies as follows:

NNN0RAB DE NNN0RZQ -
NNN0RZQ DET NNN0RAB -
G -
O - 221813Z MAR 79
GR12
BT
TEXT
BT
K

If found to be correct as transmitted, NNN0RAB transmits:

NNN0RZQ DE NNN0RAB C AR

An corrections made during first transmissions, or contained in the message ending, will be inserted by the receiving station prior to repeating back.

GR (NUMERALS) - GROUPS (NUMERALS). The prosign GR followed by numerals is the group count and means THIS MESSAGE CONTAINS THE NUMBER OF GROUPS INDICATED.

This element may be omitted in messages where the text consists of plain language.

A numerical group count always will be included on encrypted messages.

NNN0RGG transmits a message containing eight groups to NNN0RBL:

NNN0RBL to NNN0RGG -
R - 272113Z MAR 79
GR8
BT
TEXT
BT
K

GR preceded by INT and followed by a numeral means IS THE NUMBER OF GROUPS AS INDICATED? When the number of groups received does not correspond with group count transmitted, the receiving station immediately will question the transmitting station by using INT GR followed by a numeral.

NNN0RZZ DE NNN0RZO INT GR8 K

If, after rechecking the message, GR8 is found to be correct, the transmitting station sends the prosign C.

NNN0RZO DE NNN0RZZ C K

For all plain language text messages, and for encrypted text messages where the group count does not exceed 50 groups, the following procedure is used: If the receiving station is considered to be incorrect, the transmitting station repeats the original group count and transmits the first character of each word or group in the text in succession.

NNN0RZZ transmits a message to NNN0RZO:

NNN0RZO DE NNN0RZZ -
R - 272113Z MAR 79
GR10
BT
RECEIVED SHIPMENT TEN TRUCKS FROM PARIS PAREN FRANCE
PAREN TODAY
BT
K

NNN0RZO then questions the group count:

NNN0RZZ DE NNN0RZO INT GR11 K

NNN0RZZ checks and finds the group count correct as transmitted. NNN0RZZ transmits:

NNN0RZO DE NNN0RZZ GR10 BT R S T T F P P F P T BT K

For encrypted text messages with a group count exceeding 50 groups, the following procedure is used: If the receiving station is considered to be incorrect, the transmitting station repeats the original group count and transmits the identity of the first, eleventh and every subsequent tenth group followed by the initial letter of that group (the identity of the group will be separated from the initial letter of that group by a separative sign).

NNN0RZZ transmits a message containing 76 groups to NNN0RZO. NNN0RZO questions the group count:

NNN0RZZ DE NNN0RZO INT GR75 K

NNN0RZZ checks and finds the group count correct as transmitted, then transmits:

NNN0RZO DE NNN0RZZ GR76 BT 1-D 11-L 21-H 31-P 41-Q 51-M 61-W 71-F BT K

NNN0RZO then requests a repetition of the ten groups in which it has a miscount.

NNN0RZZ DE NNN0RZO IMI 31 to 40 K

Subject to the above checking of the group count (lettering), the group count of the transmitting station is final.

GRNC - GROUP NO COUNT. The prosign GRNC means THE GROUPS IN THE TEXT OF THIS MESSAGE HAVE NOT BEEN COUNTED. This prosign is included in the prefix if it is necessary to indicate that the groups have not been counted.

The prosign GRNC will not be used on encrypted messages. In those cases where the group count has not been determined prior to transmission, GRNC will be placed in the prefix and the actual group count will be transmitted in the final instructions as a correction and will be inserted in the message prefix by the receiving operator.

EXAMPLE:

NNN0RBL DE NAV - P - 081104Z MAR 79
FM NNN0RAA SCA
TO NNN0RBL SCA

GRNC
BT
TEXT
BT
C GR117 K

HM HM HM - SILENCE SILENCE SILENCE. HM transmitted three times or the proword SILENCE transmitted three times means CEASE TRANSMISSION ON THIS OR INDICATED CIRCUIT IMMEDIATELY. SILENCE WILL BE MAINTAINED UNTIL DIRECTED TO RESUME.

Stations do not answer or receipt for a transmission imposing emergency silence.

Emergency silence may be imposed or lifted by a station only when authorized by competent authority.

Emergency silence is lifted by addressing the stations concerned, and transmitting the operating signal meaning NEGATIVE followed by HM HM HM.

II - SEPARATIVE SIGN. The separative sign is employed in radiotelegraph, but not in teletype or radiotelephone procedures.

II, written as a short dash, is used to prevent mistakes in reception which might occur if letters or figures of adjacent groups are run together. The sign is used in messages as follows:

Before and after all prosigns in the procedure and preamble components of the heading except DE, XMT, and NR.

To separate each element of the address component, such as between preamble and the prosign FM, between the designation of the originator and the prosign TO, between the designation of the action addressee and the prosign INFO, and between the designation of the information addressee and the prosign XMT.

Between the call and the beginning of the repetition of a message to be repeated back.

To separate call signs belonging to adjacent message components or adjacent multiple transmission instructions.

The separative sign is used in procedure messages to separate portions of the text.

The separative sign shall not be used in the texts of messages to indicate hyphen.

IMI - SAY AGAIN I SAY AGAIN. The prosign IMI means REPEAT or I REPEAT MESSAGE OR PORTIONS OF A MESSAGE AS INDICATED.

IMI without identification data means REPEAT ALL OF YOUR LAST TRANSMISSION.

NNN0RBL requests a repetition of the entire transmission just completed by NNN0RZZ:

NNN0RZZ DE NNN0RBL IMI K

IMI followed by identification data means REPEAT THE INDICATED PORTION OF YOUR TRANSMISSION.

EXAMPLE A:

NNN0RGG DE NNN0RZO IMI AB MOVEMENT K

EXAMPLE B:

NNN0RZO desires a repeat of that portion of the heading between TO and INFO:

NNN0RGG DE NNN0RZO IMI TO TO INFO K

In the text of a plain language message IMI means I AM GOING TO REPEAT THE DIFFICULT PORTION JUST TRANSMITTED.

NNN0RGG DE NNN0RZO -
R - 311211Z MAR 79
BT
TRANSFER FILROY ZCSCHZISKI IMI ZCSCHZISKI JOHN ELMER SMITH..ETC..

Where messages are transmitted twice through, the two transmissions are separated by IMI.

IMI shall not be used to correct an error in transmission.

IMI cannot be used to obtain a repetition of a message or a portion thereof for which a receipt has been given. A procedure message containing operating signals or a service message must be used for this purpose.

INFO - INFO. The prosign INFO means THE ADDRESS DESIGNATIONS IMMEDIATELY FOLLOWING ARE ADDRESSED FOR INFORMATION.

INT. The prosign INT preceding operating signals and/or prosigns indicates that the transmission is in the form of a question.

NNN0RGG asks NNN0ZZZ: IS THE WORD AFTER SHIPS, BOATS?

NNN0ZZZ DE NNN0G INT WA SHIPS - BOATS K

INT preceding a portion of a message means, IS MY RECEPTION OF THIS CORRECT?

NNN0RGG asks NNN0ZZZ: IS THE DATE-TIME GROUP 310126Z?

NNN0ZZZ DE NNNGG INT 310126Z K

INT cannot be used to question any part of a message for which a receipt has been given. A procedure message containing an operating signal, or a service message will be used for this purpose.

INT may be used to question the accuracy of group count or station serial number.

J - VERIFY The prosign J, meaning VERIFY WITH ORIGINATOR AND REPEAT, is used by the addressee when he does not understand the purpose of a message, or a portion thereof.

K - OVER The prosign K means GO AHEAD or THIS IS THE END OF MY TRANSMISSION TO YOU AND A RESPONSE IS NECESSARY.

NR NR followed by numerals (or a combination of letters and numerals indicates the station serial number assigned to a message by a transmitting station.

NAV DE NNN0RGG NR72 -
R - 182234Z MAR 79
GR16
BT

Z, O, P, R - PRECEDENCE PROSIGNS

Precedence is indicated by prosigns or prowords as follows:

Prosigns	Proword
Z	FLASH
O	IMMEDIATE
P	PRIORITY
R	ROUTINE

R - ROGER The prosign R is used to indicate that a transmission has been received. Identification of the message or transmission may be included if necessary.

T - RELAY (TO) The prosign T, when used, shall appear in the transmission instructions. Individual instructions to a specific station may be indicated by use of call signs or address designation preceding and following T, as appropriate.

T alone means, STATION CALLED TRANSMIT THIS MESSAGE TO ALL ADDRESSEES IN THE ADDRESS COMPONENT.

NNN0PNI directs NNN0GKA to transmit to all addressees:

NNN0GKA-DE-NNN0PNI
T -
R - 311615Z JUN 79
FM NNN0GKA SCA
TO NNN0EIP SCA
NNN0HAN SCA
GR6
BT etc.

T followed by an address designation means, STATION CALLED TRANSMIT THIS MESSAGE TO THE ADDRESSEE WHOSE ADDRESS DESIGNATION FOLLOWS.

NNN0RGG directs NNN0RBL to transmit message to NNN0RZZ:

NNN0RBL DE NNN0RGG -
T - NNN0RZZ
R - 161813Z JUN 79
FM NNN0RGG NJ
TO NNN0RZZ - DE
INFO NNN0RAA SCA
GR18
BT etc.

T preceded by a call sign and followed by an address designation means, STATION WHOSE CALL SIGN PRECEDES T, TRANSMIT THIS MESSAGE TO THE ADDRESSEE WHOSE ADDRESS DESIGNATION FOLLOWS T.

NNN0RBA calls both NNN0ZZZ and NNN0RBL and requests NNN0ZZZ to transmit the message to NNN0RZL; NNN0RBL to transmit the message to NNN0RZK:

NNN0ZZZ NNN0RBL DE NNN0RBA -
NNN0ZZZ - T - NNN0RZL
NNN0RBL - T - NNN0RZK
R - 181927Z JUN 79
FM NNN0RBA - SC
TO NNN0RZK NC
NNN0ZZZ GA
NNN0RBL - AL
INFO NNN0RZL TN
GR29

TO - TO The prosign TO means, ADDRESSEES INDICATED BY THE DESIGNATIONS IMMEDIATELY FOLLOWING ARE ADDRESSED FOR ACTION.

WA - WORD AFTER: WB - WORD BEFORE The prosigns WA and WB are used after the prosigns IMI, INT, C, J and certain operating signals to identify a portion of a plain language message.

In plain language messages, portions of the text are identified as words rather than as group numbers. The prosigns WA and WB may be used as appropriate.

Request:

NNN0RZK DE NNN0RBL
IMI WA CARRY K

Answer:

NNN0RBL DE NNN0RZK
WA CARRY - OUT K

Request:

NNN0RZK DE NNN0RBL
IMI WB CARRY K

Answer:
NNN0RBL DE NNN0RZK
WB CARRY PLEASE K

XMT - EXEMPT The prosign XMT means, THE STATIONS OR ADDRESSEES IMMEDIATELY FOLLOWING ARE EXEMPTED FROM THE COLLECTIVE CALL OR ADDRESS.

In the call:

NNN0ALS - XMT - NNN0RZL DE NNN0RBL
R - 151617Z MAR 79 etc.

In the address:

R - 121617Z JUN 79
FM NNN0RZK CT
TO NNN0RAA SCA
NNN0ALD
XMT NNN0ASC SC
GR20
BT etc.

01.06.0600 MESSAGE REFILE PROCEDURES

01.06.0610 MESSAGE REFILE

A message, which is to be retransmitted by a means different from that which it was received, must be converted into the proper format. Normally messages to be refiled into the Tri-Service Transfer networks or the Naval Communication System will not require converting.

01.06.0620 AMATEUR RADIO TO MARS REFILE

An Amateur Radio message will not be accepted for refile into MARS unless it meets the message criteria contained in paragraph 01.05.0640. It is necessary to change the Amateur Radio message format to the MARS format in accordance with this chapter. In converting the message to the proper format, it is essential that the place of origin and the time and date of origination be indicated:

Example:

Received via Amateur Radio

NR56 W4SSN CK6 FALLS CHURCH, VA MAR 15
WELDON RYE, RMCS USN

OPERATIONS DIV NAVCOMMSTA SAN FRANCISCO
STOCKTON, CA 95203 PHONE 206-262-0670 BT
YOUR MESSAGE RECEIVED. SEE YOU SUNDAY.
BT HAROLD BT

Refiled to NAVMARCORMARS

R 152100Z MAR 79
FM NNN0TLH SCA
TO WELDON RYE, RMCS USN
OPERATIONS DIV NAVCOMMSTA SFRAN
STOCKTON, CA. 95203 PHONE 202-262-0670
BT
UNCLAS
1. NR 56 W4SSN CK6 FALLS CHURCH, VA MAR 15
2. YOUR MESSAGE RECEIVED. SEE YOU SUNDAY.
3. HAROLD SENDS
BT

01.06.0630 MARS TO AMATEUR RADIO REFILE

The refile of MARS messages into Amateur Radio Service shall be in accordance with the criteria contained in paragraph 01.05.0640. An example of a message refiled from MARS to the Amateur Radio Service:

Received via NAVMARCORMARS

R 181015Z MAR 79
FM PVT B J HARPER PHILADELPHIA PA/NAV 1 EPA
TO JAMES C. HARPER,
62 ELM STREET, N.W.
WASHINGTON, D.C. 20030
202-266-6299
BT
UNCLAS
1. BE HOME ON SUNDAY MAR 26
2. MEET ME AT BUS TERMINAL
3. BILLY JOE SENDS
BT

Refiled to Amateur Radio

NR16 K4NAA CK 11 NEWPORT, R.I. VIA MARS 1015Z MAR 18
JAMES C. HARPER
62 ELM STREET, N.W.
WASHINGTON, D.C. 20030 PHONE 202-266-6299 BT
BE HOME ON SUNDAY MAR 26. MEET ME AT BUS TERMINAL.
BT BILLY JOE BT

01.06.0700 ESTABLISHING A NET

01.06.0710 PROCEDURE

Net Control Station (NECOS) will establish a net with an initial transmission to "all stations this net" (NNNNN0ALS) that contains the following instructions. (Operating signals are shown for teletypewriter and CW nets. Their plain language equivalents will be used on voice nets):

Identification of NECOS (ZKA)

Net Operation (Free or Directed) (ZKB)

Speed of operation (applies to CW nets only. Speed at the discretion of the NECOS) (QRQ or QRS)

Any other special instructions (ZWC)

Conduct a roll call of stations at this time and after each frequency shift.

01.06.0720 CONTROL

In order to have an efficient operating network, it is necessary that the NECOS control the operations of the network. However, control action should be limited to that which is required to retain order or to immediately restore order. Amplification of information regarding a breach of circuit discipline must be sent via letter or message, rather than tying up the net with lengthy exchanges. Exchanges should be limited to notifications only. (ZAX (1) (2) (3) (4) (5) (6)). Communication Improvement Memorandums (CIMs) in accordance with paragraph 01.05.0810 are encouraged.

CHAPTER 7

RADIOTELEGRAPH PROCEDURE

01.07.0100 GENERAL

01.07.0110 PRESCRIBED RADIO TELEGRAPH PROCEDURE

The Radiotelegraph Procedure prescribed herein shall be used in all transmissions over MARS networks which employ International Morse Code. Adherence to prescribed procedure is mandatory in order to avoid confusion and to enhance circuit discipline and effective communication. If the procedure prescribed herein or elsewhere in this publication does not cover a specific operating requirement, resorting to initiative and common sense sould suffice.

01.07.0120 PRINCIPAL OPERATING METHODS

There are three principal operating methods available for passing messages from one station to another. The method used is determined by operational requirements. The three methods are:

Receipt Method

Broadcast Method

Intercept Method

01.07.0200 RECEIPT METHOD

01.07.0210 DESCRIPTION

The receipt method requires the receiving station to give a receipt for each message to the transmitting station; thus there is certainty of reception. Under difficult conditions, when an answer cannot be obtained from a station called, messages may be transmitted blind. Each message will be transmitted twice, with IMI separating the first and second transmissions. Subsequent efforts must be made to obtain a receipt.

The prosign R will be used to indicate receipt of messages or portions thereof. After a call, R means "I have received your last transmission."

Example:

NNN0TDJ DE NNN0ABE R $\overline{AR}$

NOTE: The transmission ending prosign K will be used when the station has indicated "more to follow", prosign B.

After a call, R preceded by INT means "have you received my last transmission or have your received_____."

Example:

NNN0ABE DE NNN0TDJ $\overline{INT}$ R K or

NNN0ABE DE NNN0TDJ $\overline{INT}$ R NNN0ASI

121753Z JUN 79 K

01.07.0220 CALL SIGN

Normally, only those call signs assigned for MARS use will be employed on MARS networks. MARS call signs shall be sent in their entirety, never abbreviated by using the last three letters, i.e. NNN0ATS NOT ATS. Under emergency conditions, other military call signs and address groups may be used if necessary. The use of Amateur

Radio call signs on MARS networks is in violation of FCC rules and regulations and threfore prohibited.

01.07.0230 CALLING

In establishing communication, a call is required. The call may be a single, collective or multiple call. Under difficult operating conditions, the call sign(s) in the call may be transmitted twice. Call signs used in the call should be arranged in alphabetical order.

01.07.0231 SINGLE CALL

Whereby only one call sign precedes the prosign DE.

01.07.0232 COLLECTIVE CALL

A collective call sign identifies a pre-determined group of stations. When a collective call sign is used in a call and it is desired to exclude a station or stations, the prosign XMT followed by the exempted station(s) call sign(s) may be used in conjunction therewith to indicate that station(s) whose call sign(s) follow are not required to respond.

Example:

NNN0ALS - XMT- NNN0ACE DE NNN0TCH K

01.07.0233 MULTIPLE CALL

Whereby two or more call signs precede the prosign DE.

Example:

NNN0KPF NNN0LCS NNN0LZZ DE NNN0GCB K

Precedence may be indicated in a preliminary call as follows:

Prosign	Meaning
Z	I have (number) FLASH traffic to transmit (or for_____)
O	I have (number) IMMEDIATE traffic to transmit (or for_____)
P	I have (number) PRIORITY traffic to transmit (or for_____)
R	I have (number) ROUTINE traffic to transmit (or for_____)

When a station is in communication with a station for whom he has one message, the precedence may be indicated.

Example:

NNN0RAA DE NNN0RAG P K

To indicate a number of messages of one or more precedences in a preliminary call, the operating signal ZBO may be used.

Example 1: (Free or Directed Net)

NNN0OLN DE NNN0TQS ZBO 3P 2R K

Example 2: (Directed Net. NNN0TQR tells NNN0AJJ, NECOS, that he has two priority messages for NAV1)

NNN0AJJ DE NNN0TQR ZBO 2P NAV1 K

Example 3: (Directed Net. NNN0UKP tells NNN0SNB that he has 7 routine messages for NNN0SNB and 2 priority messages and 4 routine messages for NNN0ASI)

NNN0SNB DE NNN0UKP ZBO 7R - 2P 4R NNN0ASI K

01.07.0240 ANSWERING

To answer a preliminary call, stations will transmit the call sign of the calling station, the prosign DE, the call sign of the answering station and the prosign K.

Example:

NNN0ZJM DE NNN0AAB K

After good communication has been established an answer may consist of the prosign DE, the call sign of the answering station and the prosign K. This is an abbreviated answer.

Example:

DE NNN0AAB K

Stations will respond to a preliminary call in:

The order called.

Alphabetical sequence.

The order directed by the Net Control Station.

If any station fails to answer in proper sequence, the next station waits 5 seconds and answers. The station which fails to answer in proper order must wait until all other stations have answered ro have had time to answer.

If a station called fails to answer, the net control station will wait 5 seconds after the last response received, then initiate a new preliminary call specifically to that station if considered appropriate.

01.07.0250 PROSIGNS AND OPERATING SIGNALS

Prosigns and operating signals will be used in accordance with Chapter 6 and Annex C respectively.

01.07.0260 BREAK-IN PROCEDURE

Break-in procedure is the method whereby a receiving station may interrupt a transmission to request the transmitting station to wait, shift frequency, repeat, etc. Break-in procedure will not be used to obtain repetitions when more than one station is involved in the reception of a message.

The receiving station desiring to break-in on a transmission makes a succession of dashes. When the transmitting operator hears these dashes he stops transmitting to ascertain the reason for the break-in. If three attempts to break-in are unsuccessful the receiving operator shall cease attempts to break-in until the transmission in progress is completed.

The station breaking in to request an immediate repetition may omit the preliminary call before transmission of the last word or group received correctly when receiving conditions are good and no confusion will result. The transmitting station then commences transmission with last word, group, or prosign which the receiving station indicated it had correctly received.

Example:

NNN0YEB is transmitting to NNN0ASI
AND WILL PROCEED IMMEDIATELY
NNN0ASI missed the word IMMEDIATELY. NNN0ASI transmits:

- - - PROCEED

NNN0YEB then transmits:

PROCEED IMMEDIATELY etc.

A full or an abbreviated call must be employed when the reason for an interruption is for other than to request immediate repetition of a missed word.

Example:

NNN0YEB is transmitting to NNN0ASI
AND WILL PROCEED IMMEDIATELY
NNN0ASI has trouble with the receiver and desires
NNN0YEB to wait. He transmits:

- - - NNN0YEB DE NNN0ASI $\overline{AS}$

When ready to receive NNN0ASI transmits:

DE NNN0ASI $\overline{IMI}$ AA PROCEED K

NNN0YEB then transmits:

DE NNN0YEB AA PROCEED - IMMEDIATELY etc.

Any station may break-in on a transmission in order to transmit a message of higher precedence. If on a directed net, permission from the Net Control Station must be obtained before transmitting a message.

Example:

NNN0ASC is transmitting a long routine message to NNN0FAA and
has only completed a short portion of the text.
NNN0IXF has been handed an Immediate message for
transmission and desires to break-in. NNN0ASC's transmission:

AND IS THE

NNN0IXF transmits a series of dashes:

- - - -

Upon hearing the succession of dashes, NNN0ASC immediately ceases transmitting. NNN0IXF transmits:

NNN0ASC DE NNN0IXF O K

NNN0IXF DE NNN0ASC K

NNN0IXF sends his message

AFTER NNN0IXF has completed his higher precedence message NNN0ASC resumes transmissions to NNN0FAA

01.07.0270 QUESTIONS,CORRECTIONS, AND REPETITIONS

During transmission, corrections are made by the use of the error prosign and repetitions by the repeat prosign. After transmission and before a receipt is

obtained, the receiving operator will, before receipting for a message, check his copy and ensure that it is, as far as he can see, correct and complete.

Either request repetitions of the whole message, or portions thereof, by means of prosign IMI, with identifying data.

Assume the following message has been transmitted:

NNN0ASG DE NNN0ANP -
P - 231427Z JUN 79
FM NNN0PPC SCA -
TO NNN0FMO NE -
INFO NNN0ASG IL -
BT
UNCLAS
My 222300Z JUN 79 Make
reports on Radio-telephone calls handled.
BT K

Example 1: NNN0ASG missed the entire message. He transmits:

NNN0ANP DE NNN0ASG IMI K

NNN0ANP replies:

NNN0ASG DE NNN0ANP (transmits entire message as previously transmitted)

Example 2: NNN0ASG misses the action addressee and the word "make". He transmits:

NNN0ANP DE NNN0ASG IMI TO TO INFO - WB REPORTS K

NNN0ANP replies:

NNN0ASG DE NNN0ANP TO TO INFO - TO NNN0FMO - INFO - WB REPORTS - MAKE K
NNN0ASG then receipts for the message.

After receipt has been obtained for a message, all requests for repetition must be in the form of a new message. When in direct communication, this may be accomplished by use of an abbreviated service message. If not in direct communication, a service message must be used.

Example 1: (Repetition of complete message required.)

NNN0ANP DE NNN0ASG

INT ZDK 231427Z JUN 79 K

Example 2: (Repetition of portion of message required.)

NNN0ANP DE NNN0ASG
-R
BT
INT ZDK 231427Z JUN 79
-WA MY
BT
K
REPLY
NNN0ASG DE NNN0ANP
ZDK 231427Z JUN 79 - WA MY
-222300Z JUN 79
K

Example 3:

NNN0ANP DE NNN0ASG
INT HANDLED
K
REPLY

NNN0ASG DE NNN0ANP C AR

01.07.0280 NETTING (TUNING) PROCEDURE

Tuning several stations when establishing a net, or tuning one or more stations joining a net, is known as "netting". Ordering and controlling netting is a responsibility of the Net Control Station (NECOS).

The tuning signal for use with the operating signal ZRF will consist of the transmission of the tuning station's call sign repeated for 20 seconds, followed by a 10 second dash. After transmitting the tuning signals, the tuning station will direct the stations on the net to send their call signs twice in order to check their frequency.

The NECOS is responsible for having its transmitter accurately tuned to the assigned frequency. Each subordinate station must tune to the NECOS even if the NECOS is off frequency. If this is the case, the subordinate station(s) should inform the NECOS, using appropriate operating signals.

Prior to opening a net, preliminary adjustment to transmitter and receiver can be made, using a dummy or phantom antenna on the assigned frequency. Then, at the appropriate time, the receiver can be zero beat with the NECOS and the transmitter tuned to the receiver in a minimum amount of time.

Example:

NAV (the control station) wishes to tune
NNN0ALE consisting of stations NNN0REJ, NNN0REK,
NNN0REL and NNN0REM:

NAV makes:

NNN0ALE NNN0ALE DE NAV NAV ZRF ZRC2 - NAV NAV for
20 seconds (10 seconds AR
NNN0ALE DE NAV ZGE2 K
NAV DE NNN0REJ - NNN0REJ K
NAV DE NNN0REK - NNN0REK K
NAV DE NNN0REL - NNN0REL K
NAV DE NNN0REM - NNN0REM K

All prove to be on the correct frequency except NNN0REK, who is 2 KHz low.

NAV makes:

NNN0REJ NNN0REL NNN0REM DE NAV ZRA1 K

After receipts from NNN0REJ NNN0REL and NNN0REM, NAV makes:

NNN0REK DE NAV ZRA3 - 2 K

NNN0REK receipts, readjusts his transmitter and asks if his frequency is correct;
NAV DE NNN0REK INT ZRA K

NAV replies giving further tuning instructions if necessary.

01.07.0290 SIGNAL, STRENGTH, READABILITY AND TEST SIGNALS

A station assumes it has a readability of "good" unless otherwise notified.

Signal strength and readability reports will not be exchanged unless communication is unsatisfactory. Readability is the ease with which the incoming signals can be received. This depends on the relative strength of the desired versus the undesired signal (interference, static, inherent receiver noises, etc.) and on the capabilities of the receiver operator. Signal strength and readability are indicated by means of the operating signals QSA and QRK (see Annex C for meanings).

When it is necessary for a station to initiate test signals, whether for the adjustment of a transmitter before making a call or for the adjustment of a receiver, such signals will consist of not more that three series of three V's followed by the call sign of the station and the prosign AR.

01.07.0300 TRANSMISSION OF MESSAGES CONTAINING MORE THAN 100 GROUPS - PROSIGN B

When a group count is used, messages containing more than 100 groups shall be transmitted as follows:

First 100 groups

Second 100

Third 100 and subsequent groups

Example:

NAV, transmitting a message containing 160 groups to NAV8, stops after transmitting the 100th group, indicates that there is more to follow and requests a receipt for the portion transmitted, as follows:

NAV8 DE NAV -
R - 231610Z JUN 79
GR160
BT
(...FIRST 100 groups) -
B 100
K

NAV8, having received the portion, transmits:

DE NAV8 R K

NAV resumes transmission after a short pause

NAV8 DE NAV 101 -
(101 to 160 inclusive)
BT
K

In the above example, should NAV8 have required any repetitions, they would have been asked for and given prior to receipting for the portion.

Messages without group counts shall be transmitted as above but without GR and number of groups. A new portion will start with the last word or group of the previous portion.

01.07.0310 TRANSMITTING MESSAGES IN STRINGS - PROSIGN B

When radio communication is good, frequently it facilitates the handling of traffic for one station to send several messages to another station without interruption. The receiving station will indicate the number of messages to be transmitted in a given sequence.

Example:

NNN0RSE has ten messages for NNN0EFB. NNN0RSE transmits:

NNN0EFB DE NNN0RSE ZBO 6P - 4R K

NNN0EFB transmits:

NNN0RSE DE NNN0EFB QSG5 K

When messages are to be sent in sequence, the transmitting station shall indicate immediately after the prosign B at the end of each message in the sequence the precedence prosign of the message to follow. Upon transmitting the last message in sequence, a receipt is requested before continuing with another sequence. Therefore, the last message of each sequence will be terminated with prosigns B and K, meaning "THERE IS MORE TO FOLLOW; RECEIPT FOR WHAT I HAVE SENT".

Example:

(NNN0RSE transmits the first of a string of five messages.)

NNN0EFB DE NNN0RSE -
P - 160237Z JUN 79
GR23
BT
TEXT
BT
B P K

NOTE: There is a short pause to allow any station to break in to transmit traffic of higher precedence. If no station interrupts, NNN0RSE proceeds:

NNN0EFB DE NNN0RSE

NOTE: The call is optional. If the call is eliminated, the separative sign (II) must be transmitted.

-P- 160242Z JUN 79
FM NNN0ABE - etc
NNN0RSE transmits the ending of the fifth message:

BT B K

NNN0EFB requests the needed repetitions if break-in procedure has not been employed. Otherwise, NNN0EFB receipts for the string:

NNN0RSE DE NNN0EFB R K

01.07.0400 BROADCAST METHOD

01.07.0410 DESCRIPTION

The Broadcast Method is the primary means of delivering traffic to ships at sea without the necessity of answering, thus avoiding disclosure of the ship's position. The Broadcast Method is also used when time does not permit individual station receipts or when it is otherwise inappropriate. The Broadcast Method is employed to give wide dissemination of information for general use, normally on specified frequencies and at specified times.

01.07.0420 PROCEDURE

When a Broadcast Method is employed on a regular scheduled broadcast, e.g. NAVMARCORMARS, a general call tape will be transmitted for approximately 5 minutes prior to the scheduled broadcast time. The call tape shall be constituted as follows:

Broadcast designation M (made three times)

The group VVV (made three times)

Prosign DE (made once)

Call of the Broadcast station (made three times)

Example:

M M M VVV VVV VVV DE NAV NAV NAV

After running the call tape for approximately 5 minutes, precisely at the prescribed time, the transmission begins:

NNN0ALL NNN0ALL NNN0ALL DE NAV NAV NAV
NR001 NR001 -
PP - 181230Z - JUN 79
FM NNN0ASA NNN0ASA
TO NNN0ALL NNN0ALL
GR27 GR27 BT
(Text) BT AR

During idle periods and when it is necessary to delay during a broadcast, the transmitting station should transmit a continuous test call-tape until service is resumed. Additionally during a delay in the broadcast, the operating signal ZUJ should be transmitted at intervals.

When resuming Broadcast transmission, the station shall transmit a call tape to alert receiving operators.

Example:

NNN0ALL NNN0ALL NNN0ALL DE NAV NAV NAV ZUJ
NR002 NR002 -
PP - 192143Z JUN 79 - etc...

01.07.0500 LOGS

01.07.0510 LOG MAINTENANCE

Logs shall be kept on all radiotelegraph networks by all participating stations. These logs will normally be maintained using OPNAV Form 2810-1 if available, or similar log forms. Figure 7-1 shows how a radiotelegraph log should appear. Every radiotelegraph transmission on every radio frequency guarded, covered, or copied shall be logged as follows:

Every transmission heard by an operator (regardless of source or completeness) shall be recorded, whether or not addressed to the receiving station, including time of reception using Universal Coordinated Time (Z).

If the transmission is addressed to, passed to, or relayed by the receiving station, it must be written in full on a message blank for record purposes. Only sufficient details need be inserted in the radiotelegraph log to identify the message. all other transmissions shall be written out in full in the radio log.

Logs shall show a complete and continuous record of all emissions made or received, network operating conditions, and will include such additional data as follows:

UCT of opening and closing the station, net or circuit.

Causes of delay on the net.

Adjustments and changes of frequency.

Unusual occurrences, such as procedure or security violation.

When an operator opens a net or circuit, or starts a new day's log (0001Z), he shall write or type his name in the log. When an operator is relieved or closes a net or circuit he shall sign the log in ink. Each relieving operator shall write or type his name in the log. Names and signatures must be clearly written to preclude confusion of identities.

An entry shall be made in each radio circuit log at least every five minutes. If the operator is too busy to comply over a period of time, he may enter the essential data later, indicating times.

On nets where a listening watch is prescribed, complete log coverage is optional.

RADIO LOG
OPNAV FORM 2810-1 (Rev. 11-58) Recorder from FPSO Cog. "I" Stock — 0107-LF-708-1000

ACTIVITY	OPERATOR	CREW	CIRCUIT	FREQUENCY
HQNAVMARCORMARS RADSTA	J. D. NICHOLAS RM2		T-1	13975.5KHZ

TIME	TRANSMISSION
1245	NO SIGNALS
125Ø	J. D. NICHOLAS RM2 OFF TO T. BROWN RM2 RCVR CALIBRATED.
	NO TRAFFIC ON HAND
1254	NNNØRTW NNNØWRC NNNØZOM DE NAV K
	NAV DE NNNØRTW K
	NAV DE NNNØWRC K
	NAV DE NNNØZOM K
	NNNØRTW NNNØWRC NNNØZOM DE NAV -R- 131220Z APR 80 -FM NNNØASA -TO NNNØRTW NNNØZOM -INFO NNNØWRC GR18 BT (SEE FILES)
1258	NAV DE NNNØRTW R AR
	NAV DE NNNØWRC R AR
1259	NNNØZOM DE NAV INT R K
	NAV DE NNNØZOM AS
	NAV DE NNNØZOM IMI WA SUBMIT K
	DE NAV WA SUBMIT - ASAP K
13ØØ	NAV DE NNNØZOM R AR
13Ø5	NO SIGNALS
131Ø	NO SIGNALS
1313	NAV DE NNNØZOM K
	NNNØZOM DE NAV K
	NAV DE NNNØZOM -T- NNNØFTT - P - 131308Z APR 80 -FM NNNØZOM -TO NNNØFTT -INFO NNNØASG GR44 BT 36155 INDIA MIKE NOVEMBER ALFA JULIETT CYIBM OJCHV USGRI HXRON YIGVL QOOGY STTHU TGNKV HUCHN NEIKE WQYYO QPEAX AYPMZ JACIM LEZSO CVDAE HIICJ SXBLW ETSVO PQBHC UBTBN GYFHY PBVDF IAKWB VAPDI ARDPD PDDAD SNLVI JNIUL KNCMF NRIOA KFKBI UZPDE RQYVN OECTI FHADL XKCEW 36155 BT K
1319	NNNØZOM DE NAV INT 22 - CVDAE K
	DE NNNØZOM C K
132Ø	NNNØZOM DE NAV R AR
1325	NO SIGNALS
133Ø	NO SIGNALS
1335	NO SIGNALS
134Ø	NO SIGNALS
1342	T T T T T T T T (AA TUNING XMTR)
1347	NO SIGNALS
1348	NNNØRTW DE NNNØWRC K
	NNNØWRC DE NNNØRTW K
	NNNØRTW DE NNNØWRC - T - R - 131336Z APR 8Ø -FM NNNØLSB -TO HM1 RONALD BLUNT 586 41 52 MCB 7 CO D FPO SFC 966Ø1 BT UNCLAS 1. ARL TWENTY ARL TWENTY ONE 2. ANN SENDS BT K
135Ø	NNNØWRC DE NNNØRTW R AR
1355	NO SIGNALS
14ØØ	NO SIGNALS
14Ø5	NO SIGNALS
141Ø	NO SIGNALS

DATE	PAGE NO.
13 APRIL 81	3

(OVER)

Figure 7-1

CHAPTER 8

RADIOTELEPHONE PROCEDURE

01.08.0100 OPERATING RULES

01.08.0110 GENERAL

Radiotelegraph procedure in Chapter 7 is equally applicable to radiotelephone procedure, except the prosigns and letters are spoken as the equivalent prowords or phonetics as contained in Chapter 6. In no case shall a proword or a combination of prowords be substituted for the textual component of a message.

Adherence to prescribed procedure is mandatory. Unauthorized departures from or variations in prescribed procedure invariably create confusion, reduce reliability and speed, and are prohibited.

Transmissions by radiotelephone shall be as short and concise as practicable consistent with clarity. The use of standard phraseology enhances brevity. To utilize net time more efficiently, all messages or their substance should be written down prior to transmission.

Transmissions over radiotelephone should be clear with natural emphasis on each word except the prescribed pronunciation of numerals as contained in Chapter 6, paragraph 01.06.0430, and should be spoken in natural phrases, not word by word.

If it is technically practicable, the operator shall, during the transmission of a message, pause after each natural phrase and interrupt his transmission (carrier), momentarily, to allow another station to break in if necessary.

To avoid interfering with other traffic, an operator shall listen in to make certain that a net is clear before making any transmission thereon.

When it is necessary for a station to initiate test signals, either for the adjustment of a transmitter before making a call, or for the adjustment of a receiver, such signals will not continue for more than 10 seconds, and will conform with article 01.08.0140.

Call signs, when used, shall be spoken using the phonetic equivalent and never abbreviated by using the last letters of the call sign except as noted in article 01.08.0150, i.e., NNN ZERO ALFA TANGO SIERRA, NOT ATS OR ALFA TANGO SIERRA.

01.08.0120 OPERATING SIGNALS

Operating Signals "Q and Z" are not designed for radiotelephone transmissions. In radiotelephone procedure the operating information will normally be conveyed in concise phrases. However, the use of operating signals is permissible when they are part of a message being transmitted or when there are language difficulties. In such instances operating signals are transmitted by using the authorized phonetic equivalents.

01.08.0130 ESTABLISHING COMMUNICATIONS

The basic methods for establishing communications are as defined in Chapter 6, paragraph 01.06.0700. (Note: Symbols used in examples: optional words or phrases are contained within parentheses. A hyphen represents a pause between phrases).

Before conducting regular traffic over radiotelephone circuits, it may be necessary to make contact with the other station(s) involved to ascertain that communication is possible.

Example 1: (Conditions good)

NAV transmits:

NNN Zero Romeo Alfa Bravo - THIS IS November Alfa Victor -

OVER

NNN0RAB answers the initial call:

November Alfa Victor - THIS IS NNN Zero Romeo Alfa Bravo - OVER

NAV having nothing for NNN0RAB, transmits:

NNN ZERO ROMEO ALFA BRAVO - THIS IS - NOVEMBER ALFA VICTOR - OUT

Example 2: (Conditions difficult)

NAV transmits:

NNN Zero Romeo Alfa Victor - THIS IS November Alfa Victor - Radio Check - OVER

NNN0RAV transmits:

November Alfa Victor - THIS IS NNN Zero Romeo Alfa Victor - weak but readable - OVER

NAV having nothing for NNN0RAV transmits:

NNN Zero Romeo Alfa Victor - THIS IS November Alfa Victor - ROGER - OUT

01.08.0131 RADIO CHECKS, SIGNAL STRENGTH AND READABILITY

A station is understood to have good signal strength and readability unless otherwise notified. Strength of signals and readability will not be exchanged unless one station cannot clearly hear another station.

A station that wishes to inform another of his signal strength and readability will do so by means of a short and concise report of actual reception such as, "Weak, but readable", "Loud, but distorted", "Weak with interference", etc. Reports such as "Five by Five", "Four by Four", etc., will not be used.

01.08.0132 PROWORDS

The prowords listed below are for use when initiating and answering queries concerning signal strength and readability:

(1) General -

RADIO CHECK	What is my signal strength and readability, i.e., how do you hear me?
ROGER	I have received your last transmission satisfactorily. The omission of comment on signal strength and readability is understood to mean that reception is loud and clear. If reception is other than loud and clear it must be described with the prowords from subparagraphs (2) and (3) below.

(2) Report of Signal Strength -

LOUD	Your signal is very strong.
GOOD	Your signal strength is good.
WEAK	Your signal strength is weak.
VERY WEAK	Your signal strength is very weak.

FADING	Your signal strength fades to such an extent that continuous reception cannot be relied upon.

(3) Report of readability -

CLEAR	Excellent quality.
READABLE	Quality is satisfactory.
UNREADABLE	The quality of your transmission is so bad that I cannot read you.
DISTORTED	Having trouble reading you because your signal is distorted.
WITH INTERFERENCE	Having trouble reading you due to interference.

01.08.0140 PRELIMINARY CALLS

When communication is difficult or when the calling station wishes to ascertain whether the station called is ready to receive a message, a preliminary call will be sent before transmitting a message.

Example 1:

NAV wishes to transmit a message to NNN0RZE and desires to know that NNN0RZE is ready to accept it. NAV transmits:

NNN Zero Romeo Zulu Echo THIS IS November Alfa Victor -
(message for you) OVER

NNN0RZE ready to accept the message, transmits:

November Alfa Victor THIS IS NNN Zero Romeo Zulu Echo -
(Send your message) OVER

NAV transmits:

THIS IS November Alfa Victor - ROUTINE - etc.

Example 2:

NAV wishes to transmit a message to NNN0REE and desires to know that NNN0REE is ready to accept it. He transmits:

NNN Zero Romeo Echo Echo THIS IS November Alfa Victor -
(I have one ROUTINE) OVER

NNN0REE, not prepared to accept the traffic immediately transmits:

November Alfa Victor THIS IS NNN Zero Romeo Echo Echo -
WAIT - OUT

When ready, he would transmit:

November Alfa Victor THIS IS NNN Zero Romeo Echo Echo -
(Send your message) - OVER

01.08.0150 ESTABLISHING A NET

The procedures prescribed shall be followed either when opening a net for the first time or when reopening a net. Proper control by the net control station (NECOS) and adherence to operating rules by the stations within the net enable the net to begin and maintain an exchange of traffic with minimum delay.

01.08.0151 NET PROCEDURES

The following procedures apply on all radiotelephone nets:

The Net Control Station (NECOS) will establish the net using the preamble - "ALL STATIONS THIS NET THIS IS NNN0--- NET CONTROL FOR THE --- NET THIS IS A DIRECTED NET ARE THERE ANY STATIONS WITH TRAFFIC OVER". The three letter prefix NNN is spoken "EN EN EN, the remainder of the call sign "ZERO (phonetics)".

Stations responding to the net call will transmit "NNN0---(NECOS) THIS IS NNN0---" with a listing of the number and precedence of their messages or "NO TRAFFIC" if they have none. On area nets the precedence may be followed with the cities to which the messages are destine.

When all stations have responded to the net call the NECOS will acknowledge each station using full call signs.

Stations checking into a net will always use full call signs. After all stations have been acknowledged in the initial call up to establish the net, the NECOS may authorize the use of abbreviated call signs (i.e. delete the NNN0 portion of the call) by transmitting "ALL STATIONS THIS NET THIS IS NNN0--- ABBREVIATED CALL SIGNS AUTHORIZED OUT". NECOS will use full call sign at all times.

The NECOS then proceeds with the disposition of the traffic.

When closing the net, NECOS will transmit the following - "ALL STATIONS THIS NET THIS IS NNN0--- SECURING THE ----- NET OUT"

01.08.0160 TRANSMITTING A MESSAGE

Communications good - When communications reception is satisfactory, message parts need to be transmitted only once.

Example 1:

NAV transmits:

NNN Zero Romeo Alfa Alfa - THIS IS November Alfa Victor -
Message Follows -
PRIORITY - TIME Two Seven One Six Three Zero ZULU JULY SEVEN FOUR
BREAK UNCLAS
ADTAKE MY 301245Z JUL 79 BREAK OVER

NNN0RAA having received the transmission satisfactorily, transmits:

(November Alfa Victor) - THIS IS NNN Zero Romeo Alfa Alfa -
ROGER - OUT

Example 2:

NNN0RAA having missed the transmission, transmits:

THIS IS NNN Zero Romeo Alfa Alfa - SAY AGAIN - OVER

NAV transmits:

(NNN Zero Romeo Alfa Alfa) - THIS IS November Alfa Victor -
I SAY AGAIN - PRIORITY - TIME Two Seven One Six Three Zero ZULU
JULY SEVEN NINE BREAK UNCLAS ADTAKE MY 301245Z JUL 79 BREAK OVER

NNN0RAA transmits:

THIS IS NNN Zero Romeo Alfa Alfa - SAY AGAIN - ALL AFTER MY -
OVER

NAV transmits:

(NNN Zero Romeo Alfa Alfa) - THIS IS November Alfa Victor -
I SAY AGAIN - ALL AFTER MY - 301245Z JUL 79 BREAK OVER

NNN0RAA transmits:

THIS IS NNN Zero Romeo Alfa Alfa - ROGER - OUT

Communications Difficult - When communication is difficult, call signs may be transmitted twice. Phrases, words, or groups will be transmitted twice and indicated by use of the proword "WORDS TWICE". Reception may be verified by use of the proword "READ BACK". Under such conditions preliminary calls normally are employed.

01.08.0161 TRANSMISSION OF LETTER/NUMBER, NUMBER/LETTER AND OTHER UNUSUAL GROUPS

The correct procedure when transmitting a group of random letters, abbreviations, numbers, or words that cannot be pronounced is to precede such groups with the proword "I SPELL". When sending a group of figures, i.e., telephone numbers, zip codes, social security numbers, dates, etc., precede them by saying FIGURES.

EXAMPLE:

3RD - FIGURES THREE ROMEO DELTA

RM2 - I SPELL ROMEO MIKE TWO

12BE6 - FIGURES ONE TWO BRAVO ECHO SIX

When using "I SPELL" for the spelling of an unusual name, the name is spoken first, then "I SPELL" followed by the spelling and then the word spoken again.

PAVLANSKI - PAVLANSKI, I SPELL PAPA ALFA VICTOR
LIMA ALFA NOVEMBER SIERRA KILO INDIA,
PAVLANSKI

01.08.0170 RELAY

The proword "relay" used alone indicates that the station called is to relay the message to all addressees.

Example:

NAV5 transmits:

NNN Zero Romeo Sierra Echo - THIS IS November Alfa Victor Five -
Relay - PRIORITY Time Three Zero One Two Four Five ZULU July Seven
Nine - From - NNN Zero Alfa Sierra Alfa to November Alfa
Victor Eight BREAK UNCLAS Service - India November Tango - ZULU
Delta Kilo - Your Two Eight Two Two Four One ZULU July Seven Four -
BREAK - OVER This is NNN Zero Romeo Sierra Echo - ROGER - OUT

The proword "relay" followed by a call sign indicates the station called is to relay the message to the station indicated. When more than one station is called, the call sign of the station designated to perform the relay will precede the proword "relay".

01.08.0180 CORRECTION DURING TRANSMISSION

When an error is made by a transmitting operator, the proword "Correction" will be transmitted followed by the last word, group, proword or phrase correctly transmitted. Transmission then continues.

Example:

NNN Zero Papa Papa Charlie - THIS IS NNN Zero Romeo

Tango Whiskey - Message Follows - ROUTINE - Time Two Two One Two Two One ZULU JUL Seven Nine - BREAK- UNCLAS - Alfa Period - My one Four - Correction - One Five Two One Five Zero ZULU, etc.

When an error is made by the transmitting operator during the transmission of a message heading, the proword "Correction" will be transmitted followed by the last proword correctly transmitted.

Example:

November Alfa Victor - THIS IS - NNN Zero Yankee Echo Bravo - ROUTINE - Time Two Nine Two Four - Correction - ROUTINE - Time Two Nine Two Three Zero Zero ZULU, etc.

01.08.0190 RECEIPT

Receipt is employed in station-to-station traffic handling. No message is considered delivered until a receipt is obtained. A receipt may be effected as follows: the receiving station transmits a receipt after each message or string of messages by the proword "Roger".

When the transmitting station considers speed of handling a primary consideration, one station in the net may be directed to receipt for the message and no other stations may answer until instructed to do so. This does not prohibit any station from requesting repetition.

Example:

Station NNN0FAA sends a message to all stations this net (NNN0ALS) and only desires a receipt from NNN0VMZ.

NNN Zero Alfa Lima Sierra - THIS IS - NNN Zero Foxtrot Alfa Alfa - message follows - ROUTINE - Time Three Zero One Three Four Four ZULU - JUL Seven Nine - BREAK - Text - BREAK - NNN Zero Victor Mike ZULU - OVER

NNN0VMZ transmits:

THIS IS - NNN Zero Victor Mike ZULU - ROGER - OUT

NNN0IXF, having missed the date time group transmits:

NNN Zero Foxtrot Alfa Alfa - THIS IS - NNN Zero India Xray Foxtrot - SAY AGAIN ALL BEFORE BREAK OVER

NNN0FAA transmits:

THIS IS - NNN Zero Foxtrot Alfa Alfa - I SAY AGAIN - ALL BEFORE BREAK - Time Three Zero One Three Four Four ZULU JUL Seven Nine - BREAK OVER

NNN0IXF then receipts for the transmission.

01.08.0200 BREAK-IN PROCEDURE

A station having a message of higher precedence that the transmission in progress may break-in and thus suspend that transmission in the following circumstances:

(1) Immediate - May break-in at once and pass the message. On a directed net, NECOS approval to transmit the message must be obtained.

(2) Priority - Same as for immediate except that only long routine messages should be interupted.

The precedence spoken three times means "Cease transmitting immediately." Silence will be maintained until the station breaking in has passed his/her message.

Stations requiring urgent contact with another station, but not having message traffic to pass, may break-in by transmitting the call sign of the net control station of the net. The use of BREAK in radiotelephone procedure for the purpose of breaking into a net is not authorized.

CHAPTER 9

RADIOTELETYPEWRITER PROCEDURE

01.09.0100 INTRODUCTION

01.09.0110 GENERAL

Teletypewriter procedures are identical to the basic telegraph procedures, including prosigns, operating signals and message format. Therefore this Chapter will not include that material already covered, except when it is necessary to amplify or show relationship.

01.09.0120 ADHERENCE TO PROCEDURES

The attainment of reliability, speed, and security depends, to a large extent, on the operator. It is essential that he maintain circuit discipline, be trained and understand his responsibilities. Adherence to prescribed procedure without departures or variations is necessary in order to attain reliability, speed and security. If the procedure prescribed herein and in related Chapters does not cover a specific operating requirement, resorting to initiative and common sense should suffice.

01.09.0200 MACHINE FUNCTIONS AND MESSAGE ALIGNMENT

01.09.0210 MACHINE FUNCTIONS

Shift - Operators must always depress the "LTRS" Key when going from upper case (FIGURES) to lower case (LETTERS) and the "FIGS" Key when going from lower case to upper case.

Carriage Return - The carriage return function "CR" is employed to reset the machine to the left margin of the paper. Two carriage returns (CR) functions are used to ensure the proper return of the carriage.

Line Feed - The line feed function "LF" is employed to advance the paper vertically on the page teletypewriter.

Space - The space function (space bar) is employed to advance the typing unit laterally without printing a character on the page teletypewriter.

Bell Signal - The bell signal is used to attract the attention of the receiving operator when required and will be transmitted as a series of ten characters, upper case "J" and "S" as follows: "FIGS JJJJJSSSSSLTRS".

Margin Bell/light - Page printers equipped with keyboard facilities capable of operating directly into the line provide a margin bell/light to indicate approach of end of typing line.

Warning Light - Tape perforating equipment is equipped with a warning light to indicate approaching end of typing line.

Low tape Bell - Tape perforating/reperforating equipment is normally equipped with a warning bell to indicate low tape. In this regard, low tape is also indicated by a change in the color of the tape.

01.09.0220 MESSAGE ALIGNMENT

Specific machine functions are necessary to facilitate the handling of messages and to align receiving page teletypewriters.

All transmissions must be preceded by at least two letters functions, five spaces, two carriage returns, and one line feed.

The end of line function will be two carriage returns and one line feed.

The end of message functions are two carriage returns, four line feeds, the letter N repeated four times (NNNN) and twelve letters.

No line shall exceed 69 characters, including spaces.

01.09.0300 RECEIPT AND INTERCEPT METHODS

01.09.0310 BASIC PROCEDURE

The basic procedure for call signs, calling and answering are reflected in Chapter 7. However, the following examples are shown to depict the relationship to teletypewriter operations.

Calling and Answering

(1) Calling

(5 spaces) (2CR) (LF)

NNN0AOU DE NNN0YZS K (2CR) (LF)

(2) Answering

(5 spaces) (2CR) (LF)

NNN0YZS DE NNN0AOU K (2CR) (LF)

OR (ABBREVIATED ANSWER)

(5 spaces) (2CR) (LF)

DE NNN0AOU K (2CR) (LF)

01.09.0320 TESTING

When a station wishes to test on a net or circuit, the following test shall be used:

(5 spaces) (2CR) (LF)

THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG

1234567890 DE (call sign of station testing) (2CR)

THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG

1234567890 DE (call sign of station testing) (2CR) (LF)

RYRYRYRYRYRYRY (32 R's, 32 Y's) (2CR) (LF)

NOTE: Omission of LF following (2CR) at the end of the first line of test is intentional. The test is designed so that the second line of the "THE QUICK BROWN FOX" will overprint the first line. In this manner, any malfunction will be more immediately apparent and, of course, save paper.

In preparation of a continuous test tape (LOOP), sufficient LTRS before and after the test should be allowed to permit splicing into a continuous loop.

01.09.0330 PRECEDENCE

Precedence may be indicated in a preliminary call by use of the appropriate precedence prosign preceding the ending prosign, similar to radiotelegraph procedure, Chapter 7, paragraph 01.07.0230. The bell signal (see paragraph 01.09.0210) shall always be transmitted before and after priority and above precedence prosigns in preliminary call, followed by the prosign K.

Multiple address messages having both action and information addressees may either be assigned a single precedence, in which case it indicates the precedence for all addressees, or they may be assigned two precedences, one precedence for all action addressees and a lower precedence for all information addressees. When calling a station the appropriate precedence may be indicated. In the event all or the combination of action and information addressees are to be called, the higher precedence should be indicated to preclude the possibility of having to transmit the messages separately to action and information addressees.

01.09.0340 TRANSMISSION ENDING

Every transmission shall end with the prosigns K or AR. When the prosign AR is used, although no station may receipt, it does not preclude requests for repetitions or verifications if necessary.

01.09.0350 TABULATED MESSAGES

Messages received for transmission, the text of which is in tabulated form, should be transmitted in tabulated form. In instances when headings of columns require more space than the data shown in the columns, the headings should be written on several lines rather than on one line. The columns of data shall be as close to the left margin as possible in order to reduce transmission time.

01.09.0360 CORRECTION OF ERRORS

Keyboard transmission - When an error is detected during transmission, errors shall be corrected in the same manner as in radiotelegraph procedure.

Tape preparation - Errors made in preparing tapes will be corrected by backspacing the tape and "letter out" the error by means of the "LTRS" key. If however, the errors occur in a message heading, a new tape will be prepared.

End of Message - If the transmitting operator discovers an error has been made which was not corrected as indicated above, the error may be corrected at the end of the message. Such corrections will be separated from the prosign BT by (2CR) (LF) and will be preceded by the prosign "C".

When errors in the message heading are corrected in this manner, the entire element in which the error occurred must be repeated.

01.09.0370 LONG MESSAGES

Up to 100 lines of continuous text may be transmitted in one section. Messages which exceed 100 lines are considered to be long messages. Since long messages monopolize circuit time when transmitted in their entirety, it is sometimes advisable to separate them into transmission sections even though they may be below the prescribed length. Messages to be forwarded in transmission sections will be divided as follows:

At a convenient point, but not beyond the maximum number of lines prescribed, separate the text at the end of a sentence.

Prior to the text and following the security classification, insert the plain language: "SECTION ONE OF _____". Each additional transmission section be preceded by an identical message heading and identical date-time-group except that it will contain a different station serial number for that particular transmission section.

Repeat the process as required. The final transmission section is identified "FINAL SECTION OF _____".

01.09.0400 BROADCAST METHOD

01.09.0410 PROCEDURE

When the Broadcast Method is employed in MARS, it is necessary that all stations conducting MARS broadcasts commence their transmission on time.

01.09.0420 CALL TAPE

Each station prior to commencing a schedule shall run a preliminary call tape consisting of the designation of the called station(s) (made 3 times), the prosign DE (made once), the designation of the calling station (made 3 times), a letter designation (broadcast designation) when used (made 3 times), followed by one line of RYs, and one line of SGs. This call tape should be run for ten minutes prior to each scheduled time.

Example:

NNN0ALL NNN0ALL NNN0ALL DE NAV NAV NAV M M M (2CR) (LF)

RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY (2CR) (LF)

SGSGSGSGSGSGSGSGSGSGSGSGSGSGSGSG (2CR) (LF)

Stations operating during a definitely assigned period, shall run a standby or call tape during the time no traffic is on hand for transmission. This tape shall be the same as prescribed above.

01.09.0430 USE OF OPERATING SIGNALS AND PROSIGNS

When no traffic is on hand for transmission, or at the completion of the transmission of all traffic, the operating signal QRU shall be sent immediately preceding the prosign AR.

Example 1:

No traffic on hand

NNN0ALL NNN0ALL NNN0ALL DE NAV NAV NAV (2CR) (LF)
NR132 QRU AR

Example 2:

Completion of broadcast

NNN0ALL NNN0ALL NNN0ALL DE NAV NAV NAV QRU AR (2CR) (LF)

When transmitting messages the prosign AR will be used at the end of each message to indicate completion of transmission of that message. All scheduled transmissions shall end with the prosign AR.

When messages of Priority Precedence or higher are to be transmitted, they shall be preceded by:

PRIORITY PRIORITY PRIORITY (FIGS) (JJJJJSSSSS) (LTRS) (2CR)
(LF)
(Substitute the word IMMEDIATE, FLASH as appropriate)

01.09.0500 TAPE RELAY

01.09.0510 BASIC PROCEDURE

Tape Relay procedures are essentially RATT procedures with the exception of format lines prior to the precedence and date-time-group. Only these procedures will

be included here.

01.09.0520 DEFINITIONS

Automatic Numbering Equipment: A type of equipment which automatically transmits a transmission identification.

Channel Number: A combination of letters and figures used to identify a transmission on a channel between two stations. It consists of the following components in sequence:

Channel designator - 2 letters which identify the transmitting station and one letter to identify the receiving station.

Channel Serial - Three numerical characters which serve to sequentially number each transmission and which start at 001 on a daily basis or as mutually agreed by the participating stations.

End of Message Indicator (EOM): An indicator used to terminate a transmission in tape relay systems, consisting of 4 N's (NNNN) followed by 12 or more letter functions.

Misrouted Message: A message bearing an incorrect routing instruction.

Missent Message: A message which bears the correct routing instruction, but which has been transmitted to a station other than that indicated.

Open number: A channel serial for which a transmission bearing a corresponding number has not been received.

Pilot: Instructions appearing in message format line 1 relative to the transmissio or handling of that message.

Retransmission (rerun): A repetition of a previously transmitted message.

Routing Indicator: A group of letters assigned to identify a station or area within the MARS teletypewriter relay system to facilitate routing of traffic.

Station Routing Indicator: The assigned MARS station call sign using the letter oscar vice zero. (i.e. assigned call sign NNN0XXX - Routing Indicator NOXXX.)

Area Routing Indicator: The assigned MARS call sign, using the letter oscar vice zero as follows:

Within a MARS Region, the call sign of the Director

Major Area overseas, remote from a MARS Region, the call sign of the Area Coordinator:

NOTE: Because of the volunteer nature of MARS, specific message delivery responsibility can not be assigned except to primary/major Relay Stations and military unit stations. Therefore, area routing indicators shall be used in format line two for delivery responsibility. Routing indicators of specific stations will not be used except as listed above.

Service Message: A brief, concise message between operating or supervisory personnel at stations pertaining to a phrase of traffic handling, status of communication facilities, circuit conditions, or other matters affecting communication operation.

Start of Message Function (SOM): The key functions 5 spaces, 2 carriage returns, 1 line feed which in a tape relay or teleprinter message, immediately precede the repeated precedence prosign. In tape relay procedure, the start of message function is preceded by the transmission identification.

Station Serial Number: A message reference number assigned within a station. It will normally consist only of a number allotted in sequence.

Transmission Identification (TI) (Channel Number): See Channel number.

Tributary Station: Individual NAVMARCORMARS member station equipped for teletypewriter operation.

01.09.0600 SCHEMATIC DIAGRAM OF MESSAGE FORMAT

PARTS	COMPONENTS	FORMAT LINE	ELEMENTS	CONTENTS	EXPLANATION*
H E A D I N G	PROCEDURE	1	Handling Instructions	Transmission identification; Security warning prosign (when used); Pilot - Pilots contain; Repeated precedence prosign**; Routing indicator(s); Prosigns, operating signals and address designations*** as required.	Always contains transmission identification (which includes the "Start of Message Indicator" when necessary); also contains pilot(s) as required to convey specific message handling instructions.
		2	Called Station(s)	Repeated precedence prosign**; Routing indicator(s) of station(s) responsible for delivery or refile.	Basic routing line. If message is dual precedence, only the higher precedence is shown in this line.
		3	Calling Station	Prosign DE; Letter suffix of the call sign of station preparing message for transmission; Station serial number;	
		4	Transmission Instructions	Security warning Operating Signal (when used); Prosign T; Other operating signals; Special operating group(s) (SOGs); Address designator(s) Routing indicator(s).	Indicates specific transmission responsibility not apparent in other components of the message heading. Not to be used unless necessary. Plain language address designators are not permitted in codress messages.

* Included only when required for clarity.
** If message is dual precedence, only the higher precedence is shown in this line.
*** Plain language designators are not permitted in codress messages.

PARTS	COMPONENTS	FORMAT LINE	ELEMENTS	CONTENTS	EXPLANATION*
	PREAMBLE	5	Precedence; Date-time group; Message Instructions	Precedence prosign(s) Date-time group and zone suffix (Z indicating Greenwich Mean Time) month, year Operating signal(s).	In the case of dual precedence both prosigns are shown separated by a space. Operating signal(s) are used only when required to convey message handling instructions.
	ADDRESS	6	Originator	Prosign FM; Originator's designation.	Message originator is indicated by plain language, routing indicator, address group or call sign.
		7	Action Addressee(s)	Prosign TO; Routing indicator(s); Operating signal; Address designation(s).	Action addressee(s) is indicated by plain language, routing indicator(s) address group(s) or call sign(s). In the case of multiple address messages, when addressees are listed individually, each address designation shall be on a separate line and may be preceded either by the operating signal ZEN (meaning delivered by other means) or by the routing indicator. Such use is mandatory on all joint and combined messages.
		8	Information Addressee(s)	Prosign INFO; Routing indicator(s); Operating signal(s); Address designator(s).	Same as for line 7, except that Line 8 pertains to information addressee(s).

* Included only when required for clarity.

PARTS	COMPONENTS	FORMAT LINE	ELEMENTS	CONTENTS	EXPLANATION*
		9	Exempted Addressee(s)	Prosign XMT; Address designator(s).	Used only when a collective address designation is used in Line 7 or 8 and an indication of the addressee(s) exempted from the collective address is required.
	PREFIX	10	Accounting Information; Group Count	Accounting symbol (when required); Group count prosign GR; Group count.	The group count prosign and group count shall be used only when the text consists of countable encrypted groups.
S E P A R A T I O N		11		Prosign BT	
T E X T		12	Classification; Internal Instructions; Thought or Idea Expressed by Originator(in that order).		See Chapter 6
S E P A R A T I O N		13		Prosign BT	
E N D I N G	PROCEDURE	14	Confirmation		Not used in tape relay operation.
		15	Correction	Prosign C; Other prosigns, operating signals and plain language as required.	
			End of Message Functions	2CR, 4LF, 4N's, 12LTRS	The 4N's in this sequence are the end of message indicator.

* Included only when required for clarity.

01.09.0610 TELETYPEWRITER CODE AND GARBLE TABLE

The following chart shows the teletypewriter characters and functions used in tape relay operation, and corresponding impulses:

Letter Case / Figure Case	A / -	B / ?	C / :	D / 3	E /	F /	G /	H /	I / 8	J /	K / (	L /)	M / .	N / ,	O / 9	P / Ø	Q / 1	R / 4	S /	T / 5	U / 7	V /	W / 2	X / /	Y / 6	Z /	C.R.	L.F.	LTRS	FIGS	SPACE	BLANK
I																																
M 1	o	o		o	o	o				o	o						o		o		o		o	o	o	o			o	o		
P 2	o		o				o		o	o	o	o				o	o	o			o	o	o					o	o	o		
U																																
L 3			o			o		o	o		o			o	o		o	o		o	o		o		o				o		o	
S 4		o	o	o		o	o			o	o			o	o	o		o			o		o		o		o		o	o		
E 5		o					o	o				o	o		o	o	o			o		o	o	o	o	o			o	o		
S																																

Lower	Upper	Characters Resulting From Gain of Impulses				
		1	2	3	4	5
A	-			U 7	J	W 2
B	?		FIGS FIGS	X /		
C	:	K (				V
D			J	F		B ?
E	3		A -	S	D	Z
F			K (			X /
G		FIGS FIGS		V		
H		Y 6	P Ø		M .	
I	8	U 7			C :	P Ø
J				K (		FIGS FIGS
K	(					LTRS LTRS
L	)	W 2		P Ø	G	
M	.	X /	V			
N	,	F	G :			M .
O	9	B ?	G	M .		
P	Ø	Q 1			V	
Q	1				LTRS LTRS	
R	4	J		C :		G
S			U 7		F	Y 6
T	5	Z	L)	H	O 9	
U	7				K (	Q 1
V		LTRS LTRS				
W	2			Q 1	FIGS FIGS	
X	/		LTRS LTRS			
Y	6		Q 1		X /	
Z			W 2	Y 6	B ?	
C.R.		D	R 4	N ,		O 9
L.F.		A -		I 8	R 4	L)
FIGS				LTRS LTRS		
LTRS						
SPACE		S	I 8		N ,	H
BLANK		E 3	LF LF	SPACE SPACE	CR CR	T 5

Lower	Upper	Characters Resulting From Loss of Impulses				
		1	2	3	4	5
A	-	LF LF	E 3			
B	?	O 9			Z	D
C	:		N ,	R 4	I 8	
D		CR CR			E 3	
E	3	BLANK BLANK				
F		N ,		D	S	
G			O 9		L)	R 4
H				T 5		SPACE SPACE
I	8		SPACE SPACE	LF LF		
J		R 4	D		A -	
K	(	C :	F	J	U 7	
L	)		T 5			LF LF
M	.			9	H	N ,
N	,			CR CR	SPACE SPACE	
O	9				T 5	CR CR
P	Ø		H	L)		I 8
Q	1	P Ø	Y 6	W 2		U 7
R	4		CR CR		LF LF	
S		SPACE SPACE		E 3		
T	5					BLANK BLANK
U	7	I 8	S	A -		
V			F	J	U 7	C :
W	2	L)	Z			A -
X	/	M .		B ?	Y 6	F
Y	6	H		Z		S
Z		T 5				E 3
C.R.					BLANK BLANK	
L.F.			BLANK BLANK			
FIGS		G	B ?		W 2	J
LTRS		V	X /	FIGS FIGS	Q 1	K (
SPACE				BLANK BLANK		
BLANK						

01.09.0611 RULES REGARDING TRANSMISSION IDENTIFICATION

The formulation of station designator letters associated with transmission identification within MARS will be determined by utilizing the last two letters of the transmitting stations routing indicator and the last letter of the receiving station followed by a three number message identification from 001 to 999 (i.e. SLE001). SL indicates the transmitting station NNN0ASL and E indicates the receiving station NNN0RSE on the channel between Hawaii and CONUS. 001 indicates message number one in current series.

Message as originated by NNN0EFB addressed NNN0ASA and sent by NNN0EFB over channel A to NNN0ASL:

```
FBL001                    (5 spaces)  (2CR)  (1LF)
RR NOASA                  (2CR)  (1LF)
DE EFB 001                (2CR)  (1LF)
R 010001Z MAY 81          (2CR)  (1LF)
FM NNN0EFB                (2CR)  (1LF)
TO NNN0ASA MD             (2CR)  (1LF)
BT
```

As relayed by NNN0ASL to NNN0RSE over channel B:

```
SLE009FBL001              (5 spaces)  (2CR)  (1LF)
RR NOASA                  (2CR)  (1LF)
DE EFB 001                (2CR)  (1LF)
R 010001Z MAY 81          (2CR)  (1LF)
FM NNN0EFB VA             (2CR)  (1LF)
TO NNN0ASA MD             (2CR)  (1LF)
BT
```

As relayed by NNN0RSE to NAV2 over channel T:

```
SEV499SLE009FBL001        (5 spaces)  (2CR)  (1LF)
RR NOASA                  (2CR)  (1LF)
DE EFB 001                (2CR)  (1LF)
R 010001Z MAY 81          (2CR)  (1LF)
FM NNN0EFB VA             (2CR)  (1LF)
TO NNN0ASA MD             (2CR)  (1LF)
BT                        (2CR)  (1LF)
```

01.09.0620 RULES FOR ROUTING MESSAGES

In multiple address messages, all routing indicators associated with a single relay station shall be grouped together in format line 2. They shall not be intermingled indiscriminately.

When two or more addresses of a message are served by a single station or, are within the same area, the routing indicator of that area shall appear only once in format line 2 regardless of the number of times it appears in format line 7 and/or 8. (i.e. a message addressed NAV, NNN0ASA, NNN0ASB, only NNN0ASA need appear on the routing line).

When a collective address such as NNN0ALD or NNN0ALM is used, the routing indicator for the areas in which the addressees are located shall appear in the routing line).

01.09.0630 RULES FOR INDICATING DELIVERY RESPONSIBILITY

When Specific Delivery Responsibility cannot be Determined. In view of the volunteer nature of NAVMARCORMARS, specific delivery responsibility of messages cannot normally be assigned. Therefore, the station(s) protecting for the area routing indicator(s) appearing in the routing line (Format Line 2) shall be responsible for serving the addressees of the message within the assigned area.

01.09.0640 PREDETERMINED DELIVERY RESPONSIBILITY

Predetermined delivery responsibility may be assigned to Milirary Unit Stations when necessary, especially for quasi-official and official messages. The inclusion of the routing indicator of the station assigned responsibility for delivery may precede each address designation in format lines 7 and/or 8. (This rule is not applicable when a collective call sign is used). When delivery to an addressee of a multiple address message has been accomplished prior to introducing the message into the MARSTELSYS or will be transmitted by other means, the station preparing the message for entering the MARSTELSYS shall indicate such delivery by inserting the operating signal ZEN preceding the designation of the addressee. When delivery responsibility cannot be assigned to any one addressee(s), the area routing indicator shall be used in lieu of a station routing indicator. In all cases, however, the area routing indicator shall be used in the routing line.

Example:

RR NOASC NOASE NOASL
DE ASA 015
R 241615Z MAY 79
FM CHNAVMARCORMARS CHELTENHAM MD
TO NOASL/COMFOURTEEN PEARL HARBOR HI
NOASE/NAVELECSYSCOMWESTDIV VALLEJO CA
NOASE/COMTWELVE SAN FRANCISCO CA
ZEN/NAVELECSYSCOM WASHINGTON DC
ZEN/NAVSHIPSYSCOM WASHINGTON DC
INFO NOMSD/CG MARCORCRUITDEP SAN DIEGO CA
NOASC/CBC GULFPORT MS
NOASL/DIRNAVMARCORMARSREG EIGHT HONOLULU HI
NOASE/DIRNAVMARCORMARSREG FIVE SAN DIEGO CA
NOASC/DIRNAVMARCORMARSREG TWO CHARLESTON SC
BT

01.09.0650 RULES REGARDING CORRECTION OF ERRORS

Errors made in the heading during tape preparation shall be corrected by discarding the incorrect tape and preparing a new one.

Errors made in the text shall be corrected by backspacing and obliterating (lettering out) the incorrect portion.

01.09.0651 RELAY STATION ACTION ON INACCURATELY PREPARED MESSAGES

a. When a relay station determines that prescribed procedures and format have not been used by the originating station in preparing a message for transmission, action will be taken as outlined below:

(1) If the message tape containing the error(s) is PRIORITY or higher precedence, correction and immediate relay of the transmission will be effected insofar as possible.

(2) If the message tape is ROUTINE, correction of the errors will be attempted at the optionof the relay station; or the message tape containing the errors may be filed without relay, and the originating station advised accordingly by service message. This notification will consist of the operating signal ZAH, identification of the message involved, and reference to the specific error(s) requiring correction. When routed to other than a directly connected station, the ZAH notification will also include the routing line of the message involved.

In keyboard operating, the normal error prosign of 8 E's shall be used.

01.09.0660 RELAY OF MULTIPLE CALL MESSAGES

Relay of multiple call messages is accomplished by routing line segregation.

Each multiple call message starts out from the originating station as a single transmission containing in the routing line all the routing indicators required to

effect transmission to all MARS stations responsible for delivery or refile of the message to any of the addressees.

Each subsequent station is responsible for ensuring that the message is forwarded so as to effect delivery to all stations/areas called in the routing line of the transmission received by that station.

At the first and each succeeding relay station, the routing line of the received transmission is examined to determine the transmission path(s) that the message will take from that station.

Each relay station which must forward the message over more than one transmission path shall segregate the routing line. Each new transmission shall contain in its routing line only those routing indicators pertinent to that transmission. In this process, no extraneous characters shall be inserted to replace routing indicators which have been deleted. If practicable, transmission instructions appearing in the received message which are not pertinent to a particular onward transmission shall be removed.

Each terminal station receives the message as a single call message except when a simultaneous transmission is made to two or more stations on a multi-station circuit.

Multiple call message as originated by NNN0ASA:

```
R 010001Z JUN 81
FM NNN0ASA DC
TO NNN0ALD
BT
```

Tapes as prepared by NAV for further transmission:

Tape for delivery to First and Second Regions

```
                                (5 spaces)  (2CR) (1LF)

RR NOASC NOASI                       (2CR)  (1LF)
DE ASA 020                           (2CR)  (1LF)
R 010001Z JUN 81                     (2CR)  (1LF)
FM NNN0ASA DC                        (2CR)  (1LF)
TO NNN0ALD                           (2CR)  (1LF)
BT
```

Tape as prepared for delivery to Third and Fourth Regions

```
                                     (5 spaces)  (2CR)  (1LF)

RR NOASF NOASG                       (2CR)  (1LF)
DE ASA 020                           (2CR)  (1LF)
R 010001Z JUN 81                     (2CR)  (1LF)
FM NNN0ASA DC                        (2CR)  (1LF)
TO NNN0ALD                           (2CR)  (1LF)
BT
```

Tape as prepared for delivery to West Coast

```
                                     (5 spaces)  (2CR)  (1LF)

RR NOASE NOASK NOASL                 (2CR)  (1LF)
DE ASA 020                           (2CR)  (1LF)
R 01001Z JUN 81                      (2CR)  (1LF)
FM NNN0ASA DC                        (2CR)  (1LF)
TO NNN0ALD                           (2CR)  (1LF)
BT
```

Tape is received by the Primary Relay Station on the west coast and further segregated prior to onward transmission to Region Eight.

```
                                        (5 spaces)  (2CR)  (1LF)

RR NOASL                                (2CR)  (1LF)
DE ASA 020                              (2CR)  (1LF)
R 010001Z JUN 81                        (2CR)  (1LF)
FM NNN0ASA DC                           (2CR)  (1LF)
TO NNN0ALD                              (2CR)  (1LF)
BT                                      (2CR)  (1LF)
```

Tape is further segregated prior to onward transmission to Region Five and Eight.

```
                                        (5 spaces)  (2CR)  (1LF)

RR NOASE NOASK                          (2CR)  (1LF)
DE ASA 020                              (2CR)  (1LF)
R 010001Z JUN 81                        (2CR)  (1LF)
FM NNN0ASA DC                           (2CR)  (1LF)
TO NNN0ALD                              (2CR)  (1LF)
BT                                      (2CR)  (1LF)
```

Tape being forwarded over a particular circuit carries only the routing indicator(s) to be protected for, or further segregated by the receiving station.

01.09.0670 ALTERNATIVE ROUTING

When messages cannot be transmitted within a reasonable time for the normal transmission route because of extended outage of, or backlog on a link of the normal route, an alternate route, if available, should be used.

When it is desired to route traffic alternatively through the tape relay facilities of another channel or circuit, a request shall be transmitted to the particular relay station through which alternative routing is desired, to determine the capability of that station to accept. Permission to alternatively route through another station shall be obtained by service message or through direct supervisory contact by telephone.

Example:

```
P 010001Z JUN 81        (2CR)  (1LF)
FM NNN0RSE SCA          (2CR)  (1LF)
TO NNN0ANP GA           (2CR)  (1LF)
BT                      (2CR)  (1LF)
UNCLAS                  (2CR)  (1LF)
INT ZOE NAV 2           (2CR)  (1LF)
BT                      (2CR)  (1LF)
                        (4 N's)  (12 LTRS)
```

When the alternate route is no longer needed, the requesting station shall so advise the other station concerned.

01.09.0680 SERVICE MESSAGES

Service messages are used by the station personnel to exchange information and instructions pertaining to the conduct of communications, e.g., circuit continuity checks, correction of errors, tracer action and all phases of traffic handling and network operation. Brevity shall be stressed in service messages. The text shall consist of the minimum number of words required to express the thought intended without being vague or ambiguous. Maximum practicable use shall be made of operating signals and prosigns.

Requests for retransmissions of MARS messages will normally be accomplished on an informal basis immediately and prior to receipting for a series of messages. In the case of retransmission requests after a series of messages has been receipted, a service message will be used to obtain the repetition. This service will be sent to the previous relaying station citing the channel number of the message, the DTG and any other information deemed necessary to identify the message. If the first relay station

serviced cannot provide the correction requested, the service will be sent to the originator.

01.09.0690 ENSURING CONTINUITY OF TRAFFIC

The responsibility for the continuity of received numbers rests with the station receiving the traffic. It is the responsibility of the receiving operator to ensure that a transmission is received under each number and that numbers are not duplicated or omitted. Open numbers shall be reported as they occur.

ANNEX A

NET ORGANIZATION

01.0A.0100 NET ORGANIZATION

01.0A.0110 NETWORKS

Networks are categorized with respect to the usage for which the network was primarily established, as follows:

01.0A.0111 ADMINISTRATIVE NET

A net primarily established for administrative purposes linking any echelon of authority with immediate subordinates and such other stations as may be specifically designated.

01.0A.0112 TRAFFIC NET

A net primarily established to handled record message traffic.

01.0A.0113 TRAINING NET

A net primarily established to promote technical and procedural training in matters pertaining to military communications.

01.0A.0114 SPECIALTY NET

A net primarily established for a purpose other than those listed herein. Third party voice communications, slow-scan TV, afloat operations, teletype and facsimile operations are examples of MARS activity considered to be within this category.

01.0A.0115 COMMAND NET

A net primarily established for coordination purposes among Chief, MARS, Headquarters, MARS Radio Station (NAV), MARS Directors and such other stations as may be specifically authorized. Additionally, the Command Net (COMNET) shall be used for alerting all NAVMARCORMARS stations of an emergency, actual or exercise and to promulgate by the Broadcast method, information relating to an emergency.

01.0A.0116 TACTICAL NET

A net primarily established to meet requirements for tactical operations among stations specifically authorized in accordance with Annex D.

01.0A.0200 RESPONSIBILITY

01.0A.0210 MARS DIRECTOR RESPONSIBILITY

The MARS Director is assigned the responsibility for net organization and establishing/disestablishing nets and coordinating net frequency assignments within his Region in accordance with Annex B.

01.0A.0220 AREA COORDINATOR RESPONSIBILITY

The Area Coordinator is assigned the responsibility to recommend to the Director, the establishment and disestablishment of radio nets within his area to fulfill requirements necessary to carry out the MARS mission and to perform the functions of the Program.

01.0A.0300 ESTABLISHMENT

Nets should be established in consonance with requirements to fulfill the mission and functions. Net frequency assignments shall be assigned only by the MARS Director in whose area of responsibility the net is being established and then only

upon completion of action in accordance with Annex B.

Administrative Nets should be established periodically among the Director, his assistants and Area Coordinators and among the Area Coordinator, his assistants and net control stations to facilitate administration of the program within their area of responsibility.

Traffic nets should be established, whenever possible, in consonance with the schedules of the MARS Radio Teletypewriter Relay System (MARSTELSYS), similar to that shown in the block diagram in Figure A-1, to permit the timely handling of incoming and outgoing message traffic. Traffic nets shall not be established for inter-region communications without the approval of Chief, MARS. Inter-region message traffic shall be via the MARSTELSYS, in accordance with Annex E.

Specialty, Command and Tactical Nets shall only be established under the cognizance of Chief, MARS. Tactical nets may be established without the approval of Chief, MARS under the conditions set forth in Annex D.

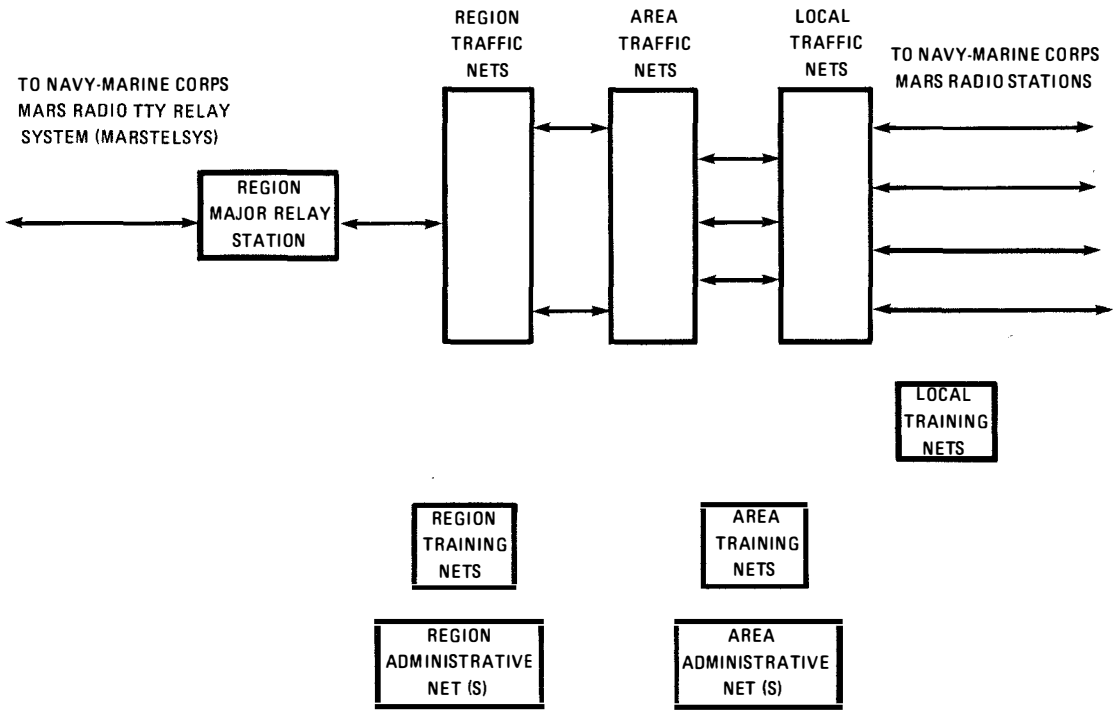


Figure A-1

01.0A.0400 NET DESIGNATORS

Net designators will be assigned to each net and shall be derived as follows:

The first numeral of the designator will denote the MARS Region in which the net is located. Networks under the cognizance of Chief, MARS shall be designated by the numeral "0".

The second letter as assigned by the MARS Director will indicate the Area in which the net is located. The letters "X" and "Z" shall only be used to denote region nets and those under the cognizance of Chief, MARS respectively.

The third digit will denote the first, second, third, etc., net within the Region, or Area, regardless of its purpose or mode of operation. The third digit in

designators for nets under the cognizance of Chief MARS will denote the first, second, third, etc., net within each specialty network.

The fourth letter will denote the type of net as follows:

Administrative	"A"
Traffic	"B"
Training	"C"
Specialty Nets	
Radio-telephone	"V"
Radio-Teletypewriter	"W"
Slow-Scan TV	"X"
Facsimile	"Y"
Other	"Z"

Examples: The second Specialty Radio-Telephone Net: 0Z2V

The first traffic net in the FIFTH Navy-Marine Corps MARS Region 5X1B

The third training net in the Virginia Area, SECOND Navy-Marine Corps MARS Region: 2V3C

ANNEX B

PRINCIPLES OF FREQUENCY ASSIGNMENT

01.0B.0100 PRINCIPLES OF FREQUENCY ASSIGNMENT

01.0B.0110 INTRODUCTION

This Annex contains guidance for the utilization of the radio frequency spectrum by NAVMARCORMARS, for the reporting of spectrum usage, and for the maintenance of required frequency accuracy.

Frequencies used by MARS are shared with other Naval communications activities, other government departments and agencies, and in most cases, are shared among the various MARS Regions and Areas. They are assigned on a strict not-to-interfere (NIB) basis with operational users. Therefore, it is manadatory that power output limits, emission authorizations, time sharing assignments, and prescribed frequency tolerances be observed.

In order to retain present frequency assignments and enhance the acquisition of additional frequencies, MARS operations must be restricted to proper Navy procedures. Amateur and other non-military activity are prohibited on Navy frequencies.

In order that this Annex may reflect current information, Chief, MARS will issue message changes via Chief, MARS Broadcast.

01.0B.0120 PRINCIPLES

01.0B.0121 FREQUENCY SHARING

One of the basic fundamentals of a frequency allocation plan is assurance that the maximum sharing of frequencies is effected. Frequency sharing is accomplished in two ways, by geographical sharing and by time sharing.

01.0B.0122 GEOGRAPHICAL SHARING

Geographical sharing is one of the more effective means of frequency sharing. It is subject to the variable nature of radio wave propagation conditions, especially as regards to the ionosphere. These variations may result in periodic harmful interference among users of the same or adjacent frequencies.

01.0B.0123 TIME SHARING

The method requires that stations operate on a schedule such that two stations or two nets do not use the same frequency at the same time. Time sharing is effective in avoiding interference but is somewhat limited in military applications.

01.0B.0124 COMBINATIONS

Certain frequencies, because of the large number of MARS Regions and Areas for which they are authorized, are subject to combinations of geographical and time sharing. In making such assignments, propagation characteristics and time zone differences between Regions/Areas are major factors to be considered. Because of the dense utilization of the radio spectrum and the resultant close spacing of frequency assignments, some adjacent channel interference can be expected. Geographical and/or time sharing may be necessary to resolve adjacent channel interference problems.

01.0B.0125 METHOD OF ASSIGNMENT

Radio frequencies are assigned by the Navy Electromagnetic Spectrum Center/Joint Frequency Panel (NAVEMSCEN/JFP) to Chief, MARS as appropriate for MARS use after coordination through normal frequency clearance channels. Chief, MARS makes them available to the appropriate Region Director(s) for further assignment to MARS activities within their respective Region. NAVEMSCEN provides Chief, MARS and the Directors with listings of authorized frequencies, including emission, geographical and

power restrictions. These listings are kept current by the Electromagnetic Compatability Analysis Center (ECAC), Annapolis, Maryland and are subject to frequent change. The listings are provided on a semi-annual basis. Directors will submit frequency proposals in accordance with Spectrum Management Manual (NTP 6) for allocations not appearing in the listing. These proposals/modifications will be submitted via official message to Chief, MARS. Chief, MARS will review and forward to NAVEMSCEN/JFP as required. When the proposal/modification is approved by NAVEMSCEN, the assignment will be made by message and will appear in the next listing.

Frequencies shall be allocated and assigned as equitably and efficiently as possible by Chief, MARS and Region Directors to allow for maximum use within the MARS organization.

Conflicts will be resolved at the appropriate MARS echelon.

Region Directors shall provide a current Region Net Directory to the members of their respective regions, with copies provided Chief, MARS, other Directors and the Special Assistant to Chief, MARS for Frequency Management.

01.0B.0200 POWER LIMITS

01.0B.0210 OUTPUT POWER

Power limits are based upon output mean power of the station's transmitter. For 3A3J emission, mean power is defined as 1/2 peak envelope power (PEP) output. For 0.1A1, mean power is 1/2 of keydown power output. For F1, F2, F3, and F4 emissions, mean power is equal to output power.

01.0B.0220 MINIMUM POWER TO BE USED

The maximum power authorized may not be required for reliable communications. Minimum power consistent with reliable communications shall be employed.

01.0B.0300 FREQUENCY USAGE REPORTS

01.0B.0310 AREA AND SPECIALTY NETWORK COORDINATOR'S REPORTS

Area and Specialty Network Coordinators will forward frequency usage reports on the 1st day of each month.

01.0B.0320 DIRECTORS' REPORTS

Directors will prepare frequency usage reports for their respective Reions, in accordance with the current OPNAV INSTRUCTION and modifications thereto. Reports will be submitted with original plus one carbon copy to the Chief, MARS by the 5th working day of the month following the reporting period.

01.0B.0400 DEFINITIONS

BANDWIDTH, NECESSARY	The minimum value of the occupied bandwidth sufficient to ensure the transmission of information at the rate and with the quality required for the system employed, under specified conditions. Emissions useful for the functioning of the receiving equipment as, for example, the emission corresponding to the carrier of reduced carrier systems, shall be included in the necessary bandwidths.
BANDWIDTH, OCCUPIED	The frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5% of the total mean power radiated by a given emission.
FREQUENCY, ASSIGNED	The center of the frequency band assigned to a station.

FREQUENCY, CHARACTERISTIC	A frequency which can be easily identified and measured in a given emission.
FREQUENCY, REFERENCE	A frequency having a fixed and specified position with respect to the assigned frequency. The displacement of this frequency with respect to the assigned frequency has the same absolute value and sign that the displacement of the characteristic frequency has with respect to the center of the frequency band occupied by the emission.
FREQUENCY, TOLERANCE	The maximum permissable departure by the center frequency from the assigned frequency or, by the characteristic frequency from the reference frequency. The frequency tolerance is expressed in parts in 10 6 or in hertz.

01.0B.0500 EMISSION DESIGNATIONS

01.0B.0510 DESIGNATION OF EMISSIONS

Emissions are designated according to their classification and the width of the frequency band occupied. Classification is according to type of modulation, mode of transmission, and supplementary characteristics. The following designations are in accordance with international agreements.

Modulation Types

Amplitude	A
Frequency	F
Pulse	P

Modulation (Transmission Mode)

None	0
Telegraphy (keyed RF carrier)	1
Telegraphy (tone)	2
Telephone	3
Facsimile	4
Television	5
Four Channel Diplex Telegraphy	6
Multichannel Voice Frequency Telegraphy	7
Complex Forms	9

Supplemental Characteristics (sometimes a lower case letter instead of a capital

Double Sideband	none
Single Sideband	
- reduced carrier*	A
- full carrier	H
- suppressed carrier	J
Two Independent Sidebands, suppressed carrier	B
Vestigial Sideband	C
Pulse	
- Amplitude modulated	D
- width modulated	E
- phase modulated	F
- code modulated	G

01.0B.0520 EXAMPLES OF SPECIFIC EMISSION DESIGNATIONS

In the emission designations which follow refer to the occupied bandwidth. The numerals preceding the first letter signify the bandwidth; the first letter signifies the modulation type; the next numeral is the modulation or transmission mode; the final letter is the supplemental characteristic (sometimes a lower case letter):

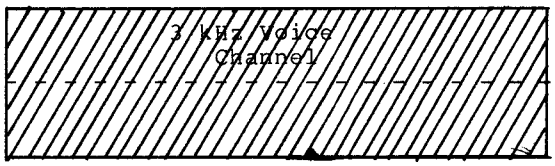
0.1A1	CW, 25 w.p.m. telegraphy.
0.26F1	RTTY, 75 baud (100 w.p.m.), single channel, 170 Hz shift.
0.39F1	RTTY, 300 baud, single channel, 170 Hz shift.
1.08F1	RTTY, 60 w.p.m., single channel.
1.24F1	RTTY, 75 baud (100 w.p.m.), single channel, 850 Hz shift.
2.85F1	Four channel MUX.
3A3J	Single Sideband; one 3 kHz channel with voice, with suppressed carrier offset 1.5 kHz below assigned frequency (USB).
4F4	Facsimile
6A3	Amplitude modulated telephony.
16F3	Frequency Modulated telephony. (16 kHz bandwidth)
36F3	Frequency Modulated telephony. (36 kHz bandwidth)

In each of the preceding cases, the assigned frequency is at the center of the bandwidth indicated. If a given transmitter is switched between modes, such as 3A3J and 1.24F1, its frequency must be adjusted so that both emissions are centered on the assigned frequency.

Example of Emissions

3A3J Emission (USB)

Frequency



Assigned frequency	- 4015.0 kHz
Mode	- 3A3J Upper Single Sideband
Bandwidth	- 3 kHz
Reference frequency	- 4013.5 kHz
Characteristic frequency (Suppressed carrier)	- 4013.5 kHz

The emission consists of one 3 kHz voice channel, A, in upper sideband, with suppressed carrier.

01.0B.0600 TOLERANCES

01.0B.0610 FREQUENCY TOLERANCES

The frequency tolerances for Navy fixed and mobile stations are as follows:

FREQUENCY RANGE AND TOLERANCE IN PART 10^6 UNLESS STATED OTHERWISE			
Fixed Stations	**Parts**	**Mobile Stations**	**Parts**
	Band 1.605 to 4MHz		
500W or less	30	No power limitations	30
	Band 4 to 29.7MHz		
500W or less	30	No power limitations	30
Above 500W	10		
SSB/ISB in excess of 1KW is 20Hz			
	Band 29.7 to 100MHz		
No power limitations	20	3W or less	50
		Above 3W	20
	Band 100 to 406MHz		
No power limitations	5	No power limitations	5

DIAGRAM

Example:

If the assigned frequency for a fixed station is 4015 kHz and the power being utilized is 400 watts, the tolerance can be determined by multiplying 4015 kHz X 30 X 10^{-6} which equates to 120.45 HERTZ. The tolerance for this operation is therefore plus or minus 120.45 HERTZ from 4015 kHz.

01.0B.0620 MAINTENANCE

The tolerances apply to the entire naval service and must be maintained by MARS stations. Communications security activities, the Federal Communications Commission (FCC), and NAVMARCORMARS Frequency Monitors monitor MARS frequencies to ensure maintenance of the above standards, and report off-frequency transmissions.

01.0B.0630 VIOLATION REPORTS

The Federal Communications Commission and Communications security activities forward reports of violation to the Commander, Naval Telecommunications Command. Reports involving MARS stations are referred to Chief, MARS, who forwards them to the appropriate Region Director directing corrective action.

NAVMARCORMARS Frequency Monitors (FYMON) are appointed by Chief, MARS and Region Directors as Staff assistants. Area level assistants may also be appointed at the discretion of the Director. Frequency Monitors (FYMON) will report off-frequency operation or spurious emissions to the offending station on a MARS MONITORING REPORT (NM 2070-50), Figure B-1, or by message, with information copies to the Director and Area Coordinator concerned. Repeated violations will be considered grounds for termination in accordance with paragraph 01.03.0420.

01.0B.0700 INTERFERENCE

If experience during actual use reveals that the frequencies authorized are unsatisfactory or inadequate because of interference, the Chief, MARS will advise the Commander, Naval Telecommunications Command with full details.

MARS frequencies must be utilized in such a manner as to avoid interference to other Naval Communications, which take precedence. If such interference develops and the naval station affected requests that the MARS station cease operation on the frequency in use, such action shall be taken immediately, until the frequency is clear.

01.0B.0710 REPORTING OF INTERFERENCE

Facts pertaining to interference on MARS frequencies should be reported to Chief, MARS, Special Assistant for Freqency Management, Region Director and other addees as appropriate using the following format:

Station Causing Interference:

A. Call sign or other identification

B. Measured Frequency. (center of intelligence)

C. Type of emission and type of traffic being transmitted.

D. Measured bandwidth of interfering signal. (Indicate lowest and highest frequencies. Give type of measuring equipment.)

E. Signal strength. (If field meter not available, use scale 1 to 5.)

F. Severity of interference. Indicate percentage of copy or intelligence lost due to interference.

Transmitter Station Being Interfered with

G. Call sign or name station.

H. Assigned frequency.

I. Measured frequency.

J. Type of emission or signals being transmitted.

K. Measured bandwidth.

L. Signal strength.

Receiving Station Experiencing Interference

M. Call sign or name of station.

N. Location. Give coordinates in latitude and longitude if possible. Indicate nearest major city, and state or country.

O. Date and time of interference, and duration in minutes. (Example: 251030Z (22), 261143Z (5), etc.)

P. Other particulars.

Q. Requested action.

NOTE: An X will be used after any of the above letters if no information on that particular item is reported. Frequencies shall refer to the center of intelligence/assigned frequency, not the suppressed carrier/characteristic frequency.

01.0B.0800 COMPLIANCE WITH ASSIGNMENTS

01.0B.0810 TIME SHARING

All MARS Directors and Area Coordinators shall insure strict compliance with the times authorized by Chief, MARS. In no case, except during emergencies, will deviations be made from time sharing schedules authorized or the use of frequencies without prior approval of Chief, MARS.

01.0B.0820 BANDWIDTHS AND EMISSIONS

When 1.24F1 emission is authorized, other F1 emissions which occupy less

bandwidth may also be used. When 3A3J is used, it is necessary that the suppressed carrier be offset minus 1.5 kHz with the center of intelligence on the assigned frequency.

01.0B.0830 SIDEBAND CHOICE

When 3A3J is employed, only the upper sideband (USB) will be used. Lower sideband (LSB) emission is not an authorized Navy frequency assignment.

ANNEX C

OPERATING SIGNALS

01.0C.0100 OPERATING SIGNALS ("Z" AND "Q")

Operating signals are a concise code designed primarily for use by communication personnel in exchanging information incident to the handling of messages, or in establishing communications. They are also used in service messages and other forms of messages between communication personnel.

Operating signals provide no security and therefore must be regarded as the equivalent of plain language.

The "Z" signals are designed to cover military requirements and should be used whenever necessary in military communications. "Q" signals may be used in military communications where no suitable "Z" signal exists. Only "Q" signals will be used in non-military communications.

Meaning of "Z" and "Q" operating signals may be amplified or completed by the addition of appropriate call signs, time groups, complementary groups, etc. Call signs used to complement an operating signal normally follow the signal, but under certain conditions, such as to achieve clarity or to effect separation, they may be placed ahead of the operating signal. Plain language is prohibited except when no other method is provided to complete the meaning.

When desired, an operating signal may be given an interrogative sense:

When communicating with military stations, by inserting the prosign INT before the "Z" and "Q" signal.

When communicating with non-military stations, by inserting the prosign IMI after the "Q" signal and data used with it.

Operating signals should not normally be used in radio-telephone procedure. Instead, the operating information will be conveyed by concise phrases. When it is necessary to relay operating signals over voice circuits, they are transmitted by their phonetic equivalents. (i.e., in messages.)

Use of the prosign ZWC is prohibited on radio circuits when it indicates operator-to-operator "chatter", which constitutes unauthorized transmission.

Blank spaces in the meaning of "Q" and "Z" signals will be completed, in the order in which they appear; however, blank spaces enclosed in parenthesis normally will be completed on an optional basis only.

EXAMPLE ONE:

QBM NNN0AAA 1010Z means: Here is the message sent by NNN0AAA at 1010Z hours.

Note: The meaning assigned QBM is "Here is the message sent to ...at... hours", therefore, as these blank spaces are not enclosed in parenthesis, all are completed in the order in which they appear.

EXAMPLE TWO:

ZKO NNN0AAA means: "I have handed over guard (to...) (on...kHz or MHz) (serial number of last message received was...)" however, in the above example, the user elected to complete only one of the blank spaces enclosed in parenthesis.

SIGNAL	QUESTION	ANSWER, ADVICE OR ORDER
QAP	Shall I listen for you (or for...) on...kHz (or...MHz)? Note: If the frequency is given in megahertz, the abbreviation MHz is to be used. (See also signal QSX).	Listen for me (or for...) on... kHz (...MHz). Note: if the frequency is given in megahertz, the abbreviation MHz to be used. (See also signal QSX).
QAR	May I stop listening on the watch frequency for... minutes?	You may stop listening on the watch frequency for...minutes.
QBM	Has...sent any message for me?	Here is the message sent by...at... hours.
QCB		Delay is being caused by... 1) your transmitting out of turn. 2) your slowness in answering. 3) lack of your reply to my...
QCS		My reception on...frequency has broken down.
QCX	What is your full call sign?	My full call sign is... or Use your full call sign until further notice.
QDB	Have you sent message... to...?	I have sent message...to...
QIC	May I establish communication with...radio station on...kHz . (or...MHz.) now (or at... hours)?	Establish communication with... radio station on...kHz. (or...MHz) now (or at...hours). or I will establish communication with... radio station on...kHz. (or...MHz.)
QIF	What frequency is... using?	...is using...kHz. (or...MHz).
QJA	Is my... 1) tape) 2) mark and space) reversed?	Your... 1) tape) 2) mark and space) is reversed.
QJB	Will you use... 1) radio? 2) cable? 3) telegraph? 4) teletypewriter? 5) telephone? 6) receiver? 7) transmitter? 8) reperforator?	I will use... 1) radio. 2) cable. 3) telegraph. 4) teletypewriter. 5) telephone. 6) receiver. 7) transmitter. 8) reperforator.
QJC	Will yu check your... 1) transmitter distributor? 2) auto-head? 3) perforator? 4) reperforator? 5) printer?	I will check my... 1) transmitter distributor. 2) auto-head. 3) perforator. 4) reperforator. 5) printer.

	6) printer motor? 7) keyboard? 8) antenna system?	6) printer motor. 7) keyboaard. 8) antenna system.
QJD	Am I transmitting... 1) in letters? 2) in figures?	You are transmitting... 1) in letters. 2) in figures.
QJE	Is my frequency shift... 1) too wide? 2) too narrow? 3) correct?	Your frequency shift is... 1) too wide. 2) too narrow (by...hertz). 3) correct.
QJF		My signal as checked by monitor... is satisfactory... 1) locally. 2) as radiated.
QJG	Shall I revert to automatic relay?	Revert to automatic relay.
QJH	Shall I run... 1) my test tape? 2) a test sentence?	Run... 1) your test tape. 2) a test sentence.
QJI	Will you transmit a continuous... 1) mark? 2) space?	I am transmitting a continuous... 1) mark. 2) space.
QJK	Are you receiving... 1) a continuous mark? 2) a continuous space? 3) a mark bias? 4) a space bias?	I am receiving... 1) a continuous mark. 2) a continuous space. 3) a mark bias. 4) a space bias.
QLH	Will you use simultaneous keying on...frequency and ...frequency?	I will now key simultaneously on... frequency and...frequency.
QMH		Shift to transmit and receive on ...kHz (or MHz); if communication is not established withhin 5 minutes, revert to present frequency.
QRA	What is the name of your station?	The name of my station is...
QRB	How far approximately are you from my station?	The approximate distance between our stations is...nautical miles (or...kilometers).
QRG	Will you tell me my exact frequency (or that of...)?	Your exact frequency (or that of...) is...kHz (or MHz).
QRH	Does my frequency vary?	Your frequency varies.
QRI	How is the tone of my transmission?	The tone of your transmission is... 1) good.

		2) variable. 3) bad.
QRJ	How may radiotelephone calls have you to book?	I have...radiotelephone calls to book.
QRK	What is the intelligibility of my signals (or those of...)?	The intelligibility of your signals (or those of...) is... 1) bad. 2) poor. 3) fair. 4) good. 5) excellent.
QRL	Are you busy?	I am busy (or I busy with...). Please do not interfere.
QRM	Are you being interfered with?	I am being interfered with (1. nil 2. slightly 3. moderately 4. severely 5. extremely).
QRN	Are you troubled by static?	I am troubled by static (1. nil 2. slightly 3. moderately 4. severely 5. extremely).
QRO	Shall I increase transmitter power?	Increase transmitter power.
QRP	Shall I decrease transmitter power?	Decrease transmitter power.
QRQ	Shall I send faster?	Send faster (...words per minute).
QRR	Are you ready for automatic operation?	I am ready for automatic operation. Send at...words per minute.
QRS	Shall I send more slowly?	Send more slowly (...words per minute).
QRT	Shall I stop sending?	Stop sending.
QRU	Have you anything for me?	I have nothing for you.
QRV	Are you ready?	I am ready.
QRW	Shall I inform...that you are calling him on...kHz (or MHz).	Please inform...that I am calling him on...kHz (or MHz).
QRX	When will you call me again?	I will call you again at...hours on...kHz (or MHz).

QRY	What is my turn? (relates to communication.)	Your turn is number...(or according to any other indication). (Relates to communication.)
QRZ	Who is calling me?	You are being called by...(on... kHz (or MHz).
QSA	What is the strength of my signals (or those of...)?	The strength of your signals (or those of...) is... 1) scarcely perceptible. 2) weak. 3) fairly good. 4) good. 5) very good.
QSB	Are my signals fading?	Your signals are fading.
QSD	Is my keying defective?	Your keying is defective.
QSG	Shall I send...telegrams at a time?	Send...telegrams at a time.
QSJ	What is the charge to be collected...including your internal telegraph charge?	The charge to be collected to... including my internal telegraph charge is...francs.
QSK	Can you hear me between your signals and if so can I break in on your transmission?	I can hear you between my signals; break in on my transmission.
QSL	Can you acknowledge receipt?	I am acknowledging receipt.
QSM	Shall I repeat the last telegram which I sent you (or some previous telegram)?	Repeat the last telegram which you sent me (or telegram(s) number(s) ...).
QSN	Did you hear me (or... (call sign)) on...kHz (or MHz)?	I did hear you (or...(call sign)) on...kHz (or MHz).
QSO	Can you communicate with... direct or by relay?	I can communicate with...direct (or by relay through...).
QSP	Will you relay to...free of charge?	I will relay to...free of charge.
QSR	Shall I repeat the call on the calling frequency?	Repeat your call on the calling frequency; did not hear you (or have interference).
QSS	What working frequency will you use?	I will use the working frequency... kHz (normally only the last three figures of the frequency need be given).
QSU	Shall I send or reply on this frequency (or on...kHz (or MHz)) (With emissions of class...)?	Send or reply on this frequency (or on...kHz (or MHz)) (with emissions of class...).
QSV	Shall I send a series of V's on this frequency (or...kHz (or	Send a series of V's on this frequency (or on...kHz (or MHz)).

	MHz))?	
QSW	Will you send on this frequency (or on...kHz (or MHz)) (With emissions of class...)?	I am going to send on this frequency (or on...kHz (or MHz)) (With emissions of class...).
QSX	Will you listen to...(call sign(s)) on...kHz (or MHz)?	I am listening to...(call sign(s)) on...kHz (or MHz).
QSY	Shall I change to transmission on another frequency?	Change to transmission on another frequency (or on...kHz (or MHz)).
QSZ	Shall I send each word or group more than once?	Send each word or group twice (or...times).
QTA	Shall I cancel telegram number...?	Cancel telegram number...
QTB	Do you agree with my counting of words?	I do not agree with your counting of words; I will repeat the first letter or digit of each word or group.
QTC	How many telegrams have you to send?	I have...telegrams for you (or for...).
QTH	What is your position in latitude and longitude (or according to any other indication)?	My position is...latitude...longitude (or according to any other indication).
QTR	What is the correct time?	The correct time is...hours.
QTS	Will you send your call sign for tuning purposes or so that your frequency can be measured now (or at...hours) on...kHz (or MHz)?	I will send my call sign for tuning purposes or so that my frequency may be measured now (or at...hours) on...kHz (or MHz).
QTU	What are the hours during which your station is open?	My station is open from...to... hours.
QTV	Shall I stand guard for you on the frequency of...kHz (or MHz) (from...to...hours)?	Stand guard for me on the frequency of...kHz (or MHz) (from...to... hours).
QTX	Will you keep your station open for further communication with me until further notice (or until ...hours)?	I will keep my station open for further communication with you until further notice (or until ...hours).
QUA	Have you news of... (call sign)?	Here is news of...(call sign).
QUC	What is the number (or other indication) of the last message you received from me (or from...(call sign))?	The number (or other indication) of the last message I received from you (or from...(call sign)) is...
ZAA		You are not observing proper circuit discipline.

ZAB		Your speed key is improperly adjusted.
ZAC		Cease using speed key.
ZAD		Your operating signal (made at...) received as...(1. Not understood; 2. Not held).
ZAF	Will you patch me through to...(via you or...)?	I am about to patch you through to...(via...).
ZAG		Break...(1. Go ahead with next tape; 2. Go back...feet; 3. Advance your key tape to reference mark number and repeat last transmission (or transmission...).
ZAH		Unable to relay message...in present form. We file. Transmit correctly prepared tape under new number to all addressees (or to ...).
ZAI		Run...(1. Caller; 2. Test tape; 3. Synchronizing tape; 4. Traffic tape; 5. Marking signals; 6. Spacing signals; 7. Reversals; 8. Run teletypewriter space bar signals).
ZAJ		I have (or...has) been unable to break you.
ZAK		Transmission on...kHz (or MHz) suspended until...(or was suspended at...) on account of electrical hazards (or...).
ZAL		I am closing down (until...) due to...
ZAM		I am unable to obtain reply from teleprinter switchboard...(for connection to...). Request you call him (or other intermediate switchboard) for me.
ZAN		Transmit only messages of and above precedence...
ZAO		I cannot understand your speech. Use radiotelegraph.
ZAP	Shall I work...(1. Simplex; 2. Duplex; 3. Diplex; 4. Multiplex; 5. Single Sideband; 6. With automatic error correction system; 7. Without automatic error correction system)?	Work...(1. Simplex; 2. Duplex; 3. Diplex; 4. Multiplex; 5. Single Sideband; 6. With automatic error correction system; 7. Without automatic error correction system).

ZAQ		The last word (or group)...(1. Received from you was...; 2. Transmitted to you was...).
ZAR		This is my...request (or reply). (1. First; 2. Second; 3. Third; etc.).
ZAS		Rerun all tapes run on...since... (1. Your present frequency; 2... kHz (or MHz); 3. Call sign...; 4. This channel or...channel).
ZAT		Am preparing traffic (perforating tape) for transmission.
ZAU	What is teletype range taken on my signal(s)?	Teletype range taken on your signal(s) is...to...
ZAV		Transmit traffic for me (or for...) by broadcast method until further directed (or until...)
ZAW	Shall I transmit 12 inches of blank tape at short intervals at... words per minute?	Transmit 12 inches of blank tape at short intervals at...words per minute.
ZAX		You are...(1. Causing interference. Listen before sending; 2. Causing interference by inattention to order to wait; 3. Sending at the same time as...(call sign); 4. Causing delay by slowness in answering; 5. Causing delay by slowness in answering my service or procedure messages; 6. Answering out of turn).
ZAY		Transmit traffic to me (or to... on...kHz (or MHz)) without waiting for receipts. I (or...) will receipt for traffic later (on...kHz (or MHz)).
ZAZ		One or more transmitters, simultaneously keying on this broadcast are defective but transmission will continue on remaining transmitters. Traffic so transmitted will be repeated when full service is restored.
ZBA	What is cause of delay (or of bad transmission)?	Delay (or bad transmission) due to ...

ZBB		For following messages you will require a total of...copies.
ZBC		You are transmitting a continuous ...(1. Mark; 2. Space).
ZBD	Will you repeat what you (or...) sent (at...)?	Following is what I (or...) sent (at...).
ZBE		Retransmit message...to...(for...) (1. Action; 2. Information).
ZBF		For following message use large message forms.
ZBG		You are transmitting in upper case.
ZBH		Make preliminary call before transmitting traffic.
ZBI		Listen for radiotelephony.
ZBK	Are you receiving my traffic clear?	I am receiving your traffic... (1. Clear; 2. Garbled).
ZBL		I am unable to receive you while I am transmitting. Do not use break-in-procedure.
ZBM		Place...on watch on this frequency. (1. A qualified speed key operator; 2. A competent operator).
ZBN		Your...is reversed. (1. Tape; 2. Mark and space).
ZBO	Of what precedence(s)?	I have (or...has)...(numeral followed by precedence prosign for each pre-precedence) message(s) for you (or for...).
ZBP		Your...(1. Characters are indistinct; 2. Spacing is bad).
ZBQ	When and on what frequency was message...received?	Message...was received at...on... kHz (or MHz).
ZBR	Shall I send by... (1. Direct (R) method; 2. Broadcast (F) method; 3. Intercept (I) method; 4. Repeat back (G) method)?	Send by...(1. Direct (R) method; 2. Broadcast (F) method; 3. Intercept (I) method; 4. Repeat back (G) method).

ZBS		Your...(1. Dots are too heavy; 2. Dots are too light; 3. Dots are varying in bias; 4. Dot spacing is bad; 5. Dots are missing; 6. Dots are burring).
ZBT	How do you count following text group(s)...?	Text group(s)...should be counted as...group(s).
ZBU		Report when you are in radio communication with...
ZBV		Answer me (or...) on...kHz (or MHz).
ZBW	Will you shift (or ask... to shift) to transmit on ...kHz (or MHz)?	I am (or...is) shifting to transmit on...kHz (or MHz).
ZBX	Will you shift (or ask...to shift) to receive on...kHz (or MHz)?	I am (or...is) shifting to receive on...kHz (or MHz).
ZBY		Pass...(1. On broadcast...; 2. On Broadcast...single operator; 3. On Broadcast...two operator period; 4. On Broadcast...general periods only).
ZBZ	What is the printing accuracy of may signals (or those of...)?	The printing accuracy of your signals (or those of...) is...(1. Totally corrupt; 2. Very corrupt; 3. Partly corrupt rendering traffic unacceptable; 4. Occasionally corrupt but traffic acceptable; 5. Perfect - no corruption).
ZDA		I have a formal message for you (Precedence is...).
ZDB		Expedite reply(ies) to my...(1. Previous operating signal; w. Request(s) for repetition and correction; 3. Service message...).
ZDD		Bring message...to the circuit.
ZDE		Message...undelivered...(1. Will continue efforts to effect disposal; 2. Advise disposition; 3. Will not continue further efforts. Request cancel and file; 4. Give more complete address).
ZDF		Message...was received by... (addressee designation) at...Z or

		was (1. Received by action addressee(s) at...Z; 2. Received by information addressee(s) at...Z; 3. Received by all addressees at...Z; 4. Received by action addressee(s) message center at...Z; 5. Received by information addressee(s) message center at...Z; 6. Received by all addressees' message center at...Z; 7. Delivery by broadcast at...Z; 8. Forwarded by commercial means at...Z; 9. Mailed at...Z).
ZDG		Accuracy of following message(s) or (message...) is doubtful. Correction or confirmation will be forthcoming.
ZDH		Request corrected copy of message... be forwarded to...
ZDJ	How may groups does your message contain?	I have a message containing...groups to transmit to you (or to...).
ZDK	Will you repeat message ...(or portion...) (or will you rerun number)?	Following repetition (of...) is made in accordance with your request.
ZDL		Confirmation...(1. Was omitted; 2. Differs from text).
ZDM		I am holding your message...
ZDN		Report disposal of message... your station with any reason for delay.
ZDO		I could not send message...to...
ZDP		Hold my message...until correctness is confirmed.
ZDQ		Message...was relayed to... at... by...(on...kHz (or MHz)).
ZDR		This is a multiple-address or book message tape containing...routing indicators in the routing line which is to be routed in accordance with the established doctrine.
ZDS		Message (or message...) which you have (or...has) just forwarded was incorrectly transmitted. Correct version of message (or part or portion...) is...
ZDT		Exercise messages are not to be sent until further orders (or until...).
ZDU		Pass the following...(1. Private message (telegram); 2. Service telegram...)(Number of words

		charged for is...).
ZDV		Private message (telegram) received for... Request instructions.
ZDX		Messages up to and including serial (or circuit) number...have been previously transmitted.
ZDY		Private messages (telegrams) are not to be sent until further orders (or until...).
ZEC	Have you received message...?	Message...(1. Not received; 2. Unidentified. Give better identifying data).
ZED		The following confirmatory information as received is a variance with the text.
ZEE		Request message...be transmitted.
ZEH		Accuracy of...portion of following message (or message...) is doubtful. Correction or confirmation will be forwarded when received. (1. Heading; 2. Text; 3. Group...to...)
ZEI		Accuracy is doubtful of heading of message received as follows... Check to station of origin if necessary and repeat.
ZEJ		Replies to this message (or message...) are to be sent now (or at...)
ZEK		No answer is requred.
ZEL	Is message...a correction to message...which was previously transmitted with doubtful or missing groups (words)?	This message is a correction (to message...) (transmitted by...) Note: May only be used in conjunction with ZDG.
ZEM		
ZEN		This message has been delivered by a separate transmission or by other means (1. Messenger/courier; 2. Mail) to the addressee(s) immediately following this operating signal.
ZEP		This message (or message...) was incompletely received. Each word or group missed, which is indicated by position of ZEP in the message, will be forwarded as soon as obtained.
ZEQ		Your message...has been missent to this station...(1. Request you re-

		transmit to correct addressee; 2. I will retransmit to correct addressee).
ZER		This is a multiple-address or book message tape containing... routing indicators in the routing line for which the station called in the pilot is responsible.
ZES		Your message...has been received ....(1. Incomplete; 2. Garbled). Request retransmission.
ZET		Message...has been protected and no further action by...is required.
ZEU		Exercise (drill) message.
ZEV	Request you acknowledge message...	Message (or message...) is acknowledged.
ZEW		Your attention is invited, for... (1. Action; 2. Information), to message...which is in your files.
ZEX		This is a book message and may be delivered as a single-address message to addressees for whom you are responsible.
ZEY		This message (or message...) has been (or will be) put on the... broadcast schedules (serial number ...).
ZEZ		When delivery is effected of this book message to addressee by commercial means, or when copy is forwarded to confirm message previously delivered by telephone, it is to be sent as a single address message. (May only be used in conjunction with ZEX.)
ZFA		Following message has been read (received or intercepted).
ZFB		Pass this message to...(1. On arrival; 2. On return to base).
ZFD		This message is suspected duplicate.
ZFE		Pass message...(which is in your files) to addressee(s) for whom you are responsible using the indicated supplementary heading.
ZFF		Inform me when this message (or message...) has been received by... (addressee designation) or by...

		(1. Action addressee(s); 2. Information addressee(s); 3. All addressees; 4. Action addressee's/addressees' message center; 5. Information addressee's/addressees' message center; 6. All addressees' message center).
ZFG		This message is an exact duplicate of a message previously transmitted.
ZFH		This message (or message...) is being (or has been) passed to you (or...) for...(1. Action; 2. Information; 3. Comment) (at the request of...).
ZFI	Is there any reply to message...?	There is no reply to message...
ZFJ		Message(s)...number(s)...not transmitted on this schedule (or on schedule...) are no longer needed.
ZFK	Does message...(or station serial number...) concern me (or ...)?	Message...(or station serial number ...)...(1. Does not concern you (or...); 2. No longer concerns you (or...)).
ZFL	Was there any traffic addressed to me on... broadcast schedule between serial numbers ...and...?	Following traffic was addressed to you on...broadcast schedule between serial numbers...and...
ZFM		Message(s) serial number(s) ...(to ...) which was (were) transmitted during unserviceability of one or more transmitters, simultaneously keyed, will now be repeated.
ZFO		Message...is being delivered as a basegram message.
ZFP		Basegram.
ZFQ		Two messages (...and...) received under channel number (or station serial number) ... Both released.
ZFR		Cancel transmission...(made under channel or station serial number ...).
ZFS		Make message...same channel or station serial number as this procedure message.
ZFT		Message...received without channel number (or station serial number) following message bearing channel number (or station serial number) ...Message released.
ZFU		Channel numbers...and...preceded

		message... Lower number recorded and higher number blanked.
ZFV		Message...containing channel number ... separated by portions of the message, released subject to correction. Take necessary action to provide corrected copy.
ZFW		BLANK channel number(s) ...Forward message...as channel number...
ZFX		Channel number (or station serial number) ...is open.
ZGA	What is my call sign for use on this circuit only?	Your call sign for use on this circuit only is...
ZGB		Send (answer)...(1. In alphabetical sequency of call signs. Each station to make its call signs once (or... times); 2. In the following sequence of call signs).
ZGE		Send your call sign(s) once (or ...times) on this frequency or on...kHz (or MHz)).
ZGF		Make call signs more distinctly.
ZGH		I am using this transmitter to answer calls on two or more frequencies. Answer to calls may be delayed.
ZGI		I am or have been (or...is or has been) calling you (on...kHz (or MHz)).
ZGJ	When will you call me again on present frequency (or on...kHz (or MHz))?	I will call you again as soon as possible (or at...) on present frequency (or on...kHz (or MHz)).
ZGK	When shall I call you again on present frequency (or on...kHz (or MHz))?	Call me again at...on present frequency (or on...kHz (or MHz)).
ZGL		...will answer calls for me (or for...).
ZGM	Did you (or...) hear... (at...)?	I have (or...has) been unable to communicate with...(since...).
ZGN	When was I (or...) last heard?	Nothing heard from you (or...) (since...)
ZGO	What is my number and sequence in answering?	Your number is... Answer after number... (Numbers to be separated by separative sign).
ZGP		Answer calls for me on present frequency (or on...kHz (or MHz)).
ZHA	Shall I decrease frequency	Decrease frequency very slightly

	very slightly (or...kHz) to clear interference?	(or...kHz) to clear interference.
ZHB	Shall I increase frequency very slightly (or...kHz) to clear interference?	Increase frequency very slightly (or...kHz) to celar interference.
ZHN	How do you receive my automatic transmission?	Your automatic transmissions are... (1. Good; 2. Fair; 3. Unreadable).
ZHO	What is your speed of automatic transmission in... (1. Revolutions per minute; 2. Words per minute; 3. Bauds).	My speed of automatic transmission in...(1. Revolutions per minutes; 2. Words per minute; 3. Bauds) is ...
ZHP	What is preventing automatic reception?	Automatic reception is prevented by...
ZHQ		Please listen for me on...kHz (or MHz) and transmit to me on...kHz (or MHz).
ZHR	Is my speed of automatic transmission correct?	Your speed of automatic transmission is...(1. Fast; 2. Slow; 3. Erratic; 4. Correct).
ZIA		This message (or message...) is being (or has been) passed out of proper sequence of station serial numbers.
ZIB	Two messages...and... (or group counts and time of origin...and...), both received as serial number... What are correct serial numbers?	Change station serial number of message...to read number...OR Assign to message...station serial number...
ZIC	What is (are) station serial number(s) or channel number(s) of las message(s) you transmitted to me (or to...)?	Station serial number(s) or channel number(s) of last message(s) transmitted to you (or to...) is (are) ...
ZID	What is (are) station serial number(s) or channel number(s) of last message(s) received from me (or from...)?	Station serial number(s) or channel number(s) of last message(s) received from you (or from...) is (are) ...
ZIE		Station serial number(s) or channel number(s) (from...) has (have) not been received. Repeat message(s) or cancel serial number(s) or channel number(s).
ZIF		I (or...) did not use serial number(s).
ZIG	Is (are number(s)... (to...) blank?	Number(s)...(to...) is (are blank).
ZIH		Repeat headings of message number ...to... transmitted by you (or...) to check serial numbers.
ZII	What was...of your (or...'s) number...? (1. Date-time group; 2. Filing time)?	My (or...'s) number...had following ...(1. Date-time group; 2. Filing time).

ZIJ		I am now changing my channel number/ letter. Last number sent in this series is that of this message.
ZIQ		Have ceased watch on Broadcast, last number received...
ZJN		Message...has been passed to those for whom I am responsible (or to ...) (at...) but "L" has not been received.
ZJO		Repeat back each group of the text of this message as it is transmitted
ZJT		Broadcast transmitter indicated is about to be taken off for... minutes (or until...).
ZKA	Who is controlling station (net control station) on this frequency (or on...kHz (or MHz))?	I am (or...is) controlling station (net control station) on this frequency (or on...kHz (or MHz)).
ZKB	Is it necessary to obtain the permission of the controlling station (net control station) before transmitting messages?	It is necessary to obtain the permission of the controlling station (net control station) before transmitting messages.
ZKC		Substitute code sign (call sign) of control station of group (net) in place of this operating signal.
ZKD	Shall I take control of net (for...) (until...)?	Take control of net (for...) (until...)
ZKE		I (or...) report(s) into circuit (net).
ZKF		Station leaves net temporarily (or for...minutes) (to communicate with ...) (will be on...kHz (or MHz)).
ZKG		Observe (or direct...to observe) schedule with...on...kHz (or MHz) (at...).
ZKH	Did you (or...) observe schedule with ...(at...)?	I (or...) observed schedule with ...(at...).
ZKI		Set watch on...kHz (or MHz)... (1. Continuous; 2. Until further notice).
ZKJ	May I close down (until...)?	...(1. Close down (until...); 2. I am closing down (until...)).
ZKK		Assume radiotelegraph (wireless) organization...forthwith (or at...)
ZKL		Resume normal radio communication now (or at...).
ZKM		Take guard (for...) (on...kHz (or MHz)).
ZKN		I have taken over guard on...kHz

		(or MHz).
ZKO		I have handed over guard (to...) (on...kHz (or MHz)) (serial number of last message received was...).
ZKP	Are you (or is...) radio guard for...(on...kcs (or mcs))?	(I am (or...is) radio guard for... (on...kHz (or MHz)).
ZKQ		Indicate ships or stations for which you are (or...is)...guard. (1. Radio (on...kHz (or MHz)); 2. Visual).
ZKR	On what frequencies are you (or...) maintaining watch?	I am (or...is) maintaining watch on ...kHz (or MHz).
ZKS	What stations are keeping watch on...kcs (or mcs) (or are in net)?	Following stations are keeping watch on...kHz (or MHz) (or are in net).
ZKT		Am keeping watch on...kHz (or MHz) for...(1. First five minutes in each half hour; 2. From 10 to 15 and 40 to 45 minutes past the hour; 3. Between...and...minutes past the hour)
ZKV		I am (or...is) standing splitphone watch on...and...kHz (or MHz).
ZLA		I have pictures of the following types to transmit...(1. Photographs; 2. Weather maps; 3. Blueprints; 4. Printed matter; 5. Test).
ZLB	What drum rotation speed shall I use?	Transmit at...revolutions per minute. (1. 30; 2. 45; 3. 50; 4. 60; 5. 90; 6. 100).
ZLC		Your transmission...(1. Shows objectionable modulation; 2. Suitable for communication but not for picture; 3. Shows caption too close to edge of picture; 4. Shows buckled print; 5. Shows fork drift; 6. Picture shows too much contrast; 7. Picture shows insufficient contrast; 8. Picture shows cross-over).
ZLD		I am unable to...(1. Synchronize with you; 2. Transmit pictures; 3. Copy pictures).
ZLE		Send...(1. Fence; 2. White; 3. Black; 4. Picture; 5. Synchronize; 6. Fence swinging black until I stop you; 7. Fence swinging white until I stop you).
ZLF		...(1. Inverter; 2. Converter; 3. 96-line 12 x 18 transceiver; 4. 100-line transceiver.). 5. 300-line transceiver).
ZLG	Shall I transmit... (1. Negative; 2. Positive)?	Transmit...(1. Negative; 2. Positive).

ZLH	Will you transmit map(s)... (...area... time...type).	I am going to transmit map(s)... (...area...time...type).
ZLI		Reverse material on drum and rerun until I break you.
ZLJ	What size lettering shall I use?	Use...(1. Standard telegraphic typewriter; 2. Jumbo typewriter if available; 3. Hand lettering at least 3/16 of an inch high).
ZLN		Facility indicated cannot be operated at present.
ZNB	What is authentication of ...(1. Message...; 2. Last transmission; 3. ...)?	Authentication (of...) is... (1. Message...; 2. Last transmission; 3. ...).
ZNC		All transmissions will be authenticated...(1. On all circuits; 2. On this circuit; 3. On... frequency).
ZND		Your are using authenticator incorrectly...(1. Verify authenticator system key; 2. Check authentication of your last transmission).
ZNQ		This message (or message...) received at this station... (1. Without authentication (when authentication is in force); 2. Incorrectly authenticated).
ZNR		This message may be forwarded without change by radio or non-approved circuit.
ZNY		Do not forward this message unencrypted by radio or non-approved circuit.
ZOB		Take (I will take) no further action regarding forwarding message...
ZOC		Station(s) called relay this message to addressees for whom you are responsible.
ZOD		Act as radio link (relaying station) between me and...(or between...and ...).
ZOE	Can you accept message for...? (1. on line; 2. off line).	Give me your message. I will dispose of it...(1. on line; 2. off line).
ZOF		Relay (pass) this message (or message...) to...now (or at...).
ZOG		Transmit (pass) this message (or message...) to...(for...) (1. Action; 2. Information).

ZOH		Send message for...on...kHz (or MHz) by...(1. Receipt method; 2. Broadcast method; 3. Intercept method).
ZOJ		Unable to relay message...in present form...(1. Call signs not encrypted; 2. Text not encrypted).
ZOL		I will relay your call sign to senior officer present afloat, whose call sign is...
ZOM		Delivery of this message by mail in lieu of broadcast permissable (to...).
ZON		Place this message (or message...) on...(1. Continuous wave broadcast; 2. Radioteletype broadcast indicated by following specific broadcast designator(s)...
ZOO		Place this message (or message...) on MERCAST indicated by following specific broadcast designator(s)...
ZOP		This message (or message...) has been delivered to all broadcast areas (or to the following specific broadcast area(s)...).
ZOQ		Deliver this message (or message...) to all broadcast areas (or to the following specific broadcast area(s)...).
ZOR		1. Route traffic for...via...area broadcast. 2. Beginning at... traffic for you (or...) will be routed via...area broadcast.
ZOS	Request area routing for messages for...?	Area routing for messages for... is...
ZOT		Transmit or handle this message at the lower precedence to the station or address designator(s) which follow(s).
ZOU	How should traffic for... be routed?	Route traffic for...through... (on...kHz (or MHz)).
ZOV		Station designation preceding this operating signal is the correct routing for this message rerouted by...
ZOY		Relay this message only to the station(s) whose designation(s) precede this operating signal.
ZPA		Your speech is distorted.
ZPB		Your transmitter has strong radia-

		tion while idling.
ZPC		Your signals are...(1. Fading badly; 2. Fading slightly; 3. Good for...words per minute; 4. Getting stronger; 5. Getting weaker).
ZPD	Is your signal as checked by monitor... satisfactory (1. locally; 2. As radiated)?	My signal as checked by monitor... is satisfactory (1. Locally; 2. As radiated).
ZPE		Maximum power is now being radiated.
ZPF	What is the readability of the signal of the group (net) (or of...)?	The readbility of the signals of the group (net) (or of...) is... (1 to 5).
ZPG	What is (are) signal strength(s) of group (net) (or of...)?	Signal strength(s) of group (net) is (are) (or of...) is...(1 to 5).
ZPO		The text of this message is to be relayed in precisely the same format as that in which it is received. No characters or machine functions are to be added, inserted or deleted and the relative positions of the groups are to be retained.
ZPT		This transmission is a transmitter pre-acceptance trial. Request expeditious strength and readability reply.
ZPW		This message cancelled at time indicated. File without further transmission.
ZRA	How does my frequency check?	Your frequency is...(1. Correct; 2. Slightly (or...hertz (or kHz)) high; 3. Slightly (or...hertz (or kHz)) low; 4. Stable on steady mark; 5. Stable on steady space; 6. Unstable; 7. Erratic).
ZRB		Check your (or...'s) frequency on this circuit (or on...kHz (or MHz)).
ZRC	Shall I tune my transmitter to...(1. Proper frequency; 2. Zero beat with your (or...) transmitter)?	Tune your transmitter to...(1. Proper frequency; 2. Zero beat with my (or...) transmitter).
ZRD	What is the frequency of the ...radio facility now in operation?	The frequency of the...radio facility now in operation is...
ZRE	On what frequency do you hear me best?	I hear you best on...kHz (or MHz).
ZRF	Will you send tuning signal on your present frequency (or on...kHz (or MHz)) for 1	Am about to send tuning signal on my present frequency (or on...kHz (or MHz)).

	minute or until AS is given?	
ZRG	When will a change of frequency (to...kHz (or MHz) be necessary?	A change in frequency (to...kHz (or MHz)) will be necessary at approximately...
ZRH	Is my frequency shift correct?	Your frequency shift is...(1. Too wide; 2. Too narrow; 3. Not linear; 4. Correct) (by hertz).
ZRJ	Will you check your...?	I will check my...
ZRK	Shall I revert to single?	Revert to single channel working.
ZRM	Can you receive both sidebands of my independent sideband transmissions?	I can receive...(1. The upper sideband; 2. The lower sideband; 3. Both sidebands).
ZRN	Do you intend to transmit on ...(1. The upper sideband; 2. The lower sideband; 3. Both sidebands independently)?	I intend to transmit on...(1. The upper sideband; 2. The lower sideband; 3. Both sidebands independently).
ZRO	Can you read me on... (1. Channel A...; 2. Channel B...; 3. Channel(s) ...;4. All channels)?	I can read you on...(1. Channel A; 2. Channel B; 3. Channel(s); 4. All channels; 5. No channels).
ZRP		Transfer signal on channel...to channel...
ZRQ		Change to other sideband.
ZRR		Message(s)...number(s)...will no longer be broadcast but are effective and of interest (to units indicated).
ZRS		Your carrier is...(1. Over-suppressed; 2. Under-suppressed).
ZRT		Radiate full unmodulated power for ...minutes.
ZRU	Are my tone frequencies correct?	Your tone for...(1. Marking and spacing are high; 2. Marking and spacing are low; 3. Marking and spacing are correct).
ZSO		Send tapes...(1. Once; 2. Twice).
ZTA		...(1. Radio; 2. Visual; 3. Land-line; 4. Teletypewriter (Teleprinter); 5. Telephone; 6. Automatic; 7. Facsimile; 8. Shore telephone; 9. Shore teleprinter; 10. Radio teletypewriter).
ZTB		...(1. Transmitter-distributor;

		2. Auto-head; 3. Perforator; 4. Reperforator; 5. Printer; 6. Undulator; 7. Keyboard; 8. Frequency shift keyer; 9. Multiplexing carrier base; 10. On line crypto device).
ZTC	...(1. Does my...appear to be faulty; 2. Is your... faulty)?	...(1. Your...appears to be faulty; 2. My...is faulty).
ZTD	Shall I use...	Use...
ZTE	Are you (or is...) able to use...?	I am (or...is) able to use...
ZTF	Are repairs completed?	Repairs completed.
ZTG		...(class of emission/type of transmission as indicated iin Annex B.)
ZTI		...(1. Receiver; 2. Transmitter; 3. Power supply; 4. Antenna system; 5. Radio direction finder).
ZTJ		Cease using...
ZTK	Are you (or is...) connected to...?	I am (or...is) connected to...
ZTL	Are you (or is...) about to disconnect?	I am (or...is) about to disconnect.
ZTM		I am (or...is) unable to use...
ZTN	What is my bias distortion?	Your bias distortion is... (1. Excessive; 2. ...percent (marking); 3. ...percent (spacing); 4. ... percent (total distortion).
ZTO	Is my character formation correct?	Your character formation is... (1. Correct; 2. Defective in the start element; 3. Defective in the 2nd unit; 5. Defective in the 3rd unit; 6. Defective in the 4th unit; 7. Defective in the 5th unit; 8. Defective in the stop element).
ZTP	What is the duration of your modulation cycle?	The duration of my modulation cycle is... 50 Baud Equipment 1. 148 milliseconds (7.42 units) fast. 2. 150 milliseconds (7.5 units) correct. 3. 152 milliseconds (7.6 units) slow. 4. ... erratic per character.

		45.5 Baud Equipment 1. 161 milliseconds (7.35 units) fast. 2. 163 milliseconds (7.42 units) correct. 3. 165 milliseconds (7.5 units) slow. 4. ...erratic per character.
ZTR	Will you...(1. Disconnect your equipment from line and carry out local test, reconnecting to line in ...minutes; 2. Connect your transmit line to your receive line to enable me to carry out a loop test for...minutes)?	I will...(1. Disconnect (or I am disconnecting) my equipment from line and carry (or to carry) out local test reconnecting to line in ...minutes; 2. Connect my transmit line to my receive line to enable you to carry out a loop test for... minutes).
ZUA	Request a timing signal now (or at...)	Timing signal will be transmitted now (or at...). The numerals indicating the time will be followed by a five-second dash terminating exactly at the time indicated.
ZUB		At...
ZUC		From...to...
ZUD		Until further orders (or until...)
ZUE		Affirmative (Yes).
ZUG		Negative (No).
ZUH		Unable to comply.
ZUI		Your attention is invited to...
ZUJ		Stand by.
ZVR		Retransmit this message (or message...) at once to all subordinate stations.
ZWB		Indicate name of...(1. Operator on watch; 2. Senior rating on watch; 3. Operator who transmitted last message (or message...)). NOTE: This signal is authorized for use in connection with operator training only; it may not be used for any other purpose.
ZWC		The following is to be taken as applying to personnel on watch only.
ZWF		Incorrect.

ZWG	You are correct.
ZWH	Try again.
ZWI	Answer last question (or question ...).
ZWK	Following is answer to the last question (or question...).
ZWL	No forwarding action to the designation(s) immediately following is required.
ZWN	Correct version of the part of the last message (or message...) which was sent incorrectly is... (or will be found in...).
ZXB	Station(s) to whom this message is routed obtain a complete copy of this interrupted transmission by addressing a service message to the originating station.
ZXD	This message is to be delivered to the addressee(s) in tape form.
ZXK	Station called relay this message (or message...) to...in addition to predetermined responsibilities.
ZXO	Request you obtain retransmission of messages...from station...
ZXW	This message has been delivered to all action addressees whose designations follow this operating signal.
ZXX	This message has been delivered to all information addressees whose designations follow this operating signal.
ZXY	Transmit this message to the addressee(s) indicated by the numeral(s) following...All addressees are to be counted consecutively as they appear (numbers to be separated by the Separative Sign).

ANNEX D

EMERGENCY COMMUNICATIONS

01.0D.0100 PURPOSE

This Annex provides guidelines for emergency communications planning and for action to be taken should it become necessary to utilize the Military Affiliate Radio System (MARS) emergency communication resources.

01.0D.0200 DEFINITION

Emergency communications may be defined as a sudden, generally unexpected occurrence or set of circumstances demanding an immediate system for sending and receiving messages. Emergencies can be roughly divided into three basic types. The actions to be taken are basically the same in any case, with modifications as necessary to meet the particular situation. The three types are:

Civil riot or uprising

Natural disaster (i.e., flood, fire, hurricane, tornado, etc.)

Hostile action

01.0D.0300 SCOPE

This Annex is applicable to all MARS Radio Stations which should be prepared to assist, within their capability, in providing emergency communications to the Department of the Navy, civilian areas and communities, or internationally in the event normal communications are disrupted, non-existent, or overloaded as a result of an emergency.

01.0D.0400 POLICY

It shall be the policy that MARS communications resources may be employed to support civil defense and civil disaster requirements, so long as they are not required to support emergency communications requirements of the Department of the Navy, subject to the following:

MARS resources should be requested by civil and/or disaster control officials. Requests should be made to Chief, Navy-Marine Corps MARS (CHNAVMARCORMARS WASHINGTON DC). Such requests may be made through the Region Director. This does not preclude the use of MARS resources pending the official request and the acknowledgement.

MARS assistance will complement and not substitute for other emergency communications resources.

MARS support shall be provided only until such time as it is no longer required or until normal communications are restored.

MARS resources made available to civil and/or disaster control officials are subject to no authority other than that of their superiors in the military chain of command.

01.0D.0500 ORGANIZATION

Organization will be in accordance with NTP 8 series and such other directives and instructions promulgated by Chief, MARS, the MARS Director and other competent authority.

01.0D.0600 RESPONSIBILITY

01.0D.0610 MARS DIRECTOR

Select a qualified volunteer member for appointment as assistant to the Director (Emergency Communications) and nominate to Chief, MARS in accordance with Chapter 2.

Coordinate with Navy and Marine Corps commands/activities, disaster control officials/agencies, other MARS Directors, and other service MARS officials as deemed appropriate or necessary, and promulgate a MARS Region Emergency Communications Plan implementing the provisions of this annex and based on the requirements of the MARS Region. Such Emergency Communications Plans shall be submitted to Chief, MARS for approval coordination, via the cognizant Naval District Commandant(s)/Naval Force Commander(s).

Provide guidance, direction, supervision, and/or coordination as appropriate, and advise and make recommendations to Chief, MARS in matters concerning Emergency Communications.

Activate/deactivate emergency networks as directed to meet the requirements for effective emergency communications.

Provide situation and such other reports as required to Chief, MARS and other appropriate authorities.

Conduct periodic emergency communication exercises to provide training and to evaluate and improve MARS Region capability. In this regard, the Region Director shall advise Chief, MARS and other authorities as required, of any planned emergency communication exercise including the times and HF frequencies to be employed.

Establish a means for control and issue of equipment that is highly useful during emergencies and made available in accordance with Annex I (i.e., gasoline power generators, portable and mobile equipment).

Maintain an up-to-date list of the station capabilities of all MARS stations within the District.

Advise Chief, MARS and other appropriate cognizant military authority and volunteer appointees whenever he will be absent from his normal area of duty for a period in excess of 24 hours. In the event absence is for temporary additional duty, provide his itinerary and a means for communication, if necessary. In this regard, the installation of mobile radio equipment in assigned vehicle, capable of operation on frequencies assigned to the COMNET, is encouraged.

Perform such other duties and responsibilities as directed by competent authority.

01.0D.0620 AREA COORDINATOR

Select and appoint a qualified volunteer member within his area to serve as an Area Emergency Communication Coordinator in accordance with Chapter 2.

Provide the necessary coordination with the Director, his special assistant, MARS members, disaster control officials/agencies, and such other emergency communications organizations within his area of responsibility.

Promulgate an Area Emergency Communication Plan based on the MARS Region Emergency Communcation Plan and the area requirements to achieve an effective emergency communication system.

Advise and make recommendations to the MARS Director in matters concerning emergency communications.

Provide situation and such other reports as prescribed herein and as requested, to the MARS Director and other appropriate authority.

Conduct periodic area Emergency Communication exercises to provide training and to evaluate and improve area capability. In this regard, the Area Coordinator

shall advise the Director, in advance, of any planned emergency communications exercises, including the times and HF frequencies involved.

Maintain an up-to-date list of equipment and station capability of all MARS stations within the area, and so advise the Director.

01.0D.0630 EACH COMMAND/ACTIVITY SPONSORING A MARS MILITARY UNIT AND AUXILIARY STATION

Each command/activity should include the MARS Organization in their emergency communication and disaster control plans and:

Provide for the necessary coordination between the MARS organization and the command/activity in matters concerning emergency communications requirements.

Advise and make recommendations to the MARS Director in matters concerning emergency communications.

Prepare an Emergency Communications Plan for their station in consonance with this annex, the MARS Region and Area Emergency Communications Plans, based on the emergency communications requirements of the command/activity and other command/activities to whom emergency communication services may be furnished.

01.0D.0640 EACH NAVY-MARINE CORPS MARS MEMBER

Each member should endeavor to take part in any request to provide emergency communication resources. While MARS membership does not impose a mobilization assignment, each member does have a moral obligation to participate as directed by competent authorities during periods of national crisis.

Each MARS member should advise his Area Coordinator of his station's capability and to report any changes thereto.

Each MARS member should provide the Area Coordinator with situation reports and such other reports as required, on their involvement in matters concerning emergency communications, and on any affiliation or participation in other emergency communication programs or disaster organizations, i.e., AREC, Civil Defense, Red Cross, etc.

01.0D.0700 EXECUTION

The provisions of this Annex will be executed when directed by Chief, MARS or other competent authority.

Any MARS member may effect local implementation when requested by military or civilian authorities pending official request and acknowledgement. An immediate message or other rapid means of communications stating implementation circumstances shall be initiated to Chief, MARS, the cognizant MARS Director, and the area coordinator. If required, this notification should inclued requests for additional support.

01.0D.0800 ALERTING

01.0D.0810 PHASED CONDITIONS

In order to provide a phased response to emergency situations, the following alerting conditions and actions required will apply:

Condition	Action Required
Communication Condition III (An emergency or disaster situation expected to develop within 48 hours)	Alert NAVMARCORMARS stations to monitor primary frequencies to the extent feasible.
	Take preliminary precautions, i.e., test

	emergency power, locate essential items such as flashlights, ECP, etc.
	Continued normal routines commensurate with two items above.
Communication Condition II (An emergency or disaster situation anticipated within 24 hours)	Effect all measures necessary to activate on short notice.
	Curtail routine as necessary for readiness.
Communication Condition I (An emergency or disaster situation imminent)	Suspend all normal operations as warrnated.
	Activate emergency networks and ECP as necessary.
	Take appropriate precautions.
Communication Condition Zero (An emergency or disaster situation exists)	Same as for Condition I.

01.0D.0900 MINIMIZE

Minimize will not be effected within MARS when imposed on other military communication facilities unless specifically directed. Minimize may only be imposed on MARS networks by Chief, MARS or higher authority. The decision to effect minimize shall be based, in part, on the advice or information received from the Director and/or his staff and other considerations in accordance with NTP 8 paragraph 01.05.0800.

01.0D.1000 OPERATIONS

The need for specific emergency communication requirements cannot be predicted for any one situation. Therefore, MARS communications should be such that only a few minor changes and an extension of normal operating hours will be required when shifting to an emergency status.

01.0D.1010 COMMAND NET (COMNET)

The Headquarters, MARS Radio Station (NAV), acting as master control and all MARS District Major/Primary radio stations maintain listening guard with transmit capability available, as required, on frequencies indicated below:

NAV	4015, 6970, 13975.5, 20625 kHz, VHF Repeater (Frequency as assigned)
NAV 1	4005, 6970, 13975.5 kHz, VHF Repeater (Frequency as assigned)
NAV 2	4040, 6970, 13975.5 kHz, VHF Repeater (Frequency as assigned)
NAV 3	4010, 6970, 13975.5 kHz, VHF Repeater (Frequency as assigned)
NAV 4	4018, 6970, 13975.5 kHz, VHF Reaperter (Frequency as assigned)
NAV 5	4001.5, 6970, 14385, 13975.5 kHz, 20625 kHz, VHF Repeater (Frequency as assigned)
NAV 7	4005, 6970, 13975.5 kHz, 20625 kHz, VHF Repeater (Frequency as assigned)

NAV 8 2772, 7350, 14385, 20625 kHz,
VHF Repeater (Frequency as assigned)

MARS Major/Primary Radio Stations in Major Overseas Areas should guard the appropriate frequency to permit communications with the cognizant MARS District Primary/Major Radio Station in addition to frequencies as designated by the District Director or other authority to permit areawide coverage.

All MARS radio stations are authorized to use this network for the reporting of an emergency situation and should monitor the frequencies of the appropriate MARS District Radio Station.

01.0D.1020 TACTICAL NET

Tactical nets may be established during actual or exercise emergencies only to provide point-to-point communications between stations when other MARS communications facilities do not meet the requirements, or are non-existent. When the establishment of a tactical net is required, a net frequency for inter-district communications shall be requested from the Headquarters, MARS Radio Station, and for intra-region communications from the cognizant MARS Region Major/Primary Radio Station. The request and necessary net coordination between the stations may be accomplished via the COMNET. Frequencies remote from the amateur radio band will normally be the only frequencies assigned. The station requesting a frequency for a tactical net is responsible to report completion of its use to the station from which the authority was obtained.

01.0D.1030 INTER-REGION COMMUNICATIONS

Inter-region communications shall be coordinated between Region Directors.

01.0D.1040 INTRA-REGION COMMUNICATIONS

Intra-region communications shall normally be conducted on the established region, area and local networks. In the event these nets do not meet the requirements, the Region Director or the Area Coordinator may establish an emergency net, assigning available frequencies without the coordination required by Annex B. Caution shall be exercised to preclude interference with another net that may be using the frequency. Emergency operations shall take precedence. The VHF repeater system (MARSREPSYS) shall be used to the utmost whenever available. During actual and exercise emergencies, NAVMARCORMARS military unit and auxiliary stations shall have direct radio communications with the district major/primary radio station to ensure rapid and reliable communications.

01.0D.1100 SPECIAL PROVISIONS

During an emergency, mobility and adequate facilities sufficiently manned are paramount for an effective emergency communication system. In order to provide for these requirements, the following provisions are established:

01.0D.1110 AUXILIARY RADIO TEAM (ART)

At least one Auxiliary Radio Team that may be dispateched to a scene or area of a disaster or for support in Navy disaster control should be operational in each MARS area. Each ART shall be designated by the region number and sequentially numbered (ART 4-1, ART 4-2, etc.) and should be organized and equipped with the following capabilities:

Each team should be comprised of at least six members, headed by a team captain.

Equipment capability should consist of portable and/or mobile VHF FM receive/transmit equipments with frequency coverage to operate in local simplex mode as well as through the VHF repeater system, and portable and/or mobile voice (3A3) transmit/receive capability on 27.9 and/or 27.95 MHz. Portable equipment should be in sufficient quantity to provide mobility of individual members of the team. In addition, each team should be equipped with emergency power and capability for HF, CW, and/or

single sideband voice transmit/receive equipments capable of operating on the designated district primary frequency and any of the frequencies assigned to the Command Net (COMNET). Such other equipment and supplies for operating and providing additional self-support may be included as deemed necessary.

01.0D.1120 STATION AUGMENTATION TEAM (SAT)

During an emergency, message traffic increases and requires expedient handling. In addition, operations are normally extended to 24 hours operation. Therefore, multi-operator stations provide an effective means for emergency communication operations.

In view of the many single-operator stations within Navy-Marine Corps MARS, station augmentation teams (SAT) shall be established to meet the above requirements. SATs should be established to assist in the operation of the MARS Region Primary/Major Radio Station and military unit and auxiliaary stations, especially those assigned to the MARSTELSYS in accordance with Annex E. The Commanding General/Commanding Officer/Officer in Charge of a command/activity sponsoring a military auspices MARS Radio Station may request the establishment of a SAT to support their Station from the cognizant MARS Region Director. Such requests should list the number of member required to permit effective operations on a 24 hour basis.

MARS members do not normally hold security clearances. Therefore, if a security clearance is required, it will be the responsibility of the command/activity to which the member is assigned to obtain the necessary clearance.

A team should receive periodic training other than during exercise emergencies, to permit familiarization with the station and operating procedures.

01.0D.1200 REPORTS

Reports to the various echelons are essential to properly evaluate the overall emergency situation and to enable maximum effectiveness in providing emergency communication support. Reports shall be based on fact, and should be concise, brief and to the point, but not to the extent to be cryptic and incomprehensible. When it is necessary to report information that is based on an estimate or an opinion, it shall be so indicated in order to prevent rumors and inaccurate evaluations. In this regard, except in reports permitting estimates based on opinion, MARS members shall refrain from expressing opinions, rumors and hearsay over MARS networks, especially during an emergency.

01.0D.1210 IMPLEMENTATION

Upon implementing any portion of this Annex by a MARS member station, a report shall be made by an immediate precedence message to Chief, MARS, the cognizant Director, and Area Coordinator, using the following message format:

```
O     DTG     Z
FM NNN0
TO NNN0ASA
   NNN0AS
   NNN0G
   BT
   UNCLAS
   Emerg Comm Implementation
   A.  Circumstances requiring implementation
   B.  MARS services requested (yes/no).  If yes, requested by name
       and title of the requestor.
   C.  Additional Communication support required (yes/no).  If yes, to
       what extent and scope.  (Note:  If additional support indicated
       within:
       (1) Area - action to be taken by Area Coordinator
       (2) Region - action to be taken by Director
       (3) Outside Region - action to be taken by Chief, MARS
```

01.0D.1220 DURING THE EMERGENCY

During an emergency, the roll of MARS is to provide emergency communication services. MARS members should not become involved directly in the emergency activities except for providing communication services unless otherwise requested by proper authorities.

During an emergency, situation reports (SITREPS) pertaining to MARS communications shall be sent by the station(s) at the scene(s) of disaster(s) every six hours or sooner, if the situation warrants, to the cognizant Director and Area Coordinator. The Director will in turn consolidate reports and make a report to Chief, MARS. SITREPS will be sent using the following format:

P____(DTG)____Z (Mo.) (Yr.)
FM NNN0_____
TO NNN0_____
INFO NNN0_____
BT
UNCLAS SITREP (One, Two, Three, etc.)
1. (Brief resume of situation in disaster area)
2. (Designator(s) of Net(s) and number of stations participating in the emergency)
3. (Advisory information, recommendations, needs, etc. Be brief.)
4. (Prognosis for next two hours)
5. (Other pertinent information - problems, equipment performance, etc.)
BT

The first or initial SITREP will be UNCLAS SITREP ONE, the next UNCLAS SITREP TWO, etc. They will be numbered consecutively until the emergency is over. This will facilitate correlation of the reports by higher echelons.

Standard categories of information 1 through 5 in the text of a SITREP will not be omitted. Lack of information or a negative report will be made by using the following terms:

NO CHANGE - used to indicate that the item is the same as previously reported.

NEGATIVE - used to indicate this category not applicable, not being used, or nothing to report.

NOT AVAILABLE - information requested by this category is not available at this time.

01.0D.1230 TERMINATION OF AN EMERGENCY

As expeditiously as practicable after the termination of any emergency, the involved Area Coordinator(s) or their authorized representatives, should compile information received and make an overall report to the Director, who shall in turn consolidate all reports and forward them to Chief, MARS using the following outline:

Place(s) involved
Date and time (Hours of operations)
Stations participating
Frequencies and modes employed
Traffic handled
Description of the emergency services rendered
Comments and recommendations for improvement of services and capabilities
New coverage (attach press releases and pictures, if available)
Human interest

ANNEX E

NAVY-MARINE CORPS MILITARY AFFILIATE RADIO SYSTEM (MARS) RADIO TELETYPEWRITER RELAY SYSTEM (MARSTELSYS)

01.0E.0100 PURPOSE

The purpose of this annex is to establish guidelines for the operation and administration of the Military Affiliate Radio System (MARS) Radio Teletypewriter System (MARSTELSYS).

01.0E.0200 CONCEPT

The concept of the MARSTELSYS is to provide a system for expeditious handling of message traffic among regions and areas throughout the world where MARS is operational. A functional diagram of the MARSTELSYS is shown in Figure E-1. MARS Region delineations are indicated in Figure E-2. The routing indicators are contained in supplementary information promulgated by Chief, Navy-Marine Corps MARS.

01.0E.0201 ORGANIZATION

The system is comprised of Primary Relay Coordinators (Directors, Regions Two, Five, and Eight), Major Relay Coordinators (Directors, Regions One, Three, Four, and Seven) who designate Circuit Coordinators in each of their respective regions assign circuit terminal stations.

Primary Relay Station: Acts as a link between major stations.

Major Relay Station

Acts as a collecting station and files message traffic into the system.

Distributes via RATT, CW or voice message traffic to stations within the district or area of responsibility for ultimate delivery.

01.0E.0300 AUTHORITY

The MARSTELSYS shall be under the management and operational control of the Chief, MARS, through the Region Directors and MARSTELSYS coordinator.

01.0E.0400 RESPONSIBILITY

01.0E.0410 CHIEF MARS

Responsible for the management of the MARSTELSYS networks, establishing/disestablishing networks as required and appointing to his staff a coordinator for the MARSTELSYS. Chief, MARS will provide technical and administrative direction to the coordinator and direct the operation of the MARSTELSYS.

NAVY-MARINE CORPS MARS
RADIO TELETYPEWRITER RELAY SYSTEM
(MARSTELSYS)

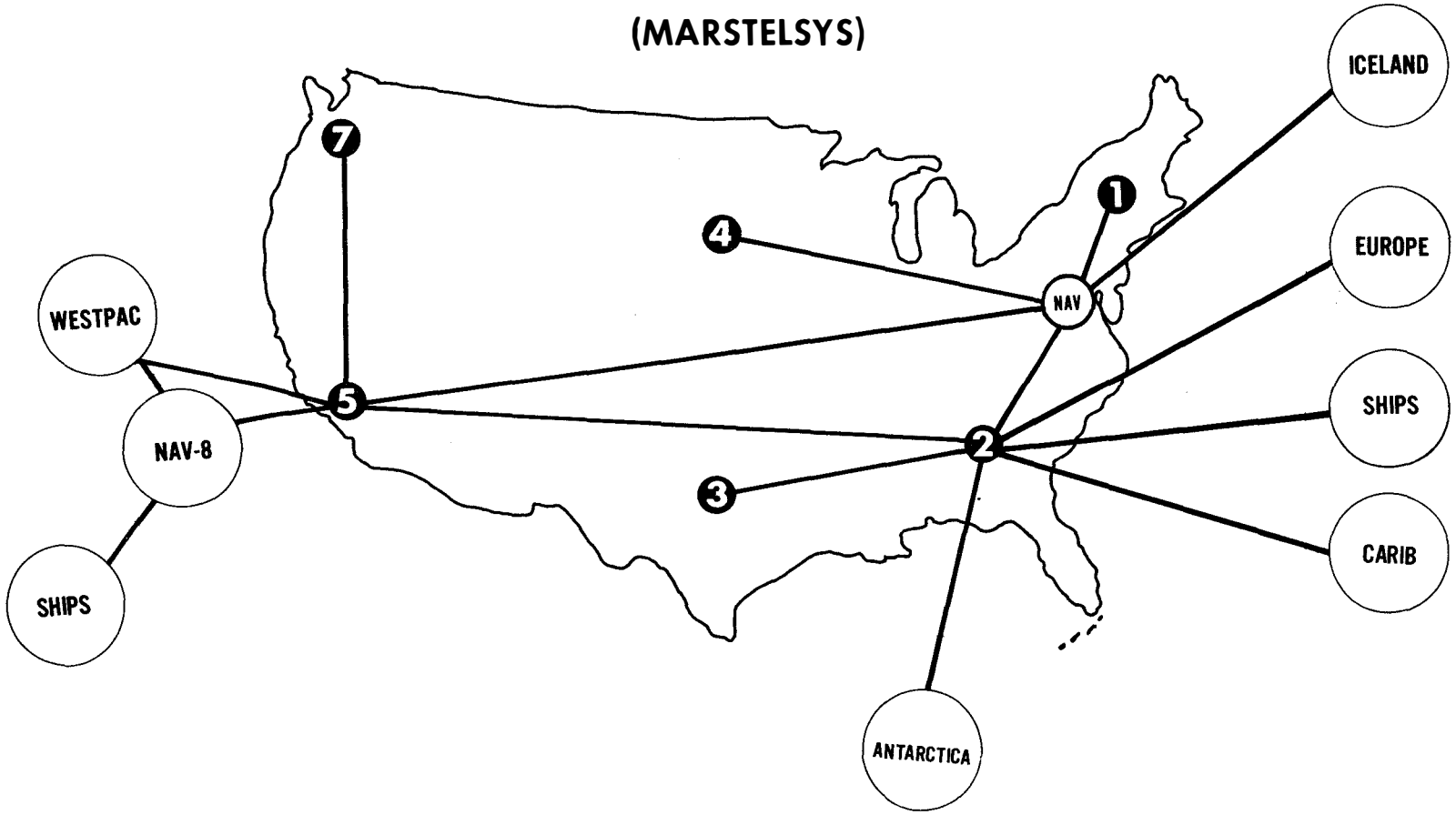


Figure E-1

Navy-Marine Corps MARS Reigons
AND
Radio Teletypewriter Relay System Routing

REGIONS

FIRST–NOASI

CT, DE, MA, ME, NH, NJ, NY, OH, PA, RI, VT

SECOND–NOASC

AL, DC, FL, GA, KY, MD, MS, NC, SC, TN, VA, WV, CARIBBEAN, EUROPE and ICELAND ANTARCTICA

THIRD–NOASF

AR, LA, NM, OK, TX, PANAMA

FOURTH– NOASG

CO, IA, IL, KS, MI,, MN, MO, ND, NE, SD, WI, WY

FIFTH–NOASE

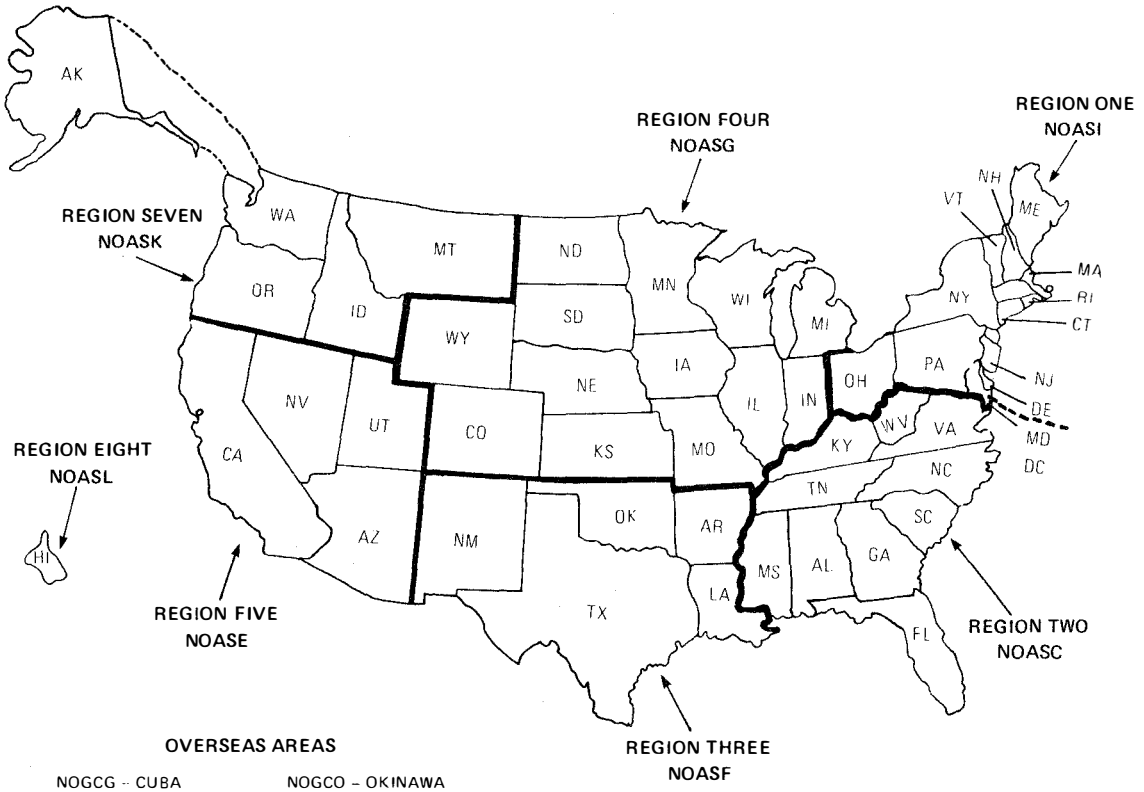
AZ, CA, NV, UT

SEVENTH–NOASK

AK, ID, MT, OR, WA

EIGHTH–NOASL

HI, PACIFIC AREA and INDIAN OCEAN



OVERSEAS AREAS

NOGCG – CUBA
NOGCI – PHILIPPINES
NOGCJ – JAPAN
NOGCK – KOREA
NOGCM – GUAM
NOGCN – DIEGO GARCIA
NOGCO – OKINAWA
NOGCR – PUERTO RICO
NOGCY – ICELAND
NOGCZ–PANAMA
NOICE – ANTARCTICA

Figure E-2

01.0E.0420 REGIONAL DIRECTOR

The regional director shall:

Select and appoint an assistant to the Director (MARSTELSYS) to act as principal assistant and advisor in accordance with paragraph 01.02.0370.

Manage and control the operations of the MARSTELSYS within the region.

Assign primary and major relay stations.

Periodically survey the affiliate membership for prospective circuit terminal stations.

Example:

Advise Chief, MARS quarterly regarding status of MARSTELSYS operations, to include circuit terminal stations, circuitry employed and bridge circuits activated. (copy to MARSTELSYS Coordinator)

Periodically survey the affiliate membership for prospective circuit terminal stations.

Example:

Questionnaire for MARSTELSYS assignment

1. Station ID

   A. Call Sign
   B. Name of operator
   C. Location of station

2. Military Operators (number)

3. Transmitters/Receivers by type and frequency range

4. System Capability (FSK/AFSK, etc.)

5. Circuit capability (SIMPLEX/DUPLEX, etc.)

6. Antennas

7. Times of net schedules desired

8. Hours of station operation (daily basis)

9. Additional station equipment/capability

10. Present station traffic totals (monthly)

01.0E.0430 MARSTELSYS COORDINATOR

The MARSTELSYS Coordinator shall:

Initiate actions concerning frequency matters.

Effect appropriate coordination with cognizant directors regarding assignment of primary and major relay stations. Advise Chief, MARS regarding the overall status of the MARSTELSYS operations.

Promulgate updates of the system as exemplified in Figure E-1.

Consolidate quarterly report as received from the Regional Directors.

Initiate remedial action, within his authority, necessary to alleviate breakdown in communications, such as, establishing bridge circuits or assignments of

alternate or backup stations.

Any remedial action or changes in the circuit structure, deemed necessary, shall be reported by priority message to Chief MARS, and Regional Directors involved.

01.0E.0440 REGIONAL MARSTELSYS COORDINATOR

The regional MARSTELSYS Coordinator shall:

Recommend to the regional director changes with respect to primary/major stations terminals and frequency proposals.

Advise the region director in matters pertaining to day to day operations of MARSTELSYS circuits within his or her region, consistent with the operating schedules of the station concerned, propagation and times of transmission to permit the least delay for the bulk of message traffic.

Be responsible for the day to day operation of the MARSTELSYS circuits assigned within his/her region.

01.0E.0450 HEADQUARTERS, NAVY-MARINE CORPS MARS RADIO STATION (NAV)

Operate and maintain a teletypewriter circuit interface to the headquarters stations of both Army and Air Force MARS.

Operate and maintain a teletypewriter circuit to Chief, Navy-Marine Corps MARS located at Headquarters, Naval Telecommunications Command.

Operate a primary and major relay station in the world-wide Navy-Marine Corps MARS radioteletypewriter relay system (MARSTELSYS).

Assist Chief, Navy-Marine Corps MARS to maintain a system for the control of frequencies, times, and network operations to provide for the effective flow of traffic within the MARSTELSYS.

Monitor Navy-Marine Corps MARS MARSTELSYS to ensure proper operation within allowable tolerances, emission authorizations and procedures.

01.0E.0460 CIRCUIT TERMINAL STATIONS

The Circuit Terminal Stations shall:

Be responsible for the day to day operation of their circuit assignments, insuring that all schedules are met and traffic is relayed and/or distributed with a minimum delay.

Be responsible for carrying out the basic principles for naval communications as contained in paragraph 01.0E.0500.

Inform the MARSTELSYS Coordinator, Director, and when outside CONUS, the cognizant Area Coordinator when circuit schedules cannot be or were not met, including the reasons therefore. Under no circumstances, other than actual emergencies, will MARSTELSYS terminal stations modify schedules, circuits or frequencies without prior approval of the appropriate Director.

01.0E.0500 BASIC PRINCIPLES

MARS, providing an emergency communication system as an adjunct to normal naval communications, must always be ready to meet the requirements within its available resources and to be compatible with the Naval Communication System. To do this, methods, procedures and training must be adequate and capable of shifting to an emergency status with a minimum of changes. These responsibilities will fall on the Primary and Major Relay Stations of the MARSTELSYS more so than any other stations in MARS. The stations therefore must be guided by certain basic principles that have been proven through the years by naval communications. Foremost among these are:

Reliability

Security
Speed

Reliability of communications is always the first requirement. A message must say exactly what the originator means it to say; it must be complete and accurate in every way when finally placed in the hands of the addressee. Reliability cannot be sacrificed to meet the demands of security and speed or for more convenence. To facilitate the rapid handling of message traffic, the use of prescribed procedures contained in this instruction and meeting of established circuit schedules are necessary.

01.0E.0600 OPERATIONS

01.0E.0610 NETWORKS

Networks within MARS are categorized with respect to the usage for which the network was primarily established. The MARSTELSYS was established and organized to facilitate the handling of record message traffic among MARS Districts and/or major areas thereof, and is designated a sub-system network. The system will be organized as follows:

01.0E.0611 CIRCUITS

Operational between assigned Regions and/or Major Areas. Circuits are assigned with associated channel designators, and will operate on time schedules in conjunction with each other in order to effect timely relay/delivery of the message traffic. During exercise or actual emergencies, the circuits shall operate on a continuous basis or consistent with the situation at hand, as directed by competent authority.

01.0E.0612 BRIDGE CIRCUITS

In the event normal circuit operations are disrupted, overloaded or nonexistent, a bridge circuit shall be activated to prevent/eliminate message backlog or message stoppage.

01.0E.0620 PROCEDURES

MARS communication procedures shall be in accordance with those contained in this instruction. All stations within the MARSTELSYS shall insure conformity to the following:

The DE line shall contain the call sign suffix and station serial number of the station preparing the message for teletypewriter transmission for injection into the MARSTELSYS.

A message received in which the accuracy is doubtful, will be handled in accordance with Article 01.09.0651.

In view of the fact that improperly formatted messages will be rejected by automatic equipment, all stations shall pay particular attention to the start of message functions, pilot and end of message functions.

Each station shall add the correct channel number to each message and insure previous channel numbers are left intact.

All stations shall provide prompt action to all service and tracer messages.

01.0E.0630 EMERGENCY COMMUNICATIONS

The ever increasing trend toward hard wire communications within CONUS, gives rise to increased concern for backup radio communications. Within its capability, the MARSTELSYS will be used to the utmost for Inter-Region Communications. During actual and exercise emergencies, military activities within a Region must have direct entry into the MARSTELSYS to ensure rapid and reliable communications. In this regard, provisions shall be made for military units and auxiliary stations to have direct radio communications with the Region Major Radio Relay Station.

ANNEX F

VHF REPEATER SYSTEM (MARSREPSYS)

01.0F.0100 GENERAL

01.0F.0110 PURPOSE

The purpose of this Annex is to provide uniform direction for the establishment of the Military Affiliate Radio System (MARS) VHF Repeater System and guidelines for its operations.

01.0F.0120 SCOPE

The provisions of this Annex are applicable to all MARS VHF repeater stations regardless of whether the station consists of government or privately owned equipment as provided for herein.

01.0F.0130 CONCEPT

The concept of the MARS VHF Repeater System is to extend the line of sight communications range of fixed, portable and mobile VHF communications facilities, thereby providing a more efficient utilization of the limited frequency allocations and reducing congestion in the prime lower frequencies. Additionally, the MARSREPSYS significantly improves the potential of MARS to provide telecommunications support for the Department of the Navy disaster control operations, as well as local civil disaster control, by providing a highly mobile and effective quick reaction communications capability for local area communications.

01.0F.0200 ORGANIZATION

The MARSREPSYS shall be under the overall supervision of the Chief, MARS through the various MARS Directors and their special assistants. Within each MARS Area, the Area Coordinator or a designated representative shall provide the necessary control and supervision for the installation and operations of the VHF repeater stations. A technically qualified individual, who is available and is within a reasonable distance from the repeater station to enable timely correction of malfunctions, shall be assigned as Station Engineer. He shall be responsible for the supervision of the station equipment installation and maintenance and shall maintain operational control of the station to assure that the station continually conforms to the specifications and operating guidelines herein.

01.0F.0210 RESPONSIBILITY

01.0F.0211 CHIEF, MARS

Chief, MARS shall provide overall supervision for the installation and operation of the VHF repeater stations within the MARSREPSYS, regardless of whether the station consists of private equipment loaned to the program, or government equipment supplied to a member for this purpose.

01.0F.0212 MARS DIRECTOR

The MARS Director shall:

Select and appoint an Assistant to the Director (VHF FM Repeater System) to act as principal assistant and advisor in accordance with paragraph 01.02.0370.

Initiate actions on agreements for site locations, when required.

Review proposed VHF repeater station locations and installation plans and recommend changes thereto for comformity to the specifications herein. The Director shall be the only approving authority within the respective MARS Region.

Assign VHF repeater station designator on approval for commencement of

station operation.

Initiate action for obtaining of frequencies, as required, and provide allocation for their use.

Effect appropriate coordination among Area Coordinators and Directors of adjacent Regions, as necessary, for the installation and operation of VHF repeater stations.

Keep Chief, MARS advised on the installation and operation of VHF repeater stations within his Region. Upon request, provide him with a copy of VHF repeater station schematic drawings, design details and related information, including the latitude and longitude of station location, pattern of station coverage and the date of the station's approval for operation.

Effect agreements with owners of private equipment, as required, to assure continued system operations.

01.0F.0213 AREA COORDINATOR

The Area Coordinator shall:

Provide control and supervision for the installation and operation of VHF repeater stations within his area, as directed by the MARS Director.

Select and appoint a member as Area VHF Repeater System Coordinator in accordance with paragraph 02.0380, who shall act as principal assistant and advisor on VHF repeater system matters.

Determine the need for and provide the Director with recommendation and necessary station drawings, design details, expected area of coverage, site location and the name of appointed Station Engineer of proposed repeater stations prior to activation for approval.

Appoint a Station Engineer to each repeater station within his area.

Keep the Director advised on the installation and operation of VHF repeater stations and recommend changes for expansion or improvements thereto.

01.0F.0214 STATION ENGINEER

The Station Engineer shall:

Provide local control, supervision and coordination for the installation and operation of the VHF repeater station to which assigned, as directed by the Area Coordinator.

Perform periodic preventive maintenance and repair of station equipment to ensure continuous operatin and conformity to the specifications and operating guidelines herein.

Maintain station records indicating times the station is down for repairs or maintenance, and work performed. Records should reflect performance measurements made during periodic alignment or calibration of station equipment.

Recommend changes for expansion and/or improvements of the station.

Make monthly frequency and activity usage reports to applicable authority as required.

Advise the Area Coordinator periodically on the operation and condition of the VHF repeater station as determined from preventive maintenance checks and day to day operations.

01.0F.0300 VHF REPEATER STATION LOCATION AND INSTALLATION

01.0F.0310 LOCATION

In acquiring a site for a MARS VHF repeater station, no one is authorized to enter into an agreement, written or oral, that would commit the U.S. Government unless they have been so authorized by proper authority. Any agreement must necessarily be coordinated between Naval authorities and the party concerned, by the MARS Director.

VHF repeater stations shall be located on U.S. Navy, Marine Corps or other U.S. Government property, whenever possible, to provide an effective system capable of telecommunication support for Navy disaster control operations.

Location consideration shall be based on the following:

Elevation compared to the surrounding terrain.

Availability of electrical power.

Accessibility to MARS Members.

Security against unauthorized persons. In this regard, security precautions must be effected to preclude unauthorized access, especially minors.

Adequate airspace clearance availability (preferably without the requirement for tower lights).

01.0F.0320 EQUIPMENT INSTALLATION REQUIREMENTS

VHF repeater station as referred to herein, may consist of either or both common VHF repeater equipment and linking system equipment and their associated control and interface equipment. A station installation must conform to all applicable local codes, ordinances, regulations and to specifications herein. Any deviation from the specifications herein must have prior approval from Chief, MARS. One of the major concerns shall be that of safety of life and property.

When access to a repeater station is not available within a reasonable length of time, a means to remotely control the equipment is required. The remote control shall include provisions for selective control of the repeater system operatins. As a minimum, provisions for turning the equipment ON or OFF shall be provided. All remote control functions shall be under the control of the Station Engineer and at least one alternate control station. Remote control may be provided by wire, radio, automatic timers or devices and/or combinations of all of these methods.

Repeater station equipment shall consist of government owned equipment, except when such equipment is not immediately available. Privately owned equipment which meets all the specifications herein, may be substituted until such time as government owned equipment is available upon written agreement with the owner.

Repeater station radio equipment shall be housed in metal enclosures adequately ventilated and properly fused. In the event the station radio equipment is accessible to unauthorized persons when unattended, the metal enclosures shall be locked.

A means for automatic selection of alternate emergency power sources shall be provided whenever possible to ensure continued operation in the event of primary commercial power failure.

Provisions shall be made whenever necessary, to preclude spurious emissions from activating the VHF repeater. Construction and appropriate engineering practices shall be employed to preclude receiver desensitization, adjacent channel interference or overload, and continuous or unintentional transmissions. These practices may include, but are not limited to, isolation, shielding, filters, control and signaling techniques.

When a repeater station is linked with other repeaters, provisions shall be made to preclude activation of the linked station(s) without a specific "call up" when required.

VHF repeater station antennas shall normally be vertically polarized and

omnidirectional. Link antennas shall normally be directional beam antennas.

No restrictions shall be made that would limit transmission access to the VHF repeater station by any MARS member, Navy or Marine Corps activity having compatible VHF capability, except as provided for herein. When provisions of the subparagraphs above concerning control and signaling techniques are employed the details shall be widely disseminated.

The repeater station receiver sensitivity, transmitter power output and/or antenna gains and patterns shall be adjusted to insure the balanced operation of the station. The repeater station should be able to be accessed by a properly aligned and operated mobile or remote fixed station whenever it can be received by the remote station at a level required for normal communications.

01.0F.0400 STATION DESIGNATOR

A station designator shall be assigned to each operational repeater station which shall be derived as follows:

The first numeral of the designator will denote the MARS Region in which the station is located.

The second letter, as assigned by the MARS Director, similar to that of a net designator, will indicate the area in which the station is located.

The third numeral denotes the number and order of activation of the repeater stations within the MARS Area.

The fourth letter, when used, will indicate the repeater stations linked together in a group. When groups of repeaters are linked together, the letter of the earlier group shall be assigned.

Example:

5 repeater stations operational in three areas within the Fourth MARS Region:

4G1
4H2
4I3
4H4
4G5

Repeater stations 2 and 4 are later linked:

4H2A
4H4A

Repeater stations 1 and 5 are later linked:

4G1B
4G5B

Repeater stations in groups A and B are later linked:

4G1A
4H2A
4H4A
4G5A

The fifth letter "X" when used will indicate inter-district VHF repeater stations linkage:

Example: A repeater station in the Second MARS Region, designated as 2F1, linked to a repeater station in the Third MARS Region designated as 3M1B:

2F1AX
3M1BX

01.0F.0500 LINKS

The VHF repeater system is intended to provide an effective and reliable communications medium for local geographical areas. It is not intended to provide long haul communications circuits between areas or between regions. The networks established in other sections of this publication provide for the long distance communications requirements of MARS. The VHF repeater is considered one of the assets by which the Volunteer Area Coordinator can effectively meet the requirements of the emergency communication charter.

At the request of the Area Coordinator and upon the approval of the Director, two or more repeaters within his area may be linked to extend the effective range of a common VHF frequency network. Linked repeaters shall normally be confined, insofar as possible, to the geographical limits of each MARS Area to preclude overburdening the repeater facilities and to insure the network is responsive to the needs of the Area Coordinator and his staff. When required for specific emergency networks only, links may be extended into adjacent Areas upon agreement of each Area Coordinator. Interarea links shall not be extended beyond one repeater in each Area except when required to relay over or around geographical barriers.

Each Area with a common linked repeater network will provide a station or stations with multimode HF frequency capabilities to act as the emergency gateway into or out of the VHF network. Links extended into adjacent Areas should be only for the purposes of providing an alternate gateway station which is capable of access to Region Emergency Networks.

Links between adjacent repeaters should only be activated when required to extend local communications to the adjacent repeater. The activation of the link shall be accomplished from any repeater within the link. When links are extended through three or more repeaters, it is considered advantageous to be able to selectively activate the repeaters so that local networks will not be disrupted while the link is extended through their area.

Activation of the repeater links will require positive activation of a control circuit other than carrier operated relays. Once the circuit is activated, carrier operated relays (CORs) may be used to maintain the circuit for a specified time. If a repeater link consists of three (3) or more repeaters, automatic fail safe timers will be incorporated to insure that a single failure does not force lock the link in the enabled mode. Timers will be adjusted to disconnect the link at not less than thirty (30) minute intervals. Reset of the link timers may be accomplished at intervals necessary when continuous operation is desired.

Signaling for link control circuits will be consistent with the requirements of paragraph 01.0F.0820.

01.0F.0600 OPERATION

Whenever the repeater station or link network is to be rendered inoperable more than 24 hours because of a forthcoming maintenance period or is inoperable because of malfunction, the Station Engineer shall notify the Area Coordinator or his appointed assistant, Director and MARS members or activities having access, providing the reason and the estimated down time.

Transmission through the repeater station shall be limited to that time necessary to convey the message. Users should be alert for other stations attempting to break the repeater with higher precedence traffic. A weak beat note will be heard from the hetrodyne of two signals attempting to access the repeater station at the same time.

Repeater stations shall normally be available for utilization on a continuous basis, twenty-four (24) hours a day. MARS members are encouraged to monitor the repeater station whenever possible for emergencies. The period between 2300 to 0600 local time should be reserved for emergencies and/or urgent communications so as to not disturb unnecessarily members who monitor on a continuous basis.

Before any transmission is made for access to the repeater station, the VHF repeater output frequency shall be monitored to preclude interference to transmissions that may be in progress.

When the repeater is used for an emergency network, the first station initiating the repeater operations shall act as net control station until relieved by higherauthority.

01.0F.0700 VHF REPEATER STATION FREQUENCY REQUIREMENTS

To enable MARS to meet the requirements to fulfill its mission in providing auxiliary communications during periods of emergency, especially Navy disaster control operations, it is essential that the VHF repeater system provide a means for maximum mobility. In order that this may be accomplished, the use of common frequencies and modes in all VHF repeater stations is necessary whenever possible. VHF repeater frequencies shall be assigned by Chief, MARS. The link and control frequencies shall be assigned by the MARS Director. When such frequencies are assigned, they shall not be used for other MARS activities. The mode of operation of all VHF repeater system frequencies shall normally be narrowband FM(16F3).

01.0F.0800 VHF REPEATER SYSTEM EQUIPMENT SPECIFICATIONS

Transmitters and receivers shall have a frequency stability of $\pm$ 750 Hz for 16F3 channels.

Transmitter power output shall be the minimum necessary to effectively cover the area in which the repeater may be accessed.

Audio distortion through the repeater shall be less than 10% for 100% modulation and in no case discernible by ear.

Transmitters shall have a minimum duty cycle capability of 30 minutes on, 5 minutes off or Continuous Commercial Service (CCS) ratings.

Transmitters shall remain keyed for at least one (1) second and not more than ten (10) seconds after the input channel has ceased operation.

Receiver bandwidth shall be not more than 150% of the peak-to-peak 100% modulation bandwidth measured at the 6 db down point.

Receiver carrier operated relay delay time shall be less than 0.1 second opening and 0.6 second closing with 100 microvolt signal at nominal squelch control setting.

Specifications not otherwise stated shall be those normally accepted in commercial communications practices.

01.0F.0810 ANTENNA REQUIREMENTS

01.0F.0811 GENERAL

Antennas and mounts shall meet applicable state and federal codes, laws and regulations regarding structures and antennas.

Antenna and support wind loading factor shall be 100 MPH.

Antenna feed line shall be of coaxial type.

Antenna should exhibit a voltage standing wave ratio of 2/1 or less at operating frequency.

01.0F.0812 VHF REPEATER ANTENNA

Antennas shall have vertical polarization.

Antennas shall be omnidirectional except when circumstances warrant, in

which case, cardioid antenna may be used. (i.e., when service area is concentrated in one or two quadrants.)

Antennas shall be gain types whenever practical.

Antenna shall have a minimum power rating of 3 db above the transmitter maximum power output.

01.0F.0813 LINK FREQUENCY ANTENNA

Antenna shall be horizontally polarized except where polarization change results in attenuation of interference, extends range or improves reliability.

Antenna shall be directional with attenuation of radiation in the horizontal plane of:

9 db at 90' and 270'

6 db at 180'

Antenna type shall be governed by frequency band and availability consistent with specifications.

Antenna shall have a minimum power rating of 3 db above transmitter maximum power output.

01.0F.0820 SYSTEM SIGNALING AND CONTROL

Signaling for control and special operation of VHF repeater systems will be based on the Bell Telephone Laboratories, Inc., Touch Tone frequency standards. Table 1 details the frequencies and the digit decoded. It is intended that all signaling be accomplished from this standard using single, dual or repeated transmissions of these frequencies.

TABLE 1

Bell Telephone Laboratories, Inc., Touch Tone Frequencies

Digit	Frequency (Hz)
1	1209, 697
2	1336, 697
3	1477, 697
4	1209, 770
5	1336, 770
6	1477, 770
7	1209, 852
8	1336, 852
9	1477, 852
0	1336, 941
*	1209, 941
#	1477, 941

Frequency tolerance for signaling purposes shall be ± 1 Hz below 1,000 Hz and ± 2 Hz above 1,000 Hz.

The use of the frequencies in Table 1 does not preclude the use of the "Whistle Up" method of repeater control. Demodulators for "Whistle Up" control will be centered on one of the frequencies in Table 1.

The requirements for tone control activation of local repeaters will be incorporated only when it is necessary to control the activation due to interference from adjacent repeaters or other VHF transmitters. When incorporated, the requirements will be widely disseminated.

Signaling and control modulatin shall not be less than 10% or more than 70% of maximum system modulation deviation.

Signaling and control signal sources shall have less than 10% total harmonic distortion plus noise.

Signaling and control transmission time shall be less than 30 seconds in 60 seconds per function.

A specific signal or control function will be required to activate link circuits and each repeater in the link chain.

Signal and control demodulators will be designed so that normal voice and Audio Frequency Shift Keying (AFSK) frequencies will not activate the control function. In this regard, the following tones are suggested for AFSK operatins:

Wide Shift - 2125 - 2975 - mark low
Narrow Shift - 2125 - 2295 - mark low

01.0F.0900 SYSTEM CHANGES AND EXPANSION

Repeater station design and fabrication should allow for additional circuits and equipment, and in such a way that modifications be held to a minimum with a minimum of down time. The concept of modular circuit construction with plug-in circuit boards provides the easiest method of modification.

01.0F.1000 AUTOPATCH OPERATIONS

The capabilities of interface connections between mobile and portable VHF equipment and the commercial telephone system are considered advantageous in an emergency. Autopatch users are cautioned that the same restrictions governing message criteria on HF MARS circuits equally apply to VHF repeater circuits. The establishment and use of Autopatch systems for official MARS related purposes is encouraged. Coordination and approval by Region Director is required.

ANNEX G

SPECIALTY NETWORKS

01.0G.0100 PURPOSE

The purpose of this Annex is to provide instructions and guidelines for the administration and operation of the various MARS Specialty Networks.

01.0G.0200 DEFINITION

A Specialty Network is a network involving inter-district, afloat and overseas communications, primarily established for a purpose other than for administration, traffic, and training. Third party radio-telephone voice communications, afloat operations, slow-scan TV, facsimile and similar operations are considered to be within this category.

01.0G.0300 RESPONSIBILITY

01.0G.0310 CHIEF, MARS

Responsible for the management of Specialty Networks, establishing/disestablishing networks as required and appointing to his staff a coordinator for each Specialty Network. Chief, MARS will provide technical and administrative direction to the coordinator and direct the operations of Specialty Networks.

01.0G.0320 MARS DIRECTORS

Responsible to provide the necessary material, as available, and administrative support to coordinators who are located within his area and to solicit, review, recommend, and as necessary, coordinate Specialty Network assignments for MARS stations under his jurisdiction.

01.0G.0330 SPECIALTY NETWORK COORDINATORS

Responsibilities and duties are contained in Chapter 2.

01.0G.0340 SPECIALTY NETWORK STATIONS

Responsible to ensure that assigned schedules are maintained or an alternate backup station is notified in a timely manner to assume the schedule(s) and to adhere to frequency tolerances as prescribed in Annex B. To submit the monthly report as prescribed herein and as directed by the Specialty Network Coordinator. The failure to meet assigned schedules without notification or to submit the monthly reports are subject to the following penalties:

Failure to submit 2 reports or to meet four schedules during a 12 month period.
Suspension from the network for not more than 30 days.

Failure to submit 3 reports or to meet six schedules during a 12 month period.
Suspension from the network for not more than 60 days.

Failure to submit 4 reports or to meet eight schedules during a 12 month period.
Disenrollment from the Specialty Network and not eligible for assignment to any Specialty Network for a period of 1 year.

Submitting activity reports showing "no activity - Monitor hours only" during a three month period.
Disenrollment from the Specialty Network at the descretion of the Specialty Net Coordinator.

01.0G.0400 SPECIALTY NETWORK STATION ASSIGNMENTS

Specialty network station assignments are controlled by the appointed Network Coordinator. MARS member stations desiring an assignment shall submit a request to the appropriate Network Coordinator via the member's Area Coordinator and Director. Requests shall include station capabilities to meet the requirements for the type of network for which applying. The Network Coordinator will effect station assignments based upon requirements and station capability.

01.0G.0500 MARS RADIO-TELEPHONE NETWORKS

Radio-telephone Networks are primarily established to provide networks for operational backup and emergency communications when needed and for morale purposes by providing the Armed Forces and authorized civilian personnel a means for point to point communications with home. The handling of MARS record message traffic, except those of a priority or higher precedence, is not authorized.

Stations applying for MARS Radio-telephone Networks should have the following capabilities:

Possess the necessary telephone and ancillary equipment to effect radio-to-telephone connections.

Possess radio equipment with sufficient power and a suitable antenna system for effective communications.

Be able to operate on assigned network frequencies.

Be available during times of network operations on a continuing daily basis or as required.

01.0G.0510 RADIOTELEPHONE SPECIALTY NETWORK LOG

A radiotelephone log is required on specialty networks. The following data should be included in the log of stations assigned to radiotelephone specialty networks:

Transmitting Station:

The name and address of the party placing the call, and in case the call is placed other than personally at the station, the telephone number at which the party is located.

The area code, telephone number and the name of the party to whom the call is placed.

Times the radiotelephone call commenced and ended or, if not completed, the reason, if known.

Receiving Station:

The name of the party placing the call.

The area code, telephone number and the name of the party to whom the call is placed.

Times the radiotelephone call commenced and ended, or, if not completed, the reason.

01.0G.0600 SLOW SCAN TV NETWORKS

Slow Scan TV Networks are primarily established to enhance research and development in this mode of telecommunications. Therefore, the equipment necessary to conduct research and development tests and/or experiments is required. In this regard, member stations not having equipment capable of operating on the networks, i.e., transmit capability, should request assignment, listing equipment capability to indicate their interest and to ensure receipt of any research and development information

promulgated by the members of the network.

01.0G.0700 MARS AFLOAT SPECIALTY NETWORK

MARS Afloat operations were established to provide emergency communications as an adjunct to normal Naval Communications, and for health and welfare communications for military personnel and authorized civilian personnel at sea. Normal operations will be third-party radiotelephone patching. MARS record traffic via the MARSTELSYS is permitted on a STRICT scheduling basis. Schedules will be coordinated via the Net Coordinator, the appropriate Region Director, the MARSTELSYS Coordinator and Chief, MARS. Assignments to the MARSTELSYS will be promulgated via Chief, MARS broadcast.

01.0G.0800 RECORDS

01.0G.0810 SPECIALTY NETWORK STATIONS

Communication logs and station records will be maintained in accordance with requirements as prescribed in Chapter 5. Each station assigned to a Specialty Network is required to submit no later than the last day of each month, reporting period from the 26th to the 25th of each month, a detailed report to the Specialty Network Coordinator with a copy to the station's Area Coordinator to insure that activities and participation are noted and credited. The report shall include the number of participation hours, messages, radio-telephone calls, pictures, the call signs and locations of stations worked, frequencies and time of actual transmission, etc., as the case may be, as well as other information required to depict the station activity. Reports may also contain comments and recommendations concerning the network. Stations assigned to Radio-telephone Specialty Networks shall submit their report using the following format:

ACTIVITY REPORT MONTH OF _____19___NETWORK (DESIGNATOR) MARS CALL SIGN*____

TOTAL PARTICIPATION HOURS_____

FREQUENCY	CALL SIGN AND LOCATION OF STATION WORKED	CALLS NOT COMPLETED	CALLS COMPLETED	RECORD MESSAGES	TOTAL TRANSMIT HOURS	TOTAL GUARD HOURS	REMARKS

*Call sign is not necessary when submitting report by MARS message.

Column explanations:

Frequency - list frequency assigned.

Call Sign and Location of station worked: list call sign and location by abbreviation of state or country listed in Chapter 6, of stations worked on the frequency.

Calls Not Completed: list total number of calls attempted that were not completed.

Calls Completed: total number of calls successfully completed.

Record Messages: list total number of messages and in the remarks column, state the nature of the message(s) that necessitated handling on the Radio-telephone network.

Total Transmit Hours: list the total number of hours of actual transmit time on the frequency by your individual station.

Total Guard Hours: List the total number of whole hours during the month that men or equipment have been assigned in support of this frequency whether transmitters were keyed or not.

Remarks: list such remarks as the condition of the frequency, i.e., propagation times, interference, etc. In the event there is not sufficient space for remarks, the use of notes or paragraphs may be used, i.e., NOTE 1,

NOTE 2, PARA 1, PARA 2, etc.

01.0G.0820 SPECIALTY NETWORK COORDINATORS

Specialty Network Coordinators shall consolidate the reports submitted by the network member stations and submit a report to Chief, MARS with a copy to HQ NAVMARCORMARSTA Cheltenham, MD (NAV) not later than the fifth working day of each month. Radiotelephone Specialty Network Coordinators report shall be submitted using a format similar to that in paragraph 01.0G.0810 above.

01.0G.0900 LANGUAGE RESTRICTION

The use of the English language on specialty networks is encouraged during operations involving third party type communications. A second language is authorized provided the requirements for monitoring each transmission by either the control operator or a third party conversant in the language spoken can be met to ensure sensitive information is not passed. Official communications and all authorized record traffic must be in the English language.

ANNEX H

GLOSSARY OF ABBREVIATIONS, SHORT TITLES AND COMMUNICATION TERMS

01.0H.0100 DEFINITIONS

The word abbreviation, as used herein, means a shortened form of a word or phrase which will, in its condensed form, convey the same meaning as though the word or phrase itself were used.

The term short title, as used herein, referes to the condensed form of those proper names which together make up the title of a command, document, or device. An example of a short title would be SECDEF, meaning Secretary of Defense.

01.0H.0200 EMPLOYMENT

Abbreviations and short titles are intended for use in messages in order to shorten the text, thereby saving time. They provide an easy-to-read symbol for often repeated phrases and long, combersome titles. Many abbreviations and short titles can be spoken as single words, and may carry over into oral use. It is much easier to say CINCUSNAVEUR, for example, than Commander in Chief, U.S. Naval Forces Europe.

Although abbreviations shorten messages, and are intended to ease communications, indiscriminate, injudicious, and excessive use results in loss of intelligibility. Over-usage of abbreviations places brevity above clarity with a resultant loss of exactness in communications. The brevity and economy being sought is more than offset by the error, delay and misunderstanding that comes from an excessively abbreviated message.

Use of abbreviations must be limited to, and kept within, the confines of assured intelligibility. The increase in message preparation and transmission time, sometimes brought about by restricting the use of abbreviations, is acceptable, since such restrictions will eliminate the administrative effort and circuit time inevitably lost in sending service messages, obtaining repetitions, and clearing garbles to clarify message content.

01.0H.0300 NAVY POLICY

Navy/Marine Corps use of abbreviations adheres to the policy prescribed for joint usage.

The Chief of Naval Operations (CNO) is the authority responsible for coordinating and promulgating the abbreviated titles of U.S. Naval activities, and other naval abbreviations for use in communications, to ensure standardization and dissemination, and to hold, within reasonable limits, the number of abbreviations authorized for use.

When drafting messages, brevity in message texts will not be de-emphasized. Rather, brevity will be achieved through the proper choice of words and good writing techniques. Addressees of messages to be filed into the normal Naval Telecommunication System must be in accordance with NTP 3 SUPP-1, Plain Language Address Directory. Therefore, if addressees are not in accord, they must be changed to the proper addressees by the filing station.

Well recognized abbreviations that definitely fall into one of the following categories may be used in the preparation of messages when they will serve a useful purpose.

Abbreviations for medals, badges, or other marks of distinction.

Abbreviations for points of the compass and map coordinates.

Authorized model designations and symbols for common types of aircraft, ships or vehicles.

Abbreviations for titles, ranks and grades except in messages of commendation, congratulation, acceptance or regret, etc., where the full title and rank will be used to give a fundamental degree of formality.

Abbreviations commonly used for geographical locations and standard English dictionary abbreviations.

Other technical abbreviations customarily used by specialists and technicians when communicating with activities or persons in the same field as that of the originator, and to no others.

Abbreviations, other than those categorized above, may be used in the text of messages after they have been initially spelled out and identified in each item of correspondence or message. For example, the abbreviation ICAO could be used, but only if the first reference to the organization read: International Civil Aviation Organization (ICAO).

Abbreviations and short titles which have, through years of joint usage, become self-evident, unequivocal, and universally known will be accepted for joint use within and among the services, e.g., ADTAKE - request advise action taken; UNODIR - unless otherwise directed; ALCON - all concerned. Even then, an abbreviation will be used only if there is no doubt that it will be easily and readily understood. Such abbreviations peculiar to the U.S. Navy and U.S. Marine Corps may be used under the same conditions, but only within the Department of the Navy.

The usage of abbreviations will at all times be governed by the principle of immediate comprehension. Abbreviations will not be used in messages unless the originator can reasonable assume that the meaning of the abbreviation will be immediately clear to the addressee(s).

01.0H.0400 COMMUNICATION TERMS AND ABBREVIATIONS

The following is an alphabetical listing of the most frequently used abbreviations and communication terms with their definitions. Their use is governed by paragraph 01.0H.0300 above. For Joint and Allied use see JCS Pub 1 and ACP 167, respectively.

- A -

ACK	- Acknowledge(ment)
ACP	- Allied Communication Publication
ACPT	- Accept
ACT	- Act(ing) (ive) (ion)
ACTY	- Activity
ADAVAL	- Advise availability
ADCON	- Advise all concerned
ADEE	- Addressee
ADIZ	- Air Defense Identification Zone
ADMIN	- Administra(e) (ive) (ion)
ADMSG	- Advise by electrically transmitted message
ADP	- Automatic data processing. ADP systems are designed for the purpose of gaining access to computers or providing direct exchange of information between computers. These systems use various digital teletypewriter or information codes.
ADSTADIS	- Advise status or disposition, or both
ADTAKE	- Advise action taken
ADV	- Adv(ance) (ice) (ise)
AEC	- Atomic Energy Commission
AFCS	- Air Force Communication Service
AIG	- Address Indicating Group
AIRCOM	- USAF worldwide system, which includes DCS point-to-point, and Air Force Tactical Communications.
AIROPNET	- A worldwide teletypewriter network interconnecting all Air Force bases having a requirement for

handling aircraft movement traffic.

ALCON - All concerned

ALNECOS - Alternate Net Control Station. A station appointed to provide for emergency situations. The designated alternate NECOS should take charge of the net when the primary NECOS is inoperative for any reason. When in control, ALNECOS will assume NECOS responsibilities.

AMND - Amend(ed) (s)

ANS - Answer

APP - Appendix

APPL - Appli(cable) (cant) (cation)

APPR - Approve(d)

APPROX - Approximate(ly)

AREACOORD - Area Coordinator

ARNG - Arrange(d)

ARR - Arriv(al) (ed)

ARREP - Upon arrival report (to)

ATTNDIR - Attention Directed

ATTNIVN - Attention invited

AUTH - Authori(ty) (zed)

AUTHENTICATION - (1) Evidence by proper signature or seal that a military document is genuine and official. (2) A security measure designed to protect against fraudulent transmissions.

AUTHENTICATOR - A letter, numeral, or groups of letters and/or numerals, attesting to the authenticity of a message or transmission.

AUTHGRA - Authority granted

AUTODIN - Automatic Digital Network. A worldwide automatic communication system that provides automatic data service for the Department of Defense (DOD) and certain non-DOD subscribers. It is a general purpose network of the Defense Communications System.

AUTOSEVOCOM - Automatic Secure Voice Communication. AUTOSEVOCOM consists of a number of automatic and manual secure voice switches that provide mainline trunking from DCS facilities and direct-distant-dialing service to certain subscribers of the DOD and the National Communication System. AUTOSEVOCOM is the principal means of meeting DOD long-haul secure voice requirements.

AUTOVON - Automatic Voice Network. An automatic circuit switching network which offers rapid, direct voice quality interconnection for military and other installations in continental United States and certain overseas areas. Navy afloat and airborne units are provided access to AUTODIN through NORATS.

AVBLTY - Availability

- B -

BAUD - A unit of modulation rate. One baud corresponds to a rate of one unit interval per second.

BOOK MESSAGE - A message which is destined for two or more addressees and is of such a nature that the originator considers no addressee need be informed of any other addressees. Addressees of a book message are divided into groups according to the relay stations which serve them.

BROADCAST FILE - This file contains a copy of filler of each message transmitted or received by the broadcast method.

BUNO - Bureau number (of a Navy aircraft)

- C -

CALL SIGN	- Any combination of characters or pronounceable words that identifies a communication facility, a command, an authority, an activity, or a unit; used primarily for establishing and maintaining communications. See also COLLECTIVE CALL SIGN, INDEFINITE CALL SIGN, INTERNATIONAL CALL SIGN, NET CALL SIGN, TACTICAL CALL SIGN, VISUAL CALL SIGN, VOICE CALL SIGN.
CASCOR	- Casualty corrected
CASREP	- Casualty report
CGBASE	- Coast Guard Base
CGDIST	- Coast Guard District
CHNAVMARCORMARS	- Chief, Navy-Marine Corps Military Affiliate Radio System
CIRCUIT (CKT)	- (1) an electronic path between two or more points capable of providing a number of channels. (2) a number of conductors connected together for carrying an electrical current.
CIRCUITRY	- A complex of circuits describing interconnection within or between system.
CLASS "A" MESSAGE	- Official messages and replies thereto originated by DOD, including the USCG, when operating as part of the Navy.
CLASS "B" MESSAGE	- Official messages of U.S. Government departments and agencies other than DOD. The USCG is included under Class "B" except when operating as part of the Navy.
CLASS "C" MESSAGE	- Broadcast messages in special arbitrary forms to ships of all nationalities and data consisting of special services, such as hydrographic notices, weather forecasts and time signals.
CLASS "D" MESSAGE	- Commercial messages involving tolls, including press and radiophoto. Class "D" messages are private (unofficial) messages.
CLASS "E" MESSAGE	- Acceptable personal messages to or from naval personnel and specifically authorized civilian personnel stationed on naval vessels or overseas naval stations.
CLASSIFICATION	- The determination that official information requires, in the interest of national defense, a specific degree of protection against unauthorized disclosure, coupled with a designation signifying that such a determination has been made. See also DEFENSE CLASSIFICATION.
CLASSIFIED INFORMATION	- Official information that has been determined to require, in the interest of national defense, protection against unauthorized disclosure and shich has been so designated.
CLASSIFIED MATTER	- Official information or matter in any form or of any nature that requires protection in the interests of national defense. See also DEFENSE CLASSIFICATION.
COGOFF	- MARS cognizant officer on the staffs of each fleet Commander in Chief, Naval Force Commander and Naval District Commandant.
CODRESS MESSAGE	- A type of message which carries in the encrypted text the entire address; i.e., the originator and all addressees.
COLLECTIVE CALL SIGN	- Any call sign that represents two or more facilities, commands, authorities, or units. The collective call sign for any of these includes the commander thereof and all subordinate commanders therein.
COMMAND NET	- A communications network which connects an echelon of command with some or all of its

subordinate echelons for command control.

COMMUNICATION CENTER (COMMCEN) - A major component of a communication complex charged with the responsibility for receipt, transmission and delivery of messages.

COMMUNICATION CENTER FILE - This file contains a copy or filler of every message sent or received by a command.

COMMUNICATION NETWORK - An organization of stations capable of intercommunication, but not necessarily on the same channel.

COMMUNICATION SATELLITE - An orbiting vehicle, either active or passive, which relays signals between communication stations. See ACTIVE COMMUNICATION SATELLITE and PASSIVE COMMUNICATION SATELLITE.

COMNAVTELCOM - Commander, Naval Telecommunications Command.

COMPL - Upon completion thereof

COMPROMISED - A term applied to classified matter, knowledge of which has, in whole or in part, passed to an unauthorized person or persons, or which has been subject to risk, of such passing. See also CLASSIFIED MATTER.

COMSEC - Communications Security. The protection resulting from all measures designed to deny to unauthorized persons information of value, which might derived from the possession and study of telecommunications or to mislead unauthorized persons in their interpretations of the results of such a study. COMSEC includes: (a) cryptosecurity, (b) physical security, (c) transmission security.

CONUS - Continental United States. United States territory, including adjacent territorial waters, located within the North American continent between Canada and Mexico.

CPX - Command Post Exercise. An exercise involving the commander, his staff, and communications within and between headquarters.

CW - Continuous wave. Commonly used to denote on-off keying of a carrier using the International Morse Code.

CWO - Communication Watch Officer

- D -

DCA - Defense Communications Agency

DCS - Defense Communications System

DIRECTED NET - When operational requirements dictate that net stations obtain the net control station's permission prior to transmitting on the net.

DIRLAUTH - Direct liaison authorized.

DISCLOSURE - Disclosure, as it relates to classified information is furnished to a specific individual, group, or activity.

DOD - Department of Defense

DPPO - District Publications and Printing Office

DRAFTER - A person who actually composes a message for release by a releasing officer. See also ORIGINATOR

DSCS - Defense Satellite Communications System.

DTG - Date-time-group. The date and time, expressed in digits and zone suffix, at which the message was prepared for transmission. (Expressed as six digits followed by the zone suffix; first pair of digits denoting the date, seocnd pair the hours, third pair the minutes)

DTS - Diplomatic Telecommunications Service

DUPLEX CIRCUIT - A duplex (full duplex) circuit provides two channels or frequencies linking two different stations, allowing the simultaneous exchange of information.

- E -

END - endorsement
EHF - Extremely High Frequency (30-300 GHz)
ELECTRICAL MEANS OF COMMUNICATION - Electrical means are radio and wire. They may be used singly or in combination to transmit intelligence by telegraph, teletypewriter, telephone, facsimile, or other emission.
ELECTRONIC COUNTERMEASURES (ECM) - That major subdivision of electronic warfare involving actions taken to prevent or reduce the effectiveness of enemy equipment and tactics employing or affected by electromagnetic radiations and to exploit the enemy's use of such radiations.
ELECTRONIC JAMMING - The deliberate radiation, reradiation, or reflection of electromagnetic signals to impair the use of electronic devices.
EMISSION CONTROL ORDERS - Orders, referred to as EMCON orders, used to authorize, control or prohibit electronic emissions.
EMCON - See EMISSION CONTROL ORDERS

- F -

FAA - Federal Aviation Agency
FACSIMILE FILE - This file contains a copy of all transmissions handled by facsimile and are filed by date-time-group.
FAX - FACSIMILE - A system of telecommunication for transmitting fixed images.
FCC - Federal Communications Commission
FLEACT - Fleet Activitie(s) (y)
FLEET CENTER (FLTCEN) - A component of the COMMUNICATION CENTER where all circuits to and from the forces afloat are terminated.
FLEET COMMANDER - Commander of a numbered fleet of the Navy, e.g., COMFIRSTFLT, COMSEVENTHFLT.
FLEET COMMINDER IN CHIEF - Commander of a principal, permanent subdivision of the operating forces of the Navy; e.g., CINCPACFLT, CINCLANTFLT.
FONECON - Telephone conference
FORAC - For action
FREE NET - When operational factors permit, the Net Control Station may authorize member stations to transmit traffic to other net stations without obtaining prior permission from the Net Control Station.
FREQUENCY (FREQ) - Frequency is the number of vibrations or cycles occuring in a prescribed amount of time. In specifying electromagnetic and acoustic frequency the unit of time is the second.
FREQUENCY STANDARDS - Devices used to compare the accuracy of transmitters and receivers with a signal known to be accurate.
FYI - For your information
FYIG - For your information and guidance
FUNCTIONAL NET - A net normally provided to directly connect those stations assigned a specific function.

- G -

GARBLE - An error in transmission, reception, encryption or decryption which renders a message or a portion thereof incorrect or undecipherable.

GENERAL MESSAGE FILE - This file is a record of all general messages which require retention by the command. It is subdivided by title of each general message and filed in serial number orders. The files are given the classification of the highest classified message contained therein.

- H -

HALF-DUPLEX CIRCUIT - A half-duplex circuit provides a single channel or frequency on which a station can transmit or receive, but not simultaneously.

HERTZ (Hz) - The term Hertz (Hz) is the term for a unit of frequency; e.g., if the frequency is 15,000 cycles per second, the frequency expressed is 15 kiloHertz (kHz).

HF - High frequency - 3 to 30 MHz.

- I -

IAW - In accordance with

ICAO - International Civil Aviation Organization

ICO - In case of

ICW - In connection with

INFOREQ - Information requested as to

- J -

JANAP - Joint Army-Navy-Air Force Publication

JULIAN DATE-TIME-GROUP - The Julian date-time group is used to express time-of-file. The first three digits denote the day of the year numbered serially from 001 through 365 (or 366 in the case of a leap year). For example, 032 is the 1st of February in any year while 365 is the 31st of December except in a leap year when this date would be denoted by 366. The last four digits express the Greenwich hours and minutes of the time-of-file.

- K -

KEYBOARD - A keyboard is used in conjunction with TTY operation to transmit information directly over a circuit or, in conjunction with a perforator to prepare a paper tape for later transmission.

- L -

LANDLINES (LL) - Landlines and cables are metallic wire conductors that provide a direct path for transmitting information between two or more stations.

LF - Low frequency - 30 to 300 kHz.

LINK - A general term used to indicate the existence of communication facilities between two points.

LISTENING WATCH - A continuous receiver watch established for receiving traffic addressed to, or of interest to, own unit with complete log optional.

- M -

MARS - Military Affiliate Radio System

MARSCOGOFF - Navy-Marine Corps MARS Cognizant Officer. An officer on the Staff of each Fleet Commander in Chief, Naval Force Commander and Naval District Commandant for the purpose of maintaining appropriate administrative MARS liaison between the Commander/Commandant and the Commander, Naval Telecommunications Command.

MARSOFF - MARS Officer. An officer at a Command/activity with an established Navy-Marine Corps MARS Radio Station who provides supervision for its operation and administration.

MARSREPSYS - Navy-Marine Corps MARS VHF Repeater System.

MARSTELSYS - Navy-Marine Corps MARS Radio Teletypewriter Relay System (See Annex E).

MESSAGE - Any thought or idea expressed briefly in a plain or secret language, prepared in a form suitable for transmission by any means of communications.

MESSAGE PRECEDENCE - Designations employed to indicate the releative order in which a message is handled with respect to other messages. Precedence designations indicate: (a) to the originator - required speed for delivery to addressees; (b) communications personnel - relative order of handling and delivery; and (c) to the addressee - relative order in which he should note the message. See also FLASH MESSAGE, IMMEDIATE MESSAGE, PRIORITY MESSAGE, ROUTINE MESSAGE.

MF - Medium Frequency - 300 - 3000 kHz.

MINIMIZE - A condition wherein normal message and telephone traffic is drastically reduced in order that messages connected with an actual or simulated emergency shall not be delayed.

MULTICHANNEL TELETYPEWIRTER SYSTEM - Multichannel teletypewriter systems are designed to provide a large capacity for circuits between stations with a relatively small change in transmitting and receiving facilities. At the transmitting station, several teletypewriter signals are joined into composite signals for transmission.

MULTIPLEX (MUX) - The equipment or technique of combining two or more independent channels (voice, telegraph, data, etc.) into a composite signal which is then transmitted via the transmission medium to a like terminal where the process is reversed, restoring the channels to their original state.

- N -

NAVCOMM - Naval Communications (Complex)

NAVAL COMMUNICATION STATION (NAVCOMMSTA) - An activity which operates and maintains those facilities, systems, equipments and devices necessary to provide requisite fleet support and fixed communcation services for a specific area.

NAVAL COMMUNICATION UNIT (NAVCOMMU) - An activity smaller in personnel, resources and facilities than a NAVCOMMSTA, and which is assigned a more limited or specialized functional mission.

NAVAL COMMUNICATIONS - The entire communication effort of the Department of the Navy, afloat and ashore, including all the facilities, personnel and techniques employed

for the purpose of providing rapid communications. "NAVAL COMMUNICATIONS" is not the formal title of an organization.

NAVMARCORMARS - Navy-Marine Corps Military Affiliate Radio System (MARS).

NCS - National Communication System. Composed of existing communication facilities of certain federal departments and agencies to provide communications for the President and certain federal agencies.

NECPA - National Emergency Command Post Afloat

NEED TO KNOW - A criteria used in security procedures which requires holders of classified information to establish, prior to disclosure, that the intended recipient must have access to the information to perform his official duties.

NET - An organization of stations capable of direct communications on a common channel or frequency.

NET CALL SIGN - A call sign which represents all stations within a net. See also CALL SIGN.

NECOS - Net Control Station - A station designated by appropriate authority to direct and control the operation and flow of all traffic on the net.

NLT - On or before, but not later than

NONEG - Negative replies neither required not desired.

NORATS - Navy Operational Radio and Telephone Switchboard. A 4-wire cordless switchboard that provides an interface between voice radio circuits and shore telephone systems to enable commands afloat or airborne to communicate directly with commands ashore utilizing existing equipment.

NOTAL - Not to all nor needed by all

NSOC - Navy Satellite Operations Center

- O -

OPERATING SIGNALS - Operating signals (Q and Z) are a concise unclassified code designed for use by communication personnel in exchanging information incident to handling messages or establishing communications. They are also used in service messages and other forms of messages between communication personnel.

OPORD - Operation Order

OPLAN - Operation Plan

ORIGINATOR (ORIG) - The command by whose authority a message is sent. The responsibility of the originator includes responsibility for functions of the drafter and releasing officer. See also DRAFTER and RELEASING OFFICER.

- P -

PAGE PRINTER - The page printer produces a page copy from information received in impulse form.

PARAPHRASE - To change the phraseology of a message without changing its meaning.

PASEP - Being passed separately or has been passed separately.

PERFORATOR - A perforator produces a punched paper tape from information typed on a keyboard in conjunction with teletypewriter operation.

PERGRA - Permission granted.

PERNOGRA - Permission not granted.

PERSONAL SIGNS - Personal signs are composed of two or more letters, frequently initials. No two signs

should be alike within a station and must not conflict with channel designations or pro-signs. Personal signs shall be assigned to all operating and supervisory personnel for use when endorsing station records and messages to indicate individual responsibility.

PERTO - Pertaining to

PLAINDRESS MESSAGE - A message in which the originator and addressee designations are indicated externally of the text.

POINT-TO-POINT CIRCUITS - Those fixed radio and wire circuits established for communications between shore stations or facilities, usually multichannel, with trunkline capacity for large traffic loads.

PRECEDENCE - A designation assigned to a message by the originator to indicate to communication personnel the relative order of handling and to the addressee the order in which the message is to be noted.
See also MESSAGE PRECEDENCE.

PREVENTIVE MAINTENANCE - The care and servicing of equipment and facilities in satisfactory operating condition by systematic inspection, detection, and correction of incipient failures before they develop into major defects.

PRIORITY MESSAGE - A category of precedence reserved for messages which require expeditious action by the addressee(s) and/or furnish essential information for the conduct of operations in progress when ROUTINE precedence will not suffice. Normally, PRIORITY is the highest precedence which may be assigned to administrative traffic and such traffic must be transmitted via administrative circuits when they are available. "Normally" in the foregoing sentence provides for circumstances of extreme urgency and shall not be construed as a pretext for the abuse of high precedence.

PRO - Proceed

PROFORMA - (1) a message, the nature of the successive elements of which is understood by prearrangement, and (2) a standard form.

PROSIGNS - Procedure signs consisting of one or more letters or characters or combinations thereof. They are used to facilitate rapid communication by conveying in condensed standard form certain frequently used orders, instructions, requests, reports and information.

PROWORDS - Word equivalents of PROSIGNS.

- R -

RADIO CIRCUIT - Any means of communication between two or more stations which uses the radiation of electromagnetic energy to transmit information.

RADIO SILENCE - A period during which all or certain radio equipment capable of radiation is kept inoperative.

RADIOTELEGRAPH(CW) LOG - This log contains a record of every radiotelegraph (CW) transmission on each radio frequency guarded, covered or copied and is manually prepared.

RADIOTELEGRAPHY - See CW

RADIOTELEPHONE LOG - This log contains a record of all transmission on tactical nets, command nets and reporting nets, command nets and reporting nets. This log is either manually parepared or automatically

produced through recording devices.

REAL TIME - The process, relative to the speeds and time involved, accomplished with no discernable or apparent lapse of time. Real-time processes appear to be instantaneous and cause no practical degradation to information.

RECORD TRAFFIC - That information which has been electrically transmitted and must be received by the ultimate user in such a form as to permit permanent storage. (Includes narrative and data formatted messages.)

REDUCED CARRIER - In a single sideband transmission, a reduced carrier is restricted to a power level between 6 and 32 db below peak envelope power.

REPERFORATOR (REPERF) - The reperforator produces a punched paper tape from information received in impulse form.

REPLTR - Report by letter

REQREC - Request recommendation.

REQFOLINFO - Request following information be forwarded this office.

RETAT - It is requested that

RFCS - Radio Frequency Carrier Shift

ROUTINE MESSAGE - A category of precedence to be used for all types of messages which justify transmission by rapid means unless of sufficient urgency to require a higher precedence. See also MESSAGE PRECEDENCE.

ROUTING INDICATOR - A group of letters assigned to indicate: (a) the geographic location of a station; (b) a fixed headquarters of a command, activity, or unit at a geographic location, and (c) the general location of a tape relay or tributary station to facilitate the routing of traffic over tape relay networks.

RTT - Radio Teletypewriter. Communications using teletypewriter on radio circuits.

- S -

SAR - Search and Rescue. The use of aircraft, surface craft, submarines and other special equipment to locate and rescue personnel in distress on land and sea.

SATCOM - Satellite Communications. The SATCOM system integrates military communication facilities into a worldwide netowrk through satellites which orbit the earth.

SEMIDUPLEX CIRCUIT - A semiduplex circuit is one which is SIMPLEX at one end and DUPLEX at the other. All stations may transmit and receive on the SIMPLEX component while the net control station transmits on the DUPLEX component.

SERVICE MESSAGES - Short, concise messages between communication personnel relating to message traffic.

SHF - Superhigh Frequency - 3 to 30 GHz.

SHIPDAFOL - Shipping data follows

SIMPLEX CIRCUIT - A circuit that provides a single channel or frequency on which information can be exchanged. All stations on the circuit are capable of transmitting and receiving information, but not simultaneously.

SITREP - Situation Report.

SOP - Standing Operating Procedure. A set of instructions covering those features of operations which lend themselves to a definite or standardized procedure without loss of effectiveness. The procedure is applicable unless prescribed otherwise in a particular case. Thus, the

flexibility necessary in special situations is retained.

SPDLTR - Speedletter

SPEED OF SOUND - The speed at which sound travels in a given medium under specified conditions. The speed of sound at sea level in the International Standard Atmosphere is 1108 feet per second, 658 knots, or 1215 kilometers per hour.

STANDING ORDER - An order of relative permanence.

SUPPRESSED CARRIER - In a single sideband transmission, a suppressed carrier is restricted to a power level more than 32 db below peak envelop power.

SVC - Service Message

- T -

TELECOMMUNICATION - Any transmission, emission, or reception of signs, signals, writing, images and sounds or information of any nature by wire, radio, visual, or other electromagnetic systems.

TELECON - Teleconference. A conference between persons remote from one another but linked by a telecommunication system.

TELETYPEWRITER TERMINAL EQUIPMENT - Teletypewriter terminal equipment converts audio frequencies to DC impulses on receive systems and DC impulses to audio frequencies on send systems. In shipboard single channel teletypewriter systems, the send conversion takes place in the transmitter. In multichannel systems, the send conversion takes place in the terminal equipment.

TELETYPEWRITER LOG - This log is the page copy or perforated tape which is automatically produced by teletypewriter equipment.

TERMINAL EQUIPMENT - Used to convert a signal from one form to another and in some cases to compare two signals and select the best one for use.

TD - Transmitter Distributor. The TD generates impulses, at a constant speed, from punched tape fed to it.

TOD - Time of delivery. The time at which addressees or relay facilities receipt for a message.

TOF - Time of file.

TIME OF ORIGIN - The time at which a message is released for transmission.

TOR - Time of receipt. The time at which a receiving station completes reception of a message.

TRACER ACTION - The process by which an investigation is conducted to determine the reason for inordinate delay in delivery or non-delivery of a message.

TRANSPONDER - A transmitter-receiver capable of accepting the challenge of an interrogator and automatically transmitting an appropriate reply.

TTY - Teletypewriter. A form of communication based on the conversion of mechanical functions to electrical impulses for transmission by landline or radio circuits. At the receiving station these impulses are converted back to mechanical functions which print out a page copy or paper tape.

- U -

UHF - Ultrahigh Frequency - 300 to 3000 MHz

UHF AUTOCAT - A method for extending the range of UHF transmissions during periods when EMCON restrictions prevent use of HF radio. An aircraft

performs as the relay through the use of communication equipment in a back-to-back configuration, thus, providing automatic retransmission.

UHF/HF RELAY - A relay method that permits long-range uninterrupted communications during periods when HERO restrictions are in effect by transmission of an UHF signal to a relay station. The relay station retransmits the signal via HF by use of special equipment.

UNCLASSIFIED MATTER - Official matter which does not require application of security safeguards, but disclosure of which may be subject to control for other reasons. See also CLASSIFIED MATTER.

UNODIR - Unless otherwise directed.

USMCEB - U.S. Military Communications-Electronics Board.

- V -

VFCT - Voice Frequency Carrier Telegraph.

VHF - Very High Frequency - 30 - 300 MHz.

VLF - Very Low Frequency - Below 30 kHz.

VOICE - Voice communications is the most convenient and rapid form of communications since it does not require that information be converted to printed codes or symbols.

- W -

WHAP - Where/when applicable.

WIRE LINES - The insulated wire paths providing electrical circuits between other components of the protected system. No distinction is made between a single pair and multiple pair grouping.

ANNEX I

EQUIPMENT PROGRAM

01.0I.0100 PURPOSE

The purpose of this Annex is to provide policies and regulations governing the management for the acquisition, accounting, and utilization of excess equipment and material within the Military Affiliate Radio System (MARS).

01.0I.0110 SCOPE

The provisions of this annex are applicable only to the Navy-Marine Corps MARS Program and only to excess property clearly determined to meet MARS requirements in accordance with this annex. The issue of excess property in the name of MARS to MARS Radio Stations, (except the Headquarters, Navy-Marine Corps MARS Radio Station, a Navy shore (field activity), requested through other than the procedures outlined herein and without the approval of Chief, MARS, is prohibited. This does not preclude the Commanding General/Commanding Officer or Officer in Charge of a military activity from authorizing the use by the activity sponsored MARS radio station of equipment and material within the activity's assets. Excess property obtained for a Military Auspices MARS station by a military activity must necessarily be in the name of the activity and not MARS and accounted for in accordance with appropriate instructions. Equipment and material provided by the activity shall be clearly identified as OTHER (O) indicating that it is not part of the MARS Equipment Program.

01.0I.0200 ADMINISTRATIVE RESPONSIBILITY

01.0I.0210 CHIEF, MARS

Retains overall supervision and control of the MARS Equipment Program. Promulgates implementing instructions and ensures that the provisions of the program are complied with by good management practices and periodic inspections.

01.0I.0220 MARS REGION DIRECTOR

Maintains control of the excess equipment made available for issue. Ensures strict adherence to the policies and procedures outlined herein and those issued by the Chief, MARS. Maintains records, other than plant property accountability, of issued equipment from time of receipt to disposition.

01.0I.0230 STATIONS UNDER MILITARY AUSPICES

Station custodians will maintain accountability by categroy, as specified herein, of equipment received in accordance with this Annex. An inventory shall be conducted on such equipment annually, on 31 December, and upon the occasion of a change in station custodian. An inventory list and the results of the inventory shall be forwarded, not later than 15 days after the completion of the inventory, to the appropriate MARS Director.

01.0I.0240 MARS INDIVIDUAL AND CLUB STATIONS

In accordance with procedures specified by the MARS Director, individual and club MARS radio stations may request issue of items which are needed and can be effectively utilized, to improve their operating capability and for experimental purposes. Issues will be limited by quantities available and by eligibility requirements as follows:

Be a member of MARS for at least 6 months.

Minimum participation of at least eighteen hours per quarter during the preceding quarter.

Favorable recommendation by the Area Coordinator to the Director, based on the requirements to meet MARS functions and the need and ability of the member station.

Each station shall maintain a record of custody receipts on excess property received and any authorizations for transfer, modifications, or cannibalizations assoicated therewith.

01.0I.0300 EQUIPMENT SOURCE

Two types of excess property are made available to the MARS Program. Equipment, except that identified as being for assignment to a Military Auspices Station allowance, shall be removed from accounting and control of Class 3 plant property in accordance with NAVCOMPT Manual, Article 036301-4, Item 22.

01.0I.0310 DOD AND GSA EXCESS PROPERTY

This is property that has been determined to be Department of Defense excess in accordance with the Defense Disposal Manual (DOD 4160.21-M) and made available by the Defense Property Disposal Service (DPDS) (DSA) or by local disposal authorities. There is also DOD and civilian Federal agency excess property which has been made available by the General Services Administration (GSA). Such property is available for issue to the general membership for operational and experimental purposes.

01.0I.0320 NAVY EXCESS PROPERTY

This is property that has been declared excess to the Department of the Navy needs and made available to Chief, MARS for issue to and for use in MARS Stations under Military Auspices and offices of the administrative and operational appointments.

01.0I.0330 ACCOUNTING IDENTIFICATION

For accounting and identification of equipment entering the MARS Equipment Program, the following categories are established and shall be cited on requisition actions:

Category A - For issue to and for use in Military Auspices Stations only.

Category B - For issue to the general membership for operational and experimental purposes.

Category C - Property that is obtained for issue to the offices of various appointments and stations having special functions to assist in administrative or operational functions.

01.0I.0400 POLICY GOVERNING EXCESS PROPERTY FREEZE REQUESTS

01.0I.0410 GENERAL SERVICES ADMINISTRATION (GSA) AND DEFENSE PROPERTY DISPOSAL SERVICE (DPDS) (DSA)

Chief, MARS and Directors are authorized to screen and freeze excess property listed by GSA and DPDS. This authority may not be delegated by the Directors. Directors are authorized to request freeze action only on property located within their areas of responsibility. In extreme cases where excess property is located in an adjacent area and can be effectively utilized immediately within the area concerned, coordination with the applicable adjacent director is necessary.

01.0I.0420 NON-REPORTABLE PROPERTY AT LOCAL MILITARY AND FEDERAL AGENCY DISPOSAL ACTIVITIES

MARS Directors are authorized to screen and freeze non-reportable property located at the local military and Federal Agency activities. Upon recommenddation of the Area Coordinator, the authority to screen may be delegated in writing, using NAVSUP Form 1309 or other appropriate authorization forms, to responsible volunteer civilian and/or military MARS member. This authority may also include receipt of property, however, the release of the property shall be made only if a Delegation Authority, NAVSUP Form 1309 or similar form is on file and upon presentation of a copy of the approved Requisition.

01.0I.0500 POLICY GOVERNING EXCESS PROPERTY ACQUISITION

Chief, MARS and the MARS Directors are the only persons within MARS who possess requisitioning authority for excess property made available to Navy-Marine Corps MARS. The favorable endorsement of the Chief, MARS, Washington, D.C. is required on property requests. Disposal authorities will not recognize MARS property requests received from any source other than via the Chief, MARS.

01.0I.0510 REQUISITIONS

Requests for excess property will be prepared on DD Form 1348 (series) for excess/surplus DOD equipment or DD Form 1149 for excess/surplus GSA equipment. One form must be prepared for each control number. It is imperative that a word description of the property, nomenclature, serial numbers, if available, and the condition code be included. Additionally, each line item shall indicate the unit price, the total cost, and the sheet total in the space provided. The DD Form will be signed by the MARS Director and submitted to the Chief, MARS for review, the necessary approval and forwarding.

01.0I.0520 COMMODITY GROUPS

Normally, equipment from Commodity Groups 58, 59, 61 and 66 and certain items within groups 71 and 75, clearly determined to meet MARS requirements, will be the only property considered for use within MARS. All other equipments and materials will be considered on a case-by-case basis when properly justified.

01.0I.0530 PICKUP OF EQUIPMENT FROM HOLDING ACTIVITY

The pickup by volunteer civilian and military MARS members of excess property made available to MARS is authorized, subject to the following:

The member has been nominated by the Area Coordinator and recommended to the Director for such authority.

The release of the property to the member by the property Disposal Officer is only authorized upon presentation of a copy of the approved Requisition and Invoice/Shipping Document by the member.

The member will acknowledge receipt of the property to the Director immediately. A monthly status report will be provided by the Area Coordinator by forwarding a signed copy of the requisition annotated with date of receipt, nomenclature of the equipment(s), Model and Serial No's. The Area Coordinator will also execute one signed Custody Receipt Form 2070-4, marked "FOR FURTHER ISSUE".

Material will be distributed only as directed by the Director or his authorized representative.

The Area Coordinator will be responsible for properly executing and obtaining the associated custody receipts and forward them to the Director within 60 days from the date of pickup.

The sale, barter or other disposition of the property except as provided herein and as directed the Director or his authorized representative is illegal and will result in either civil or military action.

01.0I.0600 POLICY GOVERNING EQUIPMENT ISSUE

Excess and surplus property of a non-expendable nature issued to MARS individual and club stations is and shall remain the property of the U.S. Government.

Issued property is subject to recall at the direction of Chief, MARS or his authorized representatives.

U.S. Government assumes no liability in connection with the use or transportation of property issued.

The U.S. Government will not assume support or storage costs in any manner

for issued property.

NAVY/MARINE CORPS MARS CUSTODY RECEIPT
NM 2070/4 (REV. 3-80)

FROM: NNNØ MARS _____ CALL _____ AREA _____ NAME

TO: Director, Navy-Marine Corps MARS Region_____

Signature of the above addressor on this form will indicate receipt of the below accountable Government-owned property which is subject to recall by the Chief, Navy-Marine Corps MARS or his authorized representative. The sale, barter or other disposition of this property in any way is illegal and may result in either civil or military action. Issue is governed by policies set forth in Annex (I) to NTP 8 (Series) which the addressor has read and understands.

1 CONTROL NUMBER	3 NOUN NAME	4 NOMENCLATURE/ MODEL NUMBER	5 SERIAL NUMBER	7 CANAUTH YES	7 CANAUTH NO

CANNIBALIZATION, AS INDICATED IN COLUMN 7 ABOVE IS HEREBY AUTHORIZED.

_____
Director

ORIGINAL

Signature of Recipient

Date

Figure I-1

The individual or club station will agree to accept issued property in an "as is" condition.

Packing, handling and/or transportation costs for shipment to an individual or club station will be at the station's expense.

Property may be modified or cannibalized to facilitate installation, operation and experimentation, subject to the advance written approval of the Director.

Except as provided herein, sale, barter, or other disposition of Government owned property issued in accordance with this Annex, is illegal and will result in either civil or military action. The issue of property as prizes or unsolicited gifts is prohibited.

01.0I.0700 EXCESS PROPERTY ISSUE PROCEDURES

01.0I.0710 RECORDS

The Director will keep a file of all Requisitions, in numerical order by requisition serial number appearing in the requisition number, Block 6. The Director will, in addition, keep documents and correspondence associated with requisitions, such as bills of lading, shipping receipts, acknowledgement of receipts from the holding activity by the member, original signed custody receipts, etc., to provide the history of the equipment.

01.0I.0720 EQUIPMENT ISSUE ACKNOWLEDGEMENT

Station under Military Auspices. Issue transactions shall be accomplished using NM-2070-4A Form, station under military auspices acknowledgement receipt/requirements. The acknowledgement receipt will be signed by the station custodian.

Individual and Club Stations. Issue transactions, including the transfer of equipment between members when authorized by the Director, shall be accomplished on NM-2070-4 Form, Custody/Receipt, Figure I-1. This form shall include all necessary information, including the description and serial number of equipment at time of issue. When transactions are conducted between members, the same control number shall be used as that shown on the custody receipt when the equipment was originally issued.

01.0I.0730 CUSTODY RECEIPTS

Upon issue of equipment custody receipts (NM-2070-4) will be executed and distributed as follows:

Signed Original	- Filed in associated requisition file
Copy	- Member station file
Copy	- To the member
Copy	- To the member's Area Coordinator
Copy	- Only required for transfer of issued equipment between members. To the member the equipment was originally issued or in custody.

01.0I.0740 REQUEST NUMBERS

The Request Number to be inserted in the Control Number Block in the left hand column of the NM-2070-4 is derived by the Requisition Document number of the associated requisition (DD-1348 or DD-1149, etc.) and the consecutive number of each unit of a line item. For example, the requisition number consists of the Unit Identification Code (UIC), Julian Date and Requisition Serial Number, all separated by slant signs. (N0574A/7179/0045).) A requisition containing more than one item will be consecutively numbered (e.g., N0574A/7179/0045/01).

From. The name and call sign of the member to whom the equipment is issured will be inserted.

Cannibalization or Modification Authorized. When it is apparent that the equipment must be modified or cannibalized to facilitate installation, operation or

experimentation, the authority for such action may be included and shall be signed by the Director only.

Transfer Custody From. When transactions are conducted between members as authorized by the Director, the name and call sign of the member from which the equipment is being transferred shall be indicated. In this regard, the same control number shall be used as that shown on the custody receipt when the equipment was originally issued.

Signature of Recipient and Date. The written signature of the member to whom the equipment is issued and the date of receipt shall be inserted in the appropriate blocks.

01.0I.0750 EQUIPMENT ISSUE LOG

An Equipment Issue Log, Figure I-2, will be kept on requisition containing non-expendable equipment. This log will be kept in order of the requisition serial numbers. The Request Number is derived as described in paragraph 01.0I.0740 and is assigned to the unit and will be cited in all transactions until the disposition of the equipment. All materials, except consumable items are accountable and the Director must have a signed custody receipt associated with each unit issued.

NAVY–MARINE CORPS MARS EQUIPMENT ISSUE LOG

DD 1149 REQUISITION SERIAL NO. ____________

REQUEST NUMBER	FSN/DESCRIPTION/SERIAL	RECIPIENT	COND.	REMARKS

NM2070–5

Figure I-2

ANNEX J

ABBREVIATED TEXTS

01.0J.0100 GENERAL

Abbreviated texts are established to enhance the transmission of messages of a standard text. When using an abbreviated text, members are cautioned to ensure correct transposition. Abbreviated texts shall be transposed to the proper meaning prior to delivery to addressees. The messages shall never be presented to addressees in abbreviated form.

01.0J.0200 NAVY-MARINE CORPS MARS ABBREVIATED TEXTS (NMAT)

Navy-Marine Corps MARS Abbreviated Texts (NMAT) have been established as listed below. The NMAT shall not be filed into the Army and Air Force MARS or Amateur radio networks since the abbreviated text meanings are not widely disseminated. Request for the establishment of an NMAT shall be submitted to Chief, MARS with sufficient justification.

NMAT ONE:	- ARRIVED SAFELY MARINE CORPS RECRUIT DEPOT, SAN DIEGO, CA.
NMAT TWO:	- ARRIVED SAFELY NAVAL TRAINING CENTER, GREAT LAKES, IL.
NMAT THREE:	- ARRIVED SAFELY MARINE CORPS RECRUIT DEPOT, PARRIS ISLAND, SC.
NMAT FOUR:	- ARRIVED SAFELY AT NAVAL RECRUIT TRAINING COMMAND, WOMEN, ORLANDO, FL.
NMAT FIVE:	- ARRIVED SAFELY AT NAVAL RECRUIT TRAINING COMMAND, SAN DIEGO, CA.
NMAT SIX:	- ARRIVED SAFELY AT MARINE CORPS AIR STATION, EL TORO, CA.
NMAT SEVEN:	- ARRIVED SAFELY AT MARINE CORPS BASE TWENTY-NINE PALMS, CA.
NMAT EIGHT:	- ARRIVED SAFELY OKINAWA.
NMAT NINE:	- ARRIVED SAFELY NAVAL AIR STATION MOFFETT FIELD, CA.
NMAT TEN:	- ARRIVED SAFELY SERVICE SCHOOL COMMAND, NAVAL TRAINING CENTER, SAN DIEGO, CA.

01.0J.0300 ARRL NUMBERED RADIOGRAMS

The ARRL numbered radiograms can be used in MARS messages and such use is encouraged. The numbers shall always be spelled. Refer to current American Radio Relay League publications for numbered radiogram definitions.

EXAMPLE - ARL SIXTY FOUR NAS CECIL FIELD FL

ARL FIFTY SEVEN

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