Marion County ARES®
Emergency Operations Plan

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1. **Background**

The Amateur Radio Service is authorized under Part 97 of the Federal Communications Commission's rules as a "voluntary non-commercial communication service, particularly with respect to providing emergency communications." The American Radio Relay League (ARRL) facilitates emergency communications through it's Field Organization in general and the Amateur Radio Emergency Service (ARES) in particular.

ARES is the emergency branch of the ARRL Field Organization. It operates under the direction of the Section Emergency Coordinator (SEC) , an appointed position by the Section Manager, who is an elected position within the Field Organization. Subordinate to the SEC are the District Emergency Coordinators (DEC), who are responsible for all of the ARES activities in their districts. There are 9 DEC's in the Missouri Section, with each section corresponding to the Highway Patrol Troop divisions. Below the district level, there are 114 local jurisdictions and the City of St.Louis, each of these having their own Emergency Coordinator (EC). So there is a definite chain of command starting from the local ARES member, through their Emergency Coordinator to the District Emergency Coordinator and up to the SEC. For anything beyond needs of the SEC, this would go through the Section Manager and onto ARRL Headquarters.

ARES operates to serve both governmental and non-governmental agencies through "Memoranda of Understanding" (MOU's). These MOU's are non-binding letters explaining the participating parties' roles and responsibilities and are initiated at both the national and section levels. Written MOU's may be done at the local level with agencies that may not be covered by the national and sectional levels, however they must be approved by the DEC and SEC prior to their execution. MOU's transfer in kind as new SEC's, DEC's and EC's are appointed unless specifically cancelled by the incoming appointee. Agencies signatory to MOU's are referred to as "Served Agencies".

It is the intention of this plan to provide guidelines for the training and usage of Amateur Radio volunteer communicators. We also recognize the role of the Radio Amateur Civil Emergency Service (RACES) to governmental agencies as auxiliary communications links during times of emergency. It is also the intention of this plan to provide for adequate training and preparation of the ARES operators to assist with the needs of the state and local government communications as required. It is the recommendation that all ARES operators register with their local civil defense agencies. This fulfills the mandatory registration requirements of Part 97 for RACES operators.

2. Purpose:

The purpose of this plan is to outline the ARES organization n Marion County and up through District B to the section level. It is also to present the basic information required for effective operation during an emergency. This plan is not intended to be the "last word" in emergency operations but a resource in planning and operations. Recommendations for training are presented as a guideline to establish minimum standards for qualifying Amateur operators as ARES operators. ARES operator training will include items established by the Missouri State Emergency Management Agency for RACES operators. All training should be tailored to meet the needs of the agencies and the communities served.

3. Organization:

The Field Services leadership for Marion County ARES is outlined as follows:

Marion County Emergency Coordinator: Donald Vary KDØHHN kd0hhn@hotmail.com

Assistant Emergency Coordinator: TBD

Public Information Officer: TBD

District B Emergency Coordinator: Dale Bagley KØKY, dbagley@cvalley.net

Missouri Section Emergency Coordinator: Jeff Young KB3HF, kb3hf@arrl.org

4. Plan Activation:

If an ARES member determines that a true emergency situation exists, every effort should be made to notify the EC so that information concerning an incident may be relayed through the ARES structure and formal net operations established. If the EC is unavailable, the chain of command should be followed. This does not preclude operators from contacting an emergency dispatch center or requesting assistance for smaller incidents, such as initial fire, medical or accident calls. Then monitor the assigned Amateur Radio frequencies utilized in the affected area. This would include appropriate repeater output frequencies and predetermined high frequency net frequencies. If electrical service to repeaters is interrupted, monitor the repeater output or other simplex frequencies as directed by the local leadership.

It is important that operators not interrupt existing emergency communications, but instead listen and only transmit if specific assistance is requested from that station or if a clear relay can be given in times of difficult copy. Operators should conform to established net protocols at all times. Deviating from established net procedures slows and confuses operations.

Calls for assistance from Served Agencies should be routed to the appropriate EC. This will result in the most efficient and appropriate response. Only under prior arrangements should individual ARES members "self dispatch" on their own. All ARES members shall have contact information for their leadership.

Alerting:

When an emergency arises the first knowledge of it is usually at the county level. The immediate response to an emergency is to call up local ARES members and begin establishing communications. If they have not been compromised, initial notification shall be done by telephone, with the calls and initial assignments being made by the EC. If phone systems are out of order, then notification will be done through the Hannibal repeater of 146.625, tone of 103.5. This frequency shall also be used as a simplex frequency in the event that the repeater has lost power. As a secondary frequency, 146.550, the Missouri state-wide VHF call frequency shall be used for activation. As soon as this is completed, the EC shall inform his/her DEC and/or the SEC of the situation. In the event of any widespread communication emergency, the EC will have an HF station monitoring 3.963 MHz or 7.263 MHz to determine if the Missouri Emergency Services Net has been activated and is needed.

Specific Alerting Procedures:

The following procedures shall be set in place for alerting and activation of this plan. In the event of severe weather (tornado or other severe storms) Emergency Management shall request that the EC be notified and activate the ARES group for storm spotter duties. The second event shall be an earthquake or other severe natural disaster. The City of Hannibal/Marion County EOC shall be automatically activated when a 5.5 or greater earthquake strikes the area. when this happens, the EC shall automatically activate the team. Both activations shall first be attempted by phone, if phone is out then by 2 meter VHF.

Wide Area Nets:

Operations have proven the need for wide-area administrative nets. Once emergency operations have begun and it is apparent that the State

Emergency Operations Center (EOC) will be involved, or that there will be more than one county involved, an HF station should be included in the operation of the County EOC. The county EOC can provide a link to the State EOC and allow inter-county communications and the coordination of manpower and assistance from other areas. This also allows the DEC and SEC to communicate directly with the area(s) involved. It should also be noted that the Missouri Emergency Packet Network (MEPN) packet network is available to provide a digital link to State Emergency Management in Jefferson City.

Personnel Notification:

The following criteria should be observed for all call-ups of ARES personnel. Please be sure to notify ALL of the proper people immediately. In the event that a person is not available, notify either the alternate or the immediate superior of that person. This is vital to insure the proper operation of Amateur Radio during an emergency.

Occurrence:	Notify:
Public Service Events & Local Drills	Local ARES personnel
Emergency in your County	Notify Local ARES personnel DEC/ADEC
Emergency spreading to adjacent	Notify your DEC or ADEC adjacent County EC
When you need assistance	Notify your DEC and/or ADEC

When requesting assistance, you will need to know the following information:

1. Number of Amateur operators required:
2. How long will assistance be needed (you can estimate this)
3. What kind of equipment will be needed
4. What kind of physical and weather conditions in which they will be operating.

Logging:

ALL STATIONS WILL MAINTAIN COMPLETE LOGS.

All fixed stations operating during an emergency must maintain a complete log of their operations. This log will contain the TIME (local) of each message, the CALLSIGN of the contacted station and MESSAGE CONTENT of the message.

A copy of all FORMAL TRAFFIC will be kept and become part of the log.

Each log sheet will contain the OPERATING CALLSIGN, the location of the station, the call of the operator and be signed by the control operator.

Mobiles should log the STATION CALLED, TIME, and brief CONTENT of each message. Each log should contain the operator's call sign and date and operators signature.

ALL LOGS will be kept as part of the ARES records. If an operator requires copies for his/her own log, copies should be made and the originals remain with the ARES EC.

5. Training and Procedures:

Training for all ARES members shall not be limited to just one source. Our roles and responsibilities are as varied as our training. The ARRL has provided courses for Emergency Communications training and certification. These courses are presented in three levels. The Level-1/Basic course is strongly recommended as the basic training standard for new ARES members, with the members preferably completing this course within their first year. Information on the Level-1/Basic course and certification can be found at http://www.arrl.org/cce/. The official course listing is Basic Emergency Communications. In addition, the following courses are required for Marion County ARES members:

FEMA Course #	Description
IS-100	Introduction to Incident Command System
IS-200a	ICS for Single Resources and Initial Action Incidents
IS-700	National Incident Management System-An Introduction
IS-800b	National Response Framework – An Introduction
IS-802	Emergency Support Functions (ESF) #2 Communications

These courses may be found at FEMA's Emergency Management Institute at www.fema.gov. In addition CERT training, and either American Red Cross or American Heart Association CPR and First Aid are suggested. Also there will be various forms of traffic handling classes, along with drills, and other training as directed by the EC, to include the National Simulated Emergency Test (SET) which will be done in the fall of each year.

6. Directed Net Operations:

Directed nets are the backbone of the ARES traffic handling operation. Directed nets operate with a Net Control Station (NCS) which maintains order on the net. Stations not directly involved with the operation of a directed net should standby until the net is clear. At no time will a station transmit on a directed net except when called upon by the NCS, when checking in during a non-roll call period or when a station has bona fide emergency or priority traffic.

Most net operations relating to emergencies are "tactical" in nature. They are generally directed nets and messages sent can be qualified as any exchange that does not utilize an established message format or form. The National Traffic System (NTS) message format should be used whenever practical. Its use has a long history of reliable and accurate message exchange. ARES members should become proficient in the ARRL NTS message format and its usage. Also good operating technique and keeping a log of your operation is of primary importance. Remember, it is the Served Agency's needs that will determine what will be used in any given situation.

7. Emergency Nets and Frequency Usage:

The following frequencies are utilized by Marion County ARES for organized emergency nets. Contact may be attempted on these frequencies in the event that you are cut off from commercial telecommunications. Listen before transmitting! If an emergency net is in progress, do not interrupt! Monitor the frequency and follow the directions of the net control station.

HF

The Missouri Emergency Services Net (MESN) meets weekly on Sunday afternoons at 2:00 P.M. on 7263 kHz

Frequency Net Name
3963.0 kHz MTN & MESN
7263.0 kHz MTN & MESN (daytime alternate)

VHF / UHF Repeater Systems

VHF or UHF repeaters serve most communities with in the area. This may be a viable means of contacting a desired person or someone who can in turn contact that person for you. ARES members are strongly encouraged to obtain a listing of the available repeaters in their area BEFORE an emergency occurs. An up to date list of coordinated repeaters in the State of Missouri is

available on a website maintained by the Missouri Repeater Council. www.missourirepeater.org.
The following are the commonly used repeaters in the Marion County Area used by Marion County ARES

Frequency (MHz)/ offset	**CTCSS**	**Description**
146.625 (-)	103.5	Hannibal ARC
146.880 (-)	103.5	Hannibal ARC
145.190 (-)		KAØEJQ/ NØSYL NWS St.Louis
146.835 (-)		NØSYL NWS St.Louis
146.700 (-)		KAØEJQ NWS St.Louis
146.940 (-)	103.5	WIARC Quincy, IL
147.030 (+)	103.5	WIARC Quincy IL
147.135 (+)	103.5	WB9TOW ? D-STAR
147.195 (+)	103.5	WIARC Quincy IL

VHF / UHF Simplex Frequencies:

The Missouri Section utilizes a set of predetermined simplex frequencies for "event or scene of action" operations. Use of simplex mode minimizes exposure to power interruption, but also may shorten effective communications range in most cases. A complete list of frequencies and procedures for utilization can be found in the Missouri ARES Interoperability Document contained in Addendum 1. Some of the most commonly used frequencies are listed as follows:

Mnemonic	Frequency	TX CTCSS	Primary area of usage
HV Call	146.550	CSQ	Statewide – PRIMARY CALLS
HU Call	446.000	CSQ	Statewide – UHF CALLS
HV Call	146.550	CSQ	Statewide – VHF CALLS
HM Call	52.550	CSQ	Statewide – 6 M CALL

It is commonly known that ARES serves many agencies. These allocations minimize interference across jurisdictional boundaries in the event that an emergency may exist close to or across jurisdictions.

The following table lists the Marion County ARES planned use of the MOARES Interoperability channel assignments. The VHF table is designed to use simplex frequencies developed in the Statewide Interoperability Plan so the EC has two VHF simplex frequencies available to use without causing interference with adjacent District B jurisdictions or Districts C, F, A, and H.

County	Primary Frequency	CTCSS Rx/TX	Mnemonic	Secondary Frequency	CTCSS Rx/TX	Mnemonic
Marion	145.650	CSQ/100.0	HV Tac 2	146.595	CSQ/100.00	HV Tac 6
Marion	146.550	CSQ	Statewide call			
Marion	147.555	100.0	Staging			
Marion	144.990	CSQ	HVAPRS			
Marion	144.910	CSQ	HVDATA			
Marion	144.950	CSQ	HVPACKET			