

Missouri Section ARES®

Emergency Operations Plan

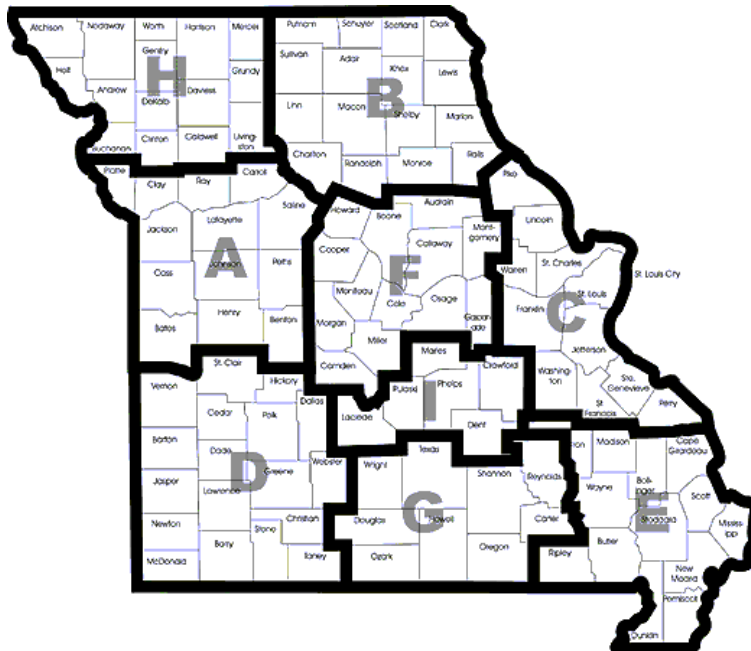


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1. Background

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 its Field Organization in general and the Amateur Radio Emergency Service® (ARES) in particular.

The ARES is the emergency communications branch of the ARRL Field Organization. It operates under the direction of the Section Manager, an elected position within the Field Organization. There are 71 sections in the United States and its possessions. The State of Missouri is comprised of one section. Within the Missouri Section, there are 9 districts and 115 local jurisdictions including all 114 Missouri counties and the City of St. Louis. Each of the local jurisdictions should have an Emergency Coordinator (EC) assigned. These designated ECs report to their respective District Emergency Coordinator (DEC) in each of the 9 districts who in turn report to the Section Emergency Coordinator (SEC). An updated listing of Missouri Section ARES leadership is kept at <http://ares-mo.org/district-info/> and all members are encouraged to keep contact information for their respective areas on hand.



The ARES operates to serve both governmental and non-governmental agencies through "Memoranda of Understanding" (MOUs). These MOUs are non-binding letters explaining the participating parties' roles and responsibilities, and are initiated at both the national and section levels. Written MOUs need not be in place on a section or local level if they exist on a national level. District and local level MOUs must originate with the appropriate EC or DEC and must be approved and signed by the DEC, SEC and Section Manager prior to their execution. MOUs transfer in-kind as new ECs and DEC are appointed unless specifically cancelled by the incoming EC or DEC. Agencies signatory to MOUs are referred to as "Served Agencies."

It is the intention of this plan to provide guidelines for training and usage of Amateur Radio volunteer communicators. The Missouri Section ARES organizations recognize the role of the Radio Amateur Civil Emergency Service (RACES) to government 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 ARES operators to assist with the needs of the state and local government communications as required. It is the recommendation of this plan that all ARES operators register with their local civil defense agencies. This fulfills the mandatory registration requirements of Part 97 for RACES operators. It will also provide a larger contingent of qualified operators that may be utilized during emergencies regardless of affiliation with ARES or RACES. ARES operators should be prepared to assist any agency whether government or private sector as dictated by the needs of any given situation.

The ARRL has established a new Strategic Plan for standardizing ARES training nationwide that will bring ARES into more compliance with National Incident Management System (NIMS). This plan provides guidance for uniform training of ARES volunteers. It is recommended that DEC's follow this guidance to assure that all new ARES operators complete a basic curriculum for emergency communications training. This is a minimum requirement for training and served agencies may require additional training for supporting their operations. The DEC shall ensure that all jurisdictions within the district have adequate training available and regular exercises so that the district as a whole maintains a high degree of readiness.

2. Purpose

The purpose of this plan is to outline the ARES organization in the Missouri Section and present the basic information required for effective operation during an emergency. It will also contain addendums, which constitute the bulk of the "living document," as submitted by the various personnel. This plan is intended to be updated periodically, on an as-needed basis.

This plan is not intended to be the "last word" in emergency operations, but to be 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 communities served. Any additions, deletions or corrections affecting the section level should be brought to the attention of the DEC and District Training Coordinator. All submissions will be given due consideration for inclusion in updates as they are released.

3. Organization

The field services leadership of the Missouri Section is outlined as follows:

Section Emergency Coordinator: Jeff Young, KB3HF

Assistant Section Emergency Coordinator: Cecil Higgins, AC0HA

See complete Section Organization and Contacts at <http://ares-mo.org/district-info/>

4. Plan Activation

If an ARES member determines that a true emergency situation exists, every effort should be made to notify the appropriate county EC so that information concerning an incident may be relayed through the ARES structure and formal net operations established. If the appropriate county 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 traffic 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 a repeater is interrupted, stations should monitor the repeater output frequency or other predetermined simplex frequency, as directed by the local leadership. All appointed Official Emergency Station (OES) operators shall monitor HF and VHF net frequencies if a declaration of emergency is imminent.

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. This may be accomplished by whatever system each EC has in place in their county. As soon as this is accomplished, the EC should inform his/her DEC and/or the SEC of the situation.

The DEC and the SEC should be contacted by phone, if possible. In the event of any major disaster, all counties, DECs, and the SEC should monitor 3.963 or 7.263 MHz for updates and information if the local communications are inoperable. For everyone's assistance, the Section ARES roster (issued separately by the SEC) contains phone numbers, pagers, and E-mail addresses to facilitate communicating with them when the need arises. These additions are intended to enhance the ability of the ARES to provide communications assistance.

In the event of any widespread communications emergency, every EC, DEC and the SEC should have an HF station monitoring 3.963 MHz or 7.263 MHz (If the EC or DEC or SEC does not have the capability to operate on these HF frequencies, they should make arrangements to appoint an OES, which has this capability within their county/district/section.)

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 (1) county involved, an HF station should be included in the operation of the County Control Station (CCS). The CCS 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.

EC Guidelines:

When an emergency exists within a District, or when the DEC or Assistant District Emergency Coordinator (ADEC) begins wide area operations, the following operations guide will be followed by all ECs:

1. Each EC will stay in their county and be ready and available to provide assistance, as requested, by the DEC or ADEC, if the DEC is not available
2. NO EC will leave their county without the express consent of their DEC or the ADEC
3. ECs will be responsible for the following:
 - a. When there is an emergency in their county each EC is responsible for:
 - i. Determining the extent of the problem and evaluating their manpower needs
 - ii. Establish operations based on the guidelines in the District Operating System
 - iii. Notify your DEC and/or ADEC of the emergency
 - iv. Establish operating schedules and request assistance from your DEC if required
 - v. Keep your DEC and the ADEC up to date on the situation in your county
 - vi. Keep logs and lists of involved Amateur operators
 - vii. When operations are over, be sure all Amateur operators are notified and return home
 - b. When notified of an emergency in another county or ARES District:
 - i. Be ready to assemble assistance from your county, if requested
 - ii. Notify your AECs of the possible need to provide assistance to another area
 - iii. Maintain communications with your DEC and/or ADEC
 - iv. Notify your DEC and/or the ADEC of any changes in your location or any additional means of communicating with you
 - v. Notify the DEC and/or the ADEC of any changes that would affect contacting you including:
 - 1) Additional or different pager numbers
 - 2) Cell phone numbers
 - 3) Fax numbers
 - 4) Frequencies being used in your county.
 - c. When operations in your area are concluded be sure the following are accomplished prior to securing:
 - i. Make sure all ARES personnel are accounted for
 - ii. Pass along our appreciation to all participants
 - iii. Be sure all Amateur operators are notified that operations have concluded
 - iv. Collect reports and logs from your AECs and control stations
 - v. Make recommendations for certificates
 - vi. File a report with your DEC and the ADEC

Personnel Notification:

The following criteria should be observed for all call-ups of ARES Personnel. Please be sure to notify ALL 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:

Public Service Events & Local Drills

Emergency in your County

DEC/ADEC Emergency Spreading to Adjacent County

When you need assistance

Notify:

Notify local ARES personnel

Notify local ARES Personnel,

Notify your DEC or ADEC adjacent County EC

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 a 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

An annual test of the District/County ARES should be conducted in conjunction with the National Simulated Emergency Test (SET). This test can be conducted at various levels throughout the section. It is also recommended that local exercises be held as determined to be appropriate and coordinated with district or local agency participation whenever possible. It is recommended that one exercise annually in addition to SET be held to exercise interoperability and cross-jurisdictional response protocols.

As part of the Strategic Plan requirements, the ARRL provides courses for Emergency Communications training and certification. The courses are presented in two levels. The Introduction to Emergency Communication (EC-001) course is highly recommended as the basic training standard for new ARES members in Missouri. New ARES members should complete the EC-001 training within one year of registration with their local ARES group. Information on EC-001 certification can be found at <http://www.arrl.org/emergency-communications-training>

Missouri Section leadership officials should complete Public Service and Emergency Communications Management for Radio Amateurs (EC-016). Information on EC-016 can be found at the above link.

In addition, the following courses are part of the Strategic Plan requirements for all ARES members:

FEMA Course #	Description
IS-100c	Introduction to Incident Command System
IS-200c	ICS for Single Resources and Initial Action Incidents
IS-700b	National Incident Management System – An Introduction
IS-800c	National Response Framework, An Introduction

These courses can be found at FEMA Independent Study Program (ISP). They courses are self study online and free of charge. See <http://training.fema.gov/IS/crslist.aspx?all=true> for more information,

Additional tests, drills, nets, and training will be carried out as directed by the individual ECs. These sessions allow tailoring of training requirements to the specific needs of the areas and Served Agencies. Consideration should be given to the needs of adjacent areas for maintaining a high state of readiness for mutual aid support. It is recommended that neighboring districts be invited to participate in any exercises held on a district basis.

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 stand by 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 utilized 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 within the Section 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) stands up when required for HF Statewide communications when there is an declared emergency or disaster. Monitor the MESN frequencies and check in to help pass traffic around the state.

Frequency	Net Name
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3963.0 kHz.	MESN
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7263.0 kHz.	MESN (daytime alternate)
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Digital Voice Communications

As of this writing, there are numerous digital voice modes. For this reason, analog FM voice is the main method for communicating in an emergency. If a local jurisdiction decides to use digital voice communications, one operating station should still monitor FM voice on the appropriate frequencies described elsewhere in this plan.

The most popular mode is likely DMR. This mode can provide statewide voice communications via repeaters and hotspots that connect to the internet, if available. The statewide ARES talk group on Brandmeister is 31290. Statewide communications should be on this DMR talk group.

Uses for Mo-ARES talk group are:

1. Coordination of ARES response at EC, DEC and SEC levels.
2. Command and control of ARES resources such as personnel and equipment.
3. Liaison communications with other related nets.
4. Coordination during training and drill exercises.
5. Emergency means of overcoming deteriorated band conditions.

Digital Data Communications

Digital data communications is a technique for passing traffic with detailed lists that would be more time consuming and error prone by voice. Digital data is used by local choice and there are recommendations for using digital data for both local, district and statewide communications in the Missouri Section ARES Digital Data Communications Resource Guide and an operational procedure in the Missouri Section ARES Digital Data Net. Please refer to this documents for detailed information.

VHF / UHF Repeater Systems

VHF or UHF repeaters serve most communities within the section. 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 Section is available on a website maintained by the Missouri Repeater Council (www.missourirepeater.org).

Some portions of the section are served by linked systems, which allow more widespread coverage. This may allow getting into or out of a metropolitan area to rural communities. Some systems may be susceptible to commercial power interruption and may not function during times of widespread or localized power outage. When power outages occur and repeaters being utilized for emergency communications stop working, it is recommended that the output frequency of the repeater be use in 'simplex' mode along with relay stations to handle all traffic. Once the repeater system is on the air again, the transition back to repeater operation is simple. This method should be practiced whenever possible in order to understand the geographical challenges presented and for training operators in relay operations. It is highly recommended that all repeaters used for ARES operation should be equipped with emergency backup power systems.

VHF / UHF Simplex Frequencies

The Missouri section utilizes a set of predetermined simplex frequencies for "event or scene of action" operations. Use of the simplex mode minimizes exposure to power interruption, but also shortens effective communications range in most cases. A complete listing of frequencies and procedures for utilization can be found in the Missouri ARES Interoperability Document.

Some of the most commonly utilized frequencies section- wide are listed as follows:

Mnemonic	Frequency	TX CTCSS	Primary area of usage
HVCall	146.550	CSQ	Statewide - PRIMARY CALLS
HUCall	446.000	CSQ	Statewide – UHF CALL
HVCall	146.550	CSQ	Statewide – VHF CALL
HMCall	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.