Michigan Section ARRL

Amateur Radio Public Service Corps

Guidelines

Version 1.0 September 2007

Mission Statement

"Develop the Michigan Amateur Radio Public Service Corp (ARPSC) program into a fully integrated communications team, ready, willing and able to provide radio communications support to Public Service Agencies and the citizens of Michigan."

Introduction

This is a "Dynamic System" which will continue to evolve as our mitigation, preparedness, response, and recovery capabilities improve.

This document sets forth the minimum standards for all amateur radio operators who desire to serve in the ARPSC. They are intended to ensure that a Standard Baseline of Communications Capabilities is present within all Michigan ARPSC Organizations so that interoperability and mutual aid may be provided when needed. The development of additional communications capabilities (i.e. Digital, Satellite) is encouraged, provided it is not at the expense of the minimum requirements.

One of the basic purposes of amateur radio is public service especially during an emergency. The following is from taken from the FCC Rules Part 97:

"Part 97.1 Basis and Purpose

The rules and regulations in this Part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

(a) Recognition and enhancement of the value of the amateur radio service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications."

Objectives

- Develop a volunteer organization by unifying the Amateur Radio Emergency Service (ARES)©, the Radio Amateur Civil Emergency Service (RACES), the National Traffic System (NTS) and SKYWARN into one continuous and seamless organization called the Michigan Section ARPSC.

- The guidelines in this document will outline the standards of preparedness for ARPSC programs within the Michigan Section ARPSC and outline Concept of Operations, Tasks, Execution, Ideas and Definitions of ARPSC.

- To provide for the establishment and coordination of amateur radio communications through out the Michigan Section and from the Emergency Communications Center (ECC) of the State Emergency Operations Center (SEOC) and also provide back-up capabilities for existing communications systems.

- Develop an organizational structure that clearly defines and provides leadership through the Michigan State Police, Emergency Management and Homeland Security Division (MSP EMHSD), the Federal Emergency Management Agency (FEMA), Municipal and County Governments and the ARRL.

- This organizational structure includes SKYWARN an organization of The National Oceanic & Atmospheric Administration (NOAA). This organization will be called ***The Michigan Section ARPSC.***

- This document will provide and be the standard for all volunteers within the Michigan Section ARPSC membership. The standard will include guidelines and support documents as well training requirements for ARPSC leaders and members.

The ultimate goal of the Michigan Section ARPSC is to have a strong leadership and common training. This goal can achieved through reaching the above objectives. This will insure that the needed communications resources exist to bolster and help any operation where a request from a governmental source has been received.

Michigan Section ARPSC Intendment

ARPSC, as supported by the ARRL/MSP EMHSD, is an established volunteer amateur radio operator organization committed to providing supplemental and/or back-up emergency communications when requested by a Governmental Emergency Management Organization (GEMO) at the municipal, county, or state level or when requested by the Section Emergency Coordinator/State Radio Officer (SEC/SRO). In addition this service may be requested across municipal, county, state and international jurisdictional boundaries. ARPSC members who provide this service will have uniform training and screening to insure that they will conduct themselves properly on nets and in the field. The minimum training is outlined in **Annex A-1**.

The Intendment includes:

- Develop a system/plan for callout of operators for an efficient response to an emergency.

- Support NTS, the ARRL sponsored message handling network, by its incorporation within ARPSC and by training which should include sending and receiving messages as part of weekly communications and training nets.

- Provide ARPSC amateur radio operators, upon request, to operate health & welfare nets for any event where a communications need of a non-commercial nature exists or where all other means of communications have been exhausted. Annually amateur operator groups assist organizations around the state in events such as walkathons, bicycle events, parades, and other non-profit organization events and local government functions/exercises. These functions also provide an arena for training amateur radio operators for participation in nets.

- Develop and annually review detailed local emergency/operational plans with "served" agency officials that set forth precisely what the expectations are during a disaster. These plans and reviews are required to provide team building which will provide trust and confidence as well as to insure the safety, heath and welfare for everyone involved.

- The most important intendment for ARPSC unit is to be active, visible, organized and professional, thus improving the image of amateur radio operators within local municipalities, counties and across the state. The key leadership position that provides these intendments is the local Emergency Coordinator/Radio Officer (EC/RO).

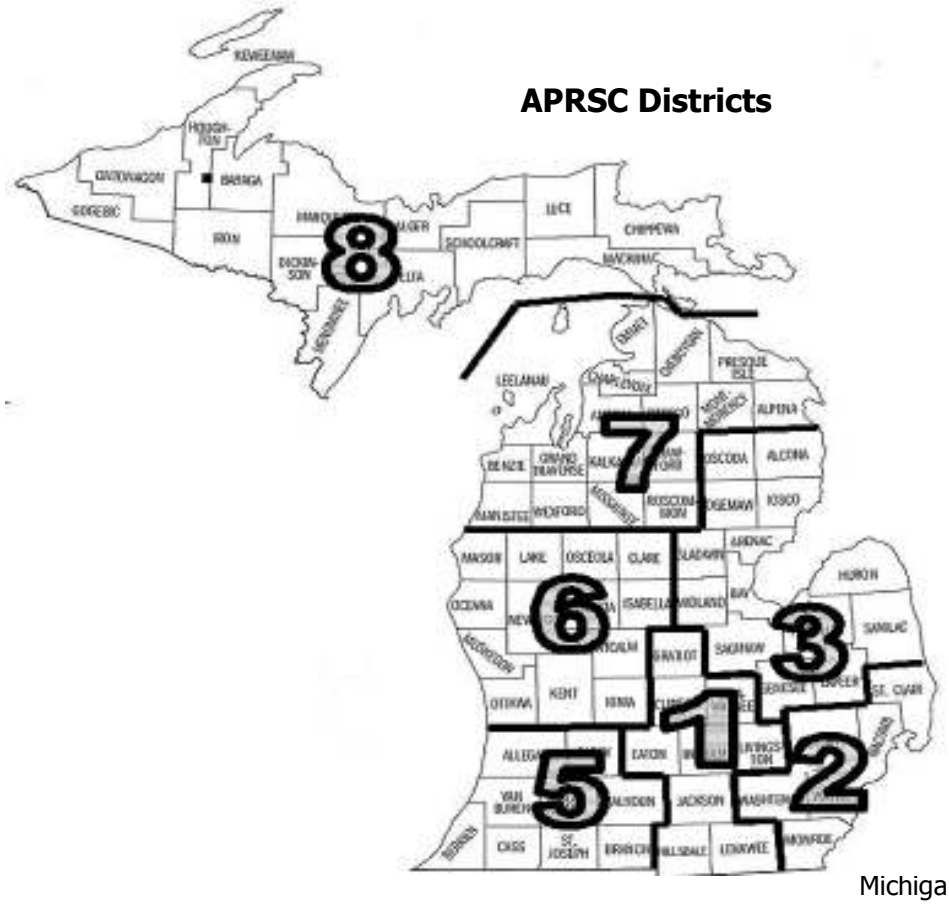
The Michigan Section ARPSC Structure

On the pages that follow, we will outline the ARPSC structure within the Michigan Section. ARPSC organizations may be established at the municipal, county and state level.

ARPSC encompasses ARES and the National Traffic System (NTS), facilitated by the ARRL, RACES facilitated by both FCC and the MSP EMHSD and SKYWARN facilitated by the National Weather Service (NWS) a branch of the National Oceanic and Atmospheric Administration (NOAA).

See **Annex A-2** for detailed explanation of ARES, RACES, NTS and SKYWARN.

The Michigan Section ARPSC is organized into districts that correspond closely with the Michigan State Police Districts. There are seven districts within the Michigan Section. These districts were formed along county lines with the design to achieve communications in some of the more remote areas of the state. Numbers are used to identify the districts, 1 through 8 (there is no District 4).



The Michigan Section ARPSC Administrative Staff

The Michigan Section ARPSC Administrative Staff is lead by the Section Manager (SM). His/her leadership team consists of the SEC/SRO, 7 District Emergency Coordinator/District Radio Officers (DEC/DROs) assigned to each of the 7 Districts shown above, 4 DECs representing the National Weather Service and local EC/ROs. The NWS DECs are located at NWS-Detroit/White Lake, NWS-Grand Rapids, NWS-Gaylord and NWS-Marquette, (in addition the NWS in South Bend, Indiana provides information to south west Michigan Counties.)

Refer to **ANNEX A-3** for more on the Chain of Command and appointments. Review **ANNEX A-4** for ARRL leadership roles and responsibility. The duties of an ARPSC leader require the use of forms and reports. See **Annex A-5**.

Joining ARPSC

ARPSC is an organization of volunteer amateur radio operators. Membership is open to all amateur radio operators. No membership fees are required. All that is required is a desire to serve and assist.

Applicants must complete a form listing their qualifications and registering their station capabilities. All licensed amateurs, regardless of membership in the ARRL, are eligible.

An applicant should be provided with a Photo ID card by the sponsoring emergency management organization after completing any additional requirements or guidelines. This Photo ID card will serve to assure other organizations that the said Michigan ARPSC member has fulfilled the registration process and any required training.

ARPSC Membership Training

Michigan Section ARPSC members will be required to have a minimum amount of training in order to insure that they can conduct themselves properly on radio networks and in the field. Training requirements and specific guidelines are located in the **Annex A-1.**

State of Michigan Emergency Operation Center / ARPSC

The State Emergency Operation Center is located in District #1 near Lansing and an alternate SEOC is located in District #2. These facilities are operated by MSP EMHSD.

The SEC/SRO coordinates with the MSP EMHSD management and ARPSC through their staff of volunteers and leaders starting at the above described District Levels.

EOC Communications Capabilities

All EOCs from the state through municipal level will be required to meet the needs of providing both local tactical and written message traffic communications. Additional capabilities should include a method for medium and long distance communications. The EOC should also have trained personnel capable of utilizing all of the available equipment in line with their license class. **See Annex A-6.**

Concept of Operations

ARPSC personnel and networks will be activated by SEC/SRO to provide supplemental or back-up communications when needed at the SEOC. ARPSC provides this service from the Emergency Communications Center located within the SEOC Facility. Information can be transmitted by voice, radio-teletype, television, computer (digital mode), CW (Morse code) and facsimile.

The SEC/SRO coordinates all supplemental back-up communications and operations from the ECC including the establishment and maintenance of communications links designated by the Operations Group Chief. Designated frequencies will be used when possible and applicable. The SEC/SRO will assign trained personnel, as required, to provide 24-hour coverage in the SEOC/ECC.

Additional equipment or support as identified by the MSP EMHSD will be provided, installed and maintained by State Radio Technicians.

Alternate leadership for SEC/SRO position is as follows. When the SEC/SRO is not available a DEC and/or ADEC will act as alternate SEC/SRO on a rotating assignment with the other DECs. Consideration should be given to DEC(s) whose District is not affected by the event in order to not overload said DEC in his/her functions.

In the event that none of these individuals can man this position, the Section Manager will assume the position or can fill the position at his/her discretion.

Gateway Stations

Each year the Michigan Section Staff and SEC/SRO shall designate a Gateway Station whose responsibility shall be to establish communications outside the state wherever the need may occur. **See Annex A-7**.

Drills and Exercises

All ARPSC personnel are directed to participate in drills and exercises as described in **Annex A-8**

District Emergency Response Team

When possible and appropriate, each DEC/DRO shall maintain a District Emergency Response Team (DERT). **See Annex A-9.**

Identifications and Security

To serve effectively as a volunteer, access to otherwise restricted areas may be associated with performing the necessary jobs required by ARPSC Staff.

To that end all applicable restrictions that are in place for regular staff and personnel of these areas shall also apply to all ARPSC members. This in general means that ARPSC members may go through initial and subsequent background checks as the local EM sees fit just as regular personnel of these organizations. No one from the ARPSC shall be responsible for doing these background checks.

These background checks shall be the responsibility of the EM or his/her duly appointed representative to perform in accordance with regulations and procedures already in place for the their organizations. This is to assure that security issues of the individual organization and the State are maintained.

The exact guidelines for what shall disqualify a person are not a function of the ARPSC. The background check guidelines are the responsibility of the served agency. The served agency shall also ultimately determine if these background checks are in fact necessary. The ARPSC Staff highly recommends that all local governmental organizations require background checks to ensure integrity of the organization's membership and its security.

In the event that an applicant fails the background check a written request for a hearing can be made and a copy sent to SEC/SRO and the DEC/DRO of that jurisdiction for review.

After an applicant joins a local ARPSC program and the applicant passes any required minimum background check and shows proof of having completed any other minimum requirements that the local EM may impose, the EC/RO shall issue the applicant an ID card if the local group has one. This shall facilitate a standard of assurance to other jurisdictions that the said Michigan ARPSC member has had the minimum background check and training.

Upon completion of the minimum required RACES operator training, the EC/RO shall submit a recommendation, in writing, to the EM that said member be issued a RACES ID card.

All such ID card(s) shall be issued with the then current cycle expiration date, no matter the date of issuance, during that current cycle.

Such cards SHALL remain exclusive property of the Authority issuing them, subjecting them to immediate recall, at the Authority's or EC's discretion.

Reference Material

Reference Material can be found in **Annex A-1 and A-10**.

Amateur Radio Public Service Corp

Training Matrix

Membership & Leadership

3/1/2007

	Amateur Radio Public Service Corp ARPSC Entry Level	Amateur Radio Emergency Service ARES Member	Radio Amateur Civil Emergency Service RACES Member	Emergency Coordinator (EC) Assistant Emergency Coordinator (A EC)	Radio Officer	District Emergency Coordinator (DEC) Asst. District Emergency Coord. (ADEC)	District Radio Officer (DRO)	Section Emergency Coordinator (SEC) Section Radio Officer (SRO)
FEMA Independent Study Program Emergency Management Institute **IS– 22**			X	X	X	X	X	X
FEMA Independent Study Program Emergency Management Institute **IS– 100**	X	X	X	X	X	X	X	X
FEMA Independent Study Program Emergency Management Institute **IS– 200**		X	X	X	X	X	X	X
FEMA Independent Study Program Emergency Management Institute **IS– 700**	X	X	X	X	X	X	X	X
FEMA Independent Study Program Emergency Management Institute **IS– 800**				X	X	X	X	X
Background Check Recommended	1	1	4	4	4	5	5	5
SKYWARN	1	1	1	1	1	1	1	2
Traffic Handling	1	1	1	1	1	1	1	2
Hazmat Awareness	1	1	1	1	1	1	1	5
Damage Assessment	1	1	1	1	1	1	1	5
ARRL Amateur Radio Emergency Communication Course Level I, Level II and Level III	7	7	7	7	7	7	7	7
Emergency Coordinator (EC) shall have read ARRL Emergency Coordinator Manual				6	6	6	6	6
Other	1	1	1	8	9	9	6	5
Fulfill specified training required within this specified timeline for membership	2	3	2	10	10	10	10	2

1 – Optional, Emergency Coordinator and or Office of Emergency Mgmt.
2 – Specified training completed within first 6 month. of incumbency
3 – IS-200 within 12 month for ARES / EC within 90 days of appointment
4 – May be Required Local Office of Emergency Management
5 – Required MSP EMHSD
6 – Specified reading within 90 days of appointment
7 – Encourage not mandatory
8 – District Emergency Coordinator
9 – Section Emergency Coordinator/State RACES Radio Officer
10 – Must fulfill all requirements prior to appointment

ARES

The Amateur Radio Emergency Service (ARES) is an emergency communications organization sponsored by the American Radio Relay League (ARRL). ARES events occur when communications needs of a non-commercial nature exist or when all other means of communications have been exhausted. Annually ARES groups assist organizations around the state in events such as parades, non-profit organization, and local government functions and have exercises which provide training for radio operators.

RACES

The FCC created The Radio Amateur Civil Emergency Service (RACES) after World War II to address the need for a group of amateur radio operators to act as an integral part of the Civil Defense organization in time of national emergency or war. The RACES program also provides the means to continue to serve the public if the President suspends regular Amateur operations. Over the years, both RACES and Civil Defense has changed dramatically. The certification of RACES radio operators is administrated by local, county, or state governmental emergency management organizations responsible for disaster services. These governmental agencies are typically emergency services or emergency management organizations, sometimes within another agency such as police or fire departments. In some areas, RACES operators may be part of an agency's Auxiliary Communications Service. RACES events occur when a governmental emergency organization has declared a need for additional communications and activates the EOC.

ARES and RACES Explanation

Emergency service is one of the basics of the Amateur Radio Service and sometimes there is confusion about ARES, the ARRL Emergency Services arm and RACES, the government service provided by the FCC. These FAQ should be helpful in clearing up some of that confusion.

Q. During an emergency, when is ARES activated? How about RACES?

A. ARES is activated before, during and after an emergency. Generally, ARES handles all emergency messages, including those between government emergency management officials. RACES, on the other hand, almost never starts before an emergency and is active only during the emergency and during the immediate aftermath if government emergency management offices need communications support. RACES is normally shut down shortly after the emergency has cleared.

Q. I don't see ARES mentioned in Part 97? What's the story?

A. True, there's nothing in Part 97 about ARES specifically. ARES operators are, of course, bound by all applicable Part 97 rules, but they aren't bound by the specific emergency rules as specified in §97.407, as stations operating under RACES are. ARES operators have greater flexibility. RACES stations are limited by Part 97 as to who they can communicate with, which messages they may pass and how long drills may last.

Q. Can any licensed amateur volunteer for RACES? How about ARES?

A. Yes on both counts. You can volunteer for RACES by enrolling with a civil defense organization locally. To volunteer for ARES, register with your local ARRL Emergency Coordinator.

Q. If I am enrolled in a local civil defense organization and if it declares a RACES drill, what call sign do I use since the FCC isn't issuing RACES licenses? How about ARES?

A. RACES operation is conducted by amateurs using their own primary license call sign and by existing RACES licensees who hold RACES licenses. Club and military recreation stations are also eligible if authorized by a civil defense organization locally with the appropriate control operator [97.407(a)].

If you are operating under ARES, you can also use your own primary license and call sign or any other call sign authorized by a given control operator.

Q. Which stations may a RACES station communicate with? How about ARES stations?

A. A station operating under RACES may only communicate with:

1) A RACES station licensed to the local civil defense organization;
2) Other RACES licensees;
3) Certain amateur stations registered with civil defense organizations;
4) Certain US government stations authorized by the responsible agency to communicate with RACES stations and;
5) Stations in a service regulated by the FCC when authorized by the FCC [97.407(d)].
6) A station operating in ARES may communicate with any amateur station.

Q. What type of communications may be transmitted by stations operating under RACES?

A. RACES members may transmit only messages related to:

1) Impending danger to the public or affecting national defense during emergencies;

2) The immediate safety of individuals, the immediate protection of property, maintenance of law and order, alleviation of human suffering and need and combating armed attack and sabotage;

3) The dissemination of information to the public from a local civil defense organization or other government or relief organization and

4) Communications during RACES drills [97.407(e)].

Q. How long may RACES drills and tests be held? What about ARES?

A. RACES drills and tests can't exceed a total time of one hour per week. With proper authorization, such drills and tests may be conducted for a period not to exceed 72 hours and such drills can occur no more than twice in a calendar year [97.407(e)].

There are no specific limits on ARES drills and tests.

Q. Why are there limits on RACES drills?

A. These rules aren't there to restrict amateurs unduly, but to protect the Amateur Radio Service from non amateur abusers. The drill time limits were implemented in 1976 because, among other things, local government land mobile communications operators were using the amateur service improperly.

Q. Our weekly RACES net is in operation for more than an hour per week. How can we be in compliance with §97.407(e) and still practice our emergency preparedness skills?

A. The easiest way is to make your RACES net an ARES net with the approval of your local EC so that your group isn't bound by the specific time constraints, yet volunteers still get emergency preparedness training. If participating amateurs are registered in ARES and RACES, they can switch hats as conditions dictate. ARRL and FEMA both recommend dual membership.

Stations operating under ARES have much more flexibility because the main purpose of ARES is to serve the emergency communications needs of many agencies, not just the government. RACES is structured and rigid and must be activated by a local civil defense official; ARES can be activated by an ARRL official such as the local ARRL Emergency Coordinator (EC).

Q. How can I register for RACES? How about ARES?

A. RACES and ARES are both vital organizations and need your participation to make them effective. To register for RACES, contact your local civil defense office or Emergency Operations Center.

To register with ARES, complete an ARRL Form FSD-98 and send it to your local EC. You can obtain this ARRL form and others from ARRL HQ and, if you have access to the World Wide Web, from: http://www.arrl.org/FandES/field/forms/ - fsd-98. If you don't know who your EC is, contact your ARRL Section Manager. For the name of your SM, see the current issue of **QST**. Look in the beginning around pages 12 – 15. An updated list also appears on ARRLWeb at: http://www.arrl.org/FandES/field/org/smlist.html

NTS

The National Traffic System (NTS) creates a structure for integrated traffic handling designed to achieve two principal objectives: rapid movement of traffic from its origin to its destination and training amateur operators to handle written traffic and participate in directed nets. These two objectives, which sometimes conflict with each other, are the underlying foundations of the NTS. The system is not dedicated specifically to any mode or to any type of emission, nor to the exclusion of any, but to the use of the best mode for whatever purpose is involved. The aim is to handle formal written traffic systematically; by whatever mode best suits the purpose at hand. Whether voice, CW, RTTY, AMTOR, packet or other digital mode is used for any specific purpose is up to the Net Manager or Managers and the dictates of logic. There is only one NTS, not separate systems for each mode. Modes used should be in accordance with their respective merits, personnel availabilities and liaison practicalities. Whatever mode or modes are used, we all work together in a single and thoroughly integrated NTS. NTS operates daily, and continuously with the advent of the advanced digital links of today.

SKYWARN

SKYWARN is the weather spotter program sponsored by the National Weather Service (NWS), a division of NOAA. Radio amateurs have assisted as communicators and spotters since its inception. In areas where tornadoes and other severe weather have been known to threaten, NWS recruits volunteers, trains them in proper weather spotting procedures and accepts the volunteers' reports during watches and episodes of severe weather. By utilizing the SKYWARN volunteers, the NWS has "eyes and ears" throughout the affected area in conjunction with NWS sophisticated weather monitoring equipment.

Standards and training for SKYWARN are maintained and provided through the National Weather Service Offices that service the Michigan Section (Detroit/White Lake, Grand Rapids, Gaylord and Marquette). South Bend Indiana also provides support to Michigan's south west counties.

Michigan Section ARPSC Chain-of-Command Guidelines

In an emergency the local Emergency Coordinator/Radio Officer (EC/RO) serves as the Amateur Radio Senior Command Officer. All ARPSC personnel involved in the emergency shall report to the local EC/RO or his/her designee. Supporting District Emergency Coordinator/District Radio Officers (DEC/DROs), the Section Emergency Coordinator/State Radio Officer (SEC/SRO) and the Section Manager (SM) will be responsive to the local EC/RO Command Officer's needs and shall provide appropriate resources to serve those needs.

The EC/RO is the individual closest to the local members, served agencies and supporting resources. He knows and understands local conditions, geography, hazards, constraints and available resources.

Situations that involve wide-area disasters and the implementation of a Unified Command structure as specified by the Incident Commander, may call for the EC/RO, a DEC/DRO or the SEC/SRO to report to the Communications Officer in the Logistics Branch to assure unity of command. Those assignments will be made by the Communications Officer and honored by the responsible EC/RO.

The DEC/DRO, SEC/SRO and SM are all supporting resources for the EC/RO. They assist the EC/RO on obtaining mutual aid, coordinating resources, and upon request, provide assistance.

- Mutual Aid:
  - Manpower
  - Resources
  - Equipment
    - From neighboring areas
    - From the American Radio Relay League (ARRL) HQ
    - MOUs with neighboring states and Ontario
- Assistance
  - ARRL Tech Specialists
  - Public Information Officers
  - State and Local Government Liaison

- Guidance:
  - Training
  - Uniformity
    - Identification
      - State RACES Badges
    - Recognition
      - Regular Liaison with Michigan State Police, Emergency Management and Homeland Security Division {MSP,EMHSD}
  - Vehicles for exchange of ideas, plans and methodologies

In non-emergency periods the DEC/DROs, SEC/SRO and the SM will assist the EC/ROs with assistance and guidance to aid them in promoting the Michigan Section ARPSC and accomplishing their responsibilities as outlined in the ARRL's Job Description for EC's and the Michigan Section ARPSC Guidelines.

- The EC/RO reports directly to the DEC/DRO and to his/her local Emergency Manager (EM).
- DEC/DROs report directly to the SEC/SRO.
- The SEC/SRO reports directly to both the SM and to the Facilities Engineer at the MSP,EMHSD.

It is incumbent upon every individual in the Michigan ARPSC Chain-of-Command to understand his/her responsibilities. The citizens of our communities expect that amateur radio can and will support their emergency communications needs. By virtue of those expectations all appointees are expected to accept the responsibilities of their appointments. Failing this, it is the duty of the Section Leadership to take the necessary steps to provide the resources to aid in improving the individual's level of performance or to find a suitable replacement.

The standing ARRL Michigan Section Policy Memo of 11/1/2006 will be followed for changes in appointees. Appointments are based upon the following procedural guidelines:

- The EC/RO is appointed jointly by the DEC/DRO and the local Emergency Manager (EM), with the approval of the SEC/SRO and SM.

- The DEC/DRO is appointed by the SEC/SRO with the approval of the SM.

- The SEC/SRO is appointed jointly by the SM and the MSP,EMHSD Facilities Engineer.

- The SM is elected bi-annually by the Michigan ARRL membership.

Dale R. Williams WA8EFK
ARRL Section Manager – Michigan 3-6-2007

ARRL ARPSC Organization Job Description Guidelines

The American Radio Relay League (ARRL)/ARPSC organization has four levels. The ARRL divides the United States into 15 Divisions.

1. These Divisions are arranged into 71 Sections.

2. Sections – depending on the Section size, Districts may be established to support coordination and aid in the span of control. These 71 Sections are self governing and are not under control of the Division leadership.

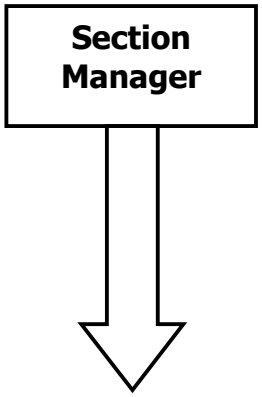
3. District – Districts may conform to the boundaries of governmental plans or agency operation Districts. County and City Governments within the District develop numerous local level EOCs.

4. Local level -- the local level is where most of the real emergency organizing gets accomplished, ARRL/ARPSC leaders make direct contact with the officials of the agencies to be served.

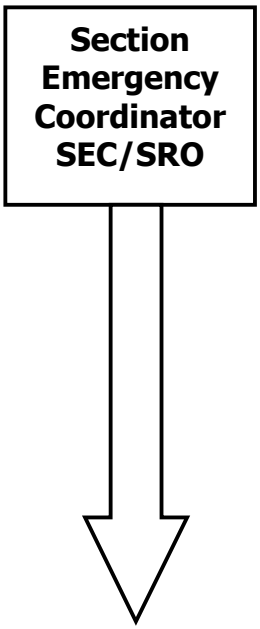
The Michigan, Ohio and Kentucky Sections form the Great Lakes Division. The Division has an elected Director and a Vice Director; they represent the Division membership on the League's Board of Directors.

The Michigan Section is one of the 71 administrative Sections. There is an elected Section Manager in each, who is part of the ARRL Field Organization. The Section Manager acts in the best interest of Amateur Radio and is accountable for ARRL/ARPSC policies, recruiting and appointments. A major appointments are made by the Section Emergency Coordinator/State Radio Officer (SEC/RO).

The leadership will be displayed in an Organization Chart Format, a general description of the position will accompany the chart. Detailed Job Descriptions may be reviewed on the internet at www.arrl.org under the ARRL Field Organization, or at www.mi-arpsc.org, under Job Descriptions. The Emergency Coordinator/Radio Officer (EC/RO) and District Emergency Coordinator/District Radio Officer (DEC/DRO) should have a copy of the ARRL/ARPSC job description for members to review upon request. They should also have a copy of this Michigan Section Guideline for member review upon request.

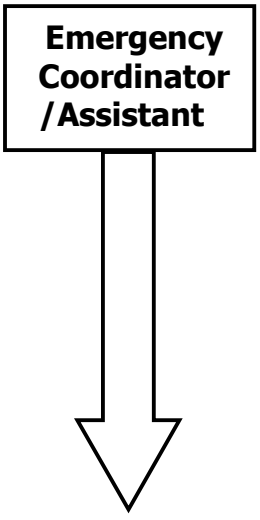


The Section Manager is accountable for carrying out the duties of the office in accordance with ARRL policies established by the Board of Directors and shall act in the best interests of Amateur Radio. The SM is to recruit, through several subordinate program managers or coordinators, League volunteers to staff eight crucial program areas: message traffic, emergency communications, volunteer monitoring, RFI problem-solving, support of affiliated clubs, government liaison, encouragement of technical activities, and dissemination of on-the-air bulletins.



The SEC/SRO is the assistant to the SM for emergency preparedness; The SEC/SRO is to take care of all matters pertaining to emergency communications and the ARPSC on a Section wide basis. The SEC/SRO post is one of top importance in the Section and the individual appointed to it should devote all possible energy and effort to this one challenging organizational program for Amateur Radio. He/her should encourage all groups of community amateurs to establish local emergency organizations and coordinate emergency nets and traffic nets so they present a united public service front in the Section particularly in the proper routing of welfare traffic in emergency situations. Cooperation and coordination also should be maintained with other Section Leadership, Government Liaisons and Public Information Coordinators. There is only one SEC/SRO appointed in each Section of the ARRL/ARPSC.

The DEC/DRO and the Assistant DEC/DRO provide leadership and support to the local EC/RO as needed or requested. They coordinate backup emergency communication plans within their and adjacent jurisdictions. They establish/coordinate communications to other Districts or the State Emergency Operations Center (SEOC). The DEC/DRO works with served agencies when selecting new EC/ROs. They are also a backup for local areas without an EC and assists in maintaining contact with governmental & other agencies within their area of jurisdiction. They act as a model emergency communicator as evidenced by their dedication to purpose, reliability and understanding of emergency communications. The DEC/RO also acts as an alternate for the state SEC/SRO when needed.



The ARRL Emergency Coordinator/Radio Officer and their appointed Assistant EC/RO are the key team players in the ARRL/ARPSC on the local emergency scene. Working with the SEC/SRO and DEC/DRO the EC/RO prepares for and engages in the management of communication needs in disasters. EC/RO duties include: promote and enhance the activities of the ARPSC for the benefit of public service, establish viable working relationships with federal, state, county, city governmental and private agencies in the EC/RO's jurisdictional area, coordinate the training, establish local communications networks and develop detailed local operational plans with "served" agency officials within their jurisdiction that set forth precisely what each "served" agency's expectations are during a disaster.

The EC/RO works jointly with other non-ARPSC amateur operator groups to establish mutual trust, respect and understanding, and develop a protocol for coordinating amateur radio activities for the good of the public. The goal is to foster an efficient and effective Amateur Radio response. He/She works for growth in the ARPSC program making it a stronger and more valuable resource and hence able to meet more of the "served" agencies' local needs.

A strong ARPSC means a better ability to serve communities in times of need and a greater sense of pride for Amateur Radio by both amateurs and the public.

In Michigan the EC/AEC establishes ARPSC Organizations at the local Government Emergency Operations Centers to serve and support the local Emergency Management Office. Many municipalities within county jurisdictions have established EOCs. These municipalities are required to have their amateur radio volunteers and ECs be registered and trained per the State and County Emergency Management guidelines. The municipality's EC or their representative must be a member of the County ARPSC Executive Board.

These positions are available to holders of every class of amateur license, appointees are encouraged to hold or obtain a license class allowing the use of high frequency bands.

ARRL / ARPSC Administrative Duties

Each Emergency Coordinator/Radio Officer (EC/RO) or his/her designee shall comply with monthly and annual reporting requirements as prescribed by the ARRL and the Section Emergency Coordinator/State Radio Officer. Each report shall be sent from the EC/RO to the SEC/SRO for his records and a copy should be sent to the DEC/DRO.

Required reports include the following:

- EC/RO Monthly Report (transmitted to the SEC/SRO and copied to the DEC/DRO)
- EC/RO Annual Report (transmitted to the SEC/SRO and ARRL HQ)
- Annual SET Report (transmitted to the SEC/SRO and ARRL HQ

Additional forms and reports are required for the ARPSC organization. These forms and reports will assist in performing job assignments under both routine and emergency circumstances.

- Establish and maintain an ARPSC membership roster listing each member's name, call, home addresses and phone numbers. Make this roster available to AECs and general membership.
- Submit Public Service Activity Reports (FSD-157) to ARRL HQ when appropriate (this includes recommending outstanding and meritorious amateurs for Public Service Awards).
- Have some Certificates of Merit and award them when appropriate.
- When deemed appropriate by SM/SEC, submit Travel Reimbursement Form (FSD-182) and/or Administrative Expense Reimbursement form (FSD-183) to the SM/SEC. Consult with him/her prior to applying for reimbursement to determine the reimbursement policy in the Section.

ARPSC Communications Standards and Equipment Guidelines

For written messages station operators will need to be knowledgeable with all types of message forms (District, State, NTS, and the Michigan State Police Flash Format). Training to convert or use any additional formats such as MARS or Red Cross Message Format is also encouraged.

When emergency response measures are called for and include state-wide activities or response, the primary frequencies for use will be ***80 Meters (3.932 MHz)*** or ***40 Meters (7.232 MHz).*** In the event that these frequencies are unusable due to poor propagation alternate means of completing the communications circuit will be explored. These could include but are not limited to packet (1200 baud packet should be the minimum and be on its own dedicated radio), PSK-31, RTTY, Morse Code, relays via two meters, VOIP (Echolink or IRLP), etc. The object is to complete the task of passing the message traffic from point to point.

When Emergency Response measures include interfacing with other states or portions of the world, frequencies in the upper end of the General Class portion of the standard Amateur Radio Bands ending in 32 and based on propagation principles will be used. (Example: 3.932 MHz, 7.232 MHz, 14.232 MHz, 21.232MHz, 28.432 MHz)

EOC Communications Capabilities

All EOC's should be equipped to handle and provide both local tactical and formal message traffic. Additional capabilities should include a method for medium and long distance communications. The EOC should also have trained personnel capable of utilizing all of the available equipment in line with their license class. The following capabilities are recommended:

- VHF – FM communications 144 to 148 MHz (preferably a dedicated radio if possible)
- UHF – FM communications 440 to 448 MHz (preferably a dedicated radio if possible)
- High Frequency Radio capable for use in Amateur Radio recognized bands. The primary bands of choice and usage in Michigan are the 3.5 MHz to 4.0 MHz and the 7.0 MHz to 7.3 MHz bands. Specifically, we have designated our frequencies of usage as 3.932 MHz and 7.232 MHz. Modes of use should be primarily Voice (SSB) and Morse Code (CW).
- Additionally 1200 baud Packet should be the minimum and be on its own dedicated radio.

It is recognized that our served agencies could have additional capabilities of which they would like us to be able to use. These can be any of the following items:

- Winlink/TelPAC/Airmail capabilities (9600 baud Packet capabilities for communications backbones or high volume transmissions).
- VHF – FM radio capable of use in the 1.25 Meter band (220 – 240 MHz) This radio gives us a means of having a semi-secure means of communications as few commercially available scanners are capable of monitoring these frequencies.
- Additional 'Digital' Modes including but not limited to PSK-31, RTTY (Radio-Teletype), PACTOR, and any of the recognized modes available.

- VOIP (Voice Over Internet Protocol) – these can be but are not limited to either IRLP (Internet Repeater Linking Protocol) or Echolink.

EOC Station Recommended Communications Equipment:

- VHF & UHF Transceivers / Primary Station
- VHF & UHF Transceivers / Secondary Station
- HF Phone & CW Transceiver with backup
- Packet and or Digital Communications ability
- Alternate Power supply
- Antennas and other support equipment for communications

EOC Station Recommended Communications Requirements:

Communicate via VHF/UHF Simplex across the entire County and into adjacent Counties. The EOC should be able to communicate directly to State EOC via RF transmissions.

Gateway Station Michigan Section

The Michigan Section Leadership Staff including the SEC/SRO will appoint a Gateway Station. The Gateway Station is intentionally independent of the SEOC Station to free up the SEOC from during an emergency. The Gateway Station allows for redundancy and continuity should the SEOC be unable to maintain communications or activate for any reason with out-state resources. The Gateway Station is selected to focus on incoming traffic to a specific location in the Section when a disaster occurs

Implementation

At the first Quarterly Meeting of the ARPSC Leadership every two years, the Michigan Section shall select a "Gateway Station" to serve a two year term. Nominations for this position are open to clubs and groups which are part of the ARPSC community in good standing. **THIS POSTION SHOULD NEVER DEFAULT TO JUST ONE INDIVIDUAL AT ANY TIME.**

Minimum Requirements

The minimum requirements for Michigan's ARPSC Gateway Station are the following:

- Reasonably high power (power should be in accordance with good operating procedures as outlined in the FCC Part 97 Rules and still get the job done)
- Multi-Band capable (minimum of 40 and 75/80 Meters. All bands from 160 Meters thru 70 cm preferable)
- Multi-mode capable (minimum of CW and SSB as well as FM, Digital Modes such as Packet, PACTOR, PSK31, WinLink, etc. should also be considered)
- Emergency Power (a functional redundant reliable power supply consisting of whatever means is available to ensure that communications is available for a period at least 3 days)
- Functional 24 hour telephone access and a 24 hour operation capable schedule and staffing.
- Familiar with NTS procedures, usage and schedules.

Drills and Exercises

- ARRL Simulated Emergency Test (SET)
- Field Day
- Any local SET in cooperation with the local jurisdiction to test and work with served agencies
- Participate in twice yearly NTS Training to learn and maintain skills necessary for handling Emergency, Priority, Health and Welfare as well as Routine NTS Traffic. These can be done by the local liaison or the EC who is familiar with the NTS system of traffic handling.

District Emergency Response Team

The purpose of this team will be to respond immediately and provide the following services to ARPSC organizations in the state and surrounding areas which have limited staffing or technical abilities.

- Technical assistance and management consulting to local EC/ROs and EMs
- Specialized technical and operating skills, such as:
    1. Packet Radio capability for a minimum of three locations
    2. VHF FM/SSB Simplex capability for a minimum of three locations
    3. Portable High Frequency Capability for a minimum of one location (CW and SSB at minimum, Other Digital modes also encouraged)
- Suitable emergency power, antennas, transmission lines and similar ancillary equipment to support operations away in the field and for a minimum of three to five days time or until suitable replacements can be moved into position.
- A complete set of message forms, reference materials and similar items for field deployment
- A minimum of three experienced NTS operators, each capable of using the one or more of the following modes:
    1. Radiotelegraph Nets
    2. Radiotelephone Nets
    3. Digital Network Gateways (PACTOR, WinLink, etc.)

    [EC/RO should assign designated NTS operators for ORS (Official Relay Station) appointments]

All team members must be registered with a RACES Program and have completed all training as prescribed by the Michigan Section ARPSC training requirements. It is recommended that they have pagers, cell phones or some means of quick reliable communications to allow for a quick response in time of need.

Reference Material

American Amateur Relay League (ARRL)
- ARRL Operating Manual for Radio Amateur
- ARRL Field Organizations (http://www.arrl.org/FandES/field/org/)

Federal Emergency Management Agency (FEMA)
- FEMA Independent Study (http://www.training.fema.gov/EMIWeb/IS/crslist.asp)
- IS – 700 NIMS

Michigan State Police
- Emergency Management & Homeland Security Division http://www.michigan.gov/msp/0,1607,7-123-1593_3507-24288--,00.html

Michigan ARPSC Background Information G. Race, J. Wades, and M. Mendelson
Federal Communication Commission (FCC) Part 97
www.arrl.org/FandES/field/regulations/news/part97/
National Weather Service (NWS) (http://www.skywarn.org/)

Michigan State Police, Emergency Management and Homeland Security Division (MSP EMHSD)

and

Michigan Section American Radio Relay League (ARRL)

This document will be know as Michigan Section ARRL Amateur Radio Public Service Corp (ARPSC) Guidelines

The following document has been reviewed and approved by the undersigned representatives

MSP EMHSD

Captain Eddie Washington
Michigan State Police,
Emergency Management & Homeland Security Division

9-10-07
Date

ARRL

Mr. Dale R. Williams
Michigan Section,
Section Manager
American Radio Relay League

9-17-07
Date