
Auxcomm

Auxcomm WG 4Q16

An update on the activities of the Auxcomm Working Group



John J. McDonough

This document is released by the Auxcomm Working Group under the GNU Free Documentation License (GFDL), V1.2 or later (the latest version is presently available at <http://www.gnu.org/licenses/fdl.txt>).

Abstract

The Auxcomm Working Group has continued to work at identifying the means to articulate our capabilities, and to communicate to stakeholders the process for activating the various services and the conditions under which they may be used.

1. Introduction	2
2. Membership	2
3. Objectives	3
4. Progress to date	3
4.1. Capability Assessment	3
4.2. Activation Protocols	3
4.3. New SEOC	3
4.4. Support Legislation	4
4.5. COM-L	4
4.6. SEOC Documentation	4
4.7. MEMP	4
4.8. Michigan ARPSC Guidelines	4
5. Future Plans	4
6. Individual Agency Activities	5
6.1. ARES®/RACES	5
6.2. MARS	6
6.3. SATERN	6

1. Introduction

The Auxiliary Communications Working Group has continued to meet monthly by telephone/web conference. Members of the group also communicate regularly via telephone, email and radio.

The past few months have been relatively uneventful, largely trying to document capabilities and explore the possibilities offered by CASM. This document details some of that work.

2. Membership

The membership of the working group consists of a representative from each of the services, as well as a representative from each District. The NWS offices, which are "Districts" within ARES® but not within MSP are currently unrepresented.

The Working Group requested from EMHSD that an MSP District Coordinator participate in the group. F/Lt. Covey assigned two DCs. This happened late in the quarter and at this point they have not had a chance to participate, however the WG feels that diverse input, for example from OEC and MPSCS, has been helpful and expects their input will be valuable.

Service Representatives

- **ARES®** - Larry Camp - Michigan Section Manager
- **Civil Air Patrol** - Maj. Shawn Wyant - Director, Communications
- **EMHSD** - Don Bouffard - Engineering Specialist - MSP/EMHSD
- **Emergency Management** - Marc Breckenridge - Director of Emergency Services, Washtenaw County - co-chair
- **Law Enforcement** - Lt. Michael deCastro - District Coordinator District 7
- **Law Enforcement** - Lt. Richard Martin - District Coordinator District 1
- **MARS** - Cortland Richmond - State Communications Director
- **RACES** - John McDonough - State Auxcomm Emergency Management Coordinator - co-chair
- **SATERN** - Chris Striebel - Assistant EDS Director

District Representatives

- **1** - Bruce Pollock - District Emergency Coordinator ¹
- **2** - Shanon Herron - District Emergency Coordinator
- **3** - David Wallick - District Emergency Coordinator ²
- **5** - Carl Flickinger - District Emergency Coordinator
- **6** - James Duram - District Emergency Coordinator, Emergency Management Coordinator Oceana ³
- **7** - Thomas Duggan - District Emergency Coordinator
- **8** - Pete Costa - District Emergency Coordinator

¹ The Amateur Radio Emergency Services or ARES® has positions known as Emergency Coordinator or EC and District Emergency Coordinator or DEC. This can cause some confusion with the titles of county Emergency Management Coordinators sometimes referred to as EMs and MSP District Coordinators or DCs.

² Mister Wallick replaces Joseph Tuscher who resigned from the working group

³ Mister Duram has a new job and will leave the working group when a replacement can be recruited.

3. Objectives

Our first objective following membership development was to prioritize the work group's activities. Three key objectives were identified as overarching priorities, followed by several additional objectives that would support Auxcomm over the long-term.

1. Conduct an Auxcomm Capability Assessment (**Priority**)
2. Development of Auxcomm Activation Protocols (**Priority**)
3. Operationalize Auxcomm technology in the new SEOC (**Priority**)
4. Support Michigan legislation which codifies the Federal Communications Commission PRB-1 ruling (**Ongoing**)
5. Promote Volunteer COM-L development (**Ongoing**)
6. Update SEOC documentation to reflect Auxcomm capabilities and changes for the new SEOC
7. Update the Michigan Emergency Management Plan to include Auxcomm

4. Progress to date

The Working Group has continued to meet monthly. Individual District committees have also continued to meet regularly.

4.1. Capability Assessment

The working Group has been continuing to explore CASM as a tool for capturing the technical capabilities of volunteer communications.

A mock up of a form to capture personnel capabilities of the individual counties has been prepared and approved by the working group. Next step is to construct the back end and roll it out to the ECs.

Prompted by the recent emphasis on long-term power outage response, the group decided to collect detailed information on key repeaters, especially as it relates to power resilience. David Halteman has drafted a survey to collect relevant information from the counties. That survey is yet to be approved by the Working Group. Once collected, that data will be entered into CASM. Joseph Tuscher, former member of the WG, has agreed to shepherd the process of rolling both these out to the counties.

4.2. Activation Protocols

No change from last quarter.

4.3. New SEOC

Significant progress was made on making the new SEOC station operational.

- a. The 160 meter loop is installed and operational. Interference was observed from local broadcast stations, so a filter was constructed. There is some consideration being given to purchasing a commercial filter.
- b. Issues with the VHF/UHF antennas have been resolved. They were largely related to misidentification.
- c. The Pactor antenna is installed and operational.
- d. The Pactor equipment is installed, but remains to be configured.
- e. The packet equipment is installed but remains to be configured.
- f. The workspaces are organized and largely how they should be. Some minor work will probably occur after some experience is gained.
- g. The furniture installers damaged the feedline for the CAP VHF station. That feedline remains to be replaced, but there is also a project underway to relocate the CAP VHF antenna.

- h. NBEMS capability is yet to be tested.
- i. Documentation has been provided for D-STAR and DMR capabilities. Pactor will be completed after the equipment is configured.
- j. The annual SET provided an opportunity to begin to explore the VHF/UHF capability from the new location, which so far looks impressive. A more disciplined test remains to be undertaken.
- k. A location for a CAP HF antenna has been identified. MSP/EMHSD is working on making that a reality.
- l. The MARS station has been installed and is operational.
- m. An issue was identified with the HF antennas and has been resolved. Some antennas had incorrect lightning arrestors installed.
- n. Typical office supplies have been acquired.

4.4. Support Legislation

No additional needs arose during the period.

4.5. COM-L

No change from previous quarter.

4.6. SEOC Documentation

Documentation for the new D-STAR and DMR capabilities has been provided. Operators have used this documentation and thus far, it appears to be adequate. Documentation for the packet and Pactor capabilities will be developed after those stations are configured and tested.

4.7. MEMP

An addendum to the MEMP, the Michigan Emergency Communications Plan has been identified as requiring revision. The current section on ARES®/RACES does not reflect CAP, MARS or SATERN. The ARES®/RACES section is quite good, but badly out of date.

The working group has been progressing with updating this document which is fairly detailed.

4.8. Michigan ARPSC Guidelines

Almost a decade ago, the American Radio Relay League and the Michigan State Police Emergency Management and Homeland Security Division entered into an agreement known as the "Michigan ARPSC Guidelines". EMHSD has requested an update to this document.

The original version of this document took well over a year, largely because it required lawyers from both sides. The changes so far appear to be minor, so it is hoped that things will go a little more quickly for the update. However, much is dependent on the Michigan Emergency Communications Plan, so updates to this document will be delayed until the MECP work is completed.

5. Future Plans

Capability Assessment

Work with CASM is continuing.

The resource assessment form will be completed in the coming quarter and rolled out to the counties.

The Working Group will be asked to approve the power resilience survey, and barring major issues, will be rolled out as well.

Activation Protocols

The group continues to collect details of the various contact points for activating individual organizations. It is hoped to complete this work by the end of the first quarter.

New SEOC

The following work remains to be complete in the new SEOC station:

- a. Configure and test the Pactor station. Pactor will not only give the SEOC the capability of connecting directly to NTS-Digital, but also allow radio email. The SEOC will be able to send ordinary Internet email in the face of a total Internet outage at the SEOC. Of course this requires either Internet or Pactor capability at the receiving location.
- b. Configure and test the packet station.
- c. Test the NBEMS capability. Some NBEMS operation has already been carried out, but broader testing would be worthwhile. NBEMS allows sending text over HF, especially forms. Thus, common ICS forms can easily be sent around the state even in the absence of legacy communications such as telephone or Internet.
- d. Relocate the CAP VHF antenna and validate the CAP VHF capability.
- e. Install a SHARES station. SHARES is a system for communicating with the Federal government. The radio is in place, but an antenna is yet to be installed.
- f. Install a CAP HF station.
- g. Provide Pactor and packet documentation. These are relatively infrequently used capabilities so operators will require fairly detailed instructions.
- h. Explore and document the coverage of the new VHF/UHF antennas.
- i. Some time ago, a power amplifier was donated to the SEOC. Before this can be made operational, 220 volt service is required in the station and an antenna tuner capable of additional power is required. This has been a lower priority, now being addressed as the major items are complete.
- j. The crew of volunteers to operate the station has been expanding. Between the additional personnel and the additional capabilities, it is expected that significant new documentation will be required. The WG will be watching to see what the needs are as they evolve.

MEMP

During the first quarter, complete work on the Michigan Emergency Communications Plan for the various Auxcomm services.

6. Individual Agency Activities

6.1. ARES®/RACES

ARES® is a large organization which reports monthly, however, as a volunteer organization, reporting tends to be spotty. The following represent reported activities; undoubtedly many other activities are not included.

- ARES®/RACES held its annual "Simulated Emergency Test". Although this is a national event with the characteristics of a contest, Michigan has chosen to use the opportunity to test various capabilities.

This year the test was held using VHF/UHF only. The plan was to contact Districts 1, 2, 3, 5 and 6 directly, have District 3 relay to 7, and 7 relay to 8. The District 3 repeater chosen was a high-profile machine at Quanicassee. Communication with this repeater was marginal, but usable. District 7 was also able to use this repeater, so the only District unreachable directly via VHF was District 8. This is a dramatic improvement over the previous SEOC station.

- Following an Oct. 9 MSP request for improved operational and health & safety communications in support of search and rescue (SAR) efforts for a missing 21-year old man in Alger, Ogemaw ARES®/RACES was activated to assist.

The drastically varying terrain features in the area surrounding the Rifle River search area severely hampered line of sight communications for searchers using 800-MHz public safety radios, making their use unreliable. Ogemaw ARES®/RACES, under the leadership of EC/RO Chris Barbb, W8COP, instituted a creative radio coverage solution whereby mobile VHF radio units were positioned on high ground around the perimeter of the search area, and served to relay radio messages to and from ground-pounder (foot) search teams, horseback search teams, aquatic rescue teams, and dog search teams with the net control radio station back in the area of the ICP.

The innovative solution was successful over the span of the Sunday morning SAR activities, with no messages being lost because of challenging communication conditions.

- A number of counties asked their ARES® groups to stand by on election day in case of civil unrest. The SEOC station was activated in support of those counties. Although the day was uneventful, about two dozen counties made circuit checks with the SEOC, and operators were able to get a number of small items around the station taken care of.
- 7 counties reported training events during the quarter.
- 20 exercises or tests were reported.
- 10 search and rescue activations.
- 35 public service events (runs, fairs, expos) were supported.
- 9 SKYWARN activations were reported

6.2. MARS

- MARS held an exercise to test interoperability between MARS and amateur radio stations on the Amateur Radion 60 meter band. This band, which is close to a SHARES frequency, is shared with other services specifically for interoperability.

6.3. SATERN

- SATERN continued holding a weekly HF net.