

**Amateur Radio
Emergency Communications Plan
Southern New Jersey Section
American Radio Relay League
6 March 2003**

Concept

1.1 A primary purpose of the Amateur Radio Service as defined by the Federal Communications Commission (FCC) is to provide emergency communications when normal methods are damaged, disrupted or overloaded. The Amateur Radio Emergency Service (ARES) is how this service is provided to agencies such as the American Red Cross and public service events such as walkathons. Any Amateur Radio operator with a sincere desire to assist in an emergency may register to participate, which is administered by the American Radio Relay League (ARRL) for the public good.

1.2 FCC Rule 97.407 authorizes such Amateur Radio stations to also be enrolled with their local emergency management agency in the Radio Amateur Civil Emergency Service (RACES) to provide emergency communications support to local, county and state government in the event other Amateur Radio operations are curtailed under the War Powers Act. Amateurs also support the Federal Government's National Weather Service (NWS) as storm spotters in the Skywarn program.

1.3 In the Southern New Jersey section, the preferred method of operation is for one combined county organization to perform all three functions (ARES, RACES & Skywarn), allowing for the quickest response, most flexibility and coordination in operations and for our limited resources to be allocated and trained most effectively. Such a combined effort is commonly referred to as Amateur Radio Emergency Communications (EMCOMM). This is reflected in the latest guidance from the ARRL and aligns well with the Incident Command System (ICS) that is used in New Jersey and nationwide.

Purpose

2.1 Amateur Radio's primary emergency service missions are to provide supplemental communication channels and to tie disparate systems and agencies together. In addition, Amateur Radio operators have a high degree of technical ability that can assist in quickly establishing or repairing communications facilities. Each emergency is different. Flexibility to provide an adequate response to each is a necessity

2.2 All drills, training, and instruction should be carried out to insure readiness and quick response in providing effective communications when needed. Each EC should arrange to participate in or create an effective annual Simulated Emergency Test (SET) to test his organizations capabilities.

2.3 Agencies that could be served during a communications emergency include, but are not limited to, government, the American Red Cross, Salvation Army, other New Jersey Voluntary Agencies Assisting in Disaster (NJVOAD), hospitals, Offices Of Emergency Management (OEM), police, fire, rescue squads, schools, military, utility companies, large industrial concerns, or other prominent groups, National Weather Service, forestry services, etc. Multi-agency functions such as Mass Care, Debris Management, etc. may also be supported. Contact should be made with selected agencies prior to crisis situations to develop mutual understandings and plans of action. Memoranda Of Understanding exist between ARRL and some of these organizations and are available from ARRL at <http://www.remote.arrl.org/FandES/field/mou/>.

2.4 Amateur Radio serves as back-up communications to established services and often is not called immediately if normal communications circuits are intact and adequate. Members should monitor developments and be prepared for swift deployment should such a request be received.

Organization

3.1 New Jersey has a history of home rule, so the primary level of organization in Southern New Jersey (SNJ) Section is at the county level. The SNJ Section Emergency Coordinator (SEC) appoints an Emergency Coordinator (EC) for each county who is responsible for organizing the local amateurs into an effective and flexible team supporting both governmental and non-governmental agency emergency needs at the county and local levels. The EC should appoint Assistant Emergency Coordinators (AEC) to take the lead in supporting the various types of organizations within their county. AEC's may also be appointed for various organizational functions such as administration, training, logistics, etc.

3.2 RACES operations in SNJ are under the County Radio Officer, who is appointed by the head of the County Office of Emergency Management per the NJ State RACES Plan. Whenever possible, the ARRL EC and the County Radio Officer should be the same person. As an alternative, the OEM County Radio Officer should be appointed as an ARES AEC for RACES, and the ARES EC should be appointed as a RACES Assistant Radio Officer. This ensures that the Amateur Radio response to an emergency is well coordinated and allows more flexibility in the use of frequencies and operators.

3.3 Skywarn operations in SNJ are coordinated by the Skywarn county coordinator appointed by the Mt Holly NWS Forecast Office (NWSFO). Whenever possible, this person should be appointed as an AEC (Skywarn) to lead this function and to arrange for recurring training of county amateur radio operators in storm spotting and reporting procedures.

3.4 The ARRL section level exists primarily to support these county level EMCOMM organizations and provide a mechanism for their coordination and mutual support. The Section Emergency Coordinator (SEC) is appointed by the elected Section Manager to

organize this support and coordination. The SEC also arranges for mutual support with other ARRL sections when so required.

3.5 The Southern New Jersey Section does not use the optional district level or District Emergency Coordinators (DEC) as there are only nine counties (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, and Salem) within this section. The district level was designed for very large sections that encompass entire states, where grouping of counties into districts is required to achieve a reasonable span of control.

3.6 Counties may form ARES Mutual Assistance Teams (ARES MAT) if they have sufficient, trained personnel who are available and equipped for extended deployment as a self-contained communications team to assist other sections or counties. Such teams should be capable of deploying 3 to 6 operators for 72 hours with only six hours notice. Organization and training requirements are described in the ARRL Public Service Communications Manual, Emergency Coordinator Manual and ARRL Emergency Communication Certification Courses (AECCC). The leaders of such teams will be listed on the SNJ EMCOMM Leadership Roster. EC's will report the status of such teams to the SEC in the comments section of their monthly reports. Deployment of such teams outside of the section requires the approval of the SEC, SM or designate.

Personnel

4.1 All FCC licensed Amateur Radio operators who wish to assist in public service are encouraged to register with their county EC. While membership in the American Radio Relay League is encouraged, it is not required, except for persons holding ARRL leadership appointments such as Emergency Coordinators and Official Emergency Stations.

4.2 The issuance of identification cards and vehicle placards by the EC or county OEM is encouraged. With these privileges comes the responsibility to be trained in emergency procedures, be willing to regularly participate in practice and actual emergency operations, and to always act in a manner that reflects favorably on Amateur Radio. Participation is a privilege and can be denied by the EC at any time.

4.3 All Amateur Radio operators are encouraged to maintain currency as Skywarn Spotters through training offered by the Mt Holly NWSFO.

4.4 ARRL members may also apply for designation as an "Official Emergency Station" (OES) from the ARRL. The EC can determine the exact duties of such stations, but they should include certain training requirements and emergency power capabilities. An OES certificate is available. OES appointments are also appropriate for stations functioning as primary liaison to other communication systems, such as MARS, CAP, etc.

4.5 Each EC should prepare a one-page reference card describing their county's Amateur Radio Emergency Procedures for their members. This can also be used for informing other hams how to respond in an emergency and as a recruiting tool for potential new members.

Operations

5.1 Support of Government Agencies

When operating in support of state, county and local government, Amateur Radio operators will normally function as RACES operators in accordance with FCC Part 97.402 and under the NJ State RACES Plan published by the NJ Office of Emergency Management. When operating in support of the National Weather Service, Amateur Radio operators will function in accordance with the procedures established by the Mt Holly NWSFO for the Skywarn program.

5.2 Support of Non-Governmental Agencies

When operating in support of non-governmental relief agencies such as the American Red Cross, Salvation Army, etc., Amateur Radio operators will function as ARES operators in accordance with the guidelines published by the ARRL Public Service Manual, the appropriate MOU and their EC.

5.3 Support of Public Gatherings

Support of public gatherings such as walkathons, parades, etc. can provide valuable operational experience. As these events become more numerous, consider using them to gather new members and to train new leadership by delegating them to local amateur radio clubs. Advice on supporting such events can be found in the ARRL Special Events Manual, which is available online at <http://www.remote.arrl.org/FandES/field/spevman/index.html>

Planning

6.1 Each EC will develop a written emergency communications plan to define how emergency communications are to be handled within the county. The plan should allow for the support of government operations between township EOC's and the county EOC and between the county EOC and the state EOC on RACES circuits, while simultaneously supporting operations between shelters and the local Red Cross chapter and between the local Red Cross chapter and the Red Cross State Lead Chapter on ARES circuits. Additional ARES circuits may also be needed to support other NJVOADs or agencies.

6.2 The county emergency communications plan should establish alerting procedures and self-alerting procedures when communications fail, as well as mutual support arrangements with adjacent counties. For example, a telephone call-out tree might be used as well as a common rallying frequency to assemble on if telephones fail.

6.3 Arrangements with local repeater operators to support these operations should be made in advance and renewed annually. Plans should also be made for simplex operations in the event of repeater failure or for long-term operations so as to release repeaters back to normal use. 146.52 MHz should not be a primary channel for these operations.

6.4 The county emergency communications plan should also identify stations for regular liaison with the ARRL National Traffic System (NTS) for message handling out of the area.

6.5 A copy of the county emergency communications plan should be filed with the County Office of Emergency Management, local Red Cross Chapter and any other served agencies. Copies should also be sent to the SEC and the adjacent county EC's. The plan should be reviewed annually.

6.6 A roster of registered amateur operators should be sent to the NJ State RACES Officer quarterly. A copy of the latest roster should be attached to the county emergency communications plan.

Training

7.1 Each member is expected to be trained and proficient in appropriate emergency communications procedures. The exact training requirements will be determined by the EC, but as general rule, they should be based on achieving AECCC Level I certification as well as practical on-the-air experience in formal and tactical message handling, exercises and nets. Maintaining annual proficiency in formal message handling and the equipment and procedures used at the local EOC, Red Cross chapter and other served agencies is encouraged.

7.2 Leadership officials (EC's, AECS, OES's) are encouraged to additionally obtain AECCC Level II and III certification. Incident Command System, FEMA and Red Cross training is also encouraged.

Networks

8.1 Amateur Radio networks to support local emergency operations, support of local Red Cross operations and shelters, and other served agencies will be described in the county emergency communication plan developed by the county EC. A summary of the primary VHF frequency used in each county is shown in the SNJ Emergency Communication Leadership Roster

8.2 Statewide networks to link county EOC's to the State EOC are described in the NJ State RACES Plan. Statewide networks to handle health and welfare traffic via NTS are described in the SNJ Section Traffic Plan. Each county emergency communications plan should ensure that liaison from their local county VHF net is maintained in an emergency with the statewide RACES and/or NTS, as needed. Key frequencies for these statewide operations include:

NJ State OEM RACES Nets:

3990.5KHz LSB (3996.5 Alt)

7230.0 KHz, LSB

147.57 MHz FM

144.39 MHz (APRS)

224.32 MHz FM (PL 67.0).

NJ Statewide NTS Nets:

3950KHz LSB: 6PM Daily with an additional net at 9 AM Sunday

3695KHz (CW): 10AM (Fr,Sa,Su), 7PM Daily, 10PM Daily

3715KHz (Slow CW) 6:30PM Daily

SNJ VHF NTS Net:

147.345 MHz (+.600 PL 127.3) 10:30 PM Daily

8.3 The SNJ Section Waterford Works repeater (147.345 MHz PL 127.3) may be used when needed for mutual aid between counties and for coordinating traffic between Red Cross chapters and other served agencies. The Lawrenceville, NJ, K2UQ repeater (147.105 MHz PL 123.0) is available when needed to link NNJ and SNJ ARES operations.

8.4 A SNJ EMCOMM Leadership net is held at 2100 hours local on the fourth Tuesday of each month on the Waterford Works repeater to allow SNJ EMCOMM Leadership to exchange information and ideas.

8.5 Intentional interference to nets is best handled by ignoring it and making no on the air references to it. Accidental interference is best handled with tact and courtesy.

8.6 If interference to actual emergency operations becomes particularly grievous and there is no alternative solution, an EC may request the SM, the SEC or the State RACES Officer to request the FCC declare a Communications Emergency under FCC Rule 97.401. The SM, SEC or State RACES Officer will make this request through the District Director of the FCC Philadelphia Field Office at 1-888-225-5322 (CALL-FCC). The initial request should include the name and phone number of an Emergency Management or Disaster Relief official who believes the declaration is essential to relief operations, the necessary frequencies, desired start time, and estimated end time of the declaration.

Logistics

9.1 Each EC should make arrangements for adequate trained personnel, equipment, repeater and simplex channels to simultaneously support both RACES and ARES hour operations within their county for a minimum period of 72 continuous hours. The SNJ Section Waterford Works repeater is available for mutual aid coordination or other section wide emergency operations. Each EC should establish a liaison station on this frequency in the event of a multi-county emergency.

9.2 Each member is encouraged to use 30 amp Anderson Powerpole connectors on all portable 12 VDC powered radios, batteries and power supplies to facilitate quick response and the ability to share resources in a disaster. Information on this ARES/RACES standard can be found at <http://www.ocraces.org/powerpole.html>. One vendor providing the connector in bulk and small order quantities is www.powerwerx.com. Local clubs and organizations are encouraged to buy the connectors in bulk for resale to their members.

9.3 Each member should assemble a 24 hour “go kit” to allow them to rapidly respond to local emergencies. Each is also encouraged to develop a 72-hour go kit to allow response to longer-term emergencies. Members of ARES Mutual Assistance Teams must maintain such a 72-hour go kit. Suggested contents of such kits are described in the AECCC Level I course. Virginia RACES has a good list of 24-hour kit contents at http://www.va-ares.org/24_hour_pack_Rev24Dec021WV.htm

9.4 Each EC should work with their served agencies to ensure the establishment of permanent radio stations and emergency power at EOC's, Red Cross chapters and similar locations. The development of portable shelter radio kits is also encouraged.

Reporting

10.1 Each EC will submit the following reports as required by the ARRL:

- The monthly EC Report (FSD-212) is to be sent to the SEC by the third day of each month, so that the SEC may send the combined SNJ report to ARRL. It can be sent via e-mail.
- The annual EC report (Form C) is to be sent to ARRL HQs and the SEC by the 31st of January each year. It's available at http://www.arrl.org/FandES/field/forms/ec_ann.pdf
- The Annual SET report (Form A) is to be sent to ARRL HQs and the SEC by the 31st of January each year. It's available at http://www.arrl.org/FandES/field/forms/ec_set.pdf

10.2 Any actual emergency activation should be reported to the SEC as soon as possible. The SEC will in turn notify the SM, PIO and ARRL HQ. If the SEC can't be contacted, the EC will so notify SM and ARRL HQ's. Phone numbers are maintained on the SNJ EMCOMM Leadership Roster. If time permits, use the online FSD-157 format described at <http://www.arrl.org/FandES/field/forms/fsd-157-online-form.php>. Otherwise, use any means possible.

10.3 NJ OEM requires each county RACES officer to submit a roster of authorized RACES operators to the NJ OEM Communications Officer quarterly. A copy of this roster should also be sent to the SNJ SEC.

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References

FCC Rules, Part 97, Amateur Radio Service

<http://www.arrl.org/FandES/field/regulations/rules-regs.html>

The ARRL Public Service Communications Manual

<http://www.arrl.org/FandES/field/pscm/>

The ARRL Emergency Coordinators Manual

The ARES Field Resources Manual

<http://www.remote.arrl.org/FandES/field/aresman.pdf>

The ARRL Special Events Manual

<http://www.remote.arrl.org/FandES/field/spevman/index.html>

NJ Office of Emergency Management State RACES Plan

ARRL SNJ NTS Traffic Plan

ARRL Net Directory

<http://www.arrl.org/FandES/field/nets/>

ARRL Emergency Communications Certification Courses, AECCC Levels I, II & III

<http://www.arrl.org/cce/>

Mt Holly NWSFO Skywarn Plan

<http://wx2phi-skywarn.org/>

Attachments

SNJ EMCOMM Leadership Roster