Amateur Radio Emergency Service
North Carolina Section
Emergency Plan

April 25, 2011

Amateur Radio Emergency Service North Carolina Section Emergency Plan

This document is reviewed annually, and whenever dictated by changes in rules or served agency requirements. The current version of this document can be found at: `http://www.ncarrl.org/ncep.pdf`

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Amateur Radio Emergency Service North Carolina Section Emergency Plan

1. Overview

   The purpose of this document is to describe the organizational structure of the Amateur Radio Emergency Service (ARES) in North Carolina, and to describe how ARES should respond to activation requests from served agencies. Training, drills and interaction with other components of the American Radio Relay League (ARRL) Field Organization are also discussed.

   This guide provides direction for the organization, but any written plan cannot possibly cover all situations. The ARES command structure exists to offer maximum flexibility to respond to each situation uniquely so we can provide the optimum level of service.

   ARES and the Radio Amateur Civil Emergency Service (RACES) have a unified command structure in North Carolina as specified in a Memorandum of Understanding between ARRL and the NC Division of Emergency Management (see Appendix F). Consequently, almost all NC activities take place under ARES rather than RACES. For a detailed explanation of RACES, see Appendix A.

2. Organizational Structure

   (a) The command structure of ARES in North Carolina is designed to correspond to the command structure of the North Carolina Division of Emergency Management (NCEM). NCEM uses a command hierarchy of State, Branch (Eastern, Central, Western), and Area (1-15, five areas under each branch). In addition, each county government has its own Office of Emergency Management.

   (b) The Section Manager (SM) is elected by ARRL membership every two years to manage the ARRL Field Organization in North Carolina. ARES is one of eight programs that are part of the ARRL Field Organization.

   (c) The Section Emergency Coordinator (SEC) is appointed by the SM to take care of all matters pertaining to emergency communications and ARES in North Carolina.

(d) An Assistant Section Emergency Coordinator (ASEC) is appointed by the SEC to correspond to each NCEM Branch office (Eastern, Central, Western). ASECs are officially appointed as ARRL Assistant Section Emergency Coordinators with a district corresponding to the appropriate branch office. ASECs report to the SEC.

(e) A District Emergency Coordinator (DEC) is appointed by the SEC to correspond to each NCEM Area office (1-15). DECs are officially appointed as ARRL District Emergency Coordinators with a district corresponding to the appropriate area office. DECs report to the ASEC for their branch (Eastern ASEC for Areas 1-5, Central ASEC for Areas 6-10, Western ASEC for Areas 11-15).

(f) An Emergency Coordinator (EC) is appointed by the SEC to correspond to a county Office of Emergency Management. ECs are officially appointed as ARRL Emergency Coordinators with an area of jurisdiction corresponding to the specific county. ECs report to the DEC for their Area.

(g) An Emergency Coordinator – NCEM (EC-NCEM) is appointed by the SEC to act as a liaison between NCEM and ARES. The EC-NCEM is also responsible for coordinating Amateur Radio operations in the State Emergency Operations Center (State EOC). The EC-NCEM is officially appointed as an ARRL Emergency Coordinator with a jurisdiction corresponding to the State EOC. The EC-NCEM reports to the SEC.

(h) A SKYWARN Emergency Coordinator (SKYWARN EC) is appointed by the SEC to coordinate Amateur Radio participation in SKYWARN. SKYWARN is a program of the National Weather Service and includes some participants that are not Amateur Radio operators. The SKYWARN EC is officially appointed as an ARRL Emergency Coordinator with a jurisdiction corresponding to the coverage area of their National Weather Service Office, but only for SKYWARN activities involving Amateur Radio. SKYWARN ECs report to the SEC.

(i) ARRL Official Emergency Stations (OES) are appointed by the SEC based on recommendations from ASECs, DECs or ECs. Each OES has unique responsibilities which shall be specified in the recommendation for appointment.

(j) Assistant Emergency Coordinators (AEC) may be appointed by the SEC, ASECs, DECs and ECs to carry out responsibilities specified at the time of appointment. AECs serve entirely at the discretion of the appointing EC and are not official ARRL Field Organization appointees, so contact records and a list of responsibilities must be maintained by the appointing Emergency Coordinator.

3. Branch, Area and County Emergency Plans

(a) Each Branch and Area may also develop an emergency plan to further define training and operations in the respective Branch or Area.

(b) Each Branch ASEC shall develop a plan for coordinating assignment of out-of-county volunteers during disasters.

(c) Each County EC shall develop their own emergency plan, detailing the command structure, training programs and activation plans for ARES in their county.

(d) Each SKYWARN EC shall maintain an emergency plan detailing Amateur Radio participation in the SKYWARN program in their area of jurisdiction. Such a plan shall include frequencies used, net procedures and training programs used.

4. Agencies Served

(a) NCEM – at the state level, the main agency served will be NCEM.

(b) Federal Emergency Management Agency (FEMA) – FEMA may request Amateur Radio involvement during a disaster. This may be done through RACES and NCEM.

(c) American Red Cross – most American Red Cross activations will be requested at the county level rather than the state level.

(d) Salvation Army – most Salvation Army activations will be requested at the county level. The NC/SC Division Headquarters of the Salvation Army is based in Charlotte and normally deals directly with the Charlotte Amateur Radio Club (W4CQ) as its first point of contact with Amateur Radio.

(e) National Weather Service (NWS) – National Weather Service sponsors the SKYWARN program. Amateur Radio participation in SKYWARN is coordinated by the appropriate SKYWARN EC.

(f) County Offices of Emergency Management – County OEMs are served by county ARES organizations.

(g) Other agencies – each county, area or branch may serve additional agencies not listed here.

5. Tar Heel Emergency Net

(a) The Tar Heel Emergency Net (THEN) is the North Carolina HF ARES net.

(b) The SEC has overall administrative jurisdiction over THEN.

(c) The purpose of THEN is to provide communications during emergencies, to provide training in all aspects of net operations, to serve as a forum for discussions and to foster fellowship among radio amateurs.

(d) The SEC designates a Net Manager to be responsible for the day-to-day administration of the net, and recommends to the Section Traffic Manager that the THEN Net Manager be appointed as an ARRL Net Manager.

(e) The Net Manager will report net statistics to the SEC and STM each month.

(f) The primary net frequency is 3923 kHz; alternate is 7232 kHz.

(g) THEN operates in three modes:

    i. Active – during disasters, net runs continuously or for most of the day. Net control stations will maintain accurate lists of stations checked in and their locations. Stations must check out when they are no longer able to monitor the net. Net control stations will periodically poll stations to make sure they are still in contact with the net. The purpose of active mode is to facilitate communications between the State EOC and stations in the disaster area, especially stations at branch offices and county EOCs.

    ii. Standard – during normal net operations THEN is called nightly at 7:30 PM. Net control station maintains a list of stations checked in, handles traffic and net business, then closes the formal session. During the informal session, stations may comment on ARES issues in their area.

    iii. Standby – during disasters, net may revert to standby mode if there is very little traffic to be passed. Net control station and other stations will monitor the net frequency but a continuous net presence will not be maintained. This mode will be used primarily near the end of disaster activations.

6. Disaster Activations

(a) Activation of ARES by Request from a Served Agency

    i. Most activations of ARES will take place at the county level rather than the state level.

    ii. County ARES organizations will be activated by the county EC upon request from a served agency in that county.

    iii. Amateur Radio SKYWARN participation will be activated by the SKYWARN EC upon request from the National Weather Service.

    iv. North Carolina ARES will be activated by the SEC upon request from an agency served at the state level.

    v. ARES Branch and Area participation may be activated by the corresponding ASEC or DEC to facilitate communications between counties in their branches or areas.

    vi. The State EOC will be activated by the EC-NCEM upon request from NCEM or the SEC.

    vii. The SEC, ASECs, DECs and ECs may authorize others to activate ARES in their absence.

(b) Activation of the Tar Heel Emergency Net

    i. The Tar Heel Emergency Net can be activated by the Net Manager, SEC, ASECs, DECs, county ECs and the EC-NCEM if needed to facilitate communications over distances not covered by VHF.

    ii. The Net Manager and SEC must be informed of any disaster activation of the net as soon as possible.

(c) FCC Declaration of Communications Emergency

    i. Federal Communications Commission (FCC) policy provides that when a disaster disrupts normal communication systems in a particular area, the FCC may declare a temporary state of communication emergency. The declaration will set forth any special conditions and special rules to be observed by stations during the communication emergency.

    ii. The FCC favors the use of 60 meters or VHF in declarations affecting amateur radio.

(d) Notification of ARRL Headquarters

    i. The Field and Educational Services Department at ARRL Headquarters shall be notified of any statewide activation of ARES. Such notification shall be made by the SEC, ASEC, Public Information Coordinator (PIC) or SM.

    ii. W1AW Bulletins announcing the activation should be requested only if all of the following apply:

        A. The activation is expected to use HF frequencies.

        B. The activation is expected to last longer than 24 hours.

(e) Activation of the National Traffic System

    i. The National Traffic System operates on both daytime and nighttime cycles on a daily basis.

    ii. The National Traffic System is used by ARES to provide short and long haul communications between locations not served by ARES nets.

    iii. If additional coverage by an NTS local net is needed which is beyond the normal operating hours of that net, an EC may request additional net sessions be activated by contacting the Net Manager (NM).

    iv. If additional coverage by the NTS section nets are needed, or additional use of upper-echelon nets (4RN) or NTS Digital Stations are needed, such requests should be sent to the Section Traffic Manager (STM).

    v. NTS section nets continue to operate even if THEN has been activated for continuous operation. This is necessary to facilitate handling of disaster traffic coming into and leaving the state.

    vi. The North Carolina Evening Net (NCEN) operates on 3923 kHz. During activations, this frequency must be shared with THEN.

        A. If the THEN NM or Net Control Station (NCS) determines that the volume of messages on THEN is small, NCEN may operate on its normal frequency. In addition to NTS traffic, the NCEN NCS will allow emergency and priority tactical messages to be handled. At the conclusion of NCEN, THEN will resume.

        B. If the THEN NM or NCS determines that the volume of messages on THEN is large, NCEN may move to a nearby frequency such as 3920 or 3926 kHz.

        C. If THEN is active only on 7232 kHz, then NCEN will operate normally.

7. Drills

   (a) A drill is considered to be any training exercise which involves on-the-air activities simulating some aspect of ARES communications.

   (b) Drills shall be conducted at least twice a year at the state and county level. Branch and Area drills shall be conducted as needed in conjunction with state or county drills.

   (c) Drills are used to accomplish the following:

      i. Evaluation working relationships between ARES and served agencies.
      ii. Evaluation of equipment and techniques used to respond to specific scenarios.
      iii. Introduce new operators to ARES.
      iv. Evaluate participation and interest in ARES programs at all levels.
      v. Evaluate cooperation between ARES and other programs of the ARRL Field Organization.

   (d) The SEC shall encourage ARES at all levels to participate in the annual ARRL Simulated Emergency Test and ARRL Field Day exercises.

8. Training

   (a) Training includes any activity which educates ARES members on methods and procedures that are beneficial to someone providing ARES communications.

   (b) The Section Emergency Coordinator may appoint a Training Officer to design, implement and coordinate ARES training in the section. The official Field Organization appointment will be Official Emergency Station.

   (c) Required training: The Department of Homeland Security is now *requiring* everyone with a direct role in emergency and incident management and response, including radio operators, to take NIMS and ICS training. Specifically, those amateur radio operators who may be deployed to emergency operations centers (EOCs), command posts, public safety answer points (911 centers) or other points where interface with emergency management or government officials at any level is expected are required to complete IS 100, IS 200, IS 700 and IS 800.

   (d) In-person training: ARES members are strongly encouraged to attend any in-person courses offered or recommended by their county ARES or SKYWARN organizations. This includes both Amateur Radio and served agency training courses.

   (e) On-The-Air training: at the state level, on-the-air ARES training is held during a regular session of THEN. Such training shall be conducted at least twice per month.

   (f) Online training: ARES members are encouraged to enroll in the Amateur Radio Emergency Communications Course (ARECC). This course is offered on the Internet as part of the Certification and Continuing Education Program of the American Radio Relay League. Enrollment in ARECC is voluntary and done at the expense of the student. Some students can receive tuition reimbursement from grants administered by ARRL. ARECC is considered a supplement, not a substitute, for in-person training programs offered at the county level.

   (g) Self-study: there are several self-study options for those who cannot participate in on-the-air, online or in-person training. These options are discussed in more detail in Appendix D.

      i. Independent Study. Several publications and online documents are available from ARRL Headquarters that are helpful to those wishing to learn more about public service communications outside of an official course.
      ii. NIMS/ICS Training. There are several courses offered by the FEMA Emergency Management Institute Independent Study Program that satisfy this requirement (see Appendix F).

9. ARES Modes and Frequencies

   (a) The mode of transmission should be selected to utilize the available communications resources. Both the mode and frequency must remain flexible to suit the emergency situation. Non-voice modes are preferred when the communications should not be easily intercepted by the public.

   (b) State Activations. The frequencies shown in Table 1 will be used for initial communications in each mode in the event of a statewide activation. Other frequencies may be announced during an activation.

Mode	Primary	Secondary
Single Sideband	3923 kHz	7232 kHz
CW	3573 kHz	3571 kHz

   Table 1: ARES frequencies during statewide activations

   (c) County Activations. The county EC shall designate frequencies to be used for initial communications in each mode in the event of a countywide activation.

   (d) 60 Meters.

       i. Five frequencies are assigned to the Amateur Service in the 60 meter band on a secondary basis. The Amateur tuning frequencies are: 5330.5 kHz, 5346.5 kHz, 5366.5 kHz, 5371.5 kHz and 5403.5 kHz. Stations must use Upper Sideband, 50 W ERP maximum and a bandwidth of not greater than 2.8 kHz.

       ii. Since only five frequencies are available for use on 60 meters, it is quite possible that all five frequencies will be in use during a disaster. Therefore, the selection of any specific frequency for ARES communications must be made at the time it is actually needed.

10. Responsibilities of ARES Volunteers

   (a) Each prospective ARES volunteer must register with the ARES Emergency Coordinator in their county, using form FSD-98 or other form provided by the EC.

   (b) Each prospective ARES volunteer must complete the required NIMS/ICS training and submit course certificates before being certified as an ARES volunteer.

   (c) Once registered, ARES volunteers are expected to do the following:

       i. Inform the EC of any changes in registration information that takes place after initial registration.

       ii. Become familiar with ARES and NTS procedures, including those that are specific to your county.

       iii. Become familiar with RACES station requirements.

       iv. Participate in ARES nets, training and drills, whenever possible.

       v. Inform the EC of the status of your station at least once per year.

   (d) Service as an ARES volunteer is entirely at the discretion of the EC.

11. Digital Communications Network

   (a) Winlink 2000 shall be used for store-and-forward messaging to allow County EOCs to communicate with their respective Branch Offices, and to allow Branch Offices to communicate with the State EOC.

   (b) Communications can be direct, using MARS or Amateur frequencies, or indirect, using the nearest RMS, on MARS or Amateur frequencies.

   (c) The SEC has overall administrative jurisdiction over the digital communications network.

Appendix A. Radio Amateur Civil Emergency Service (RACES) Guidelines for North Carolina

1. Overview

    RACES is the Radio Amateur Civil Emergency Service, and is defined in Part 97 of the FCC Rules. It is essentially a "restricted mode" of Amateur Radio communications, to be activated by FEMA, state or county civil defense agencies (called Emergency Management in North Carolina). To lawfully participate in RACES communications, an Amateur Radio station must first be registered with his county civil defense agency. When RACES is activated, stations so registered may only contact other RACES stations or those stations authorized by the government to communicate with RACES stations. Under some circumstances, such as wartime, RACES can be activated such that all other Amateur operation must cease.

    The FCC has stated[1] that when it was created in 1952, RACES was originally envisioned to be a temporary service that would allow only RACES stations to continue radio communication for civil defense purposes when all amateur stations were directed to cease transmitting. Furthermore, the restrictions of §97.407 apply to *all* RACES operation, and not only when the Presidential War Emergency Powers have been invoked. Therefore, it is important for all Amateur Radio operators to understand the RACES rules, and for their stations to be registered with the civil defense agency in their county, in the event we are required to operate under RACES.

    ARES is the Amateur Radio Emergency Service and is a radio service created and supported by the American Radio Relay League. Almost all of our disaster and public service communications is provided by ARES. ARES operates under normal Amateur rules and therefore is not as restricted as RACES operation, so most of our preparedness and deployment takes place under ARES. In North Carolina, by both tradition and written agreement, those Amateurs who are registered in ARES are also considered to be registered in RACES. This eliminates the need to keep two lists and allows us to "switch hats" if RACES is activated.

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[1] *See* Amendment of Part 97 of the Commission's Rules Governing the Amateur Radio Services, *Report and Order,* WT Docket No. 04-140, 21 FCC Rcd 11643 ¶ 51 (2006).

2. The Short Version.

The objective of this document is to make sure that all stations are registered properly, so they can legally operate if RACES is activated, and to restate current ARES responsibilities in RACES terms. If we do the following, we will stay out of trouble if RACES is activated:

   (a) All stations should register for ARES/RACES with their county EC (who normally serves as the county RACES Officer).

   (b) County ECs must keep an accurate list of ARES/RACES stations on file with their county director of Emergency Management, and with the Section EC (who normally serves as the State RACES Officer). This ensures that amateurs can legally operate if RACES is activated.

   (c) Hold drills at least once a year to remind people what RACES is.

3. Agencies Served. Unlike ARES, RACES serves civil defense agencies only. The civil defense agencies below have jurisdiction in North Carolina.

   (a) Federal Emergency Management Agency (hereinafter referred to as FEMA). FEMA is an agency of the United States Department of Homeland Security.

   (b) North Carolina Division of Emergency Management (hereinafter referred to as NCEM). NCEM is an agency of the North Carolina Department of Crime Control and Public Safety.

   (c) County Office of Emergency Management (hereinafter referred to as County OEM). County OEMs are agencies of their corresponding county government. The exact name of the agency will vary from county to county.

4. Eligibility

   (a) Any United States citizen, who possesses a valid FCC Amateur Radio Operator License, Technician Class or higher, is eligible to become a member of RACES. The services of amateurs who have a Novice Class license may be used, but this is not recommended due to the privilege limitations.

   (b) State and County RACES Officers must have a General or higher class license.

5. Organizational Structure

   (a) State Level. At the state level, the RACES command structure is organized to facilitate communications with North Carolina Emergency Management.

      i. State RACES Officer. The ARES Section Emergency Coordinator also serves as the State RACES Officer. When the ARRL Section Manager appoints the Section Emergency Coordinator, that person will normally be nominated as State RACES Officer at the same time (subject to acceptance by the NC Director of Emergency Management). If for some reason the SEC is unable to serve as a RACES Officer, then the Section Manager may nominate a different person to serve as State RACES Officer.The State RACES Officer may designate a State RACES Assistant to serve as Acting State RACES Officer in case of his absence during an activation.

      ii. State RACES Assistants. ARES District Emergency Coordinators (both ASECs and Area DECs) corresponding to NCEM Branch and Area Offices, and the Emergency Coordinator for NCEM will serve as liaison between their NCEM counterparts and North Carolina RACES. Since RACES only permits communications on behalf of civil defense agencies, SKYWARN ECs do not have a specific role under RACES.

      iii. RACES Stations. All state RACES officials must also be registered RACES stations at their county level.

   (b) County Level. At the county level, the RACES command structure is organized to facilitate communications with the County OEMs.

    i. County RACES Officers. The ARES Emergency Coordinator for the county normally serves as the county RACES Officer. When the ARES SEC appoints a county Emergency Coordinator, that person will normally be nominated as county RACES Officer at the same time (subject to acceptance by the county director of emergency management). If for some reason the EC is unable to serve as a RACES Officer, then the SEC may nominate a different person to serve as a county RACES Officer. The County RACES Officer may designate a county RACES Assistant to serve as acting county RACES Officer in case of his absence during an activation.

    ii. County RACES Assistants. The County RACES Officer may appoint assistants to serve in his absence, or to address specific needs. This appointment should coincide as much as possible with Assistant Emergency Coordinator appointments.

    iii. RACES Stations. All stations that have registered with the county RACES Officer, and are on file with the county director of emergency management, may participate in RACES activations at both the county and state level, if permitted by the rules of the particular activation.

6. Emergency Activations

   (a) National Emergency (War Emergency Powers). In the event of an emergency which necessitates the invoking of the President's War Emergency Powers under the provisions of Section 706 of the Communications Act of 1934, as amended, 47 U.S.C. 606, amateurs participating as RACES stations may only transmit on frequency segments authorized pursuant to FCC Rule §97.407 (b).

   (b) State or Regional. In the event of an emergency in which activation of RACES is requested by NCEM or FEMA, then North Carolina RACES shall be activated by the State RACES Officer, or his designee. Amateurs participating as RACES Stations may only communicate with other RACES Stations, and certain other stations authorized by the responsible agency.

   (c) County. In the event of an emergency in which activation of a county RACES unit is requested by the County OEM, or by FEMA, then that county's RACES shall be activated by the county RACES Officer, or his designee. Amateurs participating as RACES Stations may only communicate with other RACES Stations, and certain other stations authorized by the responsible agency.

7. Drills.

   (a) Most training, drills and activations will take place under the ARES organization, rather than RACES. RACES drills are held for three main purposes: to remind Amateurs to register their stations, to verify registration lists, and to encourage awareness of the RACES rules and regulations.

   (b) Statewide RACES drills. North Carolina RACES shall seek permission from NCEM to conduct a minimum of at least one drill per year. More drills may be held, subject to the restrictions of FCC Rule §97.407 (d) (4).

   (c) County RACES drills. County RACES Officer shall seek permission from their county director of emergency management to hold at least one drill per year. More drills may be held, subject to the restrictions of FCC Rule §97.407 (d) (4).

8. RACES Station Responsibilities.

   (a) Most training, drills and activations will take place under the ARES organization, rather than RACES. RACES stations are encouraged to participate in both.

   (b) FCC Rules and Regulations apply to the operation of a radio in the amateur service and therefore apply to the RACES organization.

(c) Duties of RACES Stations. Amateurs participating in RACES are expected to do each of the following:

    i. Register their station with the ARES County Emergency Coordinator/County RACES Officer, using form FSD-98 or other form provided by the County RACES Officer.

    ii. Inform their county RACES Officer of any callsign, name, address, telephone number or e-mail address change that takes place after initial registration.

    iii. Become familiar with the RACES Rules (Subpart E).

    iv. Observe RACES rules during an activation or drill.

    v. Participate in RACES drills, whenever applicable.

    vi. Inform the county RACES Officer of the status of your station at least once per year.

(d) Duties of County RACES Officers. County RACES Officers are expected to do each of the following:

    i. Maintain a good relationship with the county director of emergency management.

    ii. Encourage Amateurs to join ARES/RACES.

    iii. Maintain an accurate list of registered RACES stations in the county.

    iv. Make sure that repeater, node and other unattended stations that might be used during an activation are registered for RACES operation.

    v. Submit a hardcopy list of registered RACES stations to the county director of emergency management at least once per year, and more frequently if the list changes. The hardcopy list is required, even if the list is also submitted electronically.

    vi. Submit a copy of the list of registered RACES stations to the State RACES Officer also.

    vii. Seek permission from your county director of emergency management to conduct at least one RACES drill per year.

    viii. Designate preferred frequencies for county RACES operation.

9. RACES Modes and Frequencies

(a) The mode of transmission should be selected to utilize the available communications resources. Both the mode and frequency must remain flexible to suit the emergency situation. Non-voice modes are preferred when the communications should not be easily intercepted by the general public.

(b) State Activations. The frequencies shown in Table 2 will be used for initial communications in each mode in the event of a statewide activation if not restricted to frequency segments authorized pursuant to FCC Rule §97.407 (b).

Mode	Primary	Secondary
Single Sideband	3923 kHz	7232 kHz
CW	3573 kHz	3571 kHz

Table 2: RACES frequencies during statewide activations.

(c) County Activations. The county RACES Officer shall designate frequencies to be used for initial communications in each mode in the event of a countywide activation requiring RACES operation.

10. Document Review.

This document shall be reviewed annually by the State RACES Officer, or sooner if dictated by changes in rules or civil defense agency requirements.

11. **FCC RULES, Part 97 Subpart E–Providing Emergency Communications**

§97.407 Radio Amateur Civil Emergency Service (RACES).

(a) No station may transmit in RACES unless it is an FCC-licensed primary, club, or military recreation station and it is certified by a civil defense organization as registered with that organization. No person may be the control operator of an amateur station transmitting in RACES unless that person holds a FCC-issued amateur operator license and is certified by a civil defense organization as enrolled in that organization.

(b) The frequency bands and segments and emissions authorized to the control operator are available to stations transmitting communications in RACES on a shared basis with the amateur service. In the event of an emergency which necessitates invoking the President's War Emergency Powers under the provisions of section 706 of the Communications Act of 1934, as amended, 47 U.S.C. 606, amateur stations participating in RACES may only transmit on the frequency segments authorized pursuant to part 214 of this chapter.

(c) An amateur station registered with a civil defense organization may only communicate with the following stations upon authorization of the responsible civil defense official for the organization with which the amateur station is registered:

    (1) An amateur station registered with the same or another civil defense organization; and

    (2) A station in a service regulated by the FCC whenever such communication is authorized by the FCC.

(d) All communications transmitted in RACES must be specifically authorized by the civil defense organization for the area served. Only civil defense communications of the following types may be transmitted:

    (1) Messages concerning impending or actual conditions jeopardizing the public safety, or affecting the national defense or security during periods of local, regional, or national civil emergencies;

    (2) Messages directly concerning the immediate safety of life of individuals, the immediate protection of property, maintenance of law and order, alleviation of human suffering and need, and the combating of armed attack or sabotage;

    (3) Messages directly concerning the accumulation and dissemination of public information or instructions to the civilian population essential to the activities of the civil defense organization or other authorized governmental or relief agencies; and

    (4) Communications for RACES training drills and tests necessary to ensure the establishment and maintenance of orderly and efficient operation of the RACES as ordered by the responsible civil defense organizations served. Such drills and tests may not exceed a total time of 1 hour per week. With the approval of the chief officer for emergency planning in the applicable State, Commonwealth, District or territory, however, such tests and drills may be conducted for a period not to exceed 72 hours no more than twice in any calendar year.

Appendix B. Field Organization Appointment Descriptions for the Amateur Radio Emergency Service

The ARRL Field Organization consists of officially appointed League volunteers who have been given responsibility for carrying out a specific component of ARRL volunteer activities. In the Amateur Radio Emergency Service, the Field Organization appointments are: Section Emergency Coordinator, Assistant Section Emergency Coordinator, District Emergency Coordinator, Emergency Coordinator and Official Emergency Station. The Section Manager appoints the Section Emergency Coordinator, who then makes all other ARES Field Organization appointments and appointment cancellations. ARES Field Organization appointees serve entirely at the discretion of the Section Emergency Coordinator.

North Carolina makes use of two special Field Organization appointments not distinctly recognized by ARRL:

- SKYWARN Emergency Coordinator – officially appointed as an Emergency Coordinator.

- Emergency Coordinator for North Carolina Emergency Management – officially appointed as an Emergency Coordinator.

Emergency Coordinators at any level may appoint Assistant Emergency Coordinators. AECs are an important part of ARES, and all ECs should strongly consider appointing assistants. AECs are not considered part of the ARRL Field Organization and serve entirely at the discretion of the appointing EC. The official appointment descriptions in this appendix represent guidelines for what is typically expected from each appointee. We recognize that each person in the Field Organization has unique talents and interests, and each area of jurisdiction may have different needs than its neighbors. Therefore, the actual expectations for each appointee may encompass different qualifications and job functions than those shown in these official descriptions.

Official ARRL Field Organization Appointment Description: Section Emergency Coordinator

The SEC is the assistant to the SM for emergency preparedness. The SEC is appointed by the SM to take care of all matters pertaining to emergency communications and the Amateur Radio Emergency Service (ARES) on a sectionwide basis. The SEC 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. There is only one SEC appointed in each section of the ARRL Field Organization.
SEC qualifications and functions:

1. Encourage all groups of community amateurs to establish a local emergency organization.

2. Advise the SM on all section emergency policy and planning, including the development of a section emergency communications plan.

3. Cooperate and coordinate with the Section Traffic Manager so that emergency nets and traffic nets in the section present a united public service front, particularly in the proper routing of Welfare traffic in emergency situations. Cooperation and coordination should also be maintained with other section leadership officials as appropriate, particularly with the State Government Liaison and Public Information Coordinator.

4. Recommend candidates for Emergency Coordinator and District Emergency Coordinator appointments (and cancellations) to the Section Manager and determine areas of jurisdiction of each amateur so appointed. At the SM's discretion, the SEC may be directly in charge of making (and canceling) such appointments. In the same way, the SEC can handle the Official Emergency Station appointments.

5. Promote ARES membership drives, meetings, activities, tests, procedures, etc., at the section level.

6. Collect and consolidate Emergency Coordinator (or District Emergency Coordinator) monthly reports and submit monthly progress summaries to the SM and ARRL Headquarters. This includes the timely reporting of emergency and public safety communications rendered in the section for inclusion in QST.

7. Maintain contact with other communication services and serve as liaison at the section level with all agencies served in the public interest, particularly in connection with state and local government, civil preparedness, Federal Emergency Management Agency, Red Cross, Salvation Army, the National Weather Service, and so on. Such contact is maintained in cooperation with the State Government Liaison.

Recruitment of new hams and League members is an integral part of the job of every League appointee. Appointees should take advantage of every opportunity to recruit a new ham or member to foster growth of Field Organization programs, and our abilities to serve the public.
Requirements: Full ARRL membership; Technician class license or higher. Must complete IS 100, IS 200, IS 700 and IS 800 courses and be registered in the section ARES database.

Official ARRL Field Organization Appointment Description: Assistant Section Emergency Coordinator

The ARRL Assistant Section Emergency Coordinator (ASEC) is the assistant to the SEC for emergency preparedness. The ASEC is appointed by the SEC to over see and supervise all matters pertaining to emergency communications and the Amateur Radio Emergency Service (ARES) on a multi-district, branch-wide basis. The ASEC 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. There may be multiple ASECs appointed in each section of the ARRL Field Organization. In North Carolina, an ASEC shall be appointed for each of the Western, Central and Eastern branches as defined by North Carolina Division of Emergency Management.

ASEC qualifications and functions:

1. Encourage all DECs and ECs to establish on-going local emergency organizations and communications between community amateurs.

2. Advise the SEC on all district emergency policy and planning, including the development of district(s) or branch emergency communications plans.

3. Cooperate and coordinate with the Section Traffic Manager so that emergency nets and traffic nets in the section, branch(es), and district(s) present a united public service front, particularly in the proper routing of Welfare traffic in emergency situations. Cooperation and coordination should also be maintained with other section leadership officials as appropriate, particularly with the State Government Liaison and Public Information Coordinator.

4. Recommend candidates for Emergency Coordinator and District Emergency Coordinator appointments (and cancellations) to the Section Emergency Coordinator. Promote ARES membership drives, meetings, activities, tests, procedures, etc., in their district(s) and branch(es).

5. Collect and consolidate District Emergency Coordinator (or Emergency Coordinator) monthly reports and submit monthly progress summaries to the SEC. This includes the timely reporting of emergency and public safety communications rendered in the section for inclusion in QST.

6. Maintain contact with other communication services and serve as liaison at the branch or district level with all agencies served in the public interest, particularly in connection with state and local government, civil preparedness, Federal Emergency Management Agency, Red Cross, Salvation Army, the National Weather Service, and so on.

7. Recruitment of new hams and League members is an integral part of the job of every League appointee. Appointees should take advantage of every opportunity to recruit a new ham or member to foster growth and fellowship, in Field Organization programs, and enhance our abilities to serve the public.

Requirements: Full ARRL membership; Technician class license or higher. Must complete IS 100, IS 200, IS 700 and IS 800 courses and be registered in the section ARES database.

Official ARRL Field Organization Appointment Description: District Emergency Coordinator

The ARRL District Emergency Coordinator is appointed by the SEC to supervise the efforts of local Emergency Coordinators in the defined district. The DEC's duties involve the following:

1. Coordinate the training, organization and emergency participation of Emergency Coordinators in your district of jurisdiction.

2. Make local decisions in the absence of the SEC or through coordination with the SEC, concerning the allotment of available amateurs and equipment during an emergency.

3. Coordinate the interrelationship between local emergency plans and between communications networks within your area of jurisdiction.

4. Act as backup for local areas without an Emergency Coordinator and assist in maintaining contact with governmental and other agencies within your area of jurisdiction.

5. Provide direction in the routing and handling of emergency communications of either a formal or tactical nature, with specific emphasis being placed on Welfare traffic.

6. Recommend EC appointments to the SEC.

7. Coordinate the reporting and documenting of ARES activities in your district of jurisdiction.

8. Act as a model emergency communicator as evidenced by dedication to purpose, reliability and understanding of emergency communications.

9. Be fully conversant in National Traffic System routing and procedures as well as have a thorough understanding of the locale and role of all vital governmental and volunteer agencies that could be involved in an emergency.

Recruitment of new hams and League members is an integral part of the job of every League appointee. Appointees should take advantage of every opportunity to recruit a new ham or member to foster growth of Field Organization programs, and our abilities to serve the public.

Requirements: Technician or higher class; Full ARRL membership. Must complete IS 100, IS 200, IS 700 and IS 800 courses and be registered in the section ARES database.

Official ARRL Field Organization Appointment Description: Emergency Coordinator

The ARRL Emergency Coordinator is a key team player in ARES on the local emergency scene. Working with the Section Emergency Coordinator, the DEC and Official Emergency Stations, the EC prepares for, and engages in management of communications needs in disasters. EC duties include:

1. Promote and enhance the activities of the Amateur Radio Emergency Service (ARES) for the benefit of the public as a voluntary, non-commercial communications service.

2. Manage and coordinate the training, organization and emergency participation of interested amateurs working in support of the communities, agencies or functions designated by the Section Emergency Coordinator/Section Manager.

3. Establish viable working relationships with federal, state, county, city governmental and private agencies in the ARES jurisdictional area which need the services of ARES in emergencies. Determine what agencies are active in your area, evaluate each of their needs, and which ones you are capable of meeting, and then prioritize these agencies and needs. Discuss your planning with your Section Emergency Coordinator and then with your counterparts in each of the agencies. Ensure they are all aware of your ARES group's capabilities, and perhaps more importantly, your limitations.

4. Develop detailed local operational plans with "served" agency officials in your jurisdiction that set forth precisely what each of your expectations are during a disaster operation. Work jointly to establish protocols for mutual trust and respect. All matters involving recruitment and utilization of ARES volunteers are directed by you, in response to the needs assessed by the agency officials. Technical issues involving message format, security of message transmission, Disaster Welfare Inquiry policies, and others, should be reviewed and expounded upon in your detailed local operations plans.

5. Establish local communications networks run on a regular basis and periodically test those networks by conducting realistic drills.

6. Establish an emergency traffic plan, with Welfare traffic inclusive, utilizing the National Traffic System as one active component for traffic handling. Establish an operational liaison with local and section nets, particularly for handling Welfare traffic in an emergency situation.

7. In times of disaster, evaluate the communications needs of the jurisdiction and respond quickly to those needs. The EC will assume authority and responsibility for emergency response and performance by ARES personnel under his jurisdiction.

8. Work with other non-ARES amateur provider-groups to establish mutual respect and understanding, and a coordination mechanism for the good of the public and Amateur Radio. The goal is to foster an efficient and effective Amateur Radio response overall.

9. Work for growth in your ARES program, making it a stronger, more valuable resource and hence able to meet more of the agencies' local needs. There are thousands of new Technicians coming into the amateur service that would make ideal additions to your ARES roster. A stronger ARES means a better ability to serve your communities in times of need and a greater sense of pride for Amateur Radio by both amateurs and the public.

10. Report regularly to the SEC, as required.

Recruitment of new hams and League members is an integral part of the job of every League appointee. Appointees should take advantage of every opportunity to recruit a new ham or member to foster growth of Field Organization programs, and our abilities to serve the public.

Requirements: Technician or higher class license; Full ARRL membership. Must complete IS 100, IS 200, IS 700 and IS 800 courses and be registered in the section ARES database.

Official NC ARRL Field Organization Appointment Description: SKYWARN Emergency Coordinator

The NC ARRL SKYWARN Emergency Coordinator is a key team player in ARES on a multi-county level. Working with the Section Emergency Coordinator and all other Emergency Coordinators in the designated coverage area, the SKYWARN EC prepares for, and engages in management of Amateur Radio participation in the SKYWARN program. SKYWARN EC duties include:

1. Promote and enhance the activities of the Amateur Radio Emergency Service (ARES) for the benefit of the National Weather Service SKYWARN program as a voluntary, non-commercial communications service.

2. Manage and coordinate the training, organization and emergency participation of interested amateurs working in support of the SKYWARN program in communities designated by the Section Emergency Coordinator, in consultation with officials from the National Weather Service.

3. Ensure that SKYWARN participants are familiar with the overall ARES organizational structure and encourage participation at all levels of ARES.

4. Welcome non-amateurs who participate in SKYWARN training and provide information to them about ARES.

5. Establish viable working relationships with the National Weather Service in the designated area which need the services of ARES in the SKYWARN program. Discuss your planning with your Section Emergency Coordinator and other Emergency Coordinators in the designated area, and then with your counterpart in the National Weather Service. Ensure they are all aware of your ARES group's capabilities, and perhaps more importantly, your limitations, with regard to participation in the SKYWARN program.

6. Develop detailed local operational plans in cooperation with other Emergency Coordinators in your jurisdiction that set forth precisely what each of your expectations are during a disaster operation. Work jointly to establish protocols for mutual trust and respect.

7. Establish local SKYWARN networks run on a regular basis and periodically test those networks by conducting realistic drills.

8. Work with other non-ARES amateur provider-groups to establish mutual respect and understanding, and a coordination mechanism for the good of the public and Amateur Radio. The goal is to foster an efficient and effective Amateur Radio participation in the SKYWARN program.

9. Work for growth in the SKYWARN program, making it a stronger, more valuable resource and hence able to meet more of the National Weather Service's needs. There are thousands of new Technicians coming into the amateur service that would make ideal additions to your ARES roster. A stronger Amateur Radio participation in SKYWARN means a better ability to serve your communities in times of need and a greater sense of pride for Amateur Radio by both amateurs and the public.

10. Report regularly to the SEC, as required.

Recruitment of new hams and League members is an integral part of the job of every League appointee. Appointees should take advantage of every opportunity to recruit a new ham or member to foster growth of Field Organization programs, and our abilities to serve the public.
Requirements: Technician or higher class license; Full ARRL membership.

Official NC ARRL Field Organization Appointment Description: Emergency Coordinator for NCEM

The NC ARRL Emergency Coordinator for NCEM is a key team player in ARES and works with the North Carolina Division of Emergency Management (NCEM) at the State Emergency Operations Center (EOC). Working with the Section Emergency Coordinator, the DEC and other Emergency Coordinators, the EC-NCEM prepares for, and engages in management of communications needs at the State EOC in disasters. EC-NCEM duties include:

1. Promote and enhance the activities of the Amateur Radio Emergency Service (ARES) for the benefit of the State EOC as a voluntary, non-commercial communications service.

2. Manage and coordinate the training, organization and emergency participation of interested amateurs working in support of the State EOC, and other functions related to the North Carolina Division of Emergency Management as designated by the Section Emergency Coordinator.

3. Establish viable working relationships with the North Carolina Division of Emergency Management personnel at the State EOC. Discuss your planning with your Section Emergency Coordinator and then with your counterparts in NCEM. Ensure they are all aware of your ARES group's capabilities, and perhaps more importantly, your limitations.

4. Develop detailed operational plans with NCEM agency officials at the State EOC that set forth precisely what each of your expectations are during a disaster operation. Work jointly to establish protocols for mutual trust and respect. All matters involving recruitment and utilization of ARES volunteers at the State EOC are directed by you, in response to the needs assessed by NCEM officials. Technical issues involving message format, security of message transmission, Disaster Welfare Inquiry policies, and others, should be reviewed and expounded upon in your detailed local operations plans.

5. Establish communications networks and periodically test those networks by conducting or participating in realistic drills. Assist other Emergency Coordinators in testing communications from their jurisdictions to the State EOC.

6. Establish an emergency traffic plan, including both tactical and National Traffic System components for traffic handling. Establish an operational liaison with local and section nets.

7. In times of disaster, evaluate the communications needs of the State EOC and respond quickly to those needs. The EC-NCEM will assume authority and responsibility for emergency response and performance by ARES personnel at the State EOC.

8. Work with other Emergency Coordinators to establish mutual respect and understanding, and a coordination mechanism for the good of the public and Amateur Radio. The goal is to foster an efficient and effective Amateur Radio response overall.

9. Work for growth in your ARES program, making it a stronger, more valuable resource and hence able to meet more of the agencies' local needs. There are thousands of new Technicians coming into the amateur service that would make ideal additions to your ARES roster. A stronger ARES means a better ability to serve your communities in times of need and a greater sense of pride for Amateur Radio by both amateurs and the public.

10. Report regularly to the SEC, as required.

Recruitment of new hams and League members is an integral part of the job of every League appointee. Appointees should take advantage of every opportunity to recruit a new ham or member to foster growth of Field Organization programs, and our abilities to serve the public.

Requirements: General or higher class license; Full ARRL membership. Must complete IS 100, IS 200, IS 700 and IS 800 courses and be registered in the section ARES database.

Official ARRL Field Organization Appointment Description: Official Emergency Station

Amateur operators may be appointed as an Official Emergency Station (OES) by their Section Emergency Coordinator (SEC) or Section Manager (SM) at the recommendation of the EC, or DEC (if no EC) holding jurisdiction. The OES appointee must be an ARRL member and set high standards of emergency preparedness and operating. The OES appointee makes a deeper commitment to the ARES program in terms of functionality than does the rank-and-file ARES registrant.

The requirements and qualifications for the position include the following: Full ARRL membership; experience as an ARES registrant; regular participation in the local ARES organization including drills and tests; participation in emergency nets and actual emergency situations; regular reporting of activities.

The OES appointee is appointed to carry out specific functions and assignments designated by the appropriate EC or DEC. The OES appointee and the presiding EC or DEC, at the time of the OES appointment, will mutually develop a detailed, operational function/assignment and commitment for the new appointee. Together, they will develop a responsibility plan for the individual OES appointee that makes the best use of the individual's skills and abilities. During drills and actual emergency situations, the OES appointee will be expected to implement his/her function with professionalism and minimal supervision.

Functions assigned may include, but are not limited to, the following four major areas of responsibility:

OPERATIONS–Responsible for specific, pre-determined operational assignments during drills or actual emergency situations. Examples include: Net Control Station or Net Liaison for a specific ARES net; Manage operation of a specified ARES VHF or HF digital BBS or MBO, or point-to-point link; Operate station at a specified emergency management office, Red Cross shelter or other served agency operations point.

ADMINISTRATION–Responsible for specific, pre-determined administrative tasks as assigned in the initial appointment commitment by the presiding ARES official. Examples include: Recruitment of ARES members; liaison with Public Information Officer to coordinate public information for the media; ARES registration data base management; victim/refugee data base management; equipment inventory; training; reporting; and post-event analysis.

LIAISON–Responsible for specific, pre-determined liaison responsibilities as assigned by the presiding EC or DEC. Examples include: Maintaining contact with assigned served agencies; Maintaining liaison with specified NTS nets; Maintaining liaison with ARES officials in adjacent jurisdictions; Liaison with mutual assistance or "jump" teams.

LOGISTICS–Responsible for specific, pre-determined logistical functions as assigned. Examples include: Transportation; Supplies management and procurement (food, fuel, water, etc.); Equipment maintenance and procurement–radios, computers, generators, batteries, antennas.

MANAGEMENT ASSISTANT–Responsible for serving as an assistant manager to the EC, DEC or SEC based on specific functional assignments or geographic areas of jurisdiction.

CONSULTING–Responsible for consulting to ARES officials in specific area of expertise.

OES appointees may be assigned to pre-disaster, post-disaster, and recovery functions. These functions must be specified in the OES's appointment commitment plan.

The OES appointee is expected to participate in planning meetings, and post-event evaluations. Following each drill or actual event, the EC/DEC and the OES appointee should review and update the OES assignment as required. The OES appointee must keep a detailed log of events during drills and actual events in his/her sphere of responsibility to facilitate this review.

Continuation of the appointment is at the discretion of the appointing official, based upon the OES appointee's fulfillment of the tasks he/she has agreed to perform.

Recruitment of new hams and League members is an integral part of the job of every League appointee. Appointees should take advantage of every opportunity to recruit a new ham or member to foster growth of Field Organization programs, and our abilities to serve the public.

FSD-108 (2/97)

Appendix C. Geographical Divisions

In North Carolina, the ARES command structure is designed to correspond to the geographical command structure used by the North Carolina Division of Emergency Management (NCEM). NCEM geographically divides the state into three Branches (Eastern, Central, Western); each Branch is further divided into five Areas, consisting of between six and eight counties.

The Section Emergency Coordinator appoints an Assistant Section Coordinator corresponding to each Branch, and appoints a District Emergency Coordinator to correspond to each Area. County Offices of Emergency Management are served by Emergency Coordinators. The Section Emergency Coordinator may specify that an appointee serve more than one adjacent geographical area.

Area 1	Area 2	Area 3	Area 4	Area 5
Camden	Beaufort	Carteret	Cumberland	Bladen
Chowan	Bertie	Craven	Duplin	Brunswick
Currituck	Hyde	Greene	Jones	Columbus
Dare	Martin	Lenoir	Onslow	Hoke
Gates	Pitt	Pamlico	Pender	New Hanover
Hertford	Tyrrell	Wayne	Sampson	Robeson
Pasquotank	Washington			
Perquimans				

Table 3: Eastern Branch Counties

Area 6	Area 7	Area 8	Area 9	Area 10
Franklin	Edgecombe	Anson	Caswell	Alamance
Granville	Harnett	Chatham	Davie	Davidson
Halifax	Johnston	Lee	Forsyth	Durham
Northampton	Nash	Moore	Rockingham	Guilford
Person	Wake	Richmond	Stokes	Montgomery
Vance	Wilson	Scotland	Surry	Orange
Warren			Yadkin	Randolph

Table 4: Central Branch Counties

Area 11	Area 12	Area 13	Area 14	Area 15
Alexander	Ashe	Burke	Buncombe	Clay
Alleghany	Avery	Catawba	Cherokee	Henderson
Cabarrus	Caldwell	Cleveland	Graham	Jackson
Iredell	McDowell	Gaston	Haywood	Macon
Rowan	Mitchell	Lincoln	Swain	Polk
Stanly	Watauga	Mecklenburg	Madison	Rutherford
Wilkes	Yancey	Union		Transylvania

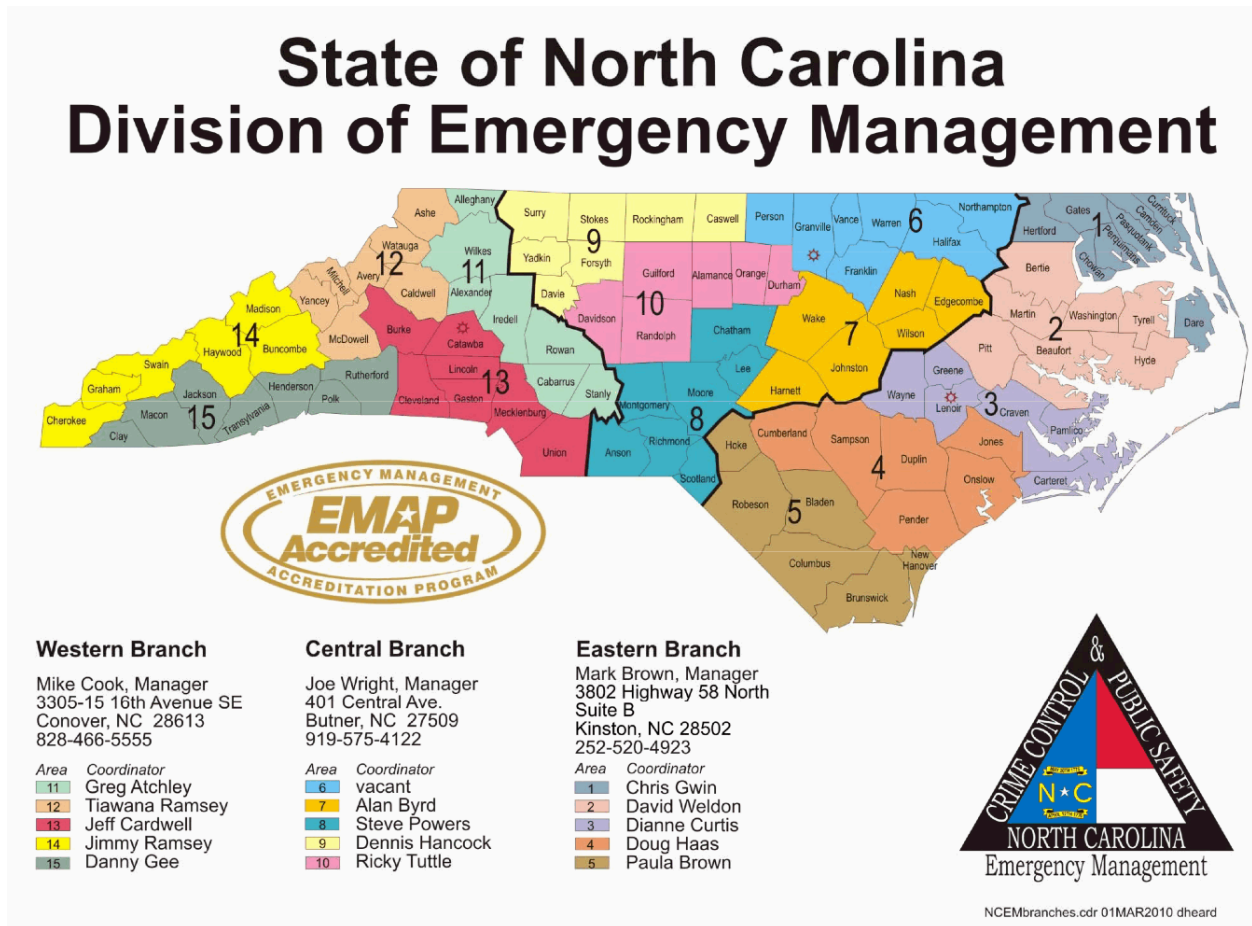Table 5: Western Branch Counties

Figure 1: NC Division of Emergency Management geographical divisions (as of March 22, 2010).

Appendix D. Training Programs

Volunteers in the Amateur Radio Emergency Service in North Carolina are expected and encouraged to participate in training programs to prepare them for disaster communications. Spontaneous and untrained volunteers are not generally very useful during times of disaster, and there is rarely time to train them during an actual activation.

Local Training

Local, in-person training programs offered or recommended by the Emergency Coordinator responsible for an ARES member's county are highly recommended. It is through personal contact and cooperation with local ARES members that a volunteer will learn the most essential skills that will be needed in their local area.

Training programs offered in conjunction with a served agency, such as SKYWARN spotter training for the National Weather Service, may be required by that agency prior to participation in communications on behalf of that agency. Such requirements are entirely at the discretion of each served agency.

As a supplement to local training, or as an alternative where none exists, online training programs may also be used to help prepare the ARES volunteer for participation during disasters.

ARRL Certification and Continuing Education Courses

These courses are offered on the Internet through the Connecticut Distance Learning Consortium (CTDLC). The first course is designed for ARES members at large; the second level is designed to bridge the gap between basic participation and leadership. A fee is assessed for each course; from time to time there are programs available under which you can take the course for reimbursement upon successful completion.

Course Number	Title
EC-001	Intro to Emergency Communications - Level 1/Basic.
EC-016	Public Service and Emergency Communications Management for Radio Amateurs

Table 6: ARRL-CCE Amateur Radio Emergency Communications Courses

For more information, visit `http://www.arrl.org/courses-training`

ARRL Publications for Independent Study

Several publications and online documents are available from ARRL Headquarters that are helpful to those wishing to learn more about public service communications outside of an official course.

- ARRL Emergency Communications Handbook (printed only). This includes the course material for the Amateur Radio Emergency Communications Course Level I and a substantial amount of additional material.

- ARES Field Resources Manual
  (printed and online at `http://www.arrl.org/files/file/ARESFieldResourcesManual.pdf`)

- Public Service Communications Manual
  (online at `http://www.arrl.org/public-service-communications-manual`)

- NTS Methods and Practices Guidelines
  (online at `http://www.arrl.org/appendix-b-nts-methods-and-practices-guidelines`)

FEMA Emergency Management Institute – Independent Study Program

The Federal Emergency Management Agency offers numerous online courses regarding Emergency Management topics, *free of charge.* These courses do not specifically address Amateur Radio communications techniques, but some provide a great introduction to emergency preparedness for the general public, and others may be useful for those in leadership positions (such as Emergency Coordinators). Courses are offered primarily as Adobe Portable Document Format (PDF) files, and final exams can be taken online. Certificates are sent to those who complete a final exam with a score of 75% or greater.

The Department of Homeland Security is now *requiring* everyone with a direct role in emergency and incident management and response, including radio operators, to take NIMS and ICS training. IS-100, IS-200, IS-700 and IS-800 are required for all ARES operators.

Course Number	Title
IS-100	Introduction to Incident Command System
IS-200	ICS for Single Resources and Initial Action Incidents
IS-700	National Incident Management System (NIMS), An Introduction
IS-800	National Response Framework, An Introduction

Table 7: FEMA Independent Study required courses

All ARES members should consider taking the following courses on general disaster preparedness as a matter of personal preparedness and safety.

Course Number	Title
IS-22	Are You Ready? An In-depth Guide to Citizen Preparedness
IS-55	Household Hazardous Materials – A Guide for Citizens

Table 8: FEMA Independent Study courses on general preparedness

For ARES leadership officials, the following courses may also be useful:

Course Number	Title
IS-240	Leadership & Influence
IS-242	Effective Communication
IS-244	Developing and Managing Volunteers

Table 9: FEMA Independent Study courses on leadership topics

Other courses in this program may be appropriate for you, depending on your local area and circumstances. For more information, visit `http://training.fema.gov/IS/`

General Disaster Preparedness

ARES members should make sure they are personally prepared for disasters, so any courses in general disaster preparedness may also be useful.

Some Internet resources for disaster preparedness appear below. Most of these are in Adobe PDF format, so you will need a PDF reader. Some of the larger documents can be purchased, this may be more economical than printing them out.

- `http://www.ready.gov`
  U.S. Department of Homeland Security – Information on how to make a kit of emergency supplies, make a plan for what you will do in an emergency, and be informed about different kinds of threats.

- `http://www.fema.gov/areyouready/`
  Are You Ready? A Guide to Citizen Preparedness (PDF) is FEMA's most comprehensive source on individual, family and community preparedness, and is the basis for the IS-22 independent study course.

- `http://www.readync.org`
  N.C. Department of Crime Control & Public Safety – part of the *Ready North Carolina* campaign; this lists information on how to make a kit of emergency supplies, make a plan for what you will do in an emergency, and be informed about different kinds of threats affecting North Carolina.

- `http://www.redcross.org`
  American Red Cross – The *Preparing and Getting Trained* section has publications for Family Disaster Planning, Terrorism, Personal Workplace Disaster Supplies Kit, Animal Safety and many more.

- `http://www.prepare.org`
  American Red Cross, Bay Area Chapter – Disaster preparedness materials for pandemics, fires, floods, and animal and pet owners.

Appendix E. Nets

This appendix provides a brief listing of information about NTS, ARES and independent public service nets covering North Carolina. Local nets meeting daily are also listed. More information about the Tar Heel Emergency Net appears on page 29.

Section-Level Nets

Net Name	Type	Time	Frequency	Mode
North Carolina Morning Net (NCMN)	NTS	0745 ET	3927 kHz	SSB
North Carolina Evening Net (NCEN)	NTS	1830 ET	3923 kHz	SSB
Carolinas Net (Early)[1] (CNE)	NTS	1900 ET	3573 kHz	CW 20-22 WPM
Tar Heel Emergency Net (THEN)	ARES	1930 ET	3923 kHz	SSB
Carolinas Slow Net[1] (CSN)	NTS	2000 ET	3571 kHz	CW 8-10 WPM
Carolinas Net (Late)[1] (CNL)	NTS	2200 ET	3573 kHz	CW 15-18 WPM

[1]serves both NC & SC

Local Nets

Only local nets that meet daily are listed.

Net Name	Type	Time	Repeater
Eastern NC Traffic Net (ENCTN)	NTS	2030 ET	146.685 MHz Grifton
Southeastern NC Traffic Net (SENCTN)	NTS	2000 ET	147.045 MHz Lumberton
Central NC Traffic Net (CNCTN)	NTS	2100 ET	146.82 MHz Wilkesboro
Piedmont Coastal Traffic Net (PCTN)	NTS	2100 ET	146.88 MHz Raleigh
Piedmont Emergency Training Net (PETN)	ARES	2000 ET	145.35 MHz Charlotte
Metrolina 2 Meter Emergency Net (M2MEN)	ARES	2100 ET	146.94 MHz Charlotte
Cape Fear Evening Net (CFEN)	ARES	1900 ET	146.91 MHz Fayetteville

Wide-Coverage Independent Nets

Net Name	Type	Time	Frequency	Mode
Coastal Carolina Emergency Net (CCEN)	Health & Welfare	1900 ET Daily	3907 kHz	SSB
Hurricane Watch Net (HWN)	Independent	As Needed	14325 kHz	SSB

Tar Heel Emergency Net

The Tar Heel Emergency Net (THEN) is the North Carolina HF ARES net. The purpose of THEN is to provide communications during emergencies, to provide training in all aspects of net operations, to serve as a forum for discussions and to foster fellowship among radio amateurs. On Monday nights a statewide ARES meeting is held instead of informal comments.

Amateurs interested in being a net control of the Tar Heel Emergency Net (THEN) should contact the Net Manager. An example net script appears on the next page. Contact the Net Manager for the latest version.

Since the served agencies have adopted ICS-213, traffic on the Tar Heel Emergency Net should be handled in the ICS-213 format, although the net may still pass traffic in traditional ARRL radiogram format.

Net reports should be sent to the Net Manager within a few days following the net and prior to the 4th day of any following month. Net reports can be sent as formal written traffic via the Tar Heel Emergency Net, any NTS net or via e-mail. Include in this report the date of the net, number of check-ins, total traffic listed, traffic passed, and the time of the formal portion of the net. An example in radiogram format appears in Figure 2 below.

THE AMERICAN RADIO RELAY LEAGUE

RADIOGRAM
VIA AMATEUR RADIO

NUMBER	PRECEDENCE	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
1	R	W4CC	11	CHARLOTTE NC		SEPT 4

TO
    KE4JHJ

TELEPHONE NUMBER

THEN	TUE	SEPT	4	CHECKINS
19	TRAFFIC	4/3	TIME	22
MINUTES				

JOHN W4CC

REC'D	FROM	DATE	TIME	SENT	TO	DATE	TIME

Figure 2: Example net report in radiogram format

Tar Heel Emergency Net Script

[AT 7:29 YOU MAY SAY] THIS IS_____.   THE TAR HEEL EMERGENCY NET BEGINS IN ONE
MINUTE. ALL STATIONS PLEASE STAND BY.

[AT 7:30 PM BEGIN THE NET]

THIS IS_____, NET CONTROL FOR THE TAR HEEL EMERGENCY NET. MY NAME IS_____,
AND I AM LOCATED IN_____ NORTH CAROLINA.

THE TAR HEEL EMERGENCY NET IS A DIRECTED NET AND IS THE NORTH CAROLINA HF ARES
NET. A.R.E.S. IS "AMATEUR RADIO EMERGENCY SERVICE," AND IS PART OF THE ARRL FIELD
ORGANIZATION. THE PURPOSE OF THIS NET IS TO PROVIDE COMMUNICATIONS DURING
EMERGENCIES, TO PROVIDE TRAINING IN ALL ASPECTS OF NET OPERATIONS, TO SERVE AS
A FORUM FOR DISCUSSIONS AND TO FOSTER FELLOWSHIP AMONG RADIO AMATEURS. ALL
RADIO AMATEURS ARE INVITED TO PARTICIPATE IN THE TAR HEEL EMERGENCY NET.

DO WE HAVE STATIONS WITH EMERGENCY OR PRIORITY TRAFFIC FOR THE NET?

[HANDLE THIS TRAFFIC NOW]

STATIONS WITH ANNOUNCEMENTS OR NET BUSINESS FOR THE NET?

[CALL FOR AFTER CHECKINS AND AFTER TRAFFIC]

STATIONS ARE ASKED TO CHECK INTO THE NET ACCORDING TO THE FIRST LETTER OF THE
SUFFIX OF YOUR CALL SIGN. PLEASE GIVE YOUR CALL, YOUR NAME, LOCATION, YOUR ARRL
APPOINTMENT IF ANY, AND LIST ANY TRAFFIC FOR THE NET.

DO WE HAVE ANY MOBILE STATIONS FOR THE TAR HEEL EMERGENCY NET?

    STATIONS A-G PLEASE CALL_____.
    STATIONS H-N PLEASE CALL_____.
    STATIONS O-T PLEASE CALL_____.
    STATIONS U-Z PLEASE CALL_____.

DO WE HAVE ADDITIONAL CHECKINS FOR THE TAR HEEL EMERGENCY NET?

[HANDLE TRAFFIC AND ANNOUNCEMENTS NOW]

THIS IS_____CLOSING THE FORMAL PORTION OF THE TAR HEEL EMERGENCY NET.
THOSE STATIONS THAT WOULD LIKE TO BE EXCUSED FROM THE NET MAY SECURE
YOUR STATIONS AT THIS TIME. THIS NET MEETS NIGHTLY AT 7:30 PM ON 3923 kHz
AND AT OTHER TIMES, AS NEEDED.

[CALL ON STATIONS FOR COMMENTS]

THIS IS_____CLOSING THE TAR HEEL EMERGENCY NET. I THANK ALL STATIONS FOR
CHECKING INTO THE NET, AND LOOK FORWARD TO YOUR REGULAR PARTICIPATION EACH
NIGHT AT 7:30 PM AS YOU ARE ABLE TO DO. THIS IS _____CLEAR.

Appendix F. Memorandum of Understanding with North Carolina Division of Emergency Management

Memorandum of Understanding
Between the
State of North Carolina
and the North Carolina Section of the
American Radio Relay League.

INTRODUCTION

The State of North Carolina acknowledges the long-standing service relationship between the North Carolina State Division of Emergency Management (NCEM) and the American Radio Relay League (ARRL). It is further noted with gratitude and appreciation that the ARRL's North Carolina Section of the Amateur Radio Emergency Service (ARES) has served the State in times of emergency and that individual service has always been provided as a totally voluntary donation during periods of great need, by the individual radio amateur with no remuneration asked or considered.

As it is important for government to recognize the value and utilize the services of efficient and enterprising private volunteer organizations, ARRL and NCEM agree to work closely together as set forth below.

I. PURPOSE

The purpose of this document is to state the terms of a mutual agreement (memorandum of understanding) between the North Carolina State Division of Emergency Management and the American Radio Relay League's North Carolina Section of ARES. This document will serve as a framework within which volunteer personnel of the ARRL may coordinate their services, facilities, and equipment with NCEM in support of statewide and local emergency communications functions. It is intended, through joint coordination and exercise of the resources of ARRL, FEMA, and Federal, State and local governments, to enhance the statewide posture of emergency communications readiness for any conceivable emergency.

II. RECOGNITION

The North Carolina State Division of Emergency Management recognizes that the ARRL is the principal organization representing the interests of more than 10,000 North Carolina radio amateurs, and because of its organized emergency communications capability can be of valuable assistance in providing critical and essential communications during emergencies and disasters when normal lines of communications are disrupted.

The American Radio Relay League North Carolina Section recognizes NCEM as the agency chartered as the central point of contact within North Carolina State government for a wide range of emergency management activities in both peace and war time. NCEM is dedicated to working closely with all the members of the emergency management community to achieve a realistic state of preparedness and an increased capacity to respond to emergencies of all types.

III. ORGANIZATION OF THE AMERICAN RADIO RELAY LEAGUE

The American Radio Relay League is a noncommercial membership association of Radio Amateurs, organized for the promotion of interest in Amateur Radio communication and experimentation, for the establishment of networks to provide communications in the event of disasters or other emergencies, for the advancement of the radio art and of the public welfare, for the representation of the radio amateur in legislative matters, and for the maintenance of fraternalism and high standard of conduct. A primary responsibility of the Amateur Radio Service, as established by the Federal Communications Commission's Rules and Regulations (47 CFR Part 97) is the rendering of public service communications for the general public, particularly in times of emergency when normal communications are not available. Using Amateur Radio operators in the amateur frequency bands, the ARRL has been serving the general public, both directly and through government and relief agencies, for more than fifty years. To that end, the League organized the Amateur Radio Emergency Service, and created the National Traffic System (NTS).

The League's Field Organization covers the United States, including U.S. possessions and Puerto Rico. The Field Organization is administered under an elected Section Manager in each of the 71 ARRL "sections," including the North Carolina section. The Section Manager appoints a Section Emergency Coordinator, who, along with district and county emergency coordinators directs ARES/emergency communications preparedness activities in the section. In North Carolina, the Emergency Coordinator (EC) for NCEM is the primary contact with the organization.

IV. RADIO AMATEUR CIVIL EMERGENCY SERVICE (RACES)

RACES is the part of the Amateur Radio Service that provides radio communications to local or State civil preparedness agencies during periods local, regional, or national civil emergencies. All of the authorized frequencies and emissions allocated to the Amateur Radio Service are also available to RACES on a shared basis. In the event that the President invokes his War Emergency powers, RACES operators using specially authorized frequencies would be the only Amateur Radio operators permitted on the air. In North Carolina, every member of the Amateur Radio Emergency Service is considered a member of RACES should this become necessary. The emergency communications of those Amateur Radio operators would then be coordinated by the Director of Emergency Management, the ARRL Section Manager, Section Emergency Coordinator, and the Emergency Coordinator for NCEM as necessary for the public interest. ARES appointees including Section Emergency Coordinator, Assistant Section Emergency Coordinators, District Emergency Coordinators, and local Emergency Coordinators shall become the RACES officers for their particular jurisdiction in the event of RACES activation.

V. METHOD OF COOPERATION

In order that communications resources of the ARRL section may be coordinated and utilized to the fullest advantage during disasters and emergencies, and to the extent permitted or required by law and regulation, NCEM and the ARRL have agreed to the following:

A. For state-level liaison between ARRL/ARES and NCEM, the points of contact are:
   ARRL NC Section Manager
   NC Section Emergency Coordinator
   EC for NCEM

   NC Emergency Management Division
   NCEM Communications Manager and/or his designee

B. For Branch-level liaison between ARES and NCEM, the points of contact are:
   District Emergency Coordinator, ARES
   Branch Coordinator, NCEM
   Note that ARRL's districts and NCEM's branches are coterminous.

C. For county-level liaison between ARES and EM, the points of contact are:
County Emergency Coordinators

County Directors of Emergency Management

D. NCEM, through its branch offices, will encourage county emergency management officials to interact with ARES emergency coordinators and other appropriate ARES Section officials, in an effort to establish cooperative relationships with ARES volunteers.

E. NCEM and ARES will encourage the development of operating plans within the counties such that the communications services, equipment and facilities of the Amateur Radio Service may be suitably utilized.

F. NCEM and ARES will distribute copies of this agreement through channels to emergency management branch offices, county emergency management agencies, and ARRL field organization officials respectively.

VI. It is formally agreed and accepted that ARES will be provided a position on the State Emergency Response Team (SERT) in the Division of Emergency Management. The State agrees to make available communications facilities, special passes, and official access to service areas, as approprite to each emergency which ARES agrees to support. It is understood that ARES has no binding hold nor sway over its volunteer workers and as such can respond only to the extent expressed by its membership.

This Agreement is reviewable annually and may be amended at that time as agreed to by the signatories.

APPROVAL

(signature appears on original)
Dr. Kenneth B. Taylor
Director, N. C. Division
of Emergency Management

   Date: 10/22/2002

(signature appears on original)
John Covington
N.C. Section Manager for the
American Radio Relay League

   Date: 11/16/2002

Appendix G. Forms

1. FSD-212. Monthly EC Report Form.

2. FSD-156. District or Local Emergency Coordinator Application.

3. FSD-98. Amateur Radio Emergency Service Registration Form.

4. Radiogram form.

5. ICS213 General Message form.

FSD-212 Monthly EC Report Form

An electronic version of this form is available at `http://www.ncarrl.org/ares/Form/Report.html`

Name		
Call Sign	E-mail	
Appointment: ☐ ASEC ☐ DEC ☐ EC ☐ AEC	Jurisdiction	
Month/Year Reported		
Total number of ARES members	Change since last month:	☐ Increase ☐ Decrease
Local Net Name	Total Sessions	
Liaison is maintained with the following nets:		
Number of drills, tests, and training sessions this month:	Person-Hours:	
Number public service events this month:	Person-Hours:	
Number of emergency operations this month: .	Person-Hours:	
Total number of ARES operations this month:	Total Person-Hours:	
Enter any comments or questions here:		

FSD-212-NC(4/2011)

Amateur Radio Emergency Service® District or Local Emergency Coordinator Application Form

Name	
Call Sign	License Class
Appointment you are seeking: ☐ ASEC ☐ DEC ☐ EC	County or Jurisdiction
Mailing Address	
City, State, Zip Code	
e-mail address(es)	
Home Phone	Work/Other Phone
Cell Phone	Pager
Amateur Radio clubs of which you are a member:	
ARRL appointments held (specify past or present):	
Training Completed:	ARRL: ☐ EC-001 ☐ EC-016 FEMA: ☐ IS-100 ☐ IS-200 ☐ IS-700 ☐ IS-800
Related experience:	

Check bands and modes you can operate:

Mode	HF	6 meters	2 meters	222 MHz	440 MHz	Others
SSB						
CW						
FM						
DATA						
PACKET						
Other (specify below)						
Mobile Operation						

Can your home station be operated without commercial power? Yes ☐ No ☐

If appointed, I agree to maintain current ARRL membership and report my activity monthly.

Signature: _____ Date _____

FSD-156-NC(4/2011)

Amateur Radio Emergency Service®
ARES® Registration Form

Name	
Call Sign	License Class
Mailing Address	
City, State, Zip Code	
County	
e-mail address(es)	
Home Phone	Work/Other Phone
Cell Phone	Pager
Amateur Radio clubs of which you are a member:	
Training Completed:	ARRL: ☐ EC-001 ☐ EC-016 FEMA: ☐ IS-100 ☐ IS-200 ☐ IS-700 ☐ IS-800

Check bands and modes you can operate:

Mode	HF	6 meters	2 meters	222 MHz	440 MHz	Others
SSB						
CW						
FM						
DATA						
PACKET						
Other (specify below)						
Mobile Operation						

Can your home station be operated without commercial power? Yes ☐ No ☐

Signature: _____ Date _____

Return this form to your county's ARES EC. To find out who the ARES and ARRL Section Leaders are in your area, go to `http://www.ncarrl.org/ares/` or `http://www.arrl.org/sections/` (or contact the ARRL NC Section Manager listed each month in QST).

FSD-98-NC(4/2011)

THE AMERICAN RADIO RELAY LEAGUE

RADIOGRAM
VIA AMATEUR RADIO

NUMBER	PRECEDENCE	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE

TO

TELEPHONE NUMBER

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

REC'D	FROM	DATE	TIME	SENT	TO	DATE	TIME

ICS 213

GENERAL MESSAGE		
TO:	POSITION:	
FROM:	POSITION:	
SUBJECT:	DATE:	TIME:
MESSAGE:		
SIGNATURE:	POSITION:	
REPLY:		
DATE:	TIME:	SIGNATURE/POSITION:

Appendix H. Training Policy Memo

Training for ARES and RACES Required by North Carolina Emergency Management

NC Section ARES/RACES Training Policy

Our operations must comply with the National Incident Management System (NIMS).[2] We operate under the Incident Command System (ICS) when activated.

The Department of Homeland Security (DHS) now requires all volunteers, including Amateur Radio operators to be certificated in at least IS 100,IS 200, IS 700 and IS 800 course material. For non-governmental employees and others without access to classroom instruction, these courses are available as on-line independent-study courses that are free of charge.

THOSE AMATEUR OPERATORS WHO MAY BE DEPLOYED TO EMERGENCY OPERATIONS CENTERS (EOCs), COMMAND POSTS, PUBLIC SAFETY ANSWER POINTS (911 CENTERS) OR OTHER POINTS WHERE INTERFACE WITH EMERGENCY MANAGEMENT OR GOVERNMENT OFFICIALS AT ANY LEVEL IS EXPECTED, ARE REQUIRED TO COMPLETE IS 100, IS 200, IS 700, and IS 800.

Several Amateur Radio operators have voiced public complaints regarding having to take this training. This document serves to make clear the policy of NC Section ARES®/RACES. No one is compelled to take these courses. However, any previously registered ARES/RACES volunteers who have not completed the required training will be listed in our internal records as "non-certified" and will not be deployed to any site during any activation or drill. Any operators who "self-deploy" and are not on the registered lists as "certified" will not participate in activities where certification is required (all activities). ARES/RACES operators who complete the requirements at any time will be re-listed as "certified" in our internal records.

This is not intended to be an affront to any individuals or groups. It is, however, intended to bring our overall organization into compliance with DHS requirements.

Mandatory Training

Why?

- Two events have changed the training world: 9/11 and Hurricane Katrina. During recovery efforts for these two events, We learned that the various agencies and volunteer organizations did not work well together. This training was developed to remedy this situation.

- The agencies we service require this training.

- Required by North Carolina Governor's Proclamation.

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[2] *See* `http://www.ncarrl.org/ares/training.html` for the original memo. This reflects policy adopted April 24, 2010 at the NC ARES meeting in Raleigh.

- It's easy. It takes less than 1/2 a day.

- Federally mandated way for federal, state, and local groups, and also for volunteer groups to communicate with each other.

- It gives us credibility. First, we know how to talk to the government officials. Second, the fact that we have been trained and know the language gives us credibility when we enter a site.

- Emergency entities that receive federal money to pay for equipment must be ICS compliant.

- As of July 1, 2010, everyone in North Carolina at the EC level and up must be ICS compliant.

Who?

- All North Carolina ARES Appointees and Officials at the EC level or above.

- Any ARES member participating in exercises or real emergencies with any of the served organizations.

North Carolina Emergency Management Training Courses

These courses are mandated by the State of North Carolina. They are developed by the Federal Emergency Management Association (FEMA).

- IS-100

- IS-200

- IS-700

- IS-800b (If you have already had an 800 course, you do not have to take it again)

Some EOCs require additional courses. For example, Pitt and Orange counties require IS-300 and IS-400. All Emergency Coordinators must contact the local Emergency Management department and other agencies served to determine what additional training is needed for their respective county or counties.

For now if we are certified, it's lifetime.

How to Get the Training

These courses are internet-based self-study. They are available free of charge from the FEMA web site.

Record Keeping and Registration

An invitation will be sent to each NC ARES/RACES appointee with the URL for the database and a unique password allowing access to the database. Registration is simple. It requires your contact information and your ARRL appointment. It features an easy upload mechanism to upload pdf files for each of your course certificates as received from FEMA. The database can be found online at `http://www.nc-ares.org/`.

DECs and ECs have already been sent invitations with their passwords. If you are one of these appointees and you have not received your invitation, send mail to Tom Brown, N4TAB. After the initial registrations are complete, ECs will invite their compliant local ARES members to have them included in the database. Note that completion of the four ICS courses listed above is required.