

Eastern Massachusetts ARRL Section Amateur Radio Emergency Service® (ARES) Communications Plan



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Date of Last Revision: 5/4/2023
Released Revision 1.1

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Definitions

Amateur Radio Emergency Service (ARES): The Amateur Radio Emergency Service® (ARES®) consists of Amateur Radio licensees who have voluntarily registered their qualifications and equipment for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in the ARRL or any other local or national organization, is eligible to apply for membership in ARES.

ARES Mutual Assistance Team (ARESMAT): A communications team of any size that responds to assist another ARES group. May be within the same Section or across the country.

American Radio Relay League (ARRL): National Association for Amateur Radio that promotes and supports the Amateur Radio Service in the United States.

Assistant District Emergency Coordinator (ADEC): The Assistant District Emergency Coordinator may serve as a general assistant to the District Emergency Coordinator or as a specialist.

Assistant Emergency Coordinator (AEC): The Assistant Emergency Coordinator may serve as a general assistant to the Emergency Coordinator or as a specialist.

Assistant Section Emergency Coordinator (ASEC): May assist the Section Emergency Coordinator with general leadership matters as the Section Emergency Coordinator's alternate or may be assigned to handle a specific important function that does not fall within the scope of the duties of the Section Emergency Coordinator's other assistants.

Assistant Section Traffic Manager (ASTM): May assist the Section Traffic Manager with general leadership matters as the Section Traffic Manager's alternate, or the ASTM may be assigned to handle a specific important function. The ASTM will act as the STM in his/her absence or in emergency response operations to maintain continuity of leadership when 24-hour activity requires multiple shifts.

District Emergency Coordinator (DEC): The ARRL District Emergency Coordinator is appointed by the SEC to supervise the efforts of local Emergency Coordinators in the defined district or specific function.

Emergency Coordinator (EC): 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.

Federal Communications Commission (FCC): Regulates interstate and international communications by radio, television, wire, satellite and cable in all 50 states, the District of Columbia and U.S. territories.

Federal Emergency Management Agency (FEMA): Has the responsibility for coordinating government-wide relief efforts. It is designed to bring an orderly and systematic means of federal natural disaster assistance for state and local governments in carrying out their responsibilities to aid citizens.

Hazardous Materials (HAZMAT): Substances in quantities or forms that may pose a reasonable risk to health, property, or the environment.

Mass Casualty Incident (MCI): A mass casualty incident is any incident in which emergency medical services resources, such as personnel and equipment, are overwhelmed by the number and severity of casualties.

Massachusetts Emergency Management Agency (MEMA): Ensures the state is prepared to withstand, respond to and recover from all types of emergencies and disasters.

National Disaster Medical Service (NDMS): The purpose of the NDMS is to support State, local, Tribal, Territorial authorities following disasters and emergencies by supplementing health and medical systems and response capabilities.

National Traffic System (NTS): The National Traffic System is a structure that allows for rapid movement of traffic from origin to destination and training amateur operators to handle written traffic and participate in directed nets.

Official Emergency Station (OES): 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.

Official Relay Station (ORS): The potential value of the skilled operator with traffic know-how to his country and community is enhanced by his ability and the readiness of his station to function in the community interest in case of emergency. Traffic awareness and experience are often the signs by which mature amateurs may be distinguished.

Partner Agencies: Governmental agencies or non-profit/non-governmental organizations (NGOs) with which Eastern Mass ARES or the ARRL has formal or informal agreements to serve during a declared or non-declared emergency or event. Prior terms for partner agencies were client or served agencies.

Radio Amateur Civil Emergency Service (RACES): The Radio Amateur Civil Emergency Service is a standby radio service provided for in Part 97.407 of the Federal Communications Commission rules and regulations governing amateur radio in the United States.

Radio Emergency Associated Communications Team (REACT): Consists of Teams of Skilled Communications Volunteers – is a non-profit registered 501(c)3 organization. REACT has been monitoring the airwaves since 1962, and since its inception REACT volunteers have been providing a wide range of radio related services to the public.

Section Emergency Coordinator (SEC): The Section Emergency Coordinator is the assistant to the Section Manager (SM) for emergency preparedness. The SEC is appointed by the SM to take care of all matters pertaining to emergency communications and ARES on a section-wide basis.

Section Manager (SM): The Section Manager is accountable for carrying out the duties of the office in accordance with ARRL policies established by the Board of Directors and shall act in the best interests of Amateur Radio.

Simulated Emergency Test (SET): The object of the annual nationwide exercise is to test training and skills and to try out new methods. A specific date is picked nationally but the SET could be scheduled any time in the fall months of October and November.

Section Traffic Manager (STM): The STM is appointed by the SM to supervise traffic handling organization at the section level--that is, to coordinate all traffic efforts within the section, regardless of mode or NTS affiliation, so that routings within the section and connections with other networks and digital traffic nodes will result in orderly and efficient traffic flow.

SKYWARN: Is a National Weather Service (NWS) program developed in the 1960s that consists of trained weather spotters who provide reports of severe and hazardous weather to help meteorologists make life-saving public warning decisions. Spotters are concerned citizens, amateur radio operators, truck drivers, mariners, airplane pilots, emergency management personnel, and public safety officials who volunteer their time and energy to report on hazardous weather impacting their community.

Winlink Radio Email System (Winlink): Is a worldwide radio email service that uses radio pathways where the internet is not present and is capable of operating completely without the internet automatically using smart-network radio relays.

Foreword

The following is the Eastern Massachusetts ARES Section Communications Plan. This plan represents a framework on how the section supports various governmental agencies and non-Governmental organizations. It is intended as a framework for ARES groups to operate across the section to support agencies and organizations. It also allows ARES groups to inter-operate as well as a basis for which local ARES groups can build plans at the local level. The section ARES plan is provided to allow auxiliary communications for government agencies and organizations when requested or a need for those communications based on protocols setup with those agencies or in the event of a communications emergency where conventional means of communications go down. This section plan is intended to be a framework of operation to allow for flexibility and guidance versus a rigid standard operating procedure. As a result, this plan is to be used as a guide and framework for developing local Emergency Plans, along with the ARRL Public Service Communications Manual (FSD-235), The ARRL Emergency Coordinator's Manual (FSD-9) and ARRL Net Directory (FSD-50).

The average radio amateur when called upon to apply auxiliary communications or communications in the event of a communications outage will benefit from a good workable ARES Communications Plan. ARES Communications Plans are, or should be, part of all ARES groups. They should be a part of every training session and updated as conditions or staffing changes occur.

Former Eastern Massachusetts ARES SEC, KC1CIC-Greg Bennett drafted the initial Eastern Massachusetts ARES Section Plan and this section plan is updated and maintained in his memory.

I. Introduction

A. The Amateur Radio Service

The Amateur Radio Service is composed of licensed radio operators who have passed a FCC examination on basic electronic and radio theory, and basic rules and regulations with regards to the service.

Amateur Radio operators have always been of great value in performing public service communications, particularly in times of emergency and disaster. Amateur Radio operators' technical and communication skills have been a proven success in many communities.

In accordance with the FCC, and the ITU, or the International Telecommunications Union, Amateur operators are provided a selection of frequencies across the radio frequency spectrum on which to operate. These frequencies are all of great use to a partner agency when auxiliary communications are necessary. Amateur operators are given a frequency spectrum that allows them to communicate across the country and around the world, as well as at the local level.

The Amateur Radio Service is allowed worldwide via the International Telecommunications Union due to the great public and technical service that Amateur Radio provides. Where all other forms of communication have failed, the Amateur Radio service proves invaluable.

In accordance with the rules of the FCC, and the ITU, Amateur Radio Operators are not allowed to be compensated for providing communications. An exception is provided for employees in public safety, hospitals, the National Weather Service and similar agencies where they may operate an Amateur Radio during a paid work shift provided they are not being paid to specifically staff the Amateur Radio station at their facility. Amateur Radio Operators also cannot provide communications to conduct business of any kind.

B. Eastern Massachusetts Amateur Radio Emergency Service (ARES)

The Eastern Massachusetts Section Amateur Radio Emergency Services® (ARES®), herein called Eastern Mass ARES for brevity, is comprised of FCC-licensed Amateur Radio operators who have voluntarily registered their capabilities and equipment for the purpose of Emergency and Public Service communications. Eastern Mass ARES functions under this Communications Plan at the direction of the Section Emergency Coordinator, with oversight by the Eastern Mass Section Manager.

C. Radio Amateur Civil Emergency Service (RACES)

The Radio Amateur Civil Emergency Service, RACES, also provides auxiliary communications but is only activated by the Emergency Management Agency director of the local, state or regional area. A separate Massachusetts state RACES Plan as well as local emergency plans at the city/town level describe more about this program. The FCC has in the past, designated certain frequencies for RACES stations.

D. National Weather Service SKYWARN Program

SKYWARN is a program sponsored by the National Weather Service (NWS) so that public citizens as well as amateur radio operators can spot, recognize and report weather conditions for the protection of life and property. They are trained to spot damaging wind, large hail, tornadoes, flooding and other meteorological conditions. The ARRL through its ARES program has a national Memorandum of Understanding with the National Weather Service to support operations during severe weather situations of all hazards and types throughout the year. Eastern Massachusetts ARES supports the NWS Norton SKYWARN program and has an Amateur Radio station at NWS Boston/Norton - WX1BOX. This station supports operations within the NWS office and has remote and self-activation protocols to provide support to the NWS office for all weather hazards, even when the Amateur Radio station at the NWS office is not active. A separate SKYWARN operational plan for the NWS Norton Coverage area, which includes the Eastern Massachusetts ARRL Section as well as other sections within the New England division, describes the flow and activation protocols for support of the NWS and its SKYWARN program.

E. National Traffic System (NTS)

NTS is also sponsored by the ARRL and provides a network to pass messages on a local, state, national, and worldwide level. This system is extremely structured and can be used to transfer emergency and priority messages as well as health and welfare messages to any part of the local, state, country, or worldwide level.

F. Military Auxiliary Radio System (MARS)

MARS is affiliated with a branch of the Department of Defense military services, either Army, or Air Force and is used to pass messages and communication to those in the military service as well as help provide civilian communication if necessary.

G. Department of Homeland Security SHARed RESources (DHS SHARES)

DHS SHARES provides government, critical infrastructure and Civil Emergency Service organizations an additional resource for communications via HF and SHARES has the most widespread Winlink RMS system. Additional details can be seen here:

<https://www.cisa.gov/resources-tools/programs/shared-resources-shares-high-frequency-hf-radio-program>

II.) Authority

Under FCC Rules and Regulations, Part 97 subpart A, specific authority is given for emergency communications on frequencies designated by the FCC.

III.) Purpose

The purpose of this plan is to provide a written guide containing the minimum information that would be needed for ARES auxiliary communications and in the event of a communications emergency. Each communications situation is different and the flexibility to provide an adequate response to each is a necessity.

This plan is designed to provide a basic outline of the resources and operations of the Eastern Mass ARES. The Eastern Mass ARES provides supplemental and emergency communications should conditions require it. Our operational area is Eastern Massachusetts; however, we are available where needed when properly activated and authorized. Eastern Massachusetts is defined as east of the Worcester County line from the New Hampshire state border to Cape Cod and the Islands.

Each Emergency Coordinator and District Emergency Coordinator are required to develop their own local and district communications plans for their respective jurisdiction. A copy of these plans is to be forwarded to the SEC.

All Memorandums of Understanding, Emergency Plans and other related documents for local jurisdictions must be on file with the respective DEC, the SEC, and the SM so that resource allocations and planning can be established. Additionally, all documents are subject to a review and approval processes. This plan, when activated, will work in close cooperation with all ARRL section level Field Services appointees as appropriate.

IV.) Memoranda of Understanding

The Eastern Mass ARES will operate under the guidelines established by the signed MOU's between the ARRL and numerous partner agencies. Efforts should be made to establish MOUs with local, city and state agencies and non-governmental organizations as appropriate. A copy of the signed MOU is to be forwarded to the SEC. Refer to Appendix E for MOU's established with the ARRL.

V.) ARES Membership Registration and Training Requirements

ARES membership registration is accomplished via the Eastern Massachusetts ARES online registration form and database. Through this system, ARES members can maintain their training record and log changes in their capabilities as well as contact information. The Eastern Mass ARES Online Registration form and database is available at the following link:

https://secure.ema.arrrl.org/qilan/ares/EMA/ARES_member_login

There are three ARES membership levels that can be attained contingent on the amount of training an ARES member receives per an ARRL ARES program revamp completed in 2018. Refer to Appendix C for the training requirements based on ARES membership levels.

VI.) Activation and Activation Procedures

The following individuals and agencies have authority to activate Eastern Mass ARES in either standby mode or deploy and mobilize personnel and resources for an ARES formal activation:

- Eastern Mass Section Manager (SM)
- Eastern Mass Section Emergency Coordinator (SEC)
- Eastern Mass Assistant Section Emergency Coordinator (ASEC)
- Eastern Mass District Emergency Coordinator (DEC)
- Eastern Mass Assistant District Emergency Coordinator (ADEC)
- Eastern Mass Emergency Coordinator (EC)
- Eastern Mass Assistant Emergency Coordinator (AEC)
- Eastern Mass Official Emergency Stations (OES)
- National Weather Service (SKYWARN Program)
- Other Amateur Radio and citizen organizations with whom Mutual Aid Agreements have been arranged with local/section ARES leadership
- Any other agency requiring communications assistance when deemed appropriate by above listed officials working with local/section ARES leadership
- In the absence of above officials, their successors or designee.

At no time or under any circumstances shall individuals registered under Eastern Mass ARES “self-deploy” or mobilize without the authority of the above listed officials or designates.

What is ARES “Stand-by”?

ARES Stand-by means that there is the potential for Amateur Radio deployment/formal activation as requested by partner agencies such as the Red Cross, Salvation Army, hospitals and other government agencies. Local and Regional RACES and Emergency Management may request additional Amateur Radio support from ARES if ARES can support it. If the stand-by is initiated for a storm situation, it is also designed to get more Amateurs active to do reporting

for SKYWARN and the National Weather Service and for data sharing with all partner agencies as well as the media. ARES Stand-by is also utilized for scenarios where a large number of Amateur Operators are involved in a specific public service event and there is a possible need for additional Amateur Operators either for that event or another unexpected event could cause a need for auxiliary communications or a communications emergency. A scenario where ARES Stand-by typically happens is when a large public service event is in progress, such as the Boston Marathon. The Stand-by is designed to do the following:

- Have Amateur Radio Operators charge batteries/prepare equipment.
- Have more Amateur Radio Operators monitoring local ARES/RACES/SKYWARN frequencies and prepared to give SKYWARN reportable criteria weather reports during a weather situation and provide situational awareness as needed in non-weather situations.
- Give their availability to their ARES EC/DEC for potential deployment/formal activation or home station support for nets if agencies request ARES support as well as for ARESMAT (ARES Mutual Aid Team) deployment.

The ARES stand-by information will be posted in the following areas:

- The Eastern Massachusetts ARES web page at <https://ema.arrrl.org/ares> under the Quick Link - latest emergency communications news
- Via the Eastern Massachusetts ARES Database email system
- The various ARES/RACES/SKYWARN Groups-IO email lists

ARES members, when giving their availability for potential deployment/formal activation or support, can specify their level of support to fit their personal needs. The ARES member can, at their discretion, specify whether they want to stay local or are willing to travel to another part of the Eastern Massachusetts section or outside the section via ARESMAT if needed. It is solely the personal choice of the ARES member on what they can do for a potential deployment. There are no requirements that an ARES member must perform a specific deployment. It is solely dependent on the individual ARES member availability, willingness and capability to do a specific deployment.

An ARES standby means a deployment/formal activation is possible and **does not mean** an ARES member should self deploy to a given area. If members are required to deploy, Eastern Mass ARES leadership will formally activate/mobilize ARES and contact members with the specific information on the deployment and the communications task required.

VII.) ARES Mobilization/Demobilization - Formal Activation/Deactivation

Upon an ARES mobilization or formal activation, volunteers of Eastern Mass ARES will be given the frequencies used for the mobilization and shall check-in on those frequencies and await instructions. If any personnel of Eastern Mass ARES are mobilized to a location, they go through a sign-in procedure to account for their location and operating position.

The following actions will then take place:

- A member of the ARES leadership team (meaning ARES AEC, EC, DEC, ADEC, ASEC, and/or SEC) will assign or become the Net Control Station (NCS) on the frequency or frequencies for the mobilization.
- The net shall be operated from the most appropriate location, which could be at the site of the mobilization, an EOC or even a home station away from the mobilization.
- The NCS will be the focal point of operations, unless sub-nets are authorized by the ARES leadership or NCS.
- The ARES Leadership team will assign specific duties to volunteers as required by prevailing circumstances.
- Liaison Stations that have been previously assigned permanent duties as "Official Emergency Stations" will be dispatched to their tasks as required. Any additional required liaisons to nets or agencies will be assigned as required.
- The ARES Leadership will request assistance from other non-member Amateur Radio Operators within the section as required and if approved by the partner agencies being served.
- The ARES leadership team will request assistance from other section's ARES programs via ARESMAT as required by prevailing circumstances and as authorized.
- Additional radio operators that are assigned to handle radio communications will be designated as a "Liaison Station" for the duration of their participation.

At the soonest possible time after the Eastern Mass ARES has been mobilized/formally activated, the SEC or an appropriate member of the ARES leadership team will prepare a Situation Report (SITREP) for the Section Manager and appropriate ARRL staff leadership detailing information as to the status of the deployment, tasks being carried out and any other pertinent information for the mobilization effort.

Upon completion of the ARES mobilization/formal operation, all personnel that have been deployed will demobilize and go through a sign-out procedure to assure their safe return. Once demobilized/deactivated, the Eastern Mass ARES personnel that are deployed within these

teams will provide feedback to the Eastern Mass ARES leadership team so the leadership team can provide an After-Action Report (AAR) which can be used to scrutinize and improve any short-comings of the ARES mobilization. This will be copied to the Section Manager for his input and then sent to appropriate ARRL HQ staff that manage the ARES program.

VIII.) Resources and ARESMAT

Eastern Mass ARES is a communications resource that is available to government agencies and non-governmental organizations as required and authorized. The abilities of Eastern Mass ARES may be diversified or as specialized as needed, however, the primary mission and role of Eastern Mass ARES is communications. Eastern Mass ARES may assist in other areas as requested by the partnered agency and approved by the local Eastern Mass ARES leadership in charge. Individuals within Eastern Mass ARES may have additional training or expertise such as HAZMAT, Fire Fighting, Law Enforcement training etc. that may be utilized as noted above. However, when on post as an Eastern Mass ARES volunteer they are primarily a communications resource unless otherwise indicated by the partner agency and that usage is acceptable to Eastern Mass ARES leadership.

Under FCC rules Part 97 Amateur Radio operators may not receive compensation for their services. When working with a partner agency in certain instances reimbursement for mileage, meals and other incidental expenses may be acceptable when prearranged.

Workers Compensation and/or Liability Insurance may be provided by the partner agency in charge of the incident. This is the option of the partner agency and ARES stations must follow the partner agency guidelines for such. In any case, Eastern Mass ARRL will not be held liable for any injury or death of an amateur participating in an Eastern Mass ARES exercise or emergency.

a. Frequencies

- A listing of regularly used net frequencies is listed in Appendix A.
- A frequency database may be recorded online or stored by other means electronically.
- Frequencies used by Eastern Mass ARES will be coordinated with the partner agencies as needed.

b. Volunteers outside Eastern Mass ARES Section - ARESMAT **into** Eastern Mass

- Mutual Aid must be requested by Eastern Mass ARES leadership as listed under Activation and Activation procedures.

- Mutual Aid must always be coordinated by the appropriate Eastern Massachusetts ARES leadership and the ARES leadership of the section or sections that are being asked to provide assistance.
 - Amateur Radio operators outside the Eastern Mass section will receive coordination messages/emails on frequencies to use and mobilization check-in locations. Those operators will then check in with their respective ARES Net and go to their check-in location or assignment depending on the operation logistics of the given deployment.
- c. Eastern Mass ARES volunteer needs outside of the section - ARESMAT **from** Eastern Mass
- Should the services of Eastern Mass ARES volunteers be required outside of the section, the Eastern Mass ARES leadership team would work with the section requesting resources to send an ARESMAT following the procedures and protocols of the requesting section.

IX.) Operations

All operations will follow established protocols as used in the ICS and/or defined by the NCS. All messages and notifications will be recorded in a permanent fashion. Facilities for such recording will be provided. All messages recorded electronically will be printed on a real-time basis or as soon as practical when needed. Message traffic and notifications will be handled either tactically or formally via ICS/NTS message formats.

All messages and notifications coming in can be recorded via the following message forms or logging mechanisms:

- ICS-213 General Message Form / ICS-213RR - Resource Request Message Form.
- ICS-214 Activity Log Form.
- ARRL Radiogram using ARRL Form FSD-3 for ease of messaging.
- Whatever means an agency sanctions to use for recording the information (Examples: SKYWARN/NWS reporting form, NWS chat messages, email, various logging software or mobile phone applications, Web-EOC (Used by MEMA) or other means as sanctioned by the given agency).

For net operations, the net control and the stations positioned at deployment locations should maintain all appropriate logs at their locations. These may include the NCS log of all stations logged onto the net and for deployed stations, a log of all events and any visitors to the station that's at the deployed location.

The NCS will do the following tasks when conducting an ARES Net:

- Maintain a regular roll call, as conditions allow.
- Follow regular net protocol with flexibility on formality of the net based on radio traffic and need to control the frequency.
- The NCS shall maintain a communications link with partner agencies during activations.
- The NCS shall maintain other links as specified by the SEC.
- The NCS and all other stations shall use the ITU phonetic alphabet on voice nets.

Stations transmitting advisories to the NCS will refrain from including opinion or conjecture to avoid spreading rumors. When assigned a task by the NCS the ARES volunteers shall report:

- When they have arrived at that assignment (if applicable).
- If there are unusual circumstances that require notation.
- Such traffic as required and authorized.
- When the task or specific tasks are completed.
- Report when they are leaving the assignment and when the operation at the assigned location is completed.

Any operator who feels that their safety is compromised or uncomfortable with their assigned task should report it immediately to the NCS. The NCS will endeavor to work with the station operator to correct the problem. If a directive cannot be complied with, the NCS must be notified as soon as possible so corrective action can be taken, if possible. Liaising with NTS traffic nets should be maintained during the ARES Net activation as required and appropriate.

X.) Drills and Training

a. Drills

In addition to public service event communications, Eastern Mass ARES will provide support communications in conjunction with local events to test the effectiveness of operations. At the discretion of the SEC, a net operation may be activated unannounced. These operations will occur at intervals designated by the SEC.

A minimum of one annual full-scale exercise will be conducted to test the effectiveness of the communications systems. This exercise may or may not be conducted in conjunction with the nationwide Simulated Emergency Test. (SET). Other district and local level ARES exercises may be conducted at the discretion of the ARES EC, ADEC, DEC, ASEC, or SEC.

b. Training

Eastern Mass ARES will operate a regular net to assist with training and disseminating information required to facilitate emergency communications for the Eastern Mass area. This is via the monthly Eastern Massachusetts ARES Net on the first Monday of every month (Second Monday of the month if the first Monday of the month is a holiday) at 8:30 PM on the Minuteman Repeater Association's (MMRA) linked repeater network. Other district and local level ARES Nets are conducted at the discretion of the ARES EC, ADEC, DEC, ASEC, or SEC with their local group(s) as needed. A listing of this information is maintained on the Eastern Mass ARES web site at the following link: <https://ema.arrrl.org/ares/ares-net-schedule/>

Eastern Mass ARES will conduct periodic training sessions to further member's skills and knowledge of Emergency Communications. Eastern Mass ARES will also periodically conduct courses in radio technology, free of charge, as a public service. Eastern Mass ARES encourages its volunteers to participate in public service events, nationwide emergency nets, traffic handling nets (NTS), mitigation and preparedness outside the group as well as participation in ARRL, FEMA and American Red Cross study courses and workshops.

XI.) Monthly ARES Reports

Each month, the Section Emergency Coordinator will send in an ARES Form-4 on section ARES activity to ARRL HQ per the instructions that HQ sends out monthly. The ARES Form-4 will reflect all reports received each month by ASECs, DECs, ADECs and ECs via the ARES-002 (ARES Form-2 monthly ARES DEC/EC reporting form). The ARRL HQ uses this data to reflect the total amount of volunteer hours completed by ARES members across the country from all sections that report their data. The forms are also used to compile the total number of current ARES members in the country. The ARRL has made the Form-4 an online form and has a similar online ARES form-2 for ASECs, DECs, ADECs, and ECs that will roll up into the ARES Form-4 the SEC submits so that the SEC no longer needs to manually enter the report numbers from the ARES staff. These reports will be submitted monthly by the SEC to ARRL HQ. The ARRL has ARES online forms available for Form-4 and Form-2 submissions and they can be found at the following links:

ARES SEC form 4:

<https://ares.arrrl.org/aresform4.php>

ARES DEC/EC Form 2:

<https://ares.arrrl.org/aresform2.php>

XII.) Eastern Mass ARES Leadership and General Member Rosters

The Eastern Mass ARES leadership roster is maintained on the Eastern Massachusetts ARES website at <https://ema.arri.org/ares/> and lists mailing and email address information for all leaders. From there, phone contact information can be obtained by contacting appropriate leadership. The Section Emergency Coordinator will list mailing and email address information as well phone contact information on this page.

General ARES rosters are maintained through the Eastern Massachusetts ARES online registration form and database system that all Eastern Mass ARES leadership have appropriate levels of access to administer the ARES program. These records are maintained by each individual ARES member and also periodically scrubbed by the Eastern Mass ARES leadership team. The link for the Eastern Mass ARES Online Registration Form and Database is https://secure.ema.arri.org/qilan/ares/EMA/ARES_member_login

APPENDIX A - FREQUENCIES

While this listing cannot possibly represent all the frequencies that could be used or monitored in a given scenario, it does provide a core set of frequencies. Please note that only the specific frequencies in relationship to ARES operations at the section level are presented here. Local and district ARES plans will list ARES frequency information at those levels.

Description	Frequency	Mode	Notes
Eastern Mass ARES HF Primary	3930.0/3943.0 KHz	LSB Phone	
Eastern Mass ARES HF Secondary	7245.0 KHz	LSB Phone	
Eastern Mass ARES VHF Primary	MMRA Repeater Network	FM	MMRA Repeater Network Linked Frequency Listing
Eastern Mass ARES VHF Digital Primary	145.090	FM	
NTS VHF Packet/Winlink	145.090MHz	FM Packet	Available 24x7x365
NTS HF Digital	3592.4KHz	USB Pactor 1-3	Available 24x7x365
	7098.90KHz	USB Pactor 1-3	Available 24x7x365

- An official liaison station will be appointed by the NCS to report on the appropriate region and sector RACES frequency.
- Simplex frequencies should be monitored along with local/district frequencies in times of emergencies.
- As required, net operations will be conducted on the frequency best suited for operations, or as degrading conditions require.
- If it becomes required to move completely off the designated frequencies above, a station will be assigned monitoring duties to redirect late or new stations connecting to the net.
- The Eastern Mass ARES net frequencies should always be monitored by a member of the Eastern Mass ARES leadership team or their designees in times of emergencies.
- Net operations will begin on the primary frequency.
- Individuals may monitor other frequencies as needed for situational awareness:
 - Public Service and emergency frequencies.
 - Partner Agencies frequencies as available.
- NOAA Weather Radio should be monitored at all times for alerts by at least one or more stations on the net.
- Eastern Mass ARES volunteers may participate in the nets of adjoining jurisdictions at

the invitation of the NCS of that Net. These stations may only officially declare themselves as a liaison to the Eastern Mass ARES when directed by the Eastern Mass ARES leadership team. In times of emergency, these stations should contact the SEC or SM if mutual aid is requested.

- All Eastern Mass ARES volunteers are encouraged to listen-in during emergencies or participate for training purposes during non-emergencies whenever possible.
- Complete and updated frequency information for RACES and SKYWARN can be found at the following links:
 - Southern New England SKYWARN Frequency listing:
<https://wx1box.org/southern-new-england-skywarn-frequency-list/>
 - RACES in Eastern Massachusetts information and frequency listing:
<https://ema.arrl.org/races/>
- We advise all ARES personnel in the section to print out and have available, the frequency listings in case Internet outages no longer allow access to these listings via the web links.

APPENDIX B - DIGITAL STANDARD

The standard Digital software to be used by Eastern Mass ARES is Winlink Express and/or Fldigi NBEMS (Narrow Band Emergency Messaging system). All ARES members should become familiar with configuration and use of these systems.

Eastern Mass ARES recognizes that there are many Digital software programs and operating modes available and currently in use. It is not the intention of Eastern Mass ARES to discourage the use of any existing digital software or modes in use today. Using the appropriate software and mode to support the partner agencies' need is one of the most important considerations in digital operations. This digital standard currently applies to data modes but could potentially be expanded to voice digital modes such as DMR and DSTAR in the future.

Eastern Mass ARES encourages groups using software other than Winlink Express or Fldigi NBEMS to document the installation, operation and procedures involved that can be included as training materials via PowerPoint, separate Word documentation or even via video presentations uploadable digitally onto platforms such as Youtube. This appendix would then be updated with references to all this material. The references to that material in this appendix will allow other Eastern Mass ARES members to be aware of the software being used and if possible train on it, making them a more valuable asset to your group during a drill or real emergency.

The existing packet/RMS Winlink node infrastructure is updated and in a map view at the following link: http://n1xtb.net/EMA_packet_map.html

APPENDIX C – QUALIFICATIONS AND TRAINING REQUIREMENTS FOR MEMBERSHIP IN ARES

As part of a nationwide revamp of the ARES program by the ARRL, there are now three levels of ARES membership. These levels have been created to allow flexibility in how members can participate in the ARES program based not only on their availability and willingness to serve, but also on what our partner agencies request as far as training and capabilities. The training requirements also account for appropriate training in the capabilities of the Amateur Radio service.

This is the breakdown of the three levels of ARES membership:

- **Level 1** — This is the entry level for those new to Amateur Radio or emergency communications. There is introductory training available that is conducted by the local/district/section ARES groups' to meet their needs and those of their partner agencies. This training may be formal or informal, and will introduce the ARES participant to the fundamentals of emergency communications and provide instruction on how participants are to conduct themselves while deployed. The Eastern Massachusetts section workshop and local/district workshops are examples of introductory training available as well as online training and workshops. We also strongly recommend that Level 1 ARES members take the NWS SKYWARN Training class offered in a live or recorded online class by NWS Boston/Norton MA.
- **Level 2** — To qualify for this level, participants shall have completed the following courses:
 - ARRL's EC-001 *Introduction to Amateur Radio Emergency Communications* (Course registration and description: <http://www.arrl.org/online-course-registration>)
 - ICS-100: Introduction to the Incident Command System
 - ICS-200: ICS for Single Resources and Initial Action Incidents
 - IS-700: National Incident Management System, An Introduction
 - IS-800: National Response Framework, An Introduction
 - The Eastern Mass ARES leadership also strongly recommends SKYWARN weather spotter training from the National Weather Service Boston/Norton office if not done as part of level 1 training
- **Level 3** — This level of training prepares ARES participants to take on leadership positions such as EC, ADEC, DEC, ASEC, and SEC, and other designated positions in the ARES program. Participants are required to complete all the level-2 ARES courses as well as the following classes:
 - ARRL EC-016, Emergency Communications for Management (Course description and registration: <http://www.arrl.org/online-course-registration>)

- IS-300 - Intermediate ICS for Expanding incidents
- IS-400 - Advanced ICS for Command and General Staff
- Participants are strongly encouraged to complete the FEMA Leadership Development series of courses that are as follows:
 - IS-120 - An Introduction of Exercises
 - IS-230 - Fundamentals of Emergency Management
 - IS-240 - Leadership & Influence
 - IS-241 - Decision Making and Problem Solving
 - IS-242 - Effective Communication
 - IS-244 - Developing and Managing Volunteers
 - IS-288 - The Role of Voluntary Organizations in Emergency Management

Completion of all training programs will be verified by the participant's Emergency Coordinator (EC) before the participant advances to the higher level. Those individuals holding leadership positions as the new program is introduced will be allowed one (1) year to complete the necessary training to meet qualifications for Level 3. Training requirements for ECs, DEC, and their assistants will be verified by their SEC or the SEC's designated individual. In the case where the local community may have limited classroom study programs for IS-300 and IS-400, the **SEC or SM** may grant additional completion time to accommodate a community's extended training schedule or authorize the seven FEMA Leadership Developments Courses as an alternate study program.

As ARES members complete their training, they should update their training record via the Eastern Massachusetts ARES online registration form and database at the following link:
https://secure.ema.arri.org/qilan/ares/EMA/ARES_member_login

APPENDIX D – NTS ACTIVATION

Eastern Mass NTS is responsible for long-haul communications. Long-haul communication is defined as communications that take place outside the boundaries of ARRL Eastern Massachusetts Section. Traffic may consist of health and welfare inquiries or any other traffic as appropriate.

NTS meets on scheduled daily nets that may not always coincide with an ARES emergency or drill. When this is the case, Eastern Mass ARES may request an emergency Eastern Mass NTS Activation to handle long-haul traffic in a timely manner.

The following individuals have the authority to activate Eastern Mass NTS and mobilize personnel and resources to establish an NTS Emergency Net:

- Eastern Mass Section Manager (SM)
- Eastern Mass Section Emergency Coordinator (SEC)
- Eastern Mass Section Traffic Manager (STM)

NTS Emergency Net:

The Section Traffic Manager or designate will determine the best resources required to meet the needs of the activation. All NTS nets are directed nets, utilizing NTS net procedures, and are managed by an NTS NCS. All traffic is to be in proper radiogram format or handled digitally between Winlink Express, Fldigi NBEMS or other digital means. The NTS NCS will maintain a detailed log containing at a minimum the net frequency, net start and stop times, traffic passed and callsigns of those checked in. The Section Traffic Manager or designee will forward a copy of all NTS net logs as soon as possible after the conclusion of the emergency. The NTS Activation is ended by an agreement of the STM, SEC, and SM.

Additional information on NTS and the regular routine NTS Net Schedule can be found at the following links:

NTS Web Page: <https://ema.arrl.org/national-traffic-system/>

NTS Net Schedule: <https://ema.arrl.org/national-traffic-system/net-schedule/>

APPENDIX E - MEMORANDA OF UNDERSTANDING

The ARRL has signed Memorandums of Understanding with many partner agencies in support of auxiliary and emergency communications. Some of the MOUs are as follows:

- American Red Cross
- Citizen Corps
- FEMA
- NVOAD
- Salvation Army
- National Weather Service SKYWARN program
- And others...

For a full listing please go to:

<http://www.arrl.org/memoranda-of-understanding-mou>

APPENDIX F – RESOURCES and REFERENCES

New England ARES pages:

Eastern Massachusetts:	https://ema.arrl.org/ares/
Western Massachusetts:	https://wma.arrl.org/ares/
Connecticut:	https://www.ctares.org/
New Hampshire:	https://nhradio.org/nh-ares/
Rhode Island:	https://www.riares.org/
WX1BOX - NWS Norton Amateur Radio station:	https://www.wx1box.org

Other Links:

American Radio Relay League (ARRL):	https://www.arrl.org/home
Amateur Radio Emergency Service (ARES):	https://www.arrl.org/ares
Department of Homeland Security (DHS):	https://www.dhs.gov/
Federal Communications Commission (FCC):	https://www.fcc.gov/
Federal Emergency Management Agency (FEMA):	https://www.fema.gov/
National Association of Voluntary Organizations (NVOAD):	https://www.nvoad.org/
Massachusetts Emergency Management Agency (MEMA):	https://www.mass.gov/orgs/massachusetts-emergency-management-agency
National Disaster Medical System (NDMS):	https://www.phe.gov/preparedness/responders/ndms/Pages/default.aspx

APPENDIX G - EASTERN MASSACHUSETTS ARES MONTHLY SECTION NET PREAMBLE

NOTE: There are control operator codes to link/delink the MMRA Repeaters for the Eastern Massachusetts ARES Net and the Eastern Mass ARES leadership team can provide these codes to net controls as needed.

Is there any emergency traffic for the repeaters before we begin tonight's session of the Eastern Massachusetts Amateur Radio Emergency Services (ARES) Net? This is <<call-sign>>.

Handle any emergency traffic, if Nothing Heard, proceed with the preamble

Calling the Eastern MA ARES Net, calling the Eastern MA ARES Net. This is <<CALL-SIGN>> net control for tonight's net. My name is <<name>> and I am located in <<location>>. This is a directed net that meets on the first business Monday of each month. If there is a holiday on the first Monday of the month, the net will meet on the second Monday of the month.

Before checking in to the net, you will need to key your microphone for two seconds before speaking to allow all the repeater links to come up. When calling the net please say "HERE IS" followed by a carrier drop (UNKEY) to check for doubling, then give your call sign, first name, if you have traffic and state your ARES affiliation if any. All amateur stations are invited to join the net and are encouraged to check in whether you belong to Eastern Massachusetts ARES or not.

Stations wishing to check in please call now. **[Read back stations checked in.]**

Net control will contact any stations with traffic after announcements and will call stations that listed traffic. After traffic/announcements have been passed, the net will be open to discussion on ARES and check-ins will be asked about any questions/topics for the net followed by comments from all stations.

Closing the Eastern Massachusetts ARES Net

Is there any further business for the net before I close tonight's session? **[Once nothing is heard...]**

This is <<CALL-SIGN>> closing tonight's session of the Eastern Massachusetts ARES Net. Thanks to those who checked in and those who stood by while we held the net. Our thanks go out to the officers and trustees of the MMRA system and its affiliates for the use of the repeaters. The Eastern Massachusetts ARES Net will return on Monday <<month and day>> at 8:30pm.

Please check out our web site at EMA.ARRL.ORG. We are now turning the repeaters back to regular amateur use. Please stand by while I restore the system to normal operating status. Good night to all and be safe from <<CALL-SIGN>>.