

# Eastern MA ARES Simulated Emergency Test 2022 Scenario and Guidelines



## Eastern MA ARES

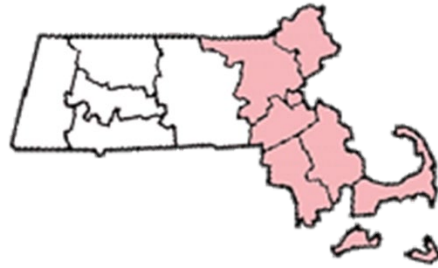
### Section Exercise **"Incoming"**

Frank O'Laughlin – WQ1O  
Cape&Islands ARES DEC

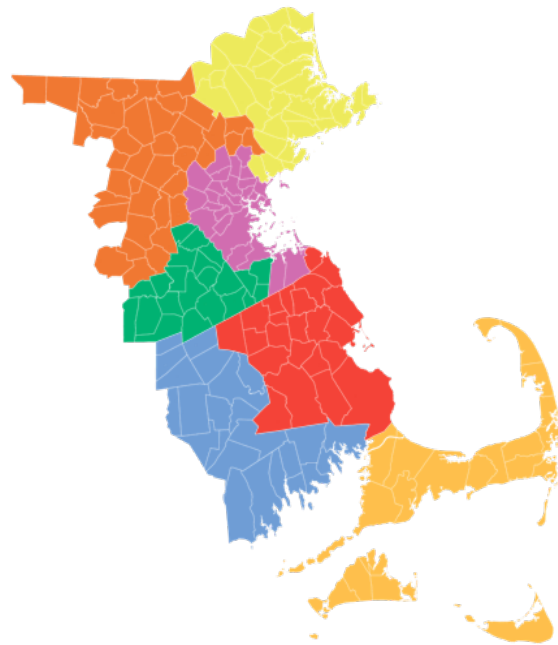
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## Eastern MA ARES Map



# Date and time of Exercise

Saturday November 12th, 2022

Setup time: 9:00am

Start Time: 10:00am

End Time: 12:00pm

Operational Duration: 2 hours

## Purpose

The Eastern MA Section Amateur Radio Emergency Service will conduct an autumn operations exercise to test its capability in establishing communications with stations within its section and outside it under simulated emergency conditions. The operational exercise called **“Incoming”** will test the ability of several home stations, EOCs, possible field sites and other stations to communicate. The exercise will attempt to build upon the lessons learned from our past operational exercises.

This exercise will be based on the scenario of the National Winlink ETO (EmComm Training Organization) exercise being held the same day.

# Scenario

On November 11<sup>th</sup>, Hundreds of asteroid fragments resulting from a distant collision began entering the Earth's atmosphere and impacting the northern Hemisphere and especially North America. These fragments varied in size from a few meters across to just pebbles. The larger fragments began impacting and causing heavy damage over parts of the US, Canada and Mexico. Several impact explosions in the low kiloton range have occurred in the US. Similar strikes in the ocean have caused localized damaging tsunamis in Puerto Rico and Oahu in HI.

Impacts of smaller fragments have occurred in New England. Several have caused explosions in parts of MA, CT and RI. Many large fires have begun as a result of these smaller impacts. Several electrical substations have suffered damage along with some telecommunications facilities. This combined with systems being overtaxed have resulted in communications and electrical failures across the US. Most power and cellular systems are currently offline. Internet is limited at this time.

Although this is not the feared global mega-disaster often depicted in sci-fi movies, it has nonetheless created a major disaster across this hemisphere with vital services being affected.

Most of the public safety systems that did not rely heavily on internet access are operational along with most amateur radio repeaters as long as they can maintain their emergency power and fuel resources. MEMA reports that significant fires are threatening several areas of the commonwealth including some highly populated areas near Boston and Springfield. The MEMA Director reported that outside help from other states looks to be unlikely as most other states are experiencing similar effects from impacts.

Emergency Management Directors have asked RACES and ARES operators to help the local communities during the commercial outages which have affected the commonwealth. Many EmComm groups have been activated by their primary partner organizations and government agencies. ARES/RACES groups have recommended that any repeaters that have limited emergency power switch their operations to simplex if possible. Some of the larger repeaters remain in good power shape and have remained active with their nets and local responses. Generator fuel is difficult to obtain right now with the ongoing situation and battery resources are finite. Groups will need to adapt quickly as this situation progresses. Most operations will be both voice and digital Winlink where possible. Some Winlink VHF RMS stations are offline, but some others remain viable where some internet is still functioning. HF Winlink is being used outside of the affected areas as much as possible to fill these gaps.

This will likely be a long duration response. Most EmComm operators are encouraged to remain at home where they can except when needed at an EOC or shelter. A few field sites have sprung up to support simplex operations, but they are limited in scope. We need to come through as best we can for this operation. Remember to conserve your resources....God Luck to us all!

# **ARES groups and simulated activities**

This exercise guideline is deliberately broad and generic in nature. ARES groups are free to adapt this scenario and conduct their exercises as needed for their groups. Feel free to use your home stations or mobiles for this purpose. It is likely that most of the operations involved in this exercise will utilize home stations.

## **Exercise Objectives**

The objectives of this exercise are as follows:

- Establish and conduct a tactical net on simplex 2m or FM repeater for your group
- Establish contact with any Town EOC RACES stations
- Establish contact with other ARES districts where possible
- Establish an HF 75m voice net for all of MA (and potentially other areas)
- Establish a 60m HF voice net for all of MA (and potentially other areas)
- Conduct 6m operations on the Mt. Wachusetts 6m repeater and simplex 6m
- Pass an NTS type message on VHF 2 meters and/or HF
- Send requested NOAA WX radio station reception information by voice
- Send messages by HF and/or VHF Winlink
- Send Field Situation Report Form by HF and/or VHF Winlink
- Check in and/or pass information on the MMRA repeater network
- Check in and/or pass information the NEW-ENG3 9123 Echolink node

# Operational Ground Rules

## ARES/RACES

ARES/RACES groups can fully adapt and change their individual plans to suit the needs of the local group.

## Message Handling

Message handling, on voice, will occur on 2 meters, 60m,75m, Echolink and on HF.

## Setup and Timeline

Setup time will be 9am. The exercise will begin promptly at 10am. It will last approximately 2 hours and will end at 1200pm. Timelines may be adjusted accordingly in response to turnout and early completions of primary objectives.

## Operational Disclaimers

Due to the proliferation of radio scanners and the possibility of misconstrued information by the public, all tactical voice messages *that can be misconstrued* will be preceded by the words **“This is a Drill”**. Any NTS formal messages will have the words **“This is a drill X”** as the first five words in the body text. In this time of national public concern, we must make all efforts to ensure that the general populace is not misled and that amateur radio is not portrayed in a negative manner. If the messages are not considered to be able to be misconstrued, then the disclaimer will not be needed.

# Voice operational activities

There will be one primary voice activity in addition to any NTS messaging. This will involve the gathering of specific information to pass by voice.

## Monitoring and reporting which NWS NOAA Weather radio stations can be heard

The primary messaging activity for voice will be the monitoring and reporting on which NWS NOAA weather radio stations can be heard at your location. Operators will monitor the established NOAA weather radio band and determine which stations they can receive and how strong they are at the monitoring location. Operators will first list their own call signs and their locations. Then the operators will list the WX stations by **call sign** and whether the signal was “Good readable” or weak readable” under the boxes for NOAA WX. Three boxes are provided assuming that most will not hear more than 3 stations. They will also state whether the reception was made using an indoor or outdoor antenna. *NCS and reporting stations can use the FORM 1 near the end of this document to provide the information above. NCS stations may wish to print this form for receiving the information.*

It is important that this information be sent by *ONLY ONE MEANS* to avoid duplication. If you are sending it on HF voice, do not send it redundantly on VHF/UHF.

Net controls should log this information. It will be sent to Rob Macedo by email later for actual submission to NWS for their records.

# NETS and mode of operations

## HF voice operation

An HF net will be started on 60m and 75m in MA. They will operate concurrently. Participants can send their primary voice activity involving NOAA weather radio stations if they wish. They can also send signal reports of other participating HF net stations so we have them for the record.

## 60m voice operations

HF 60m operation will be first attempted on Channel one 5330.5 kHz. *As we are a secondary user on 60m, any primary user (US Government stations) cannot have interference from a secondary user. Primary users will have priority access at all times.* If a primary user is operating on channel one, the net will fall back and be conducted on channel four: 5371.5 kHz.



## **6m voice operations**

There will be 6-meter voice operations beginning at 11 AM EST/1600 UTC and it will use the following frequencies and modes:

1100 AM EST/1600 UTC: 53.31-Mount Wachusett Repeater PL: 71.9 Hz

Immediately following the net on Mount Wachusett there will be a simplex net on USB on 50.275 MHz at approximately 1110-1115 AM EDT. The purpose of these operations is to test out 6-meter capability among Amateurs who have this capability both on the FM repeater and on simplex USB.

## **VHF/UHF voice operation**

ARES groups are requested to set up voice nets as you normally do for exercises. These nets can be repeater, simplex or any combination of the two. Participants can send their primary voice activity involving NOAA weather radio stations if they wish. Any additional voice components for the exercise can be set by the local ARES/RACES group to fit their needs.

## **HF and VHF/UHF Winlink operation**

HF and VHF/UHF Winlink operation for this exercise will involve the use of the Field Situation Report Form (FSR). This is the same form that will be used in the National Winlink ETO exercise. This form gives a situational update as to infrastructure status at your location (see fig. 1). It offers a quick snapshot of local conditions in a standard format.

You may simulate any answers to the questions on the form if you wish. We do ask that you answer question number ONE as NO. The others can be answered as you wish including any comments needed in the boxes provided.

Make sure you get used to entering your latitude and longitude on Winlink forms such as these (Don't forget the MINUS before the longitude!). If you have a GPS dongle on your computer, the coordinates will fill in automatically! If not you will need to enter them manually. Once entered, the other fields including your grid square will fill in based on your Lat/Long.

The FSR form will be sent to your ARES DEC by Winlink. If they have a Winlink account, you only need to enter their call in the TO field. If they do not have a Winlink account, you will need to put their standard email address in the Winlink TO field. If you are RACES or Auxcomm you may send your form to your leader.

FIELD SITUATION REPORT			
<b>Setup</b>	<a href="#">Click to add an agency or group name</a>	<a href="#">Load Field Situation data</a>	<a href="#">Form info</a>
For Non-Express recipients, this form is sent as plain text in the message body. Once this page is submitted No changes or editing of this message are allowed			
PRECEDENCE:	<input type="text" value="P/ Priority"/>	DATE/TIME:	<input type="text"/>
FROM:	<input type="text"/>		
TO:	<input type="text"/>		
INFO (CC):	<input type="text"/>		
Call signs or E-mails entered into the TO or INFO fields above, can be multiples separated by a semicolon ;			
<b>1. Is there an EMERGENCY/LIFE SAFETY Need</b> <input type="radio"/> YES <input checked="" type="radio"/> NO <small>If your local situation is LIFE CRITICAL, report via 911. If 911 services are not available, a reporter may use this form and mark the block for LIFE CRITICAL; the reporter should describe the situation and provide the residential address.</small>			
2. City:	County:	State:	Territory:
<b>3. Latitude and longitude:</b> LAT <input type="text" value="Ex: 38.5567"/> LON <input type="text" value="Ex: -116.9824"/> .MGRS <input type="text" value="Ex: 11SNR0184195204"/> Grid <input type="text" value="FN41tq"/> <small>LAT and LON are required to map this SpotRep. If entering manually use Decimal Degree format or from an attached GPS device.            By default LAT, LON and MGRS to the center of the grid square listed in Express Settings</small>			
<b>4a. POTS landlines functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, state provider."/>			
<b>4b. VOIP landlines functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, state provider."/>			
<b>5a. Cell phone voice calls functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, state provider."/>			
<b>5b. Cell phone texts functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, state provider."/>			
<b>6. AM/FM Broadcast Stations functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, provide broadcast station callsign/frequency that is off-the-air."/>			
<b>7a. OTA TV functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, identify TV station."/>			
<b>7b. Satellite TV functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, state provider."/>			
<b>7c. Cable TV functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, state provider."/>			
<b>8. Public Water Works functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="Comments"/>			
<b>9a. Commercial Power functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, state provider."/>			
<b>9b. Commercial Power Stable?</b> <input type="radio"/> YES <input type="radio"/> NO- Brown outs/blinking lights <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, state provider."/>			
<b>9c. Natural Gas Supply functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, state provider."/>			
<b>10. Internet functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="If no, indicate Fiber/Cable/Wireless/Satellite, state provider."/>			
<b>11a. NOAA weather radio functioning?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="Identify NOAA Weather Radio Transmitter by frequency, call sign or location."/>			
<b>11b. NOAA weather radio audio degraded?</b> <input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Unknown - N/A <input type="text" value="Identify NOAA Weather Radio Transmitter by frequency, call sign or location."/>			
<b>12. Additional Comments</b> <small>Brief summary of current situation - expected outage times, major observations, etc.</small> <input type="text"/>			
<b>13. POC</b> <input type="text" value="Point of Contact"/>			
<a href="#">Save Field Situation data</a>		<a href="#">Submit</a>	<a href="#">Reset Form</a>

**Fig. 1**

## Echolink operation

Echolink will be operational for this exercise. It will be the New-Eng3 node 9123. It will be monitored by several ARES leaders and will serve as an online component.

## NTS operation

NTS operations will have both a VHF/UHF and HF operation. Local groups are encouraged to pass some NTS traffic to their VHF/UHF nets at around 11am. These messages will be from net participants and describe their stations. They will list location and type of equipment used.

At about 1130am, we are asking **3 groups** to compile the number of participants in your group and send an NTS message on HF. We are only looking for 3 groups to do this. It may be necessary to pre-identity those groups in advance of the exercise. This is to prevent overloading of the system and keep the number of NTS messages on HF to **THREE**.

An HF NTS voice net will be operational at 1130am on 3955 khz 75m for this purpose. It will be run by Jon N1ILZ on Cape Cod. Messages from with the Eastern MA section ARES can be addressed to Section Manager Tom Walsh. Any messages originating outside of the Eastern MA Section can be addressed to their section managers or ARES SECs. All of these messages will be moved through the NTS system.

If you wish to send an NTS voice message to Eastern MA ARES SEC Rob Macedo KD1CY, that message will be delivered to him via the Winlink system.

## Minute Man Repeater System operation

The Minute Man Repeater system (MMRA) will be active during the exercise. Primary voice activity such as the NOAA weather radio information can be sent along with other messaging or participant info.

## Metrics for participation

All ARES groups participating in the exercise are encouraged to send a list of participants and activities by email after the exercise so a good overview of participants can be established. Send to your local ARES EC and/or DEC. If you are unaware of who your leader is, Visit the Eastern MA ARES website at <https://ema.arrl.org/ares/>

# Exercise Frequency Usage

**Two meter and 440 MHz local voice nets: - The following is a list of key frequencies with any additional frequencies at the discretion of local ARES Group**

147.000-Dartmouth Repeater (PL: 67.0 Hz)  
147.180-Bridgewater Repeater (PL: 67.0 Hz)  
146.895-Walpole Repeater (PL: 123.0 Hz)  
146.955-Westford Repeater (PL: 74.4 Hz)  
147.435-Western Middlesex ARES Simplex (PL: 110.9 Hz)  
146.580-Cape Cod ARES Simplex (No PL)  
446.675-Marlborough Repeater (PL: 88.5 Hz)

The MMRA Network will be utilized at the section level – a link to the repeaters linked up is listed at the end of the frequency usage document

Secondary Frequencies that will be monitored:

146.985-Blue Hill Science Center – Milton, MA (linked) (PL 88.5 Hz)  
449.125-Blue Hill Science Center – Milton MA (linked) (PL: 146.2 Hz)  
446.325-New England Sci-Tech - Natick, MA (PL: 146.2 Hz)

**Two meter local NTS net: At discretion of local ARES Group – At the section level – the MMRA Network will be utilized for section NTS traffic**

**UHF voice and/or NTS net: At the discretion of the local ARES Group**

**VHF/UHF NBEMS: At the discretion of the local ARES Group**

**Winlink Express VHF: 145.090 FM or other local Winlink RMS stations on other packet frequencies – See [http://www.n1xtb.net/EMA\\_packet\\_map.html](http://www.n1xtb.net/EMA_packet_map.html) for locations of RMS stations and packet frequencies**

**Primary region wide 75m HF Operations: 3930 kHz LSB**

**Primary region wide 60m HF Operations: 5330.5 kHz USB except fall back to 5371.5 kHz if the primary frequency is occupied by a primary user (see page 6)**

**Primary NTS HF station operations: 3955 khz LSB 75m**

**HF Winlink stations: See online list on the [winlink.org](http://winlink.org) site**

**Echolink: \*NEW-ENG3\* node 9123/IRLP: 9123**

**Minute Man Repeater system (MMRA) linked repeaters VHF/UHF (see [MMRA.org](http://MMRA.org) for repeater list and look at the ARES configuration): [http://www.mmra.org/repeaters/repeater\\_index\\_by\\_linkstate.html](http://www.mmra.org/repeaters/repeater_index_by_linkstate.html)**

# Group Operations

There will be several groups operating during this exercise. They may be RACES/ARES/Auxcomm or some combination thereof. Information regarding their operations can be added below if needed.

## Possible Real-World Event On SET Drill Date

While it is still several days out and much can change, there is the possibility of a strong coastal storm system with heavy rainfall and possibly strong winds on the SET drill date. Where much of our exercise traffic will not be simulated with the exception of some of the digital portion of the exercise, our plan at this time will be to proceed with the SET but please do report in any real reports of measured rainfall, measured wind gusts, flooding and storm damage per the SKYWARN reporting criteria within the various nets of the exercise. To avoid confusion with any other traffic, you may say “this is “not” a drill” as part of the message and this can also be utilized for any other real world event situation that occurs on the SET drill date.

# Form 1

Form 1 used to send and log NOAA weather radio station reports

Reporting station	Location	NOAA WX 1	NOAA WX 2	NOAA WX 3	Indoor/Out Ant used