

Eastern MA ARES Fall SET Exercise 2024 Scenario and Guidelines



Eastern MA ARES

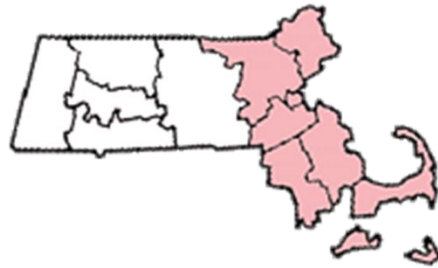
Section Exercise: **“November Gale”**

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ARES staff

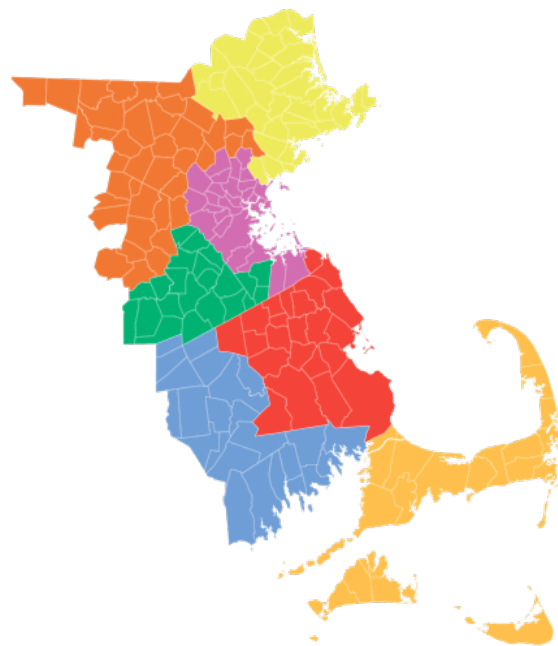
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Eastern MA ARES Map



Date and time of Exercise

Saturday November 9th, 2024

Setup time: 8:45am

Start Time: 10:00am

End Time: Noon

Operational Duration: 2 hours

Purpose

The Eastern MA Section Amateur Radio Emergency Service will conduct a fall 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 **“November Gale”** 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 is a bit of a scaled back exercise compared to some of the larger ones that have been conducted previously.

Scenario

The tropical Atlantic hurricane season was nearing its close, but here in New England we have a hybrid season that follows it. On November 5th, the remnants of a tropical storm became a powerful hybrid system. It fed of the warm waters but also intensified from the strong differences in air mass over the north Atlantic and the northeast US. On November 6th, the system was about 125 miles SE of Nantucket with a barometric pressure near 965mb or about 28.50". The pressure gradient caused by a strong high over SE Canada caused winds to gust over 97mph on the Cape and Islands. This led to extensive power outages throughout this area all the way to New Bedford and Plymouth. Winds in the rest of eastern MA gusted over 70mph for an extended period and over 60mph in central/western MA. Coastal flooding caused extensive damage over eastern MA shorelines along with Nantucket. The fact that this was prolonged over several tide cycles made the situation even worse. As much colder air was drawn in on the 7th, we started to see ice accretion in western and central MA. This led to extensive damage of trees and wires in these areas.

Situation Report

The situation in much of MA is quite variable. The greatest wind damage has occurred in far SE sections with certain areas of the power grid requiring restoration. This could last as long as 5-7 days in this area. In western and central MA, the icing has also caused significant power line damage. The remainder of eastern MA has some significant pockets of power outages due to wind damage. Coastal flood damage has been significant in areas of the south shore.

HF tactical nets have been set up on 60m and 75m for tactical SKWARN damage reports. MMRA repeaters that are still active have been brought online. VHF/UHF repeaters have been brought up throughout the section for ARES/RACES and Auxcomm usage. An NTS net has been established on the 145.230 repeater for outgoing NTS health and welfare traffic.

On digital, Damage reports are being sent by Winlink. An MARIDN NBEMS net has also been brought up on 80m for any ICS-213, NTS or other traffic.

On the Cape and Islands, three shelters have been set up. Most of the Cape repeaters are offline due to wind and debris damage. A simplex net has been brought up to oversee the ARES net. One field site in the mid Cape zone has been brought online to conduct this activity. Most of the ARES members will use their home stations for this operation except for a select few that may be needed for any spontaneous operations.

This situation could have been much worse if we had been experiencing wetter weather periods before this system arrived. Fortunately, the push of colder air did not penetrate very far to the SE, sparing the most heavily damaged wind areas from needing to open more shelters.

Shelters in western MA will remain open for a few more days as the clearing and restoration activities proceed. Two or three shelters will remain open along the south shore for some of the displaced residents from the coastal flooding. The Red Cross is helping many of them with assistance.

This was a difficult way to open November, but it is certainly not without precedent in our region. All of our people be safe and observe all safety precautions. Good Luck!

ARES groups and simulated activities

This exercise guideline is deliberately generic in nature. ARES/RACES groups are free to adapt this scenario and conduct their operations 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)
- Send SKYWARN tactical damage report by VHF and/or HF voice
- Send SKYWARN tactical damage report using an ICS-213 form by Winlink VHF or HF RMS station
- Check in on the MMRA repeater network
- Check in and/or pass information the NEW-ENG3 9123 Echolink node
- Conduct an special edition of the MARIDN NBEMS net on 80m and pass traffic ICS-213/NTS messages
- Conduct a voice NTS Health and Welfare net on the 145.230 Boston repeater
- Send a SKYWARN tactical damage report by ICS-213 using NBEMS net
- Attempt operations with the RI section on VHF and/or HF
- Conduct 6m operations on the Mt. Wachusetts 6m repeater

Note that not all objectives will apply to every group.

Operational Ground Rules

ARES/RACES/Auxcomm

ARES/RACES/Auxcomm 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, 40m, 60m, 75m HF. There will be digital messaging on 80m NBEMS and HF/VHF Winlink (multiple HF band options).

Setup and Timeline

Setup time will be 830am. The exercise will begin promptly at 10am. It will last approximately 2 hours and will end at Noon. Timelines may be adjusted accordingly in response to turnout and early completions of primary objectives.

Exercise 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.*

Exercise activities

There will be one primary operational activity in addition to NTS Health and Welfare messaging. The primary activity will involve the sending of a SKYWARN tactical damage report by voice on VHF 2m or by the HF Nets. This can also be done on Winlink or NBEMS using an ICS-213 form. For those that do not have Winlink or NBEMS, the voice tactical SKYWARN message will be your main activity. NTS messages can be sent on the special edition MARIDN NBEMS net on 80m. Voice NTS messages can be sent on 2m voice (Boston repeater). Participants may choose any or all activities they wish to attempt.

SKYWARN Tactical damage report

This report should include the time of the report, the source, the location and the details of the damage. The report should be as concise and brief as possible as this will also be passed on voice nets.

Net control stations should log these reports. It is up to those NCS operators to determine how they will get the reports to SKYWARN Coordinator Rob Macedo KD1CY. This could be done by a bulk sending on Winlink to **WX1BOX** or by other means.

NTS Health and Welfare Net

In an effort to try to continue NTS voice training, NTS will stand up a health and welfare voice net on the Boston 145.230 repeater. Stations are encouraged to compose and practice sending these messages.

EM2MTN (Eastern Mass 2 Meter Traffic Net)
145.23- PL88.5 Boston

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 SKYWARN tactical damage report on these nets if they wish.

75m Net operations

A 75m net will be established on 3930 kHz LSB (See frequency listings section). Note that 75m operations can be difficult during this time of the day in the current phase of the solar cycle.

60m voice operations

Primary 60m HF operations will be on Channel 5 (5403.5 khz). If a primary user is already occupying Channel 5, operations will fall back to Channel 4 (5371.5 khz).

NOTE: *As we are a secondary user on 60m, any primary user (US Government stations) cannot suffer interference from a secondary user. Primary users must have priority access at all times.*

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 a SKYWARN tactical damage report 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

The primary operations activity of the SKYWARN tactical damage report using an ICS-213 form can also be sent by Winlink HF and VHF/UHF Winlink for this exercise and will involve the use of RMS Winlink sites. A list of currently operating HF winlink RMS stations with locations and modes can be found on the winlink.org online site. The SKYWARN Damage reports can be addressed directly to WX1BOX on Winlink.

Echolink/IRLP operation

Echolink will be operational for this exercise. It will be the *NEW-ENG3* Echolink conference node 9123/IRLP 9123. It will be monitored by several ARES leaders and will serve as an online component.

6m voice operations

There will be 6-meter voice operations beginning at: **1130am**

53.31-Mount Wachusett Repeater PL: 71.9 Hz

MARIDN NBEMS digital net

Eastern MA NTS will stand up a special edition of the MA/RI Digital Net (MARIDN) NBEMS net on 80m. ARES and NTS will be using some internal traffic to test the system. General users can also participate by checking into the net. The net will operate on 3582.5 kHz (1500 Hz center) and begin with the Thor 22 mode. The secondary fall back frequency is 7042.5kHz USB (if conditions do not support 80m operations effectively).

Your tactical SKYWARN ICS-213 message can be passed here or you may create an NTS message that will be fed into the NTS system for deliver by the NBEMS NCS. Remember that your SKYWARN message is **NOT** to be sent by NTS, but only by ICS-213, similar to using Winlink. The NCS will ensure delivery of the ICS-213 messages by a method of its own choosing.

NTS drill Health and Welfare message can be addressed to friends or others. Remember to include the drill wording to preclude and misunderstandings. The NTS **precedence** of the NTS message should be **TEST-WELFARE or TEST-W.**

Minute Man Repeater System operation

The Minute Man Repeater system (MMRA) will be active during the exercise and will be linked up in the same configuration as the monthly ARES Net. See the following link: https://mmra.org/repeaters/repeater_linking.html (Click the ARES box to see the repeaters and other systems linked). The MMRA section net will run from 1000-1130am.

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) (Call-Ups at 1000 AM, 1030 AM, 1100 AM, and 1130 AM)
145.230-Boston Repeater (PL: 88.5 Hz)
147.435-Western Middlesex ARES Simplex (PL: 110.9 Hz)
146.580-Cape Cod ARES Simplex (No PL) (1030 AM Start time)
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 in the MMRA Repeater section above.

Cape Cod and Islands 2m simplex net (1030am)

146.580 FM simplex
147.420 FM simplex (alternate if needed).

Eastern MA NTS 2m Net

145.230-Boston Repeater (PL: 88.5 Hz)

Winlink Express VHF (non-P2P): 145.090 FM frequencies –

Local VHF RMS Stations – Some stations may offer both Packet and VARA FM modes

AB1PH-10 connect direct or via digipeaters WA1PLE-2, W1STR-3 or BROCK

W1SHS-10 connect direct or via digipeaters WA1PLE-2, W1STR-3 or BROCK

KF1D-10 connect direct or via digipeaters WA1PLE-2, W1STR-3 or BROCK

W1SGL-10 connect direct or via digipeaters WA1PLE-2, W1STR-3 or BROCK

Note: *W1SGL-10 has been moved from Barnstable to Falmouth. A New Digi (N1YHS-7) has been placed at the old Barnstable location and can be used to get to W1SGL-10*

WZ0C-10 connect direct or via digipeater W1STR-3

Or other VHF RMS stations available from Winlink Express station lookup.

Also see http://www.n1xtb.net/EMA_packet_map.html for locations of local RMS stations

Telnet may be used if available and necessary.

HF Winlink stations (Non-P2P):

Local HF RMS stations - VARA HF Preferred mode

W1EO: 3937.900 KHz center, 3936.4 KHz dial

KF1D: 7101.3 KHz center, 7099.8 KHz dial

W1EO: 7102.5 KHz center, 7101.0 KHz dial

Or other HF RMS stations available from Winlink Express station lookup.

Telnet may be used for training purposes if RF capability is not present.

Primary region wide 75m HF Operations: 3930 kHz LSB

Primary 60m HF voice operations: 5403.5 kHz (USB), fall back to 5371.5 kHz if needed. Note that newer HF radios that have 60m as a standard feature often have the frequencies displayed as channelized (center frequencies) whereas radios that have been modified for 60m operation often display the dial frequencies. Power limit is 100 watts ERP.

Center	'Dial' Frequency (USB)	'Unofficial' Channel Designation
5332.0 kHz	5330.5 kHz	Channel 1
5348.0 kHz	5346.5 kHz	Channel 2
5358.5 kHz	5357.0 kHz	Channel 3
5373.0 kHz	5371.5 kHz	Channel 4
5405.0 kHz	5403.5 kHz	Channel 5

Primary MARIDN HF NBEMS 80m operations: 3582.5khz- LSB. start mode: Thor22 1500hz,
Secondary frequency: 7042.5 KHz USB, start mode: Thor22 1500hz

HF Winlink stations: See online list on the winlink.org site

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

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

*** If available

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.

Appendix 1: Cape Cod and Islands ARES Operation

Overview

The Cape Cod and Islands ARES will follow the section exercise and its objectives. It will **NOT** have a separate document as it normally does as this is a scaled back exercise. It will however, have ONE field team that will deploy to Dennis as our Net Control station. The station will conduct an FM simplex Tactical Net on 146.580. Most stations in this exercise will utilize their home stations as we do need to verify their operations from time to time. We will not have multiple field sites for this exercise. Participants are allowed to try mobile operation if they wish to do so from an area. Be sure to notify NCS if you are doing this during the net check-in process.

Tactical Net Operation

The Cape and Islands ARES 2M simplex tactical net will begin at 1030am to allow participants time to get on HF first for the sections nets. The operating procedure for this exercise will consist of a roll call format. The NCS station will do a staggered priority and geographical call up. 1st call will be for any EOC stations in our district (including the Islands) and for any mobile stations. The second call up will be for home stations by order of zones in sequence (Outer Cape, Lower Cape, Mid Cape, Upper Cape, Nantucket, and Martha's Vineyard). Last call up will be for stations outside the Cape/Islands district. After the initial call up, NCS will designate one station in each zone (if available) that will call out for any stations that the NCS could not hear. NCS will then poll all individual check in stations which will read aloud those stations they could hear on the net. We will evaluate successful communications paths based on that data. All stations will keep a log of whom they can hear and send it to the ARES DEC by email after the exercise. Mobile units (if any) may call NCS outside of the roll call when any mobile operators feel the necessity of doing so. **In a change from previous exercises, we will not be asking each station to call out and attempt contact with all the stations on their list. This change is in order to leave more time for other operations.**

When participants are recording/reporting the received signals of incoming stations, we will use terminology similar to that used in the Upper Cape Falmouth ARES simplex net.

Signals will be reported by:

1. **No signal**
2. **Weak readable**
3. **Good readable**
4. **Strong readable (if signal is exceptionally strong)**

NTS formal message to be sent into the NTS system

The Dennis NCS field site will compose an NTS message that will be sent to the Eastern MA ARES SEC regarding number of participants in the exercise.

Appendix 2: Norfolk County

As described in the situation report, we have a series of power and communication outages which are distributed through the greater Norfolk County area. This has impacted emergency communications from the various town Emergency Management agencies. Impact is varied but includes:

- 1) Local tactical voice communications
- 2) Regional tactical voice communications
- 3) Formal messaging within the SE Massachusetts region
- 4) There is some impact on formal communications moving from the SE Massachusetts area to other portions of the US

The Norfolk County team will be manning the following:

- a) 2 meter voice on the Walpole repeater 146.895 PL 123.0
- b) HF Voice:
 - a. 80 meter on 3930 KHz working up to the next free frequency
 - b. 60 meter on Channel FIVE dial 5403.5 kHz. with fall back to channel FOUR: dial 5371.5 kHz
- c) 80 meter NBEMS on 3582.5 KHz, 1500 center, mode THOR 22/backup 7042 KHz
- d) 20 meter NBEMS on 14068 KHz, 1500 center, mode Olivia 8/500
- e) Both HF and packet Winlink may also be used at the discretion of the operator and needs of the situation

Our schedule will be:

- 10:00 AM ET: 2 meters on Walpole Repeater 146.895 MHz, PL 123.0
 - o We will use this to coordinate activity
- 10:30 AM ET: check-in to 80 meter and 60 meter nets
- 11:00 AM ET: 20 meter NBEMS net: 14,068 KHz center 1500, mode Olivia 8/500
- 11:30 AM ET: 80 meter NBEMS net, 3582.5 KHz, center 1500, mode THOR22/backup 7042 KHz

We will:

- Send a message from ARES in an ICS-213 form over 80 meter NBEMS to be replied to during the MARIDN net on Tues.
- We anticipate sending an NTS message over 20 meter NBEMS to be entered into traffic system
- Individuals are encouraged to send:
 - o SkyWarn situation reports using either 80 meter NBEMS or Winlink using ICS-213 forms with Rob Macedo/KD1CY as the recipient
 - o NTS health and welfare traffic via any and all modes

Notes on messages:

Your tactical SKYWARN ICS-213 message can be an NTS message that will be fed into the NTS system for delivery by the NBEMS NCS. Remember that your SKYWARN message is **NOT** to be sent by radiogram, **but only by ICS-213**, similar to using Winlink. The NCS will ensure delivery of the ICS-213 messages by a method of its own choosing.

NTS drill Health and Welfare message can be addressed to friends or others. Remember to include the drill wording to preclude any misunderstandings. The **precedence** of the NTS message should be **TEST-WELFARE or TEST-W**. **These will be using formal radiogram syntax/**

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. *If the messages are not considered to be able to be misconstrued, then the disclaimer will not be needed.*

Rhode Island Section Participation

(If they are available, considering the very short notice)

Possible activities:

- Check into HF nets
- Possibly try to check into MA VHF activity, if possible
- Possibly conduct VHF net and send information to EMA nets or by digital