

# The Cape & Islands ARES District Exercise #77 Scenario and Guidelines



## Cape and Islands ARES

Test Exercise **“Spring Comm”**

Frank O’Laughlin – WQ1O  
Cape&Islands ARES DEC

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*Revised pages with this draft version: 7*

# Cape Cod ARES Zone Map



## Date of Exercise

Saturday May 13th, 2023

Setup time: 8:30am

Start Time: 10:00am

End Time: 12:00pm

Operational Duration: 2 hours

## Purpose

The Cape Cod and Islands District Amateur Radio Emergency Service will conduct a spring field operations exercise to test its capability in establishing communications with stations within its district and outside it under emergency conditions. The operational exercise called **"Spring Comm"** will test the ability of several field stations to communicate. This will also be a drill to test some of our primary stations and other ARES member home stations.

# Scenario

**For the purposes of this exercise, we will borrow the scenario from the EmComm Training Organization semi-annual drill.**

During the early morning of May 12<sup>th</sup>, a series of cascading electrical and communications infrastructure failures began occurring throughout the US and Canada. At first, these incidents appeared to be isolated to HI and the US west coast. As the morning progressed, failures began to expand into western Canada and into the central US. These early failures involved internet and cellular communications infrastructure. The US National Security Council, FBI and CISA met in early session to try to determine why these incidents were occurring. Early suspicions quickly began focusing on a potential cyber-attack on North America.

As the situation worsened, several Governors in the western and central US began declaring states of emergency as reports that critical water and power infrastructure had also begun to experience issues in these same affected areas. By early evening on May 12<sup>th</sup>, impacts had already spread across much of the US, Canada and Mexico along with reports of sporadic incidents in Western Europe. CISA and US Cyber Command have determined that a Pro-Russian hackers group has apparently been using a rogue Artificial Intelligence (AI) to help create a multifaceted attack on western interests. So far, the AI has allowed the group to remain two steps ahead of government agencies in trying to respond to this situation. This has seemed to confirm the fears of many that some kind of AI could be used against the principles for which it was created. Early indications are that this does not involve any of the AI systems publicly known, but rather a “Rogue AI” that may have been funded by western adversary governments.

By the early morning of May 13<sup>th</sup>, at least 65% of North American internet and cellular coverage was inoperative along with 42% of power infrastructure. The US, Canada and Mexico have declared national states of emergency. Many of the internet based communications systems have been degraded, but many are still functional even if at a low level.

Many state Emergency Management agencies have requested a report on how well Amateur Radio systems have fared, especially digital modes and those that work alongside internet systems. Indeed, governments are asking about how well amateur radio is doing in general in case it is needed on a much larger basis. Although government officials believe that they may get a handle on this relatively quickly, the use of an AI could make this extremely difficult.

The EmComm Training Organization (ETO) has decided to check on the current Emcomm readiness of its participants. We are asking ETO participants to send an ICS 213 message form describing the Emcomm environments at their locations. This will give us a clearer picture of the current status throughout the areas in which our participants reside.

## **Cape Cod and Islands ARES local operations**

Cape Cod and Islands ARES will be conducting a test exercise during the same time period as the ETO drill in order to take advantage of conducting multiple facets and allowing our participants to exercise in the field. We still encourage those that have Winlink to participate in the ETO drill, but it is **NOT** required for local participation. A copy of the ETO Exercise will be sent out to our list as well. The ETO drill can be found here <https://emcomm-training.org/drills2.html> .

# Cape District Exercise Objectives

The objectives of this exercise are as follows:

- Deploy field operations sites to Falmouth, Dennis and the lower Cape
- Establish contact with other ARES districts and their EOCs if available
- Test zone relay operations with Home Stations
- Test our home stations and any primary stations such as EOCs and hospital stations
- Communicate with the Nantucket and Martha's Vineyard ARES/RACES stations
- Use HF 75m voice in the district and attempt contact with any available off Cape stations
- Allow our new people to get some operating experience and field orientation
- Send a Winlink ICS-213 message as part of the **nationwide ETO Drill** for those that are capable of Winlink operations
- Pass NTS formatted messages on VHF FM

## Operational Ground Rules

### Communications Options to be utilized

Communications options for this exercise will be 2m FM, 440 FM UHF (on field sites), HF 75M voice. There will be a tactical net on 146.580 MHz FM simplex. VHF and HF Winlink can be employed for those participating in the ETO Semi-annual drill from home.

# Field teams must be completely self sufficient

The ARES field teams must bring all of their own equipment and supplies. Served agency communications equipment may **NOT** be used in any way. *We only use what we have brought with us.* Teams operating inside RACES EOC's or other served agency sites are exempt, of course.

## Message Handling

Message handling, on voice, will include the sending of an NTS type formatted message from each field site to 2m VHF net control. The message will include the number of operators on site and whether the site is using battery, generator power or both.

## Setup and Timeline

Setup time will be 8:30am. The exercise will begin promptly at 10am (HF only). The VHF simplex net will begin at 10:30am. The exercise will last approximately 2 hours and will end at 12pm. 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.



# Operational Players and Field Units

## Dennis field site-2M Net Control site (NCS)

The Cape Cod ARES Sandwich field site will operate:

- 2m FM 175W station
- 440 UHF simplex
- 75M voice SSB

## Falmouth Field Site

The Falmouth field site will be in a parking lot at Falmouth Hospital with field expedient antennas and power. It will operate 2m FM simplex. It may also have HF operation. It will operate self-sufficiently.

## Communications with the islands

Communications with the Islands will be attempted from the Net control station along with ARES home stations, field teams and any EOC stations. Home relay stations can also be employed where necessary to establish contacts by simplex. Nantucket will likely have one or two stations active. Islands communications are critical, as always. We will also accept any contact with any mobile stations on the islands.

## Falmouth Hospital Station Site

The Falmouth Hospital primary station will also be online for the exercise. It will run primarily on 2m FM.

## **Home Operator Stations**

Home operator stations will be of value in this exercise as they will continue to prove the simplex redundancy that we have in case of total infrastructure failure. Home stations can be the primary anchor points for our zones of operation within the district. This exercise will give our member's home stations a chance for testing of any new or experimental equipment, as well as, their emergency power backup systems. This will be an ideal time for the home operators to fully evaluate their stations performance.

## **Lower Cape mobile field site Chatham**

The Lower Cape mobile field site will be operated in a high geographic location in Chatham with an extension mast system. It will operate 2m FM simplex and possibly 440 MHz.

# VHF NET Operations

## Primary Tactical NET

The primary tactical NET will operate on the Primary *simplex* operating frequency of 146.580 using FM. The net will begin *30 minutes after the 10am start of the exercise* beginning at 10:30am. HF operations will begin first at 10am sharp. This will be covered in the HF section of the document. The VHF NET may remain at 146.580 or move, if necessary, to alternate frequencies as required for the exercise.

## Operating Procedure for the Tactical NET

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 ARES/RACES field sites. The second call up will be for any EOC stations in our district (including the Islands). The third call up will be for home and other 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 field sites and 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. 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.

## Signal strength reporting

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)**

Participants are free to add the strength in BARS on their meters; in addition to the terms above if they wish. For example, if your incoming signal strength is coming in full meter, you can say strong readable/full scale.

# **NTS simulated traffic net and the passing of formatted messages between the field sites**

At about 1115am we will conduct a simulated traffic net as part of our exercise operation. It will be simulated as we really cannot run a full traffic net on the same frequency and time as the tactical net. Since we will not be running a separate NTS net on an alternate frequency, we will use this procedure for this exercise. Before the beginning of the simulated traffic net, all of our field stations will compose an NTS formatted message. The message will contain information as to the number of operators at the site and whether the site is operating on battery, generator, or both. The simulated traffic net will ask for the field station to check in and the field site operators will pass their messages to the NCS. All interested persons are encouraged to copy the messages for practice and/or act as relays if needed.

## **NTS formal message to be sent into the NTS system**

The Dennis field site will condense all of the messages into a single report. It will then create a formal written NTS message that will be passed to the NTS operator N1ILZ in Orleans for insertion into the NTS system for final delivery to the recipient (s).

There will likely be one or two additional pieces of formal traffic passed to the NTS operator for sending out to EMA section officials.

## **HF Operations**

### **HF voice operations**

HF stations in the Cape Cod and Islands district will attempt contact with other stations within our district and to any available stations outside the district. The Net will begin at 10am sharp. The VHF Net will begin 30 minutes later at 10:30am. The reason for this change is that some members would like to participate in both HF and the VHF net. Staggering the time slot will make it easier for those operators to utilize both, especially if they are operating alone at home. The HF Net will be on 75m at 3930 kHz. Cape field sites and home stations are encouraged to check into the net. Stations will likely be a combination of NVIS and regularly configured antenna systems. Stations checking in will be asked for their antenna system configurations and power level. If stations wish to contact each other, they may ask net control for permission to do so.

# Problem Solving Situations and Improvisation

## Unexpected situations

There will be one or two unannounced problem situations in the exercise. This will require the operators to improvise and think “out of the box”. These situations will enhance our ability to adapt to rapidly changing conditions. They will occur without notice, so be prepared to act quickly.

## Incident Command Structure (ICS)

ICS functions will be assigned before operations begin at the site. An Incident action plan will be created, if time permits, and distributed for all operators participating. We shall continue to use the ICS in future exercises in order for us to become knowledgeable in operating under this system for served agencies.

## Critique and Evaluation of the Exercise

We will have a meeting to critique and analyze the exercise no later than 15 *days* after the exercise. All participants should bring their notes and observations for evaluation by the group. All exercises will produce information that could be useful to future operations. Even seemingly small details can prove valuable to our training and development.

## This is an *Medium* Level Exercise

Although CCARES has had some multi-site large exercises in the past, this will be an advanced level operations drill rivaling some of the earlier ones. It could be technically demanding on the field sites.

# Cape-Exercise Frequency Usage

**Primary Tactical NET: 146.580 Primary FM **Simplex****

**Secondary Simplex 2m: 147.465 FM Simplex**

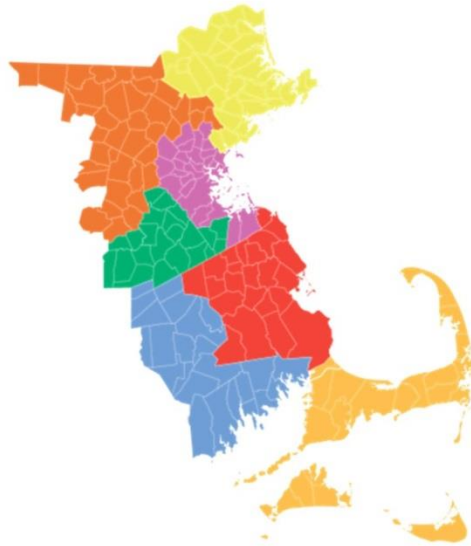
**440mhz simplex: 446.000**

**Primary 75m HF Operations: 3930 kHz**

# Eastern MA ARES will be participating mainly in the ETO Winlink Semi-annual Drill



## Eastern MA ARES Map



Eastern MA ARES will be primarily focusing on the EmComm Training Organization Semi-annual Drill. Any stations in the section, however, are free to check into our HF net on 3930khz HF or our simplex net on 146.580 2m FM if they are in range.