

# Emergency Exercise Plan

Simulated Exercise Test – Saturday, October 9, 2021  
Emergency Management Comm Drill – Friday, October 8, 2021  
Communications Functional Exercise

Updated: October 4, 2021

## Planners

| Position Title         | Name          | Contact Info   |
|------------------------|---------------|--|
| EMA Planner            | Dale Rowley   | <a href="mailto:emadirector@waldocountyme.gov">emadirector@waldocountyme.gov</a>   |
| HAM Planner            | Steve Hansen  | <a href="mailto:shansen@belljar.net">shansen@belljar.net</a>                       |
| SHARES Planner         | Steve Hansen  | <a href="mailto:shansen@belljar.net">shansen@belljar.net</a>                       |
| State EMA Planner      | Steven Emond  | <a href="mailto:Steven.Emond@maine.gov">Steven.Emond@maine.gov</a>                 |
| Packet/Winlink Planner | Richard Bates | <a href="mailto:Richard.bates@stgeorge.me">Richard.bates@stgeorge.me</a>           |
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## Planning Activities

| Meeting Title            | Agenda   | Date               | Time               | Location |
|--------------------------|--|--------------------|--------------------|----------|
| Initial Planning Meeting | <ul style="list-style-type: none"><li>• Select Date(s)</li><li>• Determine comm modes</li><li>• Select Scenario Topic</li><li>• Add Tabletop Exercise at end</li></ul> | 6/10/21            | 6:30 pm            | Zoom     |
| Mid Planning Meeting     | <ul style="list-style-type: none"><li>• Approve Scenario Narrative</li><li>• Review Tabletop Drill MSEL</li><li>• Add additional Participants</li></ul>                | 9/23/21            | 7:00 pm            | Zoom     |
| Final Planning Meeting   | <ul style="list-style-type: none"><li>• Finalize Plan</li><li>• Final Questions</li></ul>  | 10/6/21<br>10/7/21 | 7:00 pm<br>3:00 pm | Zoom     |

## Emergency Functions to Test

- Communications – Emergency Management/SHARES
- Communications – Amateur Radio

## Exercise Mission Statement

The purpose of the disaster exercise is to test and evaluate emergency communications and its support during a long-term, region-wide power outage caused by a solar geomagnetic disturbance.

## Exercise Objectives

- Demonstrate the ability to operate during a total regional grid failure emergency.
- Demonstrate the ability to utilize EMA networks to communicate between the State and County EOCs.
  - Test County EMA radio repeaters and simplex channels
  - Test the Statewide RegionNet repeaters
  - Test the ability to utilize SHARES to relay messages.
- Demonstrate the ability to utilize Ham Radio capabilities to communicate between the counties and amateur radio operators.
  - Test amateur radio communications between counties and operators on 80m, 40m, 2m, 6m and 70 cm simplex voice.
  - Test the ability to successfully transmit and relay Radiograms by VHF or HF including voice and Winlink.
  - Test the ability to retrieve web files via Winlink
  - Test the ability to use the Winlink System and Packet Network to relay messages.

## Schedule of Tasks

### Friday            EMA Communications

| Action   | Task |
|--|------|
| Perform radio voice checks on any other counties' radio repeaters and by simplex | 1    |
| Perform radio voice checks with MEMA on all RegionNet Towers in your area        | 2    |
| Send a message via SHARES Winlink  | 3    |

### Saturday            HAM Radio Communications

| Action   | Task |
|--|------|
| Perform radio voice checks with nearby Counties.   | 4    |
| Perform a Statewide Amateur HF Net                 | 5    |
| Send radiograms through the Winlink System         | 6    |
| Retrieve a file from the web using Winlink         | 7    |
| Send digital data through the Maine Packet Network | 8    |

## Scenario

The NOAA Space Weather Prediction Center (SWPC) alerts local power companies and government emergency management agencies that a major G5 solar event will be centered over the 45<sup>th</sup> northern parallel and is expected to reach the Earth in the very early morning hours of Friday, October 8, 2021. The SWPC predicts the storm to last as long as three days.

There is hesitation with the power companies to shut down the electrical grid system and hesitation by FEMA to activate the National Warning System (NAWAS) and the Wireless Emergency Alert (WEA) System. As such, when the solar storm hits, the voltages on the electrical transmission system exceed the safety margins on the system causing damages to substation transformers and their control systems. As several local grids in the Northeast collapse it causes a cascading effect on all of ISO-New England. All of New England and New York are plunged into darkness. Additionally, not all government offices and private citizens received the warning and unplugged their facilities and standby generators from the grid. As such, many of the facility electronics and standby generators were damaged. Finally, many telephone central offices also took high voltage surges damaging the telephone exchanges.

Landline telephone, cell phone and internet service is effectively nonfunctional.

Friday morning, the State and County EOCs were activated. Although their EOC standby generators were disconnected in time, many outlying public safety radio tower sites were not disconnected from the electrical grid and the power systems at those sites were damaged.

EMA communications systems are being tested on Friday. Amateur radio operators are being activated and will begin testing ham radio communications system on Saturday morning.

Emergency aid with drinking water, food, fuel and medicine are being coordinated.

## Exercise Points of Contact

| Entities      | POC                | Phone Info   | Call Sign |
|---------------|--------------------|--------------|-----------|
| Androscoggin  | Paul Leonard       | 784-0147     | KE6PIJ    |
| Androscoggin  | Keith Anoe         |              | KE4UCW    |
| Androscoggin  | Pete Thuotte       | 212-6603     | N1ZRL     |
| Aroostook     | Darren Woods       | 493-4328     | KC1ERZ    |
| Aroostook     | Roy Woods          | 492-7532     | KB1WGN    |
| Aroostook     | John Gibson        | 493-4328     |           |
| Cumberland    | Jim Fraser         | 892-6785     | KB1SDK    |
| Cumberland    | Michael Mooney     | 632-6805     | W2VAN     |
| Cumberland    | Chris Wheeler      | 892-6785     |           |
| Franklin      | Tim Hardy          | 778-5892     | KB1SBT    |
| Franklin      | Russ Norris        | 491-1952     | KA1FKC    |
| Hancock       | Andy Sankey        | 667-8126     | W1AXS     |
| Hancock       | Andrew Braley      | 460-5158     | KA1EMS    |
| Kennebec      | Paul Doucette      | 649-3093     | KB1OLK    |
| Kennebec      | Mike Coulombe      |              | KB1UTD    |
| Kennebec      | Mike Ellis         |              | W1MAE     |
| Knox          | Ray Sisk           | 594-5155     | WA4GSB    |
| Knox          | Candice Richards   | 594-5155     | KC1JRD    |
| Knox          | Steve Hansen       | 706-6967     | KB1TCE    |
| Knox          | Michael Courtenay  | 699-9844     | KB1DBL    |
| Knox          | Richard Bates      | 200-4064     | WD1O      |
| Lincoln       | Melissa Temple     | 882-7559     |           |
| Lincoln       | Jose Douglas       | 350-1674     | KB1TCD    |
| Lincoln       | Joe Devonshire     | 549-0061     | AB1YO     |
| Lincoln       | John Oakes         |              | WC1G      |
| Whitefield FD | Richard Beausoliel | 624-1572     | N1REX     |
| Oxford        | George Jones III   | 603-475-2930 | W2GPJ     |
| Oxford        | Wayne Strout       | 388-2915     | N1YIS     |
| Penobscot     | Bradley Nuding     | 350-7028     | KC1HVP    |
| Penobscot     | Brian Dort         |              | KB7SEA    |
| Penobscot     | Fred Nickerson     |              | K1CMN     |
| Piscataquis   | Tom Capraro        | 564-8660     | KB1ZQY    |
| Sagadahoc     | Grainne Shaw       | 443-8210     |           |
| Sagadahoc     | Steve Kercel       | 729-4504     | AA4AK     |
| Sagadahoc     | Harry McNelley     | 837-2182     | N1TTT     |
| Somerset      | Mike Smith         | 474-6788     |           |
| Somerset      | Dave Corson        | 431-1985     | K1DWC     |
| Somerset      | Steve Roderick     |              |           |

| Entities   | POC            | Phone Info | Call Sign |
|------------|----------------|------------|-----------|
| Waldo      | Dale Rowley    | 338-3870   | KC1LKI    |
| Waldo      | Brit Rothrock  | 338-3870   | AB1KI     |
| Waldo      | Rob Hoey       | 338-3870   | W1EBA     |
| Waldo      | Bob LaFontaine | 323-0086   | N1PBY     |
| Washington | Mark Burgess   | 271-0078   | K1HF      |
| York       | Dave Francoeur | 324-1578   | KB1HUU    |
| York       | Neil Tolman    | 590-4896   | K1NBT     |
| MEMA       | Steve Emond    | 557-3673   |           |
| MEMA       | Jesse Farnham  |            |           |
| MEMA       | Alex LeBlanc   |            |           |
| MEARRL     | Cory Colob     |            | KU1U      |
| ?          | Roger Pience   |            | N1XP      |
| Army NG    | Jim Belanger   | 626-4249   |           |

### Exercise Guidelines

- All message traffic that transmits simulated disaster data should be preceded by and end with “This is an Exercise.” Simple radios checks do not require “This is an Exercise.”
- If possible, operate on Emergency Power sources.
- If you are having difficulties trying to reach someone by any method, feel free to take an exercise timeout and call them on the landline telephone to coordinate a resolution. The most important thing is to make successful contacts using the emergency communications.

### **TASK 1A - EMA 2-way radio Task – County Repeaters**

Several of the County EMA offices operate radio repeaters. During the exercise, we would like each county to attempt to transmit on another county’s repeater. These repeaters are shown below. Make sure that you have a radio programmed with the frequencies before the exercise.

If you are having difficulty reaching a tower, that you think you should be able to reach, go ahead and make a telephone call to the respective county EMA to discuss what might be the issue (wrong frequencies, PL tone, or no one was listening, etc).

| <b>Time to Test</b> | <b>Repeater to Test</b> | <b>By these Counties</b>  |
|---------------------|-------------------------|---|
| 0900                | Harris Mountain         | Franklin, Hancock, Kennebec, Knox, Lincoln, Penobscot, Somerset       |
| 0915                | WOEMA                   | Cumberland, Hancock, Kennebec, Knox, Lincoln, Penobscot, and Somerset |
| 0930                | FNEMA Mosher            | Cumberland, Somerset  |
| 0945                | FNEMA Mt Blue           | Cumberland  |
| 1000                | KCEMA South             | Cumberland, Knox, and Lincoln   |
| 1015                | KCEMA Central           | Cumberland, Knox, Lincoln and Waldp                                   |
| 1030                | LNEMA                   | Cumberland, Kennebec, Knox, Waldo, and York                           |
| 1045                | YCEMA                   | Cumberland  |

Use the EMA Communications Worksheet in Annex 1 to record your results.

Please see the EMA Repeater Programming Schedule in Annex 3.

Note: The EMA repeater located on Harris Mountain in Dixmont should not be mistaken for MEMAALL’s channel on the Harris MSCOMNET Radio.

### **TASK 1B - EMA 2-way radio Task – County Simplex Frequencies**

County EMAs may coordinate on their own to test simplex tactical frequencies with neighboring their County EMAs to determine if communication is possible.

## TASK 2 - EMA 2-way radio Task – Maine RegionNet Repeaters

Each county EOC should attempt to complete a radio check on the following listed Maine RegionNet repeaters. In order to lessen the impact on the MEMA Radio Room and lesson the time we are tying up the repeaters, we will use the following schedule:

| <b>Zone 1</b>       |               |  |
|---------------------|---------------|--|
| <b>Time to Test</b> | <b>County</b> | <b>Repeater/Towers to Test</b>   |
| 0800                | York          | York, Mt Agamenticus, Spruce Mtn, Pleasant Mtn and Ossipee Mtn         |
| 0815                | Cumberland    | Gray, Pleasant Mtn, and Agamenticus                                    |
| 0830                | Androscoggin  | Spruce Mtn and Gray  |
| 0845                | Franklin      | West Kennebago   |
| <b>Zone 2</b>       |               |  |
| <b>Time to Test</b> | <b>County</b> | <b>Repeater/Towers to Test</b>   |
| 0900                | Sagadahoc     | Huntoon Hill, Whitten Hill, Gray and Granite Hill                      |
| 0915                | Lincoln       | Coggins Hill, Eaton Hill, Huntoon Hill, Whitten Hill, and Granite Hill |
| 0930                | Knox          | Coggins Hill, Huntoon Hill, Granite Hill, and Ephraim                  |
| 0945                | Kennebec      | Augusta, Granite Hill, Whitten Hill, Huntoon, and Cook Hill            |
| 1000                | Franklin      | Sugarloaf Mtn and Mt. Blue   |
| 1015                | Waldo         | Mt. Ephraim, Coogins Hill, and Cook Hill                               |
| 1030                | Hancock       | Mt. Ephraim  |
| 1045                | Cumberland    | Granite, Huntoon, Mt Blue and Whitten Hill                             |
| 1100                | Androscoggin  | Whitten Hill and Granite Hill  |
| 1115                | York          | Huntoom  |
| <b>Zone 3</b>       |               |  |
| <b>Time to Test</b> | <b>County</b> | <b>Repeater/Towers to Test</b>   |
| 1130                | Hancock       | Cadillac Mtn and Bald Mountain   |
| 1145                | Knox          | Cadillac Mtn   |
| 1200                | Penobscot     | Bomarc, Passadumkeag, Bald Mtn and Garland                             |
| 1215                | Waldo         | Cadillac Mtn   |
| <b>Zone 4</b>       |               |  |
| <b>Time to Test</b> | <b>County</b> | <b>Repeater/Towers to Test</b>   |
| 1230                | Aroostook     | New Sweden, No 9 Mtn, and Ashland                                      |

Use the EMA Communications Worksheet in Annex 1 to record your results.

### **TASK 3 – SHARES Winlink Task**

The SHARed RESources HF Radio Program is part of the Cybersecurity and Infrastructure Security Agency (CISA) under DHS. A number of Maine entities are SHARES members. SHARES uses a broad range of data modes as well as voice. The most common data methods include Winlink, NBEMS and ALE.

Stations that are registered SHARES members and who have a SHARES Winlink account are asked to submit a Winlink Express Check In form to [NCS915@winlink.org](mailto:NCS915@winlink.org). The form subtitle should be “Maine SHARES Winlink Test.”

Please note that anyone who is authorized by the agency may operate on SHARES channels. They do not have to have an amateur license. This would be a good task for regular agency employees to participate in.

For this task, HF may be used (Pactor 3/4) or telnet. The message may also be sent at any time during the week of October 4<sup>th</sup>.

For Winlink operators that are not affiliated with SHARES. The Amateur and SHARES Winlink systems are interoperable between the two services. Ham Winlink operators may submit the SHARES Winlink Check In form. Simply address your message to NCS915.

Lincoln, Knox, Waldo and Hancock county EMAs, and the NG JOC are licensed and able to utilize SHARES.

*Overseen by Steve Hansen.*



**TASK 4 – Voice Radio Checks with nearby Counties**

This task is a bit of a radio contest. It involves amateur radio operators trying to see how many County EOCs and/or County ARES members that they can contact. Record who you contacted and let us know! Record the County and the call signs reached. You can use any form you want to collect this information or you can use something like the below chart. Each County should have a radio operator monitoring their ARES assigned frequencies.

*Use the 2020 Maine ARES Frequencies Chart Primary frequency for each County.*

| Call Sign of Originator |                  | Location (Town/County) |           |            |
|-------------------------|------------------|------------------------|-----------|------------|
| Time                    | Call Sign called | Location               | Frequency | Other Info |
|                         |                  |                        |           |            |
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|                         |                  |                        |           |            |
|                         |                  |                        |           |            |

## **TASK 5 – Statewide Amateur HF Net**

This task will resemble a Weekly Net. It involves amateur radio operators checking in to an HF Net from all over the State in order to see how many County EOCs and/or County ARES can participate. Net Control will record who was on the Net.

Each check-in radio operator should give a fictitious report on the status of their county during the solar storm power outage.

On or about **3945.0 kHz** LSB. Net will be active from **0930 EST** through **1130 EST**. Net Control will be run by **W1AXS**.

If the frequency is not clear, try 3935.0.

## TASK 6 - Combined Radiogram/Winlink Relay Component

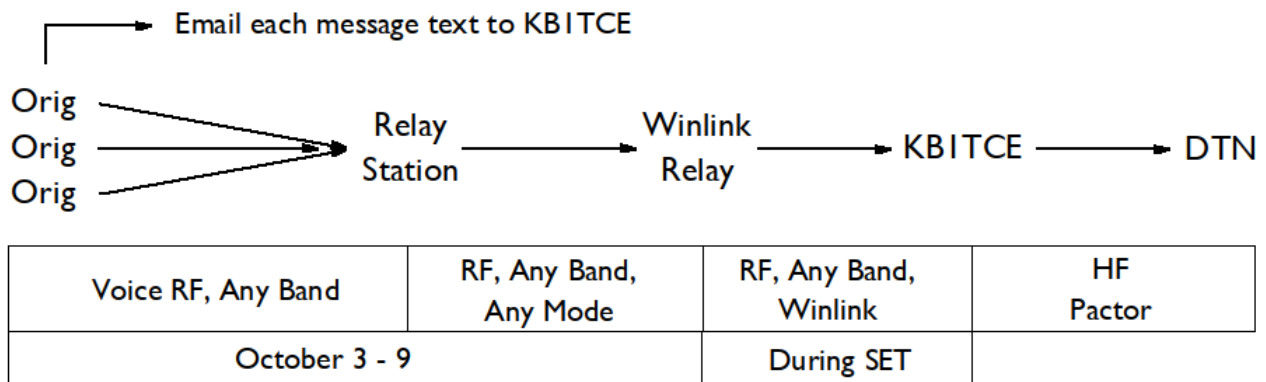
For the 2021 Maine SET we are combining the radiogram relay and Winlink components. The radiogram relay is being redesigned to permit more participation. This element will be organized by county and will take the form of an informal contest with points awarded to counties based on the activity level.

There will be three types of operator in each county:

1. **The Message Originator.** This person will compose a formal radiogram in text format. The radiogram will be addressed to an out of state party, either someone that the originator knows or to a traffic handler on the list of “willing” recipients. The originator will send the radiogram by voice over the radio (any band) to a relay station. The originator will also send a copy of their radiogram by email to [kb1tce@belljar.net](mailto:kb1tce@belljar.net).
2. **The Relay Station.** This person will copy the radiogram and then relay it to the designated Winlink relay. Any mode may be used but the message must leave the relay station by RF. Modes could include NBEMS, voice, cw, etc. Depending on how each county group is structured, the person in this role could be the same as the person in #3.
3. **The Winlink Relay.** This person will collect the radiograms from the various relays and forward the messages to KB1TCE. KB1TCE will inject the radiograms into the Digital Traffic Network.

Functions 1 and 2 can be performed at any time during the week preceding the SET. Number 3, the Winlink relay, must be performed during the Amateur portion of the SET.

The flow chart below shows the functions and the related modes and time slots.



In the example, there are 3 message originators. The radiograms are sent to the intermediate relay who then passes the radiograms to the Winlink relay. This can be done during the week leading up to the SET. During the SET, the Winlink relay passes the radiograms to KB1TCE via Winlink RF (not telnet). Additionally, each originator emails a copy of their message text to [kb1tce@belljar.net](mailto:kb1tce@belljar.net).

If, for example, a county ARES/RACES group has their weekly net on Monday, all of the steps leading up to the Winlink relay could be accomplished on the net. Several members would bring their radiogram traffic to the net and one operator would be designated as the Winlink relay.

### **Scoring**

For each county:

1. One point for every properly formatted radiogram with a maximum of 1 point per operator. In other words, there is no scoring benefit to having one originator transmitting multiple messages.
2. One point for every radiogram that is relayed to KB1TCE by Winlink.
3. If a radiogram is malformed to the extent that it cannot be submitted to the Digital Network, one point will be subtracted for each radiogram that cannot be transmitted. One example would be a message with a missing signature or any other required element.

### **Radiogram Formatting**

Radiograms are to be composed in standard radiogram text format. Handling should be HXC (confirmation of delivery) or HXE (reply requested). Keep the check to 25 or under.

```
526 R HXE KB1TCE 17 OWLS HEAD ME OCT 5
FRED MUNGLE WA4XYZ
5902 CONCH AVENUE
LAKE WORTH FL 33467
561 555 1212 EMAIL FMUNGLE ATSIGN XMAIL DOT COM
BT
HOPE YOU ARE DOING WELL
X THIS RADIOGRAM IS PART
OF OUR MAINE SET EXERCISE
X 73
BT
STEVE KB1TCE
```

For details on radiogram composition, voicing and the traffic system, see the relevant articles in the Maine Telegraph Newsletter in the November 2020 through February 2021 issues. These articles have links to other resources.

The index page is at <https://www.mainearrl.org/newsletter>

For those who might need an out of state traffic handler to receive and reply to a radiogram, you may use:

```
BYRON C HURDER WA4STO
439 N SCHOOL ST
WILBER NE 68465
WA4STO ATSIGN GMAIL DOT COM
(Byron goes by his nickname Luck)
```

*Overseen by Steve Hansen.*

## **TASK 7.** Retrieve a file from the web using Winlink

The Winlink system can be used to grab information that is available on the web. Sailors use this to retrieve weather reports. This type of function is represented by the Catalog feature in Winlink Express.

This has also been used to enable groups that are in disaster areas to retrieve information when the web is not available. If what is being retrieved is a web page, the software will remove images and formatting to render a text only file. This preserves bandwidth.

In this exercise you will retrieve a text file that has been saved on the KX1EMA ARES/RACES web site. It has a question that you will answer. Here are the instructions:

Prepare a Winlink message that is addressed to INQUIRY. Put REQUEST in the Subject line. In the body of the message put the following URL: [https://kx1ema.org/SET\\_Exercise.txt](https://kx1ema.org/SET_Exercise.txt) . Do not put anything else in the message.

Send the message and wait a few minutes. Reconnect and you will have a message with the contents of the file. Send your reply to the tactical address MIDCOASTME using the ICS-213 form that is built into Winlink Express. Indicate which county the message is being sent from.

The file will be uploaded by Monday October 4 and the exercise may be completed at any time up through the exercise period.

*Overseen by Steve Hansen*

## TASK 8. Send Digital Data through the Maine Packet Network

For those stations that have packet access to the Maine Packet Network, please submit either:

- a Winlink Express Check In form addressed to WD1O; subtitle the form "Maine Packet Radio Network SET" or
- an uncompressed text message ~1 kByte in size, for example:

It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife.

However little known the feelings or views of such a man may be on his first entering a neighbourhood, this truth is so well fixed in the minds of the surrounding families, that he is considered as the rightful property of some one or other of their daughters.

"My dear Mr. Bennet," said his lady to him one day, "have you heard that Netherfield Park is let at last?"

Mr. Bennet replied that he had not.

"But it is," returned she; "for Mrs. Long has just been here, and she told me all about it."

Mr. Bennet made no answer.

"Do not you want to know who has taken it?" cried his wife impatiently.

"You want to tell me, and I have no objection to hearing it."

This was invitation enough.

"Why, my dear, you must know, Mrs. Long says that Netherfield is taken by a young man of large fortune from the north of England; that he came down on Monday ....

Operators who are uncertain about their access to the packet network should contact [wd1o@stgeorge.me](mailto:wd1o@stgeorge.me) before the exercise, for details about their nearest node.

Access to the packet network is at the following VHF frequencies:

| Frequency, MHz | Node Name | Location   |
|----------------|-----------|------------|
| 144.930        | KC1JMH-2  | Westbrook  |
| 144.990        | K1NYY-2   | Waldoboro  |
| 145.010        | KS1R-2    | Phippsburg |
| 145.010        | W1EMA-2   | Aborn      |
| 145.030        | KX1EMA-2  | Rockland   |
| 145.050        | WD1O-2    | St. George |
| 145.070        | N1QFY-2   | Gardiner   |
| 145.090        | N1REX-2   | Whitefield |
| 145.730        | WS1EC-5   | Windham    |
| 145.730        | W1YCA-1   | York       |

Stations that do not have a packet node in their area may connect into the network using Winlink Express by sending the Check In form to WD1O and connecting to WD1O-2. WD1O scans the following frequencies using ARDOP, VARA and Pactor. All frequencies are center (dial + 1500Hz).

3589.500 kHz  
7104.500 kHz  
14106.700 kHz

This task may be completed at any point during the exercise.

**(Annex 1) EMA COMMUNICATIONS WORKSHEET**

| <b>Means</b><br>EMA Radio, Ham Voice, Ham Data, NAWAS, Satellite          | <b>Channel</b><br>Name or Frequency | <b>Readability</b><br>Readable or Unreadable | <b>Signal Strength</b><br>Strong or Weak | <b>Contact Made</b><br>Yes or No, If Yes indicate who contacted |
|---|-------------------------------------|--|--|---|
| <b>Your County Name Here</b>  |                                     |  |  |   |
| <b>EMA Radio Repeaters</b><br>(Harris, RegionNet, Other County Repeaters) | Harris Mtn                          |  |  |   |
|   |                                     |  |  |   |
|   |                                     |  |  |   |
|   |                                     |  |  |   |
|   |                                     |  |  |   |
|   |                                     |  |  |   |
|   |                                     |  |  |   |
| <b>EMA Simplex</b><br>(Other Counties' Simplex Channels)                  |                                     |  |  |   |
|   |                                     |  |  |   |
|   |                                     |  |  |   |
|   |                                     |  |  |   |
|   |                                     |  |  |   |
|   |                                     |  |  |   |

## Annex 2 – EMA Repeater Programming Schedule

| <b>Repeater Name</b>   | <b>Rx</b> | <b>PL</b> | <b>Tx</b> | <b>PL</b> |
|------------------------|-----------|-----------|-----------|-----------|
| <b>FN Mosher</b>       | 158.8275  | D612      | 154.8525  | D612      |
| <b>FN Mt Blue</b>      | 158.8275  | D624      | 154.8525  | D624      |
| <b>KCEMA Central</b>   | 155.8050  | D712      | 151.2500  | D712      |
| <b>KCEMA South</b>     | 158.2350  | 123.0     | 151.2500  | 123.0     |
| <b>LNEMA</b>           | 155.9175  | 229.1     | 150.7750  | 229.1     |
| <b>WOEMA</b>           | 156.1425  | 123.0     | 158.9700  | 123.0     |
| <b>HARRIS Mountain</b> | 156.1725  | 123.0     | 159.0825  | 123.0     |
| <b>YCEMA</b>           | 159.7800  | 156.7     | 159.7800  | 156.7     |



## Maine ARES Frequencies

| <b>VHF/UHF</b>             |        |  |           |          |                  |                     |               |
|----------------------------|--------|--|-----------|----------|------------------|---------------------|---------------|
| County                     | Mode   | Primary  | Secondary | Tertiary | Primary Repeater | Secondary Repeater  | Notes         |
| Androscoggin               | Analog | 146.460  | 147.540   | 146.430  | 146.610(88.5Hz)  | 147.315 (103.5)     |               |
| Aroostook                  | Analog | 146.475  | 147.510   | 146.505  | 146.730          |                     |               |
| Cumberland                 | Analog | 146.415  | 147.525   | 146.535  | 146.730 (100.0)  |                     |               |
| Cumberland-ECT             | Analog | 146.580  | 146.595*  | 147.585  | 147.090 (100.0)  | UHF x-band: 446.500 |               |
| Franklin                   | Analog | 146.535  | 147.570   | 146.580  | 147.180 (123.0)  |                     |               |
| Hancock                    | Analog | 146.565  | 147.495   | 146.535  | 146.910 (151.4)  |                     |               |
| Kennebec                   | Analog | 147.480  | 146.475   | 147.450  | 145.390 (100.0)  |                     |               |
| Knox                       | Analog | 147.540  | 146.475   | 147.450  | 147.060 (91.5)   | 145.490 (91.5)      | Primary inop. |
| Lincoln                    | Analog | 147.510  | 146.505   | 147.450  | 146.985 (136.5)  |                     |               |
| Oxford                     | Analog | 146.550  | 147.435   | 146.505  | 146.880 (100.0)  |                     |               |
| Penobscot                  | Analog | 147.565  | 146.550   | 147.555  | 145.450 (67.0)   |                     |               |
|                            |        | 446.050  | 446.150   | 446.250  |                  |                     |               |
| Piscataquis                | Analog | 146.400  | 147.450   | 146.565  | 147.105 (103.5)  | 147.150 (71.9)      |               |
| Sagadahoc                  | Analog | 146.490  | 147.555   | 146.565  | 147.210 (100.0)  |                     |               |
| Somerset                   | Analog | 147.420  | 146.430   | 147.525  | 146.730 (91.5)   |                     |               |
| Waldo                      | Analog | 146.430  | 147.465   | 146.460  | 147.270 (136.5)  |                     |               |
| Washington                 | Analog | 147.595  | 147.525   | 147.570  | 147.330 (118.8)  | 146.775 (192.8)     |               |
| York                       | Analog | 147.570  | 146.445   | 147.540  | 145.410 (103.5)  | 147.345 (123.0)     |               |
| State Coord.               | Analog | 52.525   | 146.520   | 223.500  | 446.000          | KQ1L System         | dhawke.com    |
| Statewide                  | DMR    | 145.790  | 145.510   |          |                  |                     | maine-dmr.org |
| <b>HF</b>                  |        |  |           |          |                  |                     |               |
| 3940.0 kHz                 | Night  | Statewide HF Coordination.<br>1900L: MECN (Sun) and SGN (Mon-Sat). 0900L: MPSN (Sun)<br>Digital Modes (NBEMS) flamp recommend with flmsg attachments<br>Net ops: THOR16. File transfers THOR50x1; THOR22 or THOR16 in poor conditions. |           |          |                  |                     |               |
| 7262.0 kHz                 | Day    |  |           |          |                  |                     |               |
| 3583.0 kHz                 | Night  |  |           |          |                  |                     |               |
| 7071.0 kHz                 | Day    |  |           |          |                  |                     |               |
| <b>HF Interoperability</b> |        |  |           |          |                  |                     |               |
| 60 meter channels          |        | 5332.0, 5348.0, 5358.5, 5373.0 and 5405.0 kHz. USB dial, digital modes must be centered at 1500 Hz.  |           |          |                  |                     |               |
| Winlink (via AWS)          |        | With served agency coordination, Amateur and SHARES Winlink are interoperable via the AWS.   |           |          |                  |                     |               |

**Notes:**

Analog = analog voice, can also accommodate digital data and image.

Frequencies in **red** have been allocated to possible repeater usage per the January 2015 NESMC 2 meter band plan.

\*Cumberland-ECT and Gray NWS will use Cumberland's secondary simplex for Skywarn.

Created by Bryce K1GAX, N1EP, WE1U and KB1TCE. Current update 9/16/2021 by KB1TCE.