

# Boone County ARES SIMULATED EMERGENCY TEST PLAYER HANDBOOK



Version 1.7  
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BCARES – EC

## Participants Handbook

### Purpose

This handbook provides the participants with information required to participate effectively in the Simulated Emergency Test (SET) exercise. The participants are encouraged to ask questions concerning their roles and responsibilities and the rules of exercise.

Quoting from the American Radio Relay League (ARRL) *The Amateur Radio Emergency Service Manual*:  
web link:

<http://www.arrl.org/files/file/Public%20Service/ARES/ARESmanual2015.pdf>

### 6.1 Purpose of SET

- *To determine strengths and weaknesses, in an exercise environment, of ARES groups at local and section levels.*
- *To provide a public demonstration of Amateur Radio Service capabilities to partner organizations and agencies during times of emergency or disaster.*
- *To help radio amateurs gain experience in communications using standard procedures and a variety of modes under simulated emergency conditions.*

### SCOPE

The exercise is intended to test and demonstrate communications capabilities of BCARES in support of our served agencies in their operations in an emergency situation.

The exercise will be on 12 November, 2022 beginning at 10:00 AM and ending by 12:00 as determined by the exercise leader. The exercise may end early if the exercise leader determines that all objectives and performance criteria (anticipated actions) have been sufficiently addressed. The exercise will primarily take place in, but not be limited to, Boone County, Missouri.

### Scenario Narrative

The exercise will require activation of the Boone County EOC/Joint Communications Amateur Radio Station, WX0BC, located in the Emergency Communications Center (ECC) at the time of the start of the exercise. Some BCARES members will be required at Joint Communications Center

The exercise scenario will be an Earthquake from the New Madrid Seismic Zone. The USGS and State of Missouri have partnered to create the attached **Geologic Hazards Map of Region F**. This map is a projection of potential impacts of a large earthquake to our area. Boone County Office of Emergency Management (OEM) has extrapolated potential damage points across Boone County to be used in the exercise. At each point you are dispatched to, you will be asked to communicate information contained in packages obtained at staging area. These packets contain instructions for frequencies, messages, and specific damage information for reporting. Formal message handling is required. (ICS213)

The exercise scenario will request participants to deploy to various locations throughout the county as directed by Emergency Management and transmit information provided in packets obtained at staging. There may be some surprise injects at different sites Participants should be prepared to engage in mobile/Portable operations that test their ability to meet the Exercise Deliverables stated below. You should anticipate the requirement of emergency power and interactions with the Joint Communications Center (JCC) or designated Net Control Stations (NCS) on VHF/UHF simplex and local repeaters.

Some participants will also be asked to utilize APRS tracking capabilities, and others will be asked to send and/or receive Winlink email and P2P messages to WX0BC. Finally, some participants will be asked to use HTs for communications in and around designated points in and around downtown.

## **Exercise Objectives**

In addition to the SET purposes outlined on the ARRL website we will establish the following specific BCARES Exercise Objectives:

1. Assess coverage and operation of the 444.175 MHz repeater with respect to OEM specified points across the county.
2. Assess fill-in coverage of the county using 146.610 MHz repeater (or other repeaters as necessary).
3. Assess Winlink application email by RF from mobile/portable operations.
  - a. Utilizing ICS213 Forms in Winlink Express
  - b. Attaching files/pictures for delivery via Winlink and Winlink P2P
  - c. Assess coverage of RMS K0PHP-10 using Vara FM.
4. Assess sending formal traffic via voice utilizing message formats from ICS 213 forms, when Winlink is not in the players capabilities.
5. Track mobiles at ECC utilizing APRS.
6. Exercise the WX0BC radio capacity in the Boone County Emergency Communications Center (ECC).
7. Experiment with sending images via RF using VARA FM simplex and Winlink P2P.
8. Assess City of Columbia coverage utilizing Hand-Held VHF/UHF radios from assigned areas in town, to a central sub-Net Control trailer at MU Health utilizing repeaters and simplex frequencies (see ICS 205 - Appendix B).

## **Exercise Artificialities**

It is recognized that certain artificialities and constraints detract from exercise realism. However, exercise participants are to accept the following artificialities as a means of facilitating the accomplishment of the exercise objectives and performance criteria.

The exercise will be playing in real-time including activation of the ECC Amateur Radio station WX0BC.

Many of the alert, notification, and initial activation activities will be a part of the exercise.

You will be operating from the parking spaces. Take proper cautions.

## **Exercise Simulation**

Simulation during this functional exercise is required to compensate for non-participating organizations, individuals, and field units that would actually be deployed in a real-world response. Although simulations may detract from exercise realism, the simulated incidents, (messages from and to simulated entities) provide the means to facilitate exercise and provide for the testing of exercise objectives and performance criteria.

Data for participants to use in their respective assignments will be provided for simulation of events and needs consistent with such emergency responses of our exercise. Office of Emergency Management will provide Information packets for each point for participants to use and follow instructions contained therein.

## Participants Procedures and Responsibilities

Primary participants in this exercise will be licensed amateur radio operators providing emergency communications support in accordance with the protocols, procedures, frequency plans, and other guidance as detailed in the ARES® Manual. You do not need to be an ARES member to participate.

All voice exchanges (not transmissions) should begin and end with the phrase “**This is a test.**” Written messages should contain the word “**Test**” as part of the precedence, e.g., Test Priority, in the message preamble or subject line. Written messages should also include the phrase “**This is a test**” as the first and last words in the text (or body) of the message.

**Should an actual emergency occur** at any time during the exercise that dictates that the exercise should stop, the phrase “**Real World Emergency**” (preferably repeated three times) shall be used to indicate that exercise is suspended until further notice or until the emergency is resolved. See Appendix D for a review of on-air procedures

### Deployment: See ICS 205A, Appendix A

Radio operators will be deployed from staging in pairs after net check-in, beginning at 10:00 AM. NCS will initially be assigned to an operator from their home station, as all others travel to Staging area in the rear parking lot of Mizzou North. Players from outside of Columbia will not be expected at the staging area. Players will be deployed in pairs from staging to their assigned points in the county/ city. NCS will be transferred to WX0BC when that station comes on air.

## Safety and Security

Participants should observe reasonable personal safety procedures and refrain from anything close to dangerous operations in the exercise situations. After all, **THIS IS A TEST.**

## Communications

The BCARES SET Net will be called on the 444.175 MHz repeater in response to the OEM call up, as participants travel to staging beginning at 10:00 AM. Participants should monitor this repeater for the **duration** of the exercise. In the case of failure of this repeater, the 146.610 MHz repeater and/or the 146.760 MHz repeater will be used for net control/traffic. Simplex frequencies taken from the MO-Interoperability Plan, such as HVTac-6F, 146.505 MHz may also be used. Each participant should be ready to communicate on frequencies outlined in the ICS 205 Communications Plan (Appendix B). Program your radios before the event!

When checking in stations will indicate if they have emergency power and if they can be deployed with mobile/portable radios, and if they have APRS capabilities in the mobile for the exercise.

Tactical call signs will be **assigned** at check-in and when you move to a new location. These are used to facilitate message handling.

Digital message handling will use Winlink Express to send and receive exercise traffic between stations (P2P) and via VHF/HF to Winlink nodes for email delivery. Use the ICS-213 template in Winlink Express for message creation.

Stations deployed **must** maintain communications with NCS, or designee, throughout the exercise and including a **final contact** as they arrive at their off-exercise destination following all exercise activities, to ensure their safety. See **Appendix D** for operating procedures for directed nets, and specific tasks for this SET.

## Reporting

Stations participating should keep written logs of activity including evaluations and observations that will be valuable in improving BCARES performance in future drills or real exercises. These data will be collected and discussed in following BCARES monthly meetings.

**ICS 214** (logging) is supplied with this package, Appendix C.

## Acknowledgements

This SET 2021 Player's Handbook was produced using the Participants Handbook template provided as part of the FEMA IS-139 Exercise Design course, and the Connecticut Section 2011 SET Participants Handbook.

## NOTES:

## Appendix A - ICS 205A

|  |                            |  |  |
|--|----------------------------|--|--|
| <b>1. Incident Name:</b><br>2022 SET - BCARES  |                            | <b>2. Operational Period:</b> Date From: Nov 12, 2022      Date To: SAME<br>Time From: 10:00 AM      Time To: 12:00 PM |  |
| <b>3. Basic Local Communications Information:</b>  |                            |  |  |
| Incident Assigned Position   | Call - Name (Alphabetized) | Method(s) of Contact<br>(VOICE VHF/UHF, pager, cell, etc.)   |  |
| <b>TACTICAL CALL</b>   |                            | <b>MODE &amp; phone</b>  |  |
| Ashland  | AC0MP – Richard            | VOICE VHF/UHF 573-823-1052   |  |
| UMHC-TRAILER   | AD0ZE – Jon                | VOICE VHF/UHF, WINLINK, APRS 573-514-5773  |  |
| Ashland  | K0JHL - John               | VOICE VHF/UHF, WINLINK   |  |
| Rocheport  | K0MIZ – Jim                | VOICE VHF/UHF, WINLINK, APRS, DMR 856-649-8319   |  |
| STAGING CAPT & Centralia PD  | K0PHP – Chris              | VOICE VHF/UHF, HF, WINLINK, MESH, APRS, DMR, 573-228-0240  |  |
| CFD & CPD  | K0ZB - Herb                | VOICE VHF/UHF WINLINK, DMR, APRS, 573.355.1166   |  |
| Harrisburg   | KA9MNZ – Cathy             | VOICE VHF/UHF, WINLINK, APRS, Cell-573-682-7806  |  |
| HOWARD CO  | KB0IOH - Jeff              | VOICE VHF/UHF, WINLINK   |  |
| ECC NCS  | KC0EZE – Ernest            | VOICE VHF/UHF, WINLINK, APRS, DMR, DStar 573-864-5515  |  |
| CALLAWAY Public-Health   | KC0LYA - Dave              | CALLAWAY RELAY   |  |
| ECC - OEM  | KC9UJC - Mat               | BCOEM  |  |
| City W&P   | KE0BTC - Ben               | VOICE VHF/UHF WINLINK, 573-999-5920  |  |
| QTH-South Boone  | KE0DHO - Bernard           | VOICE VHF/UHF, WINLINK, APRS, 573.777.2345   |  |
| Columbia-NCS   | KE0IKG - Paul              | QTH VHF/UHF – RELAY WINLINK 417-499-8703   |  |
| MU PD  | KE0SIY Bill                | VOICE VHF/UHF 573-397-8955   |  |
| CPD & CFD  | KF0FZV – Charlie           | VOICE VHF/UHF, WINLINK, DMR, APRS 573-874-2612   |  |
| EEC - NCS  | N0AXZ – Bill               | VOICE VHF/UHF, WINLINK, APRS, DMR 573-424-5959   |  |
| Boone Hospital & City  | N0OFJ - John               | VOICE VHF/UHF, WINLINK, APRS, DMR  |  |
| City W&P   | N6VZO - Bob                | VOICE VHF/UHF, 573-514-1425  |  |
| Boone Hospital & City  | W0RAG – Alex               | VOICE VHF/UHF, WINLINK   |  |
| Hallsville PD  | W0TES Tim                  | VOICE VHF/UHF, WINLINK, APRS   |  |
| Hallsville PD  | W0ZH – Myron               | VOICE VHF/UHF, WINLINK 314 973-2484  |  |
| Harrisburg   | WD6BGN - Ralph             | VOICE VHF/UHF, WINLINK, APRS,; Cell-573-682-7806   |  |
| <b>4. Prepared by:</b> Name: N0AXZ _____ Position/Title: BCARES/ EC _____ Signature: WDM _____ |                            |  |  |
| <b>ICS 205A</b>  | <b>IAP Page</b> _____      | Date/Time: 9 NOVEMBER, 2022 _____  |  |

Appendix B - ICS 205

| ICS-205 INCIDENT RADIO COMMUNICATIONS PLAN |                       |                      | Incident Name<br>2021 SET BCARES |  |           | Date/Time Prepared<br>10/2/22 8:00 AM |           | Operational Period Date/Time<br>11/6/22 10:00 - 12:00 CST |                             |
|--|-----------------------|----------------------|----------------------------------|--|-----------|---------------------------------------|-----------|---|-----------------------------|
| Ch #                                       | Function              | Channel Name/Trunked | Assignment                       | RX Freq MHz                              | RX Tone/N | TX Freq MHz                           | Tx Tone/N | Mode A, D   | Remarks                     |
|  | Primary Net           | NET                  | All                              | 444.175                                  | 107.2     | 449.175                               | 107.2     | A   | SET- NET                    |
|  | Secondary Net         | BCARES-VHF           | All                              | 146.610                                  | 127.3     | 146.010                               | 127.3     | A   | VHF coverage                |
|  | Primary Simplex       | HVTac-6F             | ALL                              | 146.505                                  |           | 146.505                               |           | A   | Region F Simplex            |
|  | Primary Data          | HV-Data              | RMSE Packet                      | 144.910                                  |           | 144.910                               |           | D   | WL2K P-P/ VARA FM           |
|  | WINLINK VHF - PACKET  | KOSI-10              | WINLINK Packet                   | 145.070                                  |           | 145.070                               |           | D   | Winlink e-mail              |
|  | WINLINK VHF - VARA FM | KOPHP-10             | WINLINK VARA FM                  | 144.970                                  |           | 144.970                               |           | D   | Winlink e-mail              |
|  | WINLINK HF - ARDOP    | KOSI                 | WINLINK HF                       | 3.585 USB                                |           | 3.585 USB                             |           | D   | Winlink e-mail              |
|  | WINLINK HF - ARDOP    | KOSI                 | WINLINK HF                       | 7.102 USB                                |           | 7.102 USB                             |           | D   | Winlink e-mail              |
|  | WINLINK HF - VARA HF  | KOSI                 | WINLINK HF                       | 3.585 USB                                |           | 3.585 USB                             |           | D   | Winlink e-mail              |
|  | WINLINK HF - VARA HF  | KOSI                 | WINLINK HF                       | 7.102 USB                                |           | 7.102 USB                             |           | D   | Winlink e-mail              |
|  | CLWY Liaison          | Fulton R             | KCOLYA                           | 147.315                                  | 127.3     | 147.915                               | 127.3     | A   | Contact KCOLYA              |
|  | HVTac0                | HVTac0               | MU Campus                        | 144.495                                  |           | 144.495                               |           | A   | SIMPLEX                     |
|  | HVCall                | HVCall               |                                  | 146.550                                  |           | 146.550                               |           | A   | SIMPLEX                     |
|  | HVTac1                | HVTac1               |                                  | 145.600                                  |           | 145.600                               |           | A   | SIMPLEX                     |
|  | HVTac2                | HVTac2               |                                  | 145.650                                  |           | 145.650                               |           | A   | SIMPLEX                     |
|  | HVTac3                | HVTac3               |                                  | 146.700                                  |           | 146.700                               |           | A   | SIMPLEX                     |
|  | HVTac4                | HVTac4               |                                  | 146.400                                  |           | 146.400                               |           | A   | SIMPLEX                     |
|  | HVTac5                | HVTac5               |                                  | 146.445                                  |           | 146.445                               |           | A   | SIMPLEX                     |
|  | HVTac7                | HVTac7               |                                  | 146.595                                  |           | 146.595                               |           | A   | SIMPLEX                     |
|  | HVTac8                | HVTac8               |                                  | 147.405                                  |           | 147.405                               |           | A   | SIMPLEX                     |
|  | HVData                | HVData               |                                  | 144.910                                  |           | 144.910                               |           | D   | SIMPLEX                     |
|  | APRS                  | APRS                 | Tracking                         | 144.390                                  |           | 144.390                               |           | D   | Tracking units              |
|  | Secondary VHF R       | COL - 76             | ALL                              | 146.760                                  | 127.3     | 146.160                               | 127.3     | A   | COL 76 - R if needed        |
|  | UHF Simplex           | HUTAC - 1            | ALL                              | 445.900                                  |           | 445.900                               |           | A   | MSG TRAFFIC                 |
|  | Portable Repeater     | SNP/R                | ALL                              | 442.125                                  | 127.3     | 447.125                               | 127.3     | A   | Portable repeater as needed |
|  | DMR                   | DMR                  | TG 31290                         | 444.425                                  |           | 449.425                               | Cc:3      | D   | DMR Repeater                |
|  | D-Star                | D-Star               | D-Star users                     | 442.325                                  |           | 447.325                               |           | D   | D-Star Repeater             |
| Prepared By (Communications Unit)          |                       |                      | BCARES-EC                        | Incident Location                        |           |                                       |           |   |                             |
| ICS 205                                    |                       |                      |                                  | County BOONE State MO Latitude Longitude |           |                                       |           |   |                             |





## Appendix D

### 2022 SET operating procedures review for new and old participants:

During this exercise, we will make extensive use of tactical call signs for all stations (assigned at check-in). These calls will make it easier to communicate, allowing operators to clearly communicate from a position or assignment.

REMINDER: You must still follow the FCC rules for using your assigned call sign: Once every ten minutes and/or at the end of your conversation (which is most likely, since no one should be talking for 10 minutes straight in this exercise!): most of the time signing off with your tactical call immediately followed by your FCC assigned call sign will take care of this:

Such as: “Rover1, N0AXZ” at the end on your last transmission.

REVIEW: We will operate the net as a Directed Net, which means that you are not free to transmit as you wish. Rather, you should request permission to transmit, and wait until you secure that permission. You request permission to call by saying your call (in this case the tactical call assigned your position), once and once only, and wait. (e.g. “First Baptist Church”). If you have been in communications with NCS before (like when checking in at the beginning) then you can be assured that NCS heard your call. He/she will get to you as soon as possible, if not immediately. He/she acknowledges your request by calling your tactical call back. (e.g. “First Baptist Church”). You should then just say your traffic (don’t say NCS from, etc.) and sign with your tactical call/ham call. (e.g. “I have one message for WA0BCD, First Baptist Church, N0AXZ”).

If your traffic should be handled off the net frequency, due to its length, destination, or mode (digital), NCS will tell you which frequency to use, and which station should initiate the call. When you have finished delivering the traffic off net, return to the net frequency and announce, “Recheck”. NCS will ask for the recheck, and you need only announce your tactical call sign e.g. “SHELTER 3 back on frequency”. If you were not successful delivering the traffic, then after your recheck is acknowledged, say “Shelter3, traffic not passed”. NCS will then have to find another way to pass that traffic.

If your traffic is an emergency(test), like big crash with blood, etc., and someone may need an ambulance, then you should say “PRIORITY Tactical Call” (e.g. “PRIORITY Shelter 3”), once and only once, and wait just a little bit, because NCS should drop everything else and get your traffic, if they heard PRIORITY. None of these are planned in this exercise.

Another exception (which we **REALLY** don’t want to see) is that you have a REAL emergency that needs attention. You would then call “REAL WORLD. REAL WORLD. REAL WORLD, Shelter3” **ALL SET ACTIVITIES WILL then BE SUSPENDED AND YOUR SITUATION WILL BE HANDLED.**

We will use the tag “**THIS IS A TEST**”, or simply, “**TEST**” at the beginning of message traffic, and at the end of that message to avert any “listener” mistakenly thinking that the sky is falling. In this exercise, as any many real emergency nets, you will be **listening** and **waiting** most of the time.