Emergency Operations All Hazards

ARES/AUXCOMM Suggested Operating Practice

ARES District 9/ IEMA Region 9/ Jefferson County Illinois

May 2024

Emergency Operations All Hazards ARES/AUXCOMM Suggested Operating Practice
Signature Page

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Record of Changes

	Change (Name, Page, Number, Date, Issuer	Date Posted (mm/dd/yy)	Posted By (Initials)
1.	Initial Plan	05/20/24	AKH
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ARES/AUXCOMM Suggested Operating Practice
Jefferson County, Illinois

Authority: This document does recognize other communications organizations that exist outside of ARES and AUXCOMM. Outside of the ARES organization the contents of this document are purely suggestive and informative; at no time should this material be misconstrued as directive in nature.

During the initial stage of an emergency, if no authority has been established, the ARES District 9 DEC or his/her designated representative should assist in coordinating amateur radio communications until relieved or replaced by proper authority. Any county or local level can start the process without the DEC. This may not be a District emergency. A courtesy call to the DEC would be good however, so planning to a larger scale could begin at any level (e.g., State, County, Town etc.)

IN ALL CASES AMATEUR RADIO OPERATORS SHOULD NOT SELF DEPLOY. ACTIVATE ONLY WHEN REQUESTED BY PROPER AUTHORITY

When an amateur radio operator is called upon to assist with an incident or event, he/she may use this document to assist them, and they may bring it to the attention of the incident or event leadership who may use this information as necessary.

Ownership: The contents of this document are controlled by the ARRL Emergency Coordinator (EC) for Jefferson County, Illinois. Any changes or modifications to this written document must be approved by the Jefferson County, Illinois ARRL Emergency Coordinator. This plan shall be reviewed annually in January.

The use of this material is open to all. All Jefferson County amateur radio operators, incident commanders, event planner and others are welcome and encouraged to use this information to assist them in their communications planning and training. However, this is intended to be a dynamic document that may change with time and experience.

Purpose: Communications planning for Jefferson County, Illinois

Worst Case Scenario: All infrastructure has failed; At inception of an incident, event or exercise.

1) Confirm that you and your local family are out of immediate danger! **PLAN** for long duration of incident, and, that conditions may worsen.

2) Confirm that your power source is stable. Does the voltage remain between 113 and 127 and at 60 cycles per second? 120 volts AC is preferred. If poor conditions exist, or if there is **ANTICIPATION** that conditions will deteriorate, evaluate and establish back-up power, whether generator, battery/solar, wind, or hydro.

3) Call the Jefferson County net on the common counties FM frequency of 147.135 MHz (ARCOM Repeater), for initial check-in, and to advise of problematic areas.

4) Other Repeater for use will be the ARCOM DMR repeater: TX:147.3150 MHz & RX:147.9150 MHz, Color Code is 7 and the ARCOM talk group DMR ID 319217 is on Timeslot 2

4) Monitor 3.908 MHz LSB. Prepare for transmission.
Monitor 145.16 MHz Winlink Peer 2 Peer (keep your session open). Prepare to transmit.
The district 11 CW frequency is 3.531 MHz, if the State frequency gets busy.

5) Establish Winlink Peer to Peer station on HF 3.571.5 dial frequency USB ARDOP (keep your session open).

6) The State HF frequencies are:

- Voice: 3.905 MHz LSB.
- ARDOP Peer to Peer: 3.570 MHz USB dial frequency
- ARDOP/Pactor gateways: 3.591 and 7.103 MHz USB dial frequencies
- VARA gateways: 3.595 and 7.108 MHz USB dial frequencies
- CW: 3.538 MHz

Other Voice Frequencies:

- 146.52000Mhz is the 2M nationwide calling frequency
- 446.0000Mhz is the nationwide 70cm frequency

Refer to the State ARES 217A for additional alternative frequencies/modes (attached to this plan).

7) Turn off any unused radio transmitting devices, to avoid interference to your critical communication devices, and to save power.

8) Prepare a status report form for your area (sample and instructions in appendices), based on previous training standards, and prepare to transmit when requested. Utilize ICS-213 if possible, or Radiogram.

9) Best practice is a dedicated radio and antenna systems, when possible, rather than switching modes or frequencies. Attempt to get additional operators at your site to avoid overload and to work shorter shifts. Do not scan frequencies of importance. Headphones are recommended.

10) Prioritize times to listen or transmit on various frequencies, based on the following standards:

VHF voice: Every hour beginning at 0700, starting at the top of the hour, for 15 minutes.
HF Voice: Every hour beginning at 0700, starting at 15 minutes after the top of the hour, for 15 minutes.
Public Service Voice: (if needed for this incident): Every hour, beginning at 0700, starting at 45 minutes after The top of the hour, for 15 minutes.
Winlink, VHF/HF: Leave all sessions open for Peer-to-Peer coverage.
Each 15-minute period may be extended if traffic handling is necessary.

11) It may be necessary to move away from the State Winlink frequency of 145.61 when radio traffic increases. The Motorola Syntor radio has limited use due to inability to quickly change frequency. Activate an additional two-meter radio to solve the issue. Connect it to Winlink District 11 frequency 145.16 Peer to peer, with ability to switch back to 145.61. Turn off the Syntor to conserve power.

12) **REVIEW** your station for taller, higher gain antenna systems, as time allows.

13) The Net Control Operator should complete ICS 203, ICS 211, ICS 309, ICS 214
Other team members should complete ICS 213, ICS213RR, ICS 214, ICS 309, Status Reports, ARRL Radiograms when required. (Forms in appendices)

14) Prior to incident conclusion, an ICS 225 should be completed for each participating person by the Com-L or supervisory position (perhaps Net Control).

15) Use minimum RF power to make communication to conserve power and minimize interference to others.

16) **CONSIDER** deployment if you are available, but only if requested.

ASSET DESCRIPTIONS AND USE

The ICS form 217a at the end of this document is a comprehensive list of amateur radio assets in ARES district 11. A detailed description of these assets is below.

Primary voice system
147.135Mhz repeater is the primary means of amateur radio voice communications in the event of an area wide disaster. It should be used for the coordination of all other communications, **if available.**

Net control The EC or his/her appointed representative will assume net control, if available. In the event of an area wide disaster where no one has assumed net control, the first person who discovers the emergency should assume net control until relieved.

If the volume of traffic increases to the point where it affects timely communications, the net control station should move traffic off available repeaters or simplex frequencies as designated in the Plan.

In the event the repeater system fails, the net control station should switch to the repeater receive frequency and announce that they are operating in simplex mode. This mode may be used temporarily to establish "the Communications Plan".

If traffic is still an issue or if expedient the primary network net controller or DEC may divide the region and use other repeaters or frequencies, and alternate net controllers to manage traffic in those areas.

Intra-county Simplex
146.58000Mhz is the primary simplex frequency. For use when repeaters are inoperative.

Simplex tactical frequency
The following three tactical frequencies shall be used for emergency communications:
Shelter net: 146.425 mHz simplex
Evacuation net: 146.475 mHz simplex
Hospital net: 146.500 mHz simplex

Illinois Winlink 2M Packet
145.61000Mhz is the Illinois Winlink frequency. This system can be used to send and receive email when other means are unavailable, and if the internet works outside the stricken area. Otherwise use Peer 2 Peer.

Illinois HF digital network
3570KHz is the primary Illinois Winlink data digital network. It can be used to pass digital traffic intra-state. The primary digital means of communication on this frequency is Winlink/Ardop. NC9IL is the Springfield station that may be used to pass traffic to the State Emergency Operations Center.

Winlink/Ardop HF
Winlink/Ardop HF are systems that allow for the sending and receiving of email over long distance via high frequency radio. There are gateways set up around the world for entry into the web. It may be used when all local systems are down. It is important to understand the out of area gateways may also be down or limited in number and propagation. Therefore, Winlink HF Peer to Peer may be necessary. Amateur radio stations configured for this mode will have a list of stations and frequencies.

Statewide HF voice net
The statewide networks are on 3905Khz LSB or 7227Khz LSB. This can be used to pass intra-state voice messages when propagation is good, and the frequencies are not in use or otherwise saturated. Additional frequencies are listed in the plan.

Other Voice Frequencies
146.52000Mhz is the 2M nationwide calling frequency
446.0000Mhz is the nationwide 70cm frequency
When all other methods fail the above call frequencies may be used in an attempt to establish communications or to hail outside help.

RECORDS AND FORMS

Messages:
The ICS form 213 is the primary template for formal message traffic. However, operators need to be skilled in National Traffic System Radiogram message handling.

Other documentation

To the extent Possible all logs and record keeping should use the ICS forms and adhere to the directions for use and completion. These forms can be obtained from the following website: https://training.fema.gov/icsresource/icsforms.aspx or from Winlink "Message" templates on the main screen and in the appendices.

Incident planners and those who feel they may become involved in disaster communications should keep a hard copy of the major ICS communications documents available. A copy should also be available on your external hard drive (or thumb drive), as well as other programs and data sources. Examples: 205, 205T, 241, 217A, 206,208, 204, 214, 309 (attached in appendixes) and area map tiles from Google Earth. Obviously, a printer, extra cartridges, and a laptop could also prove useful. All need to have an auxiliary power source.

APPENDIX A COUNTY STATUS REPORT

What is a County Status Report?
The county status report is a new type of message designed to report conditions simply and efficiently within a county to the appropriate authorities.

The report covers the status of a number of important public services in the referenced county. It uses a standardized system to report status ensuring consistency in reporting. Data used in the report can come from personal observation or from personal observations collected by amateur radio operators in ARES or RACES groups, or knowledgeable individuals. Specifically, the County Status covers the operational status of Public Power, Water, Sanitation, Medical Care, Transportation and Communications Systems.

The County information set contains 12 fields:

1. Amateur Call Sign

2. Time of Observation
Use Greenwich Mean Time (GMT) DDHHMM for the format, (Day, Hour, & Minute).

3. County (being reported)

4. Location (Where are you reporting from)
e.g.: Corner of Elm St. and Main St. Anywhere, IL

5. Power Status
Y – Yes.
P – Partial Blackout. Unplanned interruption of commercial power only in parts of the county.
N – No. A Blackout has occurred. Complete unplanned commercial power interruption in the county.

6. Water Status
Y – Yes. Fully functional water service in the county except for routine maintenance. (Green).
P – Partial. Unplanned interruption of water service only in parts of the county.
N – No. Complete unplanned water service interruption.

7. Sanitation Status
Y – Yes. Fully functioning sanitation service in the county except for routine maintenance.
P – Partial. Unplanned interruption of sanitation service only in part of the county.
N – No. Complete unplanned sanitation service interruption.

8. Medical Infrastructure Status
Y – Yes. Fully functioning and staffed hospitals and clinics with spare capacity available.
P – Partial. Unplanned decrease of capacity in the county due to loss of facilities.
N – No. Not available. Medical facilities are unusable due to loss of personnel or infrastructure.

9. Communication System Status
Y – Yes. Fully functioning commercial and civil government local communications.
P – Partial. Commercial communications are out but local government communications are operational.
N – No. Complete loss of local communications and government communications.

10. Transportation Status
Y – Yes. Fully functioning mass transit, roads, and rail systems except for routine maintenance.
P – Partial. Unplanned interruption in service or loss of road/rail in parts of the county.
N – No. Complete loss of mass transit systems. Roads remain available except for those damaged.

11. Information Source:
e.g.: Direct observation, Government Official, Media etc.

12.- Comments

Example msg:

W9RY WILLIAMSON CORNER OF RT51 AND 148 POWER N WATER Y SANITATION P ... etc.

If all system statuses are Y:

W9RY WILLIAMSON CORNER OF RT51 AND 148 ALL NORMAL

Appendix B
Jefferson Country Sheriff's Department Emergency Communication Plan

Purpose: This plan will be implemented by use of VHF Amateur radios and licensed Amateur Radio operators placed in assigned locations. The radio operators will relay requests from local residents for medical, fire, police, public infrastructure failures or provide tactical awareness of the area.

Activation:

1. When conditions exist that cause operators concern such as severe weather, man-made disasters such hazmat leaks or civil unrest.
   Operators should turn on their VHF 2-meter radio and tune to the ARCOM repeater (147.135 MHz).
   DO NOT SELF DEPLOY! Wait for directions from Net Control. It is vital we know where our operators are at all timnes.
2. If the plan is activated by proper authority, you will be notified on the ARCOM repeater and will be checked into the net.
3. If your situation allows you to respond you will be directed to a specific location, such as Bonnie. Village Hall. You will stand by at this location to relay any requests for emergency services and or provide information on w eather,
   road condition or power status.
4. Relay all requests for assistance or condition reports via the ARCOM repeater. If the repeater is not functional use 146.58 Simplex. In the event of
   heavy message traffic Net Control may assign other simplex frequencies to move traffic.
5. If you must leave your location or when your relief operator arrives, notify net control.
6. If conditions require, security will be provided by law enforcement personnel.

APPENDIX C ICS 205a FREQUENCY PLAN

1. Incident Name	2. Operational Period (Date / Time) From: To:	COMMUNICATIONS LIST IL ARES ICS 205A

3. Basic Local Communications Information

Name	Assignment	Method(s)
NCS North	By Assignment	3905 / 7230 kHz LSB
NCS CENTRAL	By Assignment	3905 / 7230 kHz LSB
NCS SOUTH	By Assignment	3905 / 7230 kHz LSB
NCS ALTERNATE 1	By assignment	3915 / 7235 kHz LSB
NCS ALTERNATE 2	By assignment	3900 / 7227 kHz LSB
NCS ALTERNATE 3	By assignment	5371.5 kHz USB 60M "Channel 4"
CW_1	By assignment	3538.0 kHz CW
CW_2	By assignment	3543.0 kHZCW
DATA_1	By assignment	3571.5 kHz ARDOP P-2-P Dial 3570 kHz USB
DATA_2	By assignment	3566.5 kHz ARDOP P-2-P Dial 3565 kHz USB
DATA_3	By assignment	3561.5 kHz ARDOP P-2-P Dial 3560 kHz USB
DATA_4	By assignment	3556.5KHz ARDOP P-2-P Dial 3555 kHz USB
DATA_5	By assignment	3551.5 kHz ARDOP P-2-P Dial 3550 kHz USB
DATA_6	HF Winlink Gateway	3592.5 kHz ARDOP / Pactor Dial 3591 kHz USB
DATA_7	HF Winlink Gateway	3596.5 kHz VARA Dial 3595 kHz USB
DATA_8	HF Winlink Gateway	7102.5 kHz ARDOP / Pactor Dial 7101.0 kHz USB
DATA_9	HF Winlink Gateway	7103.5 kHz VARA Dial 7102.0 kHz USB
IDEN	IL WINLINK Gateway	145.610 MHz FM
IDEN_2	IL Data Comms	145.050 MHz P2P Packet FM
IDEN_3	IL Data Comms	145.011 MHz P2P VARA FM
IL2A	IL Comms	146.520 MHz FM
IL2B	IL Comms	147.525 MHz FM
IL2C	IL Comms	147.570 MHz FM
ILUHFA	IL Comms	446.000 MHz FM
ILUHFB	IL Comms	446.400 MHz FM
ILUHFC	IL Comms	446.700 MHz FM
ARES_220	By assignment	223.500 MHz FM
FRS_1	By assignment	462.5625 MHz FM GMRS Low Power Restriction
MURS_4	By assignment	154.570 MHz FM "Blue Dot"

4. Prepared by: (Communications Unit) Date / Time

ARES SEC
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1212

COMMUNICATIONS LIST ICS 205a-ARES (Rev. 09/22)