



Jefferson County ARES

Emergency Operations All Hazards

ARES/AUXCOMM Incident Operating Practices
Steven W. Warner, WA9SWW
Section Emergency Coordinator
April 2025

Record of Changes

Changes Made (Name, Page, Number, Date, Issuer)		Date Posted (mm/dd/yy)	Posted By (Initials)
1.	Initial Plan	05/20/2024	AKH
2.	Update Plan	03/14/2025	SWW
3.	Update Plan	04/10/2025	SWW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

Jefferson County ARES Officers

Office	Operator & Call	Cell Phone	Email
Section Emergency Coordinator	Steven Warner WA9SWW	618.315.0968	wa9sww@gmail.com
Assistant EC	Dan Dare KA9BLH	217.549.5174	dandare@hotmail.com
Assistant EC	Nicholas Skaggs N9BIG	217.899.9668	n9big@outlook.com
Assistant SEC	Wallace Strow WA9RNE	309.635.6668	wa9rne@gmail.com

JEFFERSON COUNTY ARES

Emergency Operations All Hazards • ARES/AUXCOMM Incident Operating Practices

ARES District 9 • IEMA Region 9

Authority: This document does recognize other communications organizations that exist outside of ARES and AUXCOMM. Emergency coordinators, All Jefferson County amateur radio operators, incident commanders, event planners and other interested stakeholders are welcome and encouraged to use this information to expand their communications planning and training exercises. Amateur radio zones, regions, clubs and individuals are encouraged to develop plans of their own by the fair use of this document for guidance. Outside of the ARES organization, the content of this document is provided for educational and informational purposes only.

During the initial stage of an emergency, if no authority has been established, the Illinois 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 advised 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 commander 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 on an annual basis.

Purpose: Emergency 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 volts 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 off-grid power, whether generator, battery/solar, wind, or hydro.
3. Call the Jefferson County Net on the common county FM frequency of 147.135 MHz (ARCOM 2 meter repeater), for initial check-in, and to advise of problematic areas.
4. Other Repeater for use will be the ARCOM DMR repeater: TX: 147.315 MHz & RX: 147.915 MHz, Color Code is 7 and the ARCOM talk group DMR ID 319217 is on Timeslot 2. The AuxComm **GMRS** repeater is channel 15, 103.5 tone.
5. Monitor 3908.0 kHz LSB. Prepare for transmission. Monitor 145.160 MHz Winlink Peer-to-Peer (keep your session open). Prepare to transmit. The ARES Statewide CW frequencies are 3538.0 kHz and 7114.0 kHz.
6. Establish Winlink Peer-to-Peer station on HF 3571.5 kHz dial frequency USB ARDOP (keep your session open).
7. Refer to the State ICS 205a-ARES frequency chart by **ZONE** for additional alternative frequencies/modes (attached to this plan).
8. Turn off any unused radio transmitting devices, to avoid interference to your critical communication devices, and to save power.
9. 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 form if possible, or Radiogram.
10. 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.
11. Prioritize times to listen or transmit on various frequencies, based on the following standards:

- a. **VHF Voice:** Every hour beginning at 0700, starting at the top of the hour, for 15 minutes.
 - b. **HF Voice:** Every hour beginning at 0700, starting at 15 minutes after the top of the hour, for 15 minutes.
 - c. **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.
 - d. **Winlink VHF/HF:** Leave all sessions open for Peer-to-Peer coverage.
 - e. **Each 15-minute period** may be extended if traffic handling is necessary.
12. It may be necessary to move away from the State Winlink frequency of 145.610 MHz when the radio traffic increases. Activate an additional 2 meter radio to solve the issue. Connect it to Winlink District 11, frequency 145.160 MHz Peer-to-Peer, with ability to switch back to 145.610 MHz.
 13. **REVIEW** your station for taller, higher gain antenna systems, as time allows.
 14. The Net Control Operator should complete ICS 203, ICS 211, ICS 309, ICS 214.
 15. Other team members should complete ICS 213, ICS 213RR, ICS 214, ICS 309, Status Reports, and ARRL Radiograms when required (forms in appendices).
 16. Prior to incident conclusion, an ICS 225 should be completed for each participating person by the Com-L or supervisory position (perhaps Net Control).
 17. Use the minimum RF power to make communication to conserve power and minimize interference to others.
 18. **CONSIDER** deployment if you are available, but only if requested.

Asset Descriptions and Use

The ICS form 205a at the end of this document is a comprehensive list of amateur radio assets used in the State of Illinois. A detailed description of these assets is below.

Primary Voice System

The ARCOM 2 meter repeater (147.135 MHz) 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 it is operational**.

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 this 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 "Emergency 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.

Southern Zone Simplex

146.580 MHz is the Southern zone simplex frequency. Use it when repeaters are inoperative.

Simplex Tactical Frequencies

The following three tactical frequencies shall be used for emergency communications:

Shelter Net:	146.425 MHz simplex	TAC-1
Evacuation Net:	146.475 MHz simplex	TAC-2
Hospital Net:	146.500 MHz simplex	TAC-3

Illinois HF Digital Network

3570.0 kHz 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, Illinois EMA 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 that 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 3905.0 kHz LSB or 7227.0 kHz 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 this plan.

Other Voice Frequencies

When all other methods fail, the nationwide call frequencies may be used in an attempt to establish communications or to hail outside help.

146.520 MHz is the 2 meter nationwide calling frequency.

446.000 MHz is the 70 cm nationwide calling frequency.

Records and Forms

Messages

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

Other Documentation

To the extent possible, all logs and record keeping should utilize the ICS forms and adhere to the directions for their 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 flash drive), as well as other programs and data sources. Examples: 205, 205T, 241, 217A, 206, 208, 204, 214, 309 (attached in appendices) and area map tiles from Google Earth. Obviously, a printer, extra cartridges, and a laptop could also prove useful. All equipment needs 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 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 Radio 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 message:

*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 County 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 staging locations. The amateur 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 amateur radios and tune to the **ARCOM 2 meter repeater (147.135 MHz)**.

DO NOT SELF-DEPLOY. Wait for directions from Net Control.
It is vital that we know where our operators are at all times.

2. If this plan is activated by proper authority, you will be notified on the ARCOM 2 meter repeater and you will be checked into the net.
3. If your situation allows you to respond, you will be directed to a specific location, such as the Bonnie Village Hall. You will stand by at this location to relay any requests for emergency services and or provide information on weather, road condition or power status.
4. Relay all requests for assistance or condition reports via the ARCOM 2 meter repeater. If the repeater is not operational, use 146.580 MHz simplex. In the event of heavy message traffic, the 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.
7. Simplex tactical frequencies.

The following three tactical frequencies shall be used for emergency communications:

<i>Shelter Net</i>	<i>146.425 MHz simplex</i>	<i>TAC-1</i>
<i>Evacuation Net</i>	<i>146.475 MHz simplex</i>	<i>TAC-2</i>
<i>Hospital Net</i>	<i>146.500 MHz simplex</i>	<i>TAC-3</i>

8. Upon Civil Assistance Plan (CAP) activation, respond to these designated staging locations.

Tactical ID	Assembly Location	Address
Alpha	Grand Prairie School	21462 N. Richview Lane, Centralia
Bravo	Field Township Building	21083 N. Miller Lake Lane, Texico
Charlie	Farrington Township Building	20944 E. Divide Road, Bluford
Delta	Bluford Village Hall	1005 W. 4 th Street, Bluford
Echo	Opdyke Missionary Baptist Church	9208 N. Opdyke Lane, Opdyke
Foxtrot	Ina Village Hall	306 S. Elm Street, Ina
Golf	McClellan Township Building	9001 N. Cherryville Lane, Mt. Vernon
Hotel	Nason Village Hall	121 N. 9 th Street, Nason
India	Woodlawn High School	300 N. Central Street, Woodlawn

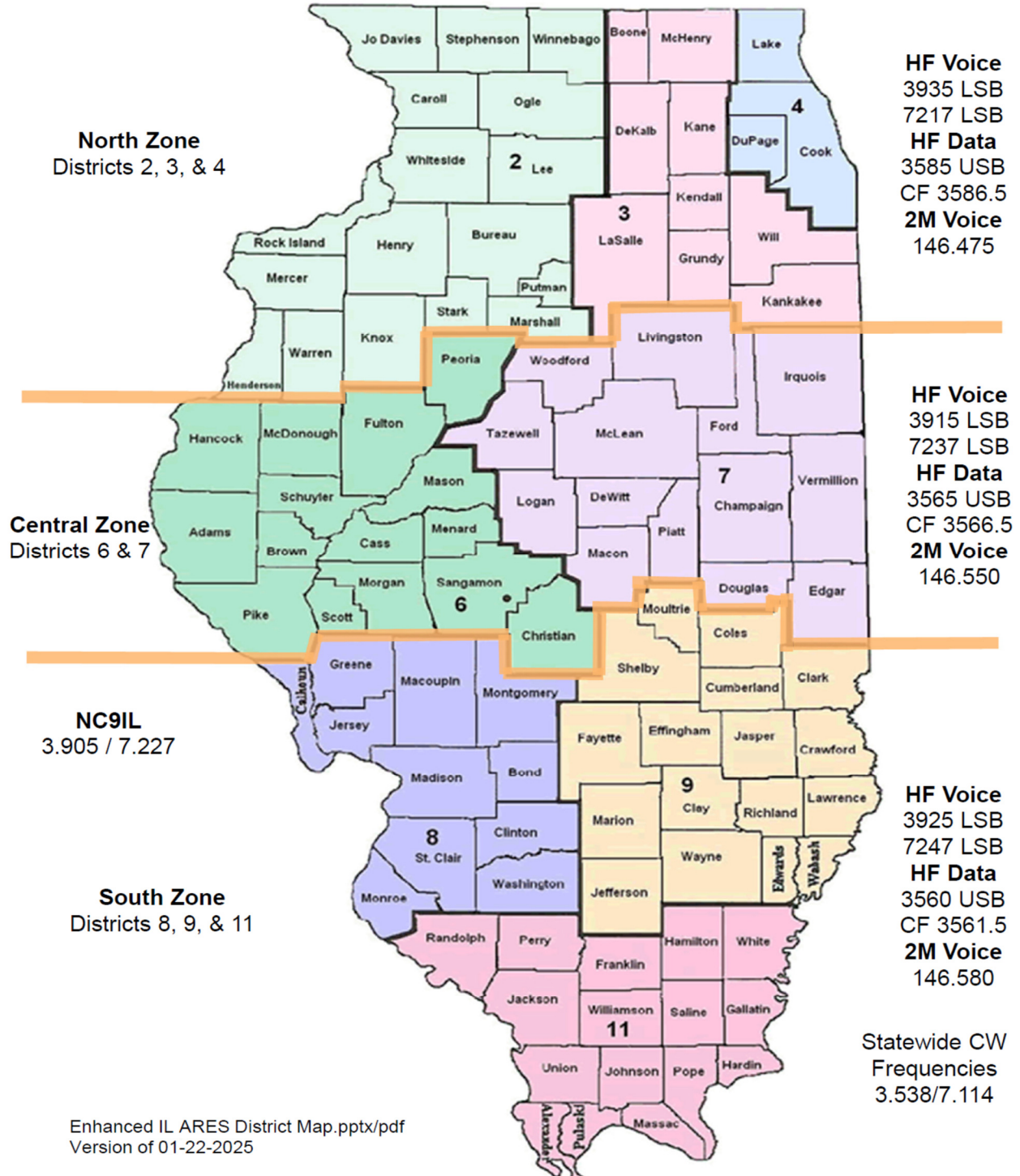
Appendix C

ICS 205a-IL ARES Frequency Plan

1. Incident Name	2. Operational Period (Date / Time)	COMMUNICATIONS LIST ICS 205a-IL ARES
	From: _____ To: _____	
3. Basic Local Communications Information		
Name	Assignment	Method(s)
NCS North	By Assignment	3935 / 7217 kHz LSB
NCS Central	By Assignment	3915 / 7237 kHz LSB
NCS South	By Assignment	3925 / 7247 kHz LSB
NCS Alternate-1	By Assignment	3915 / 7235 kHz LSB
NCS Alternate-2	NC9IL	3905 / 7227 kHz LSB
NCS Alternate-3	By Assignment	5371.5 kHz USB 60M "Channel 4"
CW-1	By Assignment	3538 kHz CW
CW-2	By Assignment	7114 kHz CW
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	3556.5 kHz 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 kHz USB
Data-9	HF Winlink Gateway	7103.5 kHz VARA Dial 7102 kHz USB
IDEN-1	IL Winlink Gateway	145.610 MHz FM
IDEN-2	IL Data Comms	145.050 MHz P-2-P Packet FM
IDEN-3	IL Data Comms	145.011 MHz P-2-P VARA FM
IL2-A	IL Comms	146.520 MHz FM
IL2-B	IL Comms	147.525 MHz FM
IL2-C	IL Comms	147.570 MHz FM
ILUHF-A	IL Comms	446.000 MHz FM
ILUHF-B	IL Comms	446.400 MHz FM
ILUHF-C	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		

Rev. 03/25

Illinois ARES Zone Map with Frequencies



Appendix D

Terminology

Organizations	ARRL	American Radio Relay League
	ARES	Amateur Radio Emergency Service
	EMA	Emergency Management Agency
	IEMA	Illinois Emergency Management Agency
	AUXCOMM	Auxiliary Communication
ARRL Structure	SM	Section Manager
	SEC	Section Emergency Coordinator
	ASEC	Assistant Section Emergency Coordinator
	DEC	District Emergency Coordinator
	EC	Emergency Coordinator
	AEC	Assistant Emergency Coordinator
Message Forms	Radiogram	ARRL message relay form
	ICS 213	Incident Command System form
Modes	AM	Amplitude modulation
	FM	Frequency modulation
	CW	Continuous wave/Morse code
	DMR	Digital Mobile Radio
	Winlink	Email messages over radio frequencies
Frequencies	HF	High frequency
	VHF	Very high frequency
	UHF	Ultra high frequency
Radio Services	FRS	Family Radio Service
	GMRS	General Mobile Radio Service
	MURS	Mobile Universal Radio Service