Emergency Operations All Hazards
ARES/AUXCOMM Suggested Operating Practice
ARES District 11/ IEMA Region 11

190611ALLHAZARDS/ARES/WBT/R190923/R210225/R230513/R240129

Authority: This document does recognize other communications organizations 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 District 11 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.)

An amateur radio operator may be called upon to assist with an incident or event. He/she may use this document to assist themselves or the incident (or event) leadership.

Ownership: The contents of this document are controlled by the ARRL District 11 Emergency Coordinator (DEC). Changes or modifications to this written document shall be approved by the District 11 Emergency Coordinator. This plan is designed to be dynamic and should be reviewed annually in January.

This material is open to all. All County Emergency Coordinators, amateur radio operators, incident commanders, event planners and others are welcome and encouraged to use this information to assist with communications planning and training.

Purpose: Communications planning. The southern 16 counties will be divided into three divisions to facilitate better control within the Incident Command structure. It is not the intent to isolate any one or a group of counties from another. This will allow better span of control if all counties are affected.

Divisions are:
Eastern- Hamilton, White, Saline, Gallatin, Pope, Hardin
Southern- Union, Johnson, Alexander, Pulaski, Massac
Western- Randolph, Perry, Franklin, Jackson, Williamson,

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 (generator, battery / solar, wind, or hydro).

3) Call the District/Regional net on the common counties FM frequency of 146.58000 Mhz, for initial check-in, and to advise of problematic areas.

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 State frequency gets busy.

5) Establish Winlink Peer to Peer station on HF 3.555 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 status reports for your area, based on previous training standards, and prepare to transmit when requested. Utilize ICS-213 if possible, or Radiogram.

9)

- The best practice is to use a dedicated radio and antenna system 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.
- Head phones are recommended.

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

- VHF voice: Every hour, starting at the top of the hour, for 15 minutes.
- HF Voice: Every hour, starting at 15 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 207, ICS 211,ICS 214, ICS 309
Other team members should complete ICS 211, ICS 213, ICS 213RR, ICS 214, ICS 309, Status Reports, and ARRL Radiograms when required.

14) Prior to incident conclusion, an ICS 225 should be completed for each participating person by the supervisory position (Auxiliary Communication Manager, Communication Unit Leader, Communication Technician, Technical Specialist, Net Control).

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

16) **CONSIDER** deployment if you are available, but only if requested. **DO NOT SELF DEPLOY**.

17) This plan shall be reviewed annually in January.

18) Attached:

- Organizational Chart (ICS 207)
- Area Status Report with Example and Instructions
- Illinois HF Available Frequencies (ICS 217)
- District 11 HF Available Frequencies (ICS217)
- District 11 Available Repeater Channels (ICS 217)
- District 11 Available Simplex Frequencies (ICS 217)

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
147.090/146.880Mhz 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 DEC (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 to available repeaters or simplex frequencies as designated in the Plan.

In the event the repeater system fails, the net control station should switch to 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 controller, or DEC, may divide the district and use other repeaters or frequencies, and alternate net controllers, to manage traffic in those areas.

Inter-county Simplex
146.58000Mhz is the primary simplex frequency. Use this simplex when repeaters are inoperative. RELAY messages by voice when necessary.

Simplex tactical frequency
147.42000mhz should be used as the primary tactical network for on scene communications. Limit this frequency to 5 watts if possible to avoid adjacent area interference.

Local Data Network
147.16000Mhz is the local data network channel. Mode of operation in most cases should be WinLink P2P Packet

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 To Peer.

Illinois HF digital network
3570 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 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 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.

State wide HF voice net
The state wide network is 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
All logs and record keeping should use the ICS forms and adhere to the directions for use and completion when possible. 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 document. A copy should also be available on your external hard drive (or thumb drive), as well as other programs and data sources. Examples: ICS 203, 204, 205, 205a, 206, 207, 208, 211, 213, 213RR, 214, 217A, 219, 221, 225, 309 (attached in appedixes) 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.

Area Status Report

Status Report format is two lines indicating:

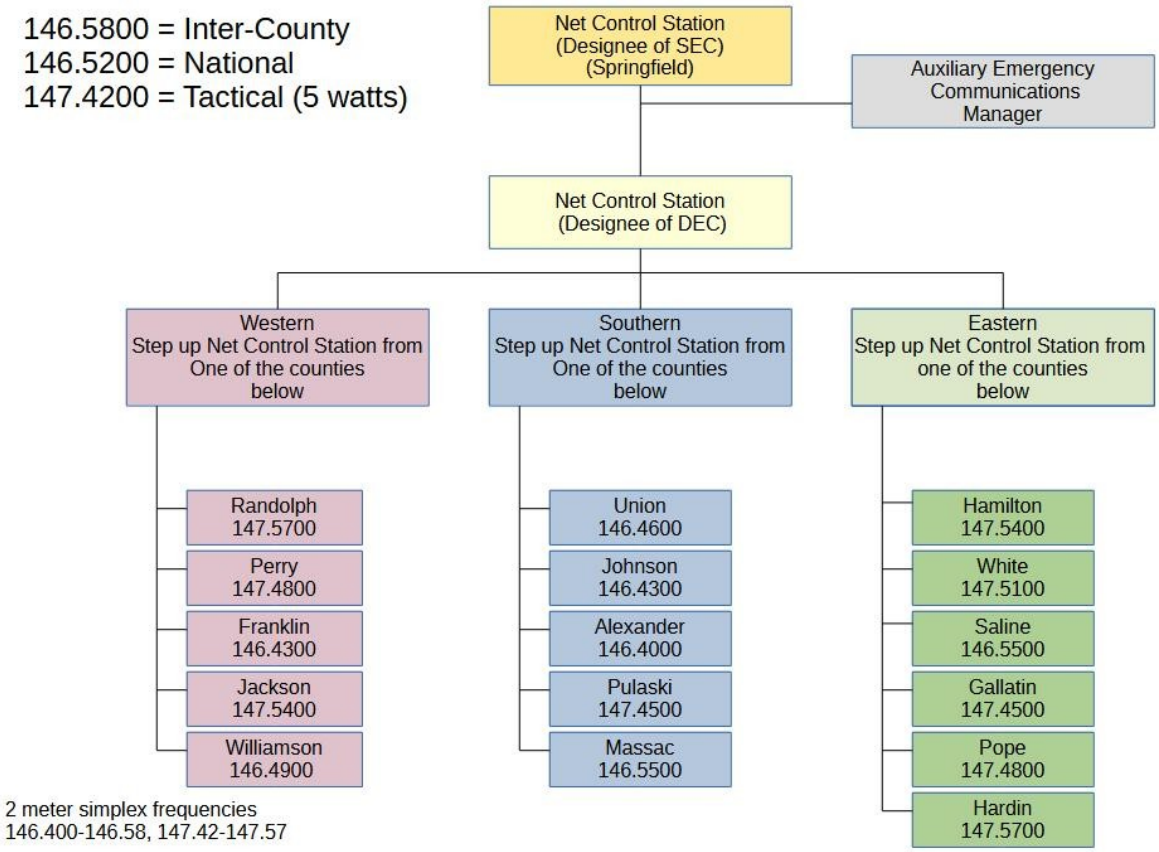
1) Ham Call Sign, Local Date/Time of observation (YYMMDDHHMM), County, Location inc. Town

2) Power, Water, Sewage, Hospital/clinic, Communication, Transportation
   - Indicate by using first initial of each service (P, W, S, H, C, T) followed by first initial of Yes, No, Partial
   - Source: Use first initial of Police, Fire, Medical, Ema, Tv, Radio, Socialmedia, Ham after service status

Example:
wa9apq,2312301730,williamson,carterville/division/grand,
PY,WY,SN,HP,CP,TN,F

District 11 Organization Chart (ICS207)

146.5800 = Inter-County
146.5200 = National
147.4200 = Tactical (5 watts)



2 meter simplex frequencies
146.400-146.58, 147.42-147.57

ILLINOIS STATE

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET	Frequency Band	Description
	HF/VHF/UHF (PAGE 1)	IL ARES STATEWIDE FREQS

Pg No	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D or M	Remarks
		NCS North	By assignment	3905/7227kHz	-	3905/7227kHz	-	LSB	VOICE
		NCS Central	By assigment	3905/7227kHz	-	3905/7227kHz	-	LSB	VOICE
		NCS South	By assigment	3905/7227kHz	-	3905/7227kHz	-	LSB	VOICE
		NCS Altaernate 1	By assigment	3915/7237kHz	-	3915/7237kHz	-	LSB	VOICE
		NCS Altaernate 2	By assigment	3900/7222kHz	-	3900/7222kHz	-	LSB	VOICE
		NCS Altaernate 3	By assigment	5371.5kHz 60M CH1	-	5371.5kHz 60M CH1	-	USB	VOICE
		CW_1	By assigment	3538.0/7038kHz	-	3535.0/7038kHz	-	CW	CW
		CW_2	By assigment	3545.0/7035kHz	-	3545.0/7035kHz	-	CW	CW
		DATA_1	By assigment	3570kHz DIAL*	-	3570kHz DIAL*	-	USB	ARDOP P2P *CTR 3571.5kHz
		DATA_2	By assigment	3565kHz DIAL*	-	3565kHz DIAL*	-	USB	ARDOP P2P *CTR 3566.5kHz
		DATA_3	By assigment	3560kHz DIAL*	-	3560kHz DIAL*	-	USB	ARDOP P2P *CTR 3561.5kHz
		DATA_4	By assigment	3555kHz DIAL*	-	3555kHz DIAL*	-	USB	ARDOP P2P *CTR 3556.5kHz
		DATA_5	By assigment	3550kHz DIAL*	-	3550kHz DIAL*	-	USB	ARDOP P2P *CTR 3551.5kHz
		DATA_6	WINLINK gateway	3591kHz DIAL*	-	3591kHz DIAL*	-	USB	ARDOP/PACTOR *CTR 3592.5
		DATA_7	WINLINK gateway	3595kHz DIAL*	-	3595kHz DIAL*	-	USB	VARA *CTR 3592.5kHz
		DATA_8	WINLINK gateway	7101kHz DIAL*	-	7101kHz DIAL*	-	USB	ARDOP/PACTOR *CTR 7103.5
		DATA_9	WINLINK gateway	7102kHz DIAL*	-	7102kHz DIAL*	-	USB	VARA *CTR 7103.5kHz
		IDEN	WINLINK gateway	145.610MHz	-	145.610MHz	-	FM	AX.25
		IDEN_2	IL DATA comms	145.050MHz	-	145.050MHz	-	FM	P2P PACKET
		IDEN_3	WINLINK gateway	144.990MHz	-	144.990MHz	-	FM	VARA

The convention calls for frequency lists to show four digits after the decimal place, followed by either an "N" or a "W", depending on whether the frequency is narrow or wide band. Mode refers to either "A" or "D" indicating analog or digital (e.g. Project 25) or "M" indicating mixed mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeater and base stations must be programmed with the Rx and Tx reversed.

ILLINOIS STATE CON'T

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET	Frequency Band	Description
	HF/VHF/UHF (PAGE 2)	IL ARES STATEWIDE FREQS

Pg No	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D or M	Remarks
		IL2A	IL Comms	146.520MHz	-	146.520MHz	-	FM	National Calling freq
		IL2B	IL Comms	147.525MHz	-	147.525MHz	-	FM	
		IL2C	IL Comms	147.570MHz	-	147.570MHz	-	FM	
		IDEN_4	IL DATA	441.060MHz	-	441.060MHz	-	FM	VARA
		ILUHFA	IL Comms	446.000MHz	-	446.000MHz	-	FM	National Calling freq
		ILUHFB	IL Comms	446.400MHz	-	446.400MHz	-	FM	
		ILUHFC	IL Comms	446.700MHz	-	446.700MHz	-	FM	
		FRS_1	By assignment	462.5625MHz	-	462.5625MHz	-	FM	FRS CH1

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DISTRICT 11 HF

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET				Frequency Band 80M 40M				Description DIST 11 HF	
Pg No	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D or M	Remarks
	SIMPLEX	DIST 11 WINLINK	AMATEUR	3.5950	NA	3.55950	NA	USB	
	SIMPLEX	DIST 11 WINLINK	AMATEUR	7.0650	NA	7.0650	NA	USB	
	SIMPLEX	DIST 11 VOICE	AMATEUR	3.9400	NA	3.9400	NA	USB	
	SIMPLEX	DIST 11 VOICE	AMATEUR	7.1850	NA	7.1850	NA	USB	

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DISTRICT 11 REPEATERS

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET	Frequency Band	Description
	2 METER 440MHz	REPEATER

Pg No	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D or M	Remarks
	REPEATER	ALTO PASS 1	AMATEUR	146.8500	CSQ	146.2500	88.5	A	
	REPEATER	ALTO PASS 2	AMATEUR	145.3100	CSQ	144.7100	88.5	A	
	REPEATER	AVA	AMATEUR	147.0900	CSQ	147.6900	88.5	A	
	REPEATER	BENTON	AMATEUR	146.8050	CSQ	146.2050	88.5	A	
	REPEATER	CAIRO	AMATEUR	147.1800	CSQ	147.7800	88.5	A	
	REPEATER	CARBONDALE	AMATEUR	146.7300	CSQ	146.1300	88.5	A	
	REPEATER	HEROD 1	AMATEUR	146.8800	CSQ	146.2800	88.5	A	
	REPEATER	HEROD 2	AMATEUR	444.8800	CSQ	449.8800	88.5	A	
	REPEATER	HEROD 3	AMATEUR	145.3700	CSQ	144.7700	88.5	A/D	
	REPEATER	MARION	AMATEUR	146.6400	CSQ	146.0400	88.5	A	
	REPEATER	METROPOLIS 1	AMATEUR	146.6550	CSQ	146.0550	179.9	A	
	REPEATER	METROPOLIS 2	AMATEUR	147.2250	CSQ	147.8250	123.0	A	
	REPEATER	METROPOLIS 3	AMATEUR	444.9750	CSQ	449.9750	CSQ	A	
	REPEATER	MT. VERNON	AMATEUR	147.1350	CSQ	147.73500	CSQ	A	
	REPEATER	INA RLC	AMATEUR	145.1900	CSQ	144.5900	CSQ	A	
	REPEATER	TUNNEL HILL 1	AMATEUR	147.3450	CSQ	147.9450	CSQ	A	
	REPEATER	TUNNEL HILL 2	AMATEUR	443.4000	CSQ	448.4000	CSQ	A	
	REPEATER	OLIVE BRANCH 1	AMATEUR	147.2550	CSQ	147.8550	CSQ	A	
	REPEATER	OLIVE BRANCH 2	AMATEUR	444.0250	CSQ	449.0250	CSQ	A	
	REPEATER	TAMAROA	AMATEUR	146.9850	CSQ	146.3850	CSQ	A	

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REPEATERS CONTINUED

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET	Frequency Band	Description
	2 METER 440MHZ	REPEATER PG. 2

Pg No	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D or M	Remarks
	REPEATER	GRAND CHAIN	AMATEUR	145.1300	CSQ	145.5300	118.5	A	

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DISTRICT 11 2M SIMPLEX

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET	Frequency Band	Description
	2 METER	COUNTY SIMPLEX

Pg No	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D or M	Remarks
	SIMPLEX	INTER COUNTY	AMATEUR	146.5800	CSQ	146.5800	CSQ	A	INTER COUNTY FREQUENCY
	SIMPLEX	ALTERNATE	AMATEUR	146.4900	CSQ	146.4900	CSQ	A	WILLIAMSON SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	146.4600	CSQ	146.4600	CSQ	A	UNION SIMPLEX
	SIMPLEX	NATIONAL CALLING	AMATEUR	146.5200	CSQ	146.5200	CSQ	A	NATIONAL CALLING SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	147.4700	CSQ	147.4800	CSQ	A	PERRY SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	147.4200	CSQ	147.4200	CSQ	A	TACTICAL SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	147.5700	CSQ	147.5700	CSQ	A	RANDOLPH SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	146.4400	CSQ	146.4300	CSQ	A	FRANKLIN SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	147.5400	CSQ	147.5400	CSQ	A	JACKSON SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	146.4300	CSQ	146.4300	CSQ	A	JOHNSON SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	146.4000	CSQ	146.4000	CSQ	A	ALEXANDER SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	147.4200	CSQ	147.4500	CSQ	A	PULASKI SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	146.4700	CSQ	146.5500	CSQ	A	MASSAC SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	147.4800	CSQ	147.5400	CSQ	A	HAMILTON SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	147.5100	CSQ	147.5100	CSQ	A	WHITE SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	146.5550	CSQ	146.5500	CSQ	A	SALINE SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	147.4500	CSQ	147.4500	CSQ	A	GALLATIN SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	147.4800	CSQ	147.4800	CSQ	A	POPE SIMPLEX
	SIMPLEX	ALTERNATE	AMATEUR	147.5500	CSQ	147.5700	CSQ	A	HARDIN SIMPLEX

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