2026 MISSOURI REPEATER COUNCIL ANNUAL MEETING

Nixa ARC Hamfest – James Adkins, KBØE

W E L C O M E !

- The Missouri Repeater Council meets annually to handle council business and provide the following information to repeater owners:
  - Financial report of the repeater council
  - Updates and changes regarding the missourirepeater.org website and online database
  - Provide a report on repeater coordination news from the last 12 months
  - Conduct elections for officer and board member positions
  - Discuss / address any coordination related concerns or questions from repeater owners throughout Missouri
  - Discuss / address any perceived upcoming or current problems surrounding repeater coordination.

MRC TREASURER'S REPORT PRESENTED BY DENNIS KIMREY, W0HL

1. Beginning Balance: 9-1-2025 $2951.19
2. Income from annual dues $1620.00
3. Debits:
    1. Paypal Fees $ 71.79
    2. MRC Website / database expenses $ 523.25

4. Ending Balance: $3976.15

MRC WEBSITE & DATABASE UPDATES

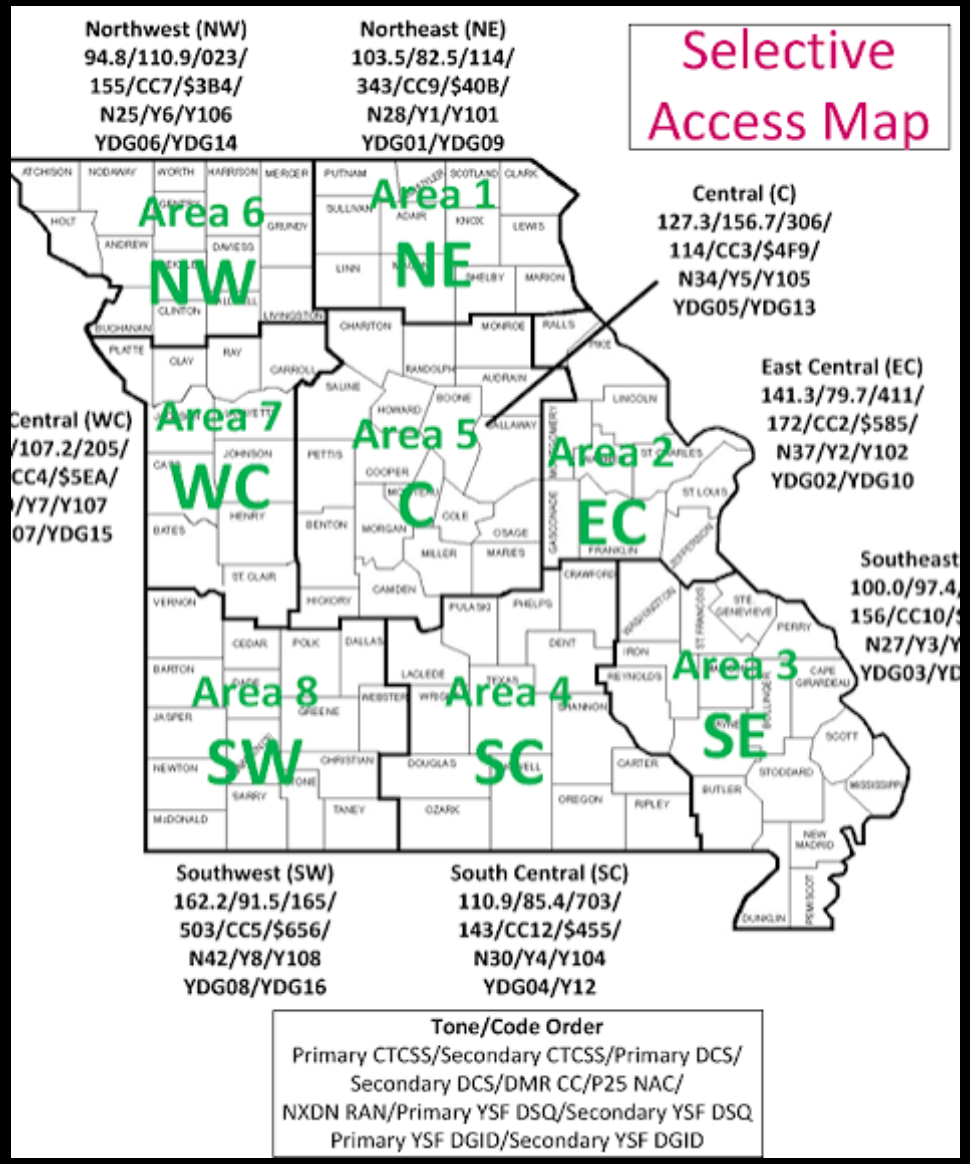
- Coordination tools are being updated to allow us to start coordinating wideband, 25 kHz UHF repeaters from 441.700 to 441.975 (output) (12 pairs)and 12.5 kHz NARROWBAND ONLY repeater outputs from 441.300 to 441.475 (15 pairs)
  - These are NOT available within a 90 mile radius of the St. Louis ATV repeater until that repeater ceases to be in operation.
- Adding the UHF control / repeater links to the annual update campaign that we require annually from repeater owners.
  - Will ensure we don’t coordinate repeaters on top of existing link frequencies in the 446 range with the new repeater inputs that will fall in that range.
  - Will help clean up an outdated part of the database that’s not had any oversight or attention for years besides adding new links when requested.



REPEATER COORDINATION STATS & UPDATES

Bryon Jeffers, K0BSJ

State Frequency Coordinator

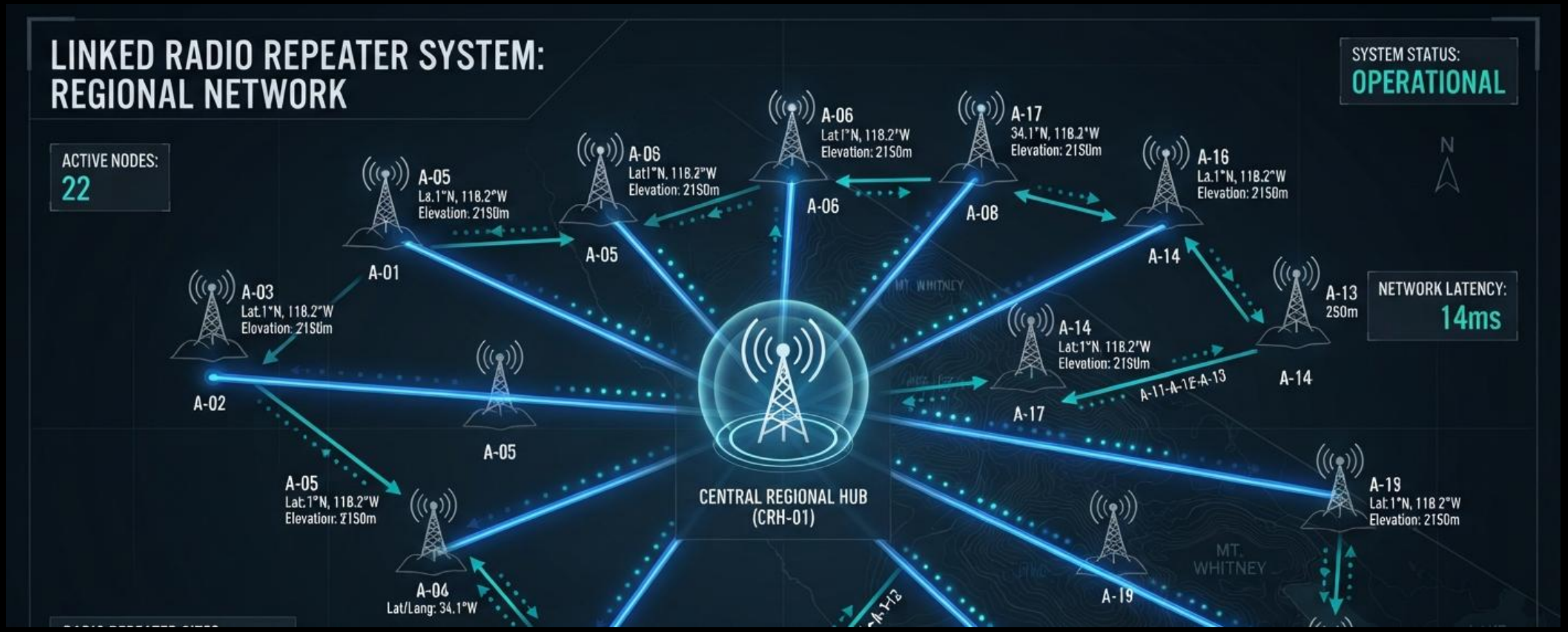


MRC OFFICER & BOARD MEMBER ELECTION

1. Positions up for election
    1. Secretary — Brad Hurd, KB0LSM
       Willing to serve another term
    2. Treasurer — Dennis Kimrey, W0HL
       Not seeking re-election
    3. Board Member — Eric Presser, KD0CEN
       Willing to serve another term

COORDINATION CONCERNS OR QUESTIONS?

LINKED REPEATER SYSTEMS AROUND MISSOURI



LINKED REPEATER SYSTEMS AROUND MISSOURI

- NØNWS SkyWarn Linked Repeater System
- ACORN Network
- Central Region Intertie System (CRIS)
- Southeast Missouri Linked Repeater System
- Southwest Missouri Linked Repeater System
- US Kansas City Wide & KC Local Fusion Room
- Forgotten Bands Network of the Ozarks
- Queen City Digital Cluster (TG 31291 on DMR, P25 and NXDN and Fusion room 31291

NØNWS LINKED REPEATER SYSTEM

Used for Southwest Missouri Regional Skywarn

Target coverage area Springfield Weather Service warning area

Mainly VHF repeaters

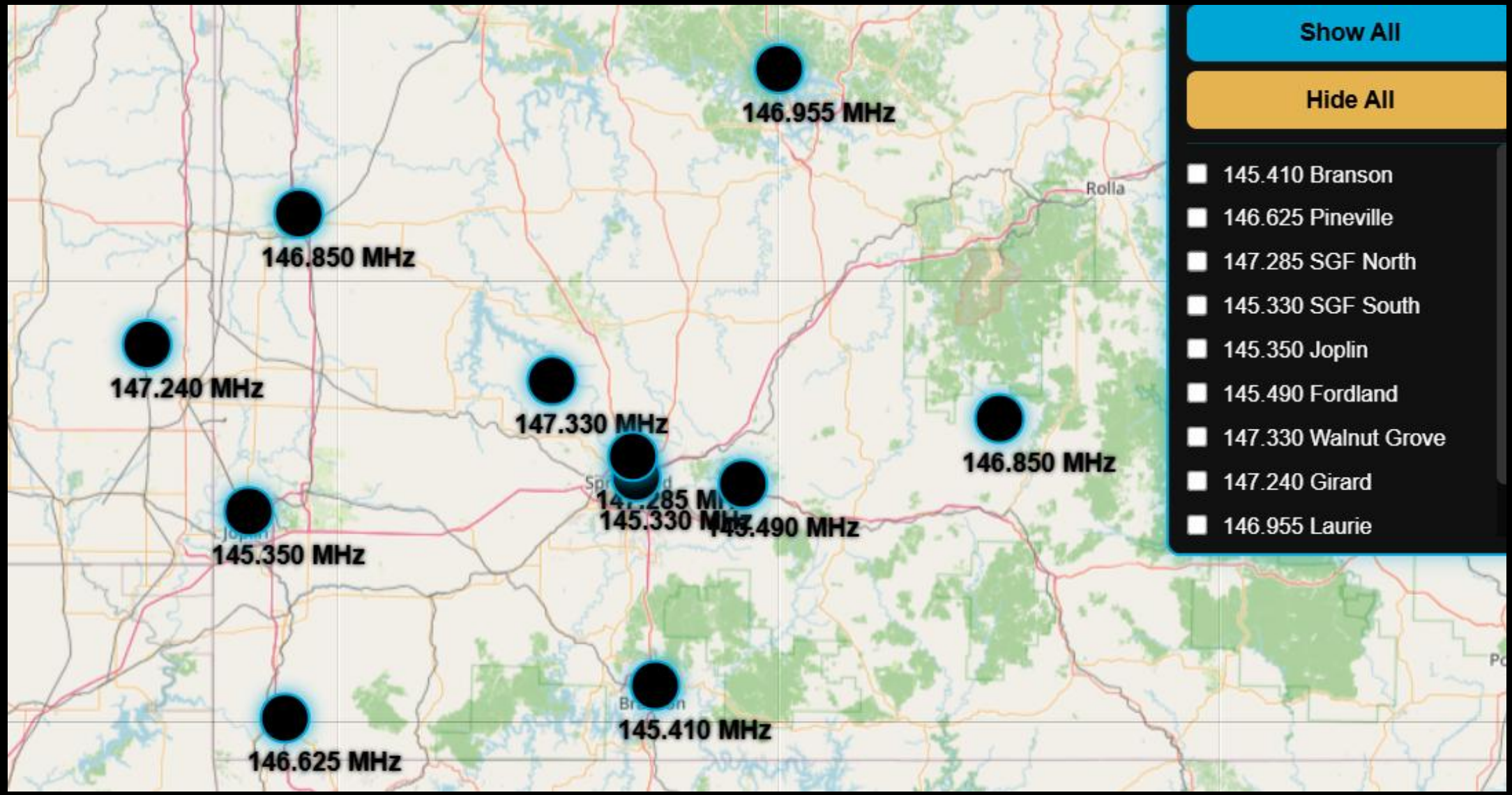
Linked via All Star / Internet

Privately funded by owners & grants; managed by 3-person board of directors

https://n0nws.com/



NØNWS LINKED REPEATER SYSTEM



AMATEUR COMMUNITY OZARKS REGIONAL NETWORK (ACORN)



- Started in 1991
- After several technical issues and time, the ACORN network is again alive and well!
- Maintained by a group of RF engineers in the Springfield, MO area
- Windmill and Glidewell are linked to the Central Region Intertie System via AllStar
- https://theacornnet.com/



ACORN REPEATERS

- 147.120+ 162.2 Hz Glidewell (NW Springfield)
- 145.430- 107.2 Hz Darr (SW Springfield)
- 146.895- 162.2 Hz Windmill (Hollister)
- 223.820- 162.2 Hz Hammons (Central Springfield)
- 444.725+ 162.2 Hz Sunvilla (Central Springfield)

CENTRAL REGION INTERTIE SYSTEM (CRIS)

- CRIS is a linked network of amateur radio repeaters connecting communities across Western Missouri, from Northwest Missouri to Southwest Missouri.
- Participating repeaters are interconnected using a combination of **RF links, AllStarLink, and other linking technologies**, allowing independently operated repeater systems to work together as a larger regional network. Selected repeaters also support **P25 digital voice** in addition to analog operation.
- The Central Region Intertie System is not sponsored by any one amateur radio club. It is supported and maintained by a group of amateur radio operators who use and contribute to the system.
- Started in 2008 and grew exponentially until some repeaters left the system around 2012. Recently began re-linking some repeaters that left and adding new ones.

C R I S S Y S T E M

- Participating groups include:
  - KC Simulcast
  - Nixa Amateur Radio Club
  - Springfield Repeater Group
  - The ACORN Network
  - KB0LSM Repeater Network
  - Missouri Valley Amateur Radio Club

- https://cris.network/#about



CRIS REPEATERS

• 146.850	St. Joseph	W0NH
• 444.200	Liberty	KB0LSM
• 147.390	Hamilton	KB0ALL
• 145.150	Osborn	N0SWP
• 442.475	Paola, KS	N0SWP
• 146.640	Trimble	KM0HP
• 444.775	Lees Summit	KM0HP
• 442.175	Pipertown	KM0HP
• 444.525	Holden	KM0HP
• 443.300	Deepwater	K0NXA
• 444.225	Nevada	K0NXA
• 442.425	Republic	K0NXA
• 444.075	Macks Creek	K0RLV
• 147.120	Springfield	W0AV
• 146.895	Hollister	W0YKE

* More coming soon!

AMATEUR RADIO NETWORK

LINKED REPEATER SYSTEM



SOUTHEAST MISSOURI

HAM RADIO

EST. 2023

SEMO-LRS.ORG

Bloomfield
147.330
PL 100.0 Hz

Bloomfield
444.300
PL 100.0 Hz

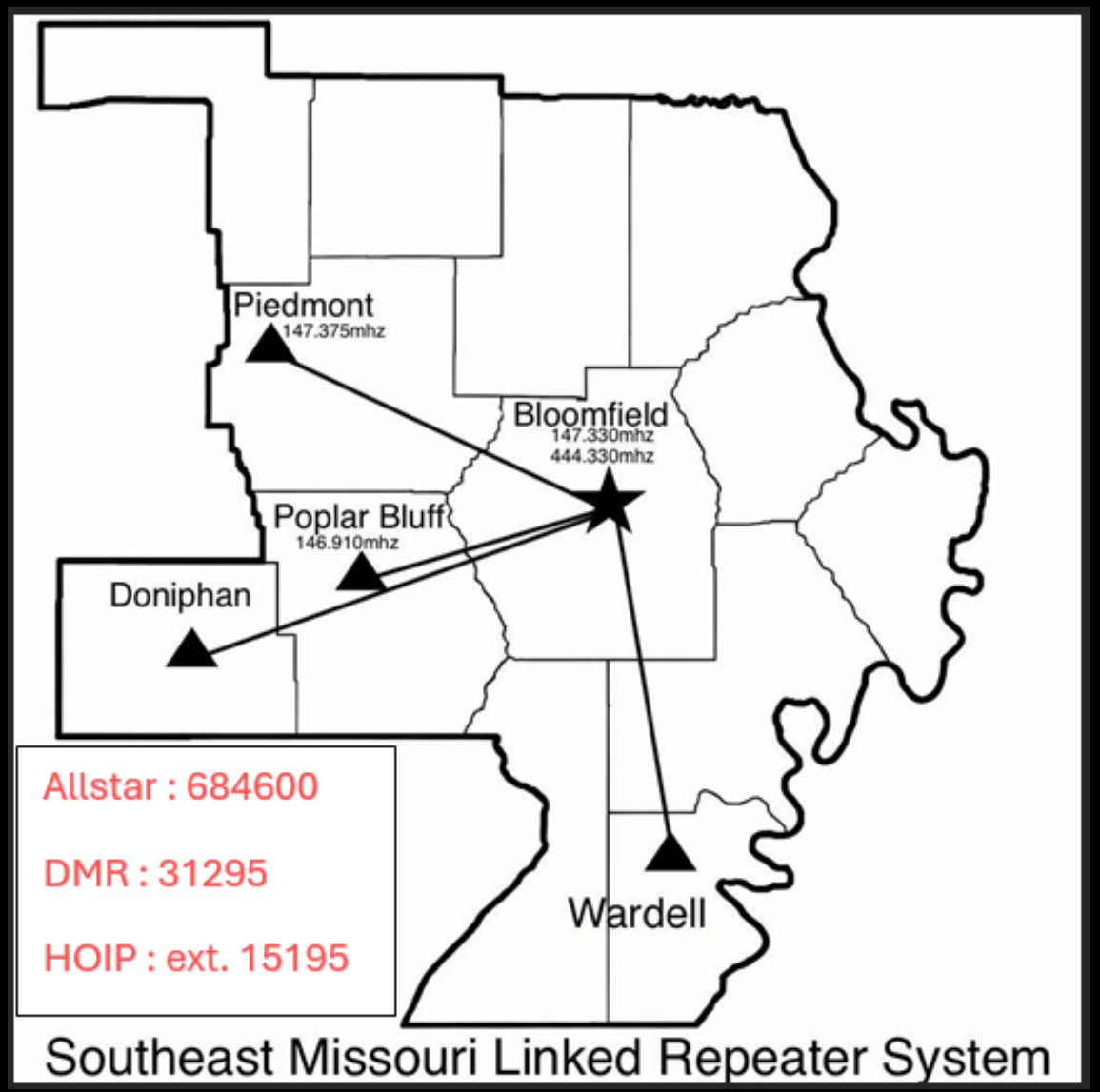
Doniphan
147.285
PL 100.0 Hz

Poplar Bluff
146.910
PL 100.0 Hz

Piedmont
147.375
PL 100.0 Hz

SOUTHEAST MISSOURI LINKED REPEATER SYSTEM

- Currently consists of 3 VHF repeaters with a UHF hub repeater
- 2 additional expansion VHF repeaters planned for Doniphan and Wardell
- Accessible via All Star, DMR and Hams over IP phone network
- Built in partnership between the SEMARA (Southeast Missouri Amateur Radio Association), Wayne County Amateur Radio Club, Doniphan Amateur Radio Club and surrounding EMA's



- THE SEMARA PRIMARY SOLE PURPOSE IS TO PROVIDE EMERGENCY COMMUNICATIONS TO THE SOUTHEAST MISSOURI AREA AS WELL AS PROVIDING SUPPORT FOR THE NATIONAL WEATHER SERVICE, BY UTILIZING SKYWARN SEVERE WEATHER NETS USING THE SEMO LINKED REPEATER SYSTEM
- DONATIONS CAN BE MADE OUT TO THE SOUTHEAST MISSOURI AMATEUR RADIO ASSOCIATION, PO BOX 1454 POPLAR BLUFF, MO 63902



SOUTHEAST MISSOURI LINKED REPEATER SYSTEM

The Southeast Missouri Linked Repeater System started when the SEMARA, Poplar Bluff Severe Weather Response Team and the Butler County Emergency saw the need for a major communications upgrade also known as the SEMO Safety Network Upgrade. This realization of emergency communications came from recent Tornadoes from 2023-2025 and the lack of being to communicate efficiently and properly during this time.

Example is the Des Arc Tornado that destroyed the community in Southern Iron County, while cell service was eventually restored; There was over a 48hr window where there was no communication available for first responders to be able to communicate with the town of Piedmont. This is critical when understanding how supplies and services are needed in a destructive area.

SOUTHEAST MISSOURI LINKED REPEATER SYSTEM

Current Repeaters:

All VHF repeaters are running mixed mode P25

Bloomfield VHF 147.330mhz PL tone 100hz

Bloomfield UHF (Hub Repeater) 444.330mhz PL 100hz

Poplar Bluff VHF 146.910mhz PL 100.0hz

Doniphan VHF 147.285mhz PL 100.0hz

Proposed Repeaters:

Poplar Bluff VHF DMR 145.350mhz CC1 TS1 : Static TG 31295

TS2 : Dynamic TG

Piedmont VHF 147.375mhz PL 100.0hz

Wardell VHF (TBA)

*** Future possibility to link to Southwest MO LRS via Taum Sauk 442.250, PL 100.0 Hz and All Star



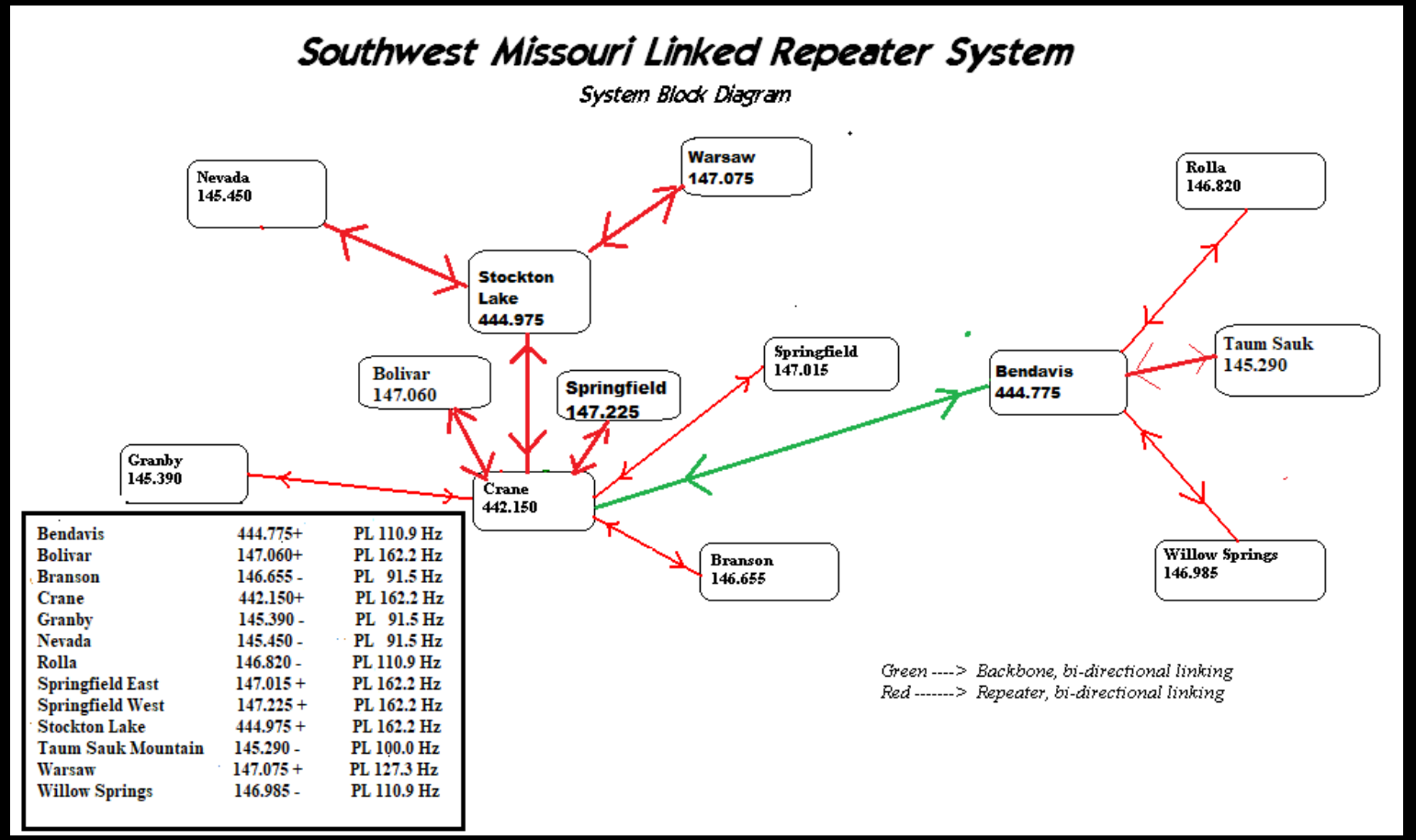
- Bendavis
  444.775 PL 110.9 Hz
- Bolivar
  147.060 PL 162.2 Hz
- Branson
  146.655 PL 91.5 Hz
- Crane
  442.150 PL 162.2 Hz
- Golden City
  146.790 PL 91.5 Hz
- Granby
  145.390 PL 91.5 Hz
- Nevada
  145.450 PL 91.5 Hz



- Rolla -
  146.820 PL 110.9 Hz
- Springfield East -
  147.015 PL 162.2 Hz
- Springfield West -
  147.225 PL 162.2 Hz
- Stockton Lake -
  444.975 PL 162.2 Hz
- Taum Sauk Mountain -
  145.290 PL 100.0 Hz
- Warsaw -
  147.075 PL 127.3 Hz
- Willow Springs -
  146.985 PL 110.9 Hz

SOUTHWEST MISSOURI LINKED REPEATER SYSTEM

- Originally a joint effort between the Nixa ARC, John Rayfield, W0PM, Vernon County EMA and the Mo Hwy Patrol Amateur Radio Club, KM0HP
- Today, all repeaters except the 147.225 W0PM repeater are owned and operated by the Nixa Amateur Radio Club
- All equipment was either donated, purchased with grant funds from various sources, or manufacturer donated.

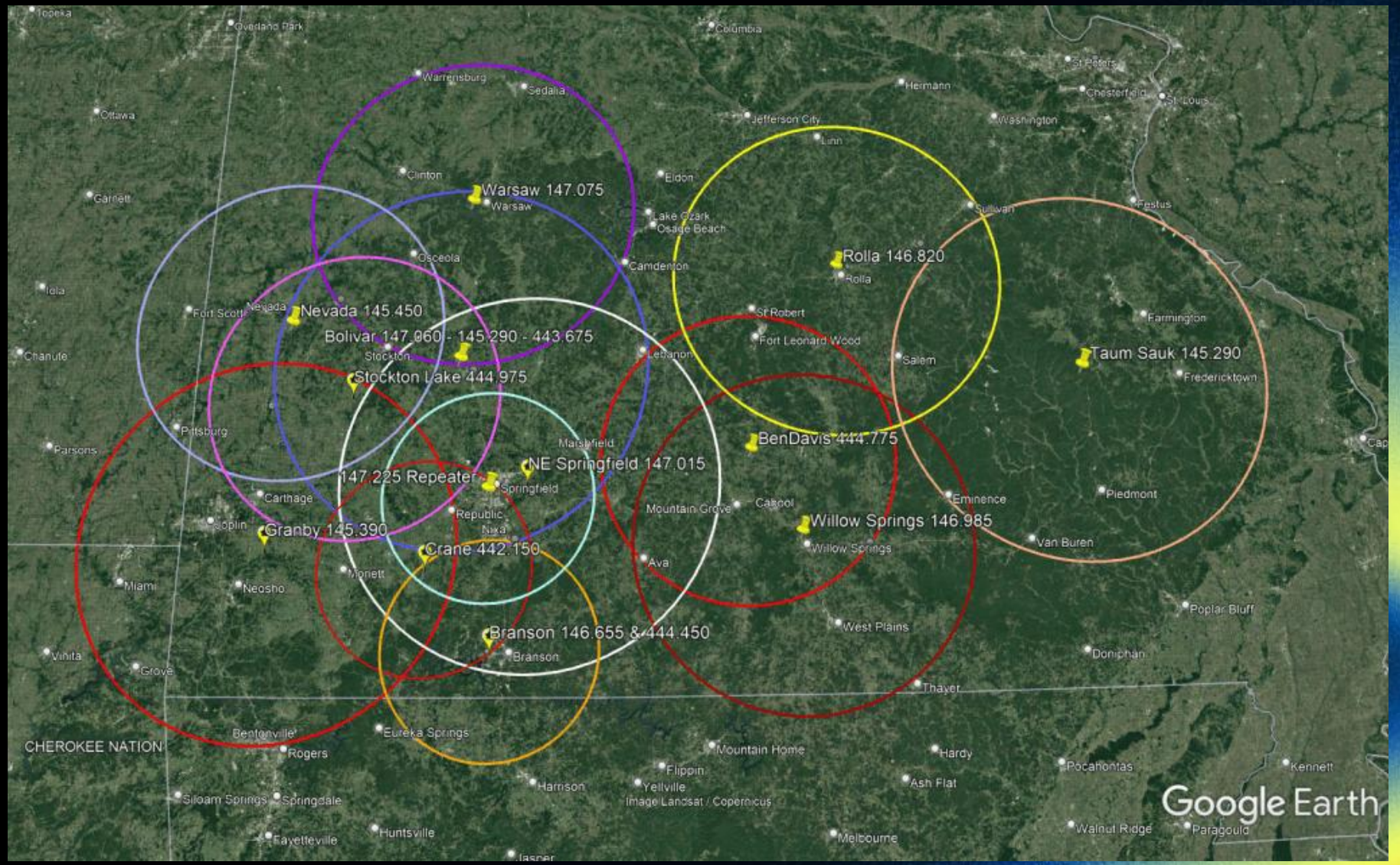


Bendavis	444.775+	PL 110.9 Hz
Bolivar	147.060+	PL 162.2 Hz
Branson	146.655 -	PL 91.5 Hz
Crane	442.150+	PL 162.2 Hz
Granby	145.390 -	PL 91.5 Hz
Nevada	145.450 -	PL 91.5 Hz
Rolla	146.820 -	PL 110.9 Hz
Springfield East	147.015 +	PL 162.2 Hz
Springfield West	147.225 +	PL 162.2 Hz
Stockton Lake	444.975 +	PL 162.2 Hz
Taum Sauk Mountain	145.290 -	PL 100.0 Hz
Warsaw	147.075 +	PL 127.3 Hz
Willow Springs	146.985 -	PL 110.9 Hz

SOUTHWEST MISSOURI LINKED REPEATER SYSTEM

- 100% RF Linked with accessibility via All Star Node 565502 or EchoLink K0NXA-R
- All sites have backup power via UPS & Generator or DC power plants and is installed in hardened, climate controlled communications shelters.
- All repeaters are based on the Motorola Quantar repeater for VHF and UHF repeaters.
- All RF links are transitioning to 100% duty cycle Kenwood TKR-850 stations.
- Ongoing funds for maintaining the system come from the NARCfest hamfest held the second Saturday of every November.
- System started after the Joplin tornado on May 22, 2011, when we realized communications to Joplin from Springfield were not reliable. The original goal was to create a network to connect Springfield, Branson and Joplin 24/7. Later, the goal changed to reach the entire Springfield Weather CWA to serve as a backup for the N0NWS Network.

SOUTHWEST MISSOURI LINKED REPEATER SYSTEM



SMLRS REPEATERS

- Bendavis 444.775 110.9 Hz
- Bolivar 147.060 162.2 Hz NAC 656
- Branson 146.655 91.5 Hz NAC 656
- Crane 442.150 162.2 Hz
- Golden City 146.790 91.5 Hz NAC 656
- Granby 145.390 91.5 Hz NAC 656
- Nevada 145.450 91.5 Hz NAC 656
- Rolla 146.820 110.9 Hz NAC 455
- Springfield East 147.015 162.2 Hz
- Springfield West 147.225 162.2 Hz
- Stockton Lake 444.975 162.2 Hz
- Taum Sauk 145.290 100.0 Hz
- Warsaw 147.075 127.3 Hz NAC 4F9
- Willow Springs 146.985 110.9 Hz NAC 455

SMLRS REPEATERS

- Backup UHF Hub Repeaters:
- Bolivar 443.675 PL 162.2 Hz NAC 656
- Republic 442.425 PL 162.2 Hz NAC 656

- Alternate repeaters that can be attached to the SMLRS if needed
- Nixa 145.270 PL 162.2 Hz NAC 656
  - Used when system is split up in half. The 145.270 is your Springfield option to talk to repeaters on the East side of the system and 147.015 / 147.225 for the West repeaters.



US KANSAS CITY WIDE & LOCAL FUSION ROOMS

- Began as an initiative to promote a common digital mode that is easy to use for all amateurs.
- System utilizes mainly Motorola MTR-2000 repeaters with the Cort Buffington designed MTR2K MMDVM board.
- Early failures of the Yaesu DR-1X, and DR-2 repeaters along with poor performance in high RF environments led the group to move to the more robust Motorola MTR-2000 repeaeters.
- Supported by clubs and individuals in the KC Metro area
- Visit https://www.kansascityroom-wide.com/ for a plethora of details!

US KANSAS CITY WIDE & LOCAL FUSION ROOM ACCESS

- **https://www.kansascityroom-wide.com/kc-wide-repeater-list/**
- **Yaesu Wires-X Room 28054 (AMERICA-KC-WIDE)**
- **Icom D-STAR via XLX458/XRF458 Module A** (Dashboard: https://xxlx.w0fh.net/
- **Brandmeister DMR talkgroup 313136**
- **P25 Reflector 31313 NAC293**
- **YSF32453 (US-KCWIDE)** (Dashboard: http://ysf.kansascitywide.com)
- **YSF28054 (US-XLX458)** (Dashboard: https://xxlx.w0fh.net/
- **NXDN talkgroup 31313**
- **M17-KCW Module A (172.234.217.28 port 17000)** (Dashboard: http://m17.kansascitywide.com)
- **Echolink node WØFH-L** (No connections from -L or -R calls, repeater links or conferences, please)
- **Hams Over IP extension 15135**
- **Broadcastify** (listen only) https://www.broadcastify.com/webPlayer/30282

US KC WIDE NETS

https://www.kansascityroom-wide.com/nets/





US KC WIDE CONTACT INFO

- feedback@kansascitywide.com

FORGOTTEN BANDS NETWORK OF THE OZARKS



FORGOTTEN BANDS NETWORK

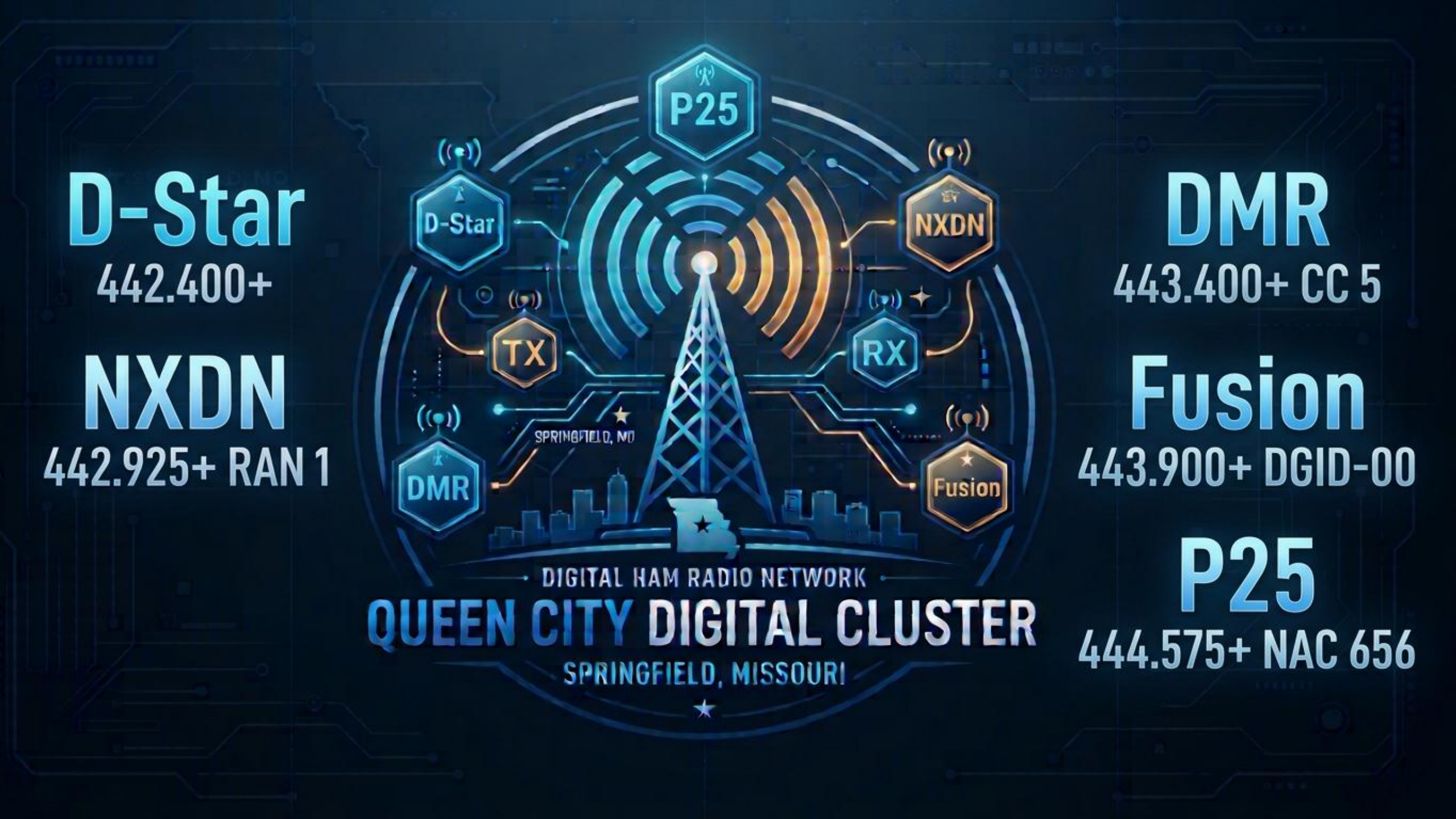
- Combined effort between the Nixa Amateur Radio Club and the club's repeater trustee.
- Goal was simply to get amateurs in and around the Ozarks active on some of the lesser used amateur bands.
- Repeaters use a combination of RF linking through a UHF hub repeater and All Star



FORGOTTEN BANDS NETWORK OF THE OZARKS

- 29.680 Nixa PL 123.0 Hz
- 444.875 Springfield PL 162.2 Hz
- 927.0125 Springfield PL 162.2 Hz
- 927.1125 Crane PL 162.2 Hz
- 1285.050 Springfield PL 162.2 Hz
  - NOTE: Both 900 MHz repeaters are ALSO capable of P25 digital operations with a NAC of 656
  - Access also available via All Star Node # 565500 or EchoLink KB0NHX-R




D-Star
442.400+
NXDN
442.925+ RAN 1
DMR
443.400+ CC 5
Fusion
443.900+ DGID-00
P25
444.575+ NAC 656
P25
D-Star
NXDN
TX
RX
DMR
Fusion
SPRINGFIELD, MO
DIGITAL HAM RADIO NETWORK
QUEEN CITY DIGITAL CLUSTER
SPRINGFIELD, MISSOURI

QCDC

- The Queen City Digital Cluster went online in October 2023.
- The goal was to provide amateurs in the region a way to use all digital modes in the Ozarks to compare the modes.
- All repeaters are Motorola MTR-2000's with the Cort Buffington MTR-2K MMDVM boards.
- All repeaters are set so that they have the same power output from the combiner and the same receive sensitivity from the receive multicoupler.





QCDC

- Each repeater is primarily used in its “primary” digital mode
- However, DMR is active on each repeater if needed.
- Analog, with a DCS of 165, is available on each repeater so that amateurs who are unsure if they can access the QCDC can try it on analog first before investing in a digital radio.
- Should there be a need for multiple digital repeaters on the same mode, Pi-Star allows all repeaters to be changed on the fly.

QCDC

- The QCDC utilizes a single Comprod 774-70 4-bay antenna at 380’ AGL for receive fed with 1-5/8” heliax
- The transmit antenna is also a Comprod 774-70 4-bay antenna at 360’ AGL and is also fed with 1-5/8” heliax
- You can check out your signal strength and users of the repeater by going to:
  - 442400.nixahams.net
  - 444925.nixahams.net
  - 443400.nixahams.net
  - 443900.nixahams.net
  - 444575.nixahams.net



SEE YOU AT MRC 2027!