Southwest Missouri Linked Repeater System (SMLRS)

User Information

SMLRS is a *permanently* linked repeater network operated by the Nixa Amateur Radio Club (NARC), the Southwest Amateur Radio Group (SWARG) the Missouri Highway Patrol Amateur Radio Club (KM0HP), John Rayfield, W0PM, Dennis Kimrey, W0HL, and the Greene County EMA to serve emergency communications needs of Southwest Missouri and adjacent states. It has 11 repeaters with extensive overlapping coverage: a 2-meter repeater Southeast of Joplin in Granby, (2) 2-meter repeaters in Springfield, a 2-meter repeater near Nevada, a 2-meter repeater in Branson, a 2-meter repeater in Warsaw, a 2-meter repeater in Rolla, a 2-meter repeater in Willow Springs, and (3) UHF hub repeaters at Bendavis (Southwest of Houston, MO), Crane and Stockton Lake linking all repeaters together. These repeaters cover all of the Region D ARES territory in Southwest Missouri as well as most of Regions G and I and the Springfield Weather service areas.

Repeater Location	**Bendavis**	**Branson**	**Crane**	**Granby**	**Nevada**	**Rolla**
Repeater Output	**444.775**	**146.655**	**442.150**	**145.390**	**145.450**	**146.820**
Repeater Input	**449.775**	**146.055**	**447.150**	**144.790**	**144.850**	**146.220**
PL Encode & Decode	**110.9 Hz**	**91.5 Hz**	**162.2 Hz**	**91.5 Hz**	**91.5 Hz**	**110.9 Hz**

Repeater Location	**Springfield East**	**Springfield West**	**Stockton Lake**	**Warsaw**	**Willow Springs**
Repeater Output	**147.015**	**147.225**	**444.975**	**147.075**	**146.985**
Repeater Input	**147.615**	**147.825**	**449.975**	**147.675**	**146.385**
PL Encode & Decode	**162.2 Hz**	**162.2 Hz**	**162.2 Hz**	**127.3 Hz**	**110.9 Hz**

Because the repeaters are permanently linked, a transmission on any of the 11 repeaters is *re-broadcast on all eleven repeaters*. In practical terms, transmisions within the network area will be heard from Coffeyville, KS to Van Buren, MO and Clinton, MO to Rogers, AR.

While the vital purpose of **SMLRS** is emergency service for weather monitors and responders, the network can also be used to support wide-area events such as the

MS-150 (Bike MS) ride. It is also available to all amateur radio operators for normal QSO use.

In an emergency, a net control station will use a code to place **SMLRS** into *emergency status*. The link is always operating; emergency status changes the courtesy tones, network ID's and Internet links to emergency service agencies.

When SMLRS is in Emergency Status:

- A *system announcement* is made when the status begins
- The *courtesy tone* changes to a Morse Code "W"
- The *Network Callsign ID changes to Morse Code characters only*

If you hear the network is Emergency Status, please LISTEN to Net Control and only transmit when requested to do so.

When emergency Status ends, a system announcement is made and tones and ID's return to normal.

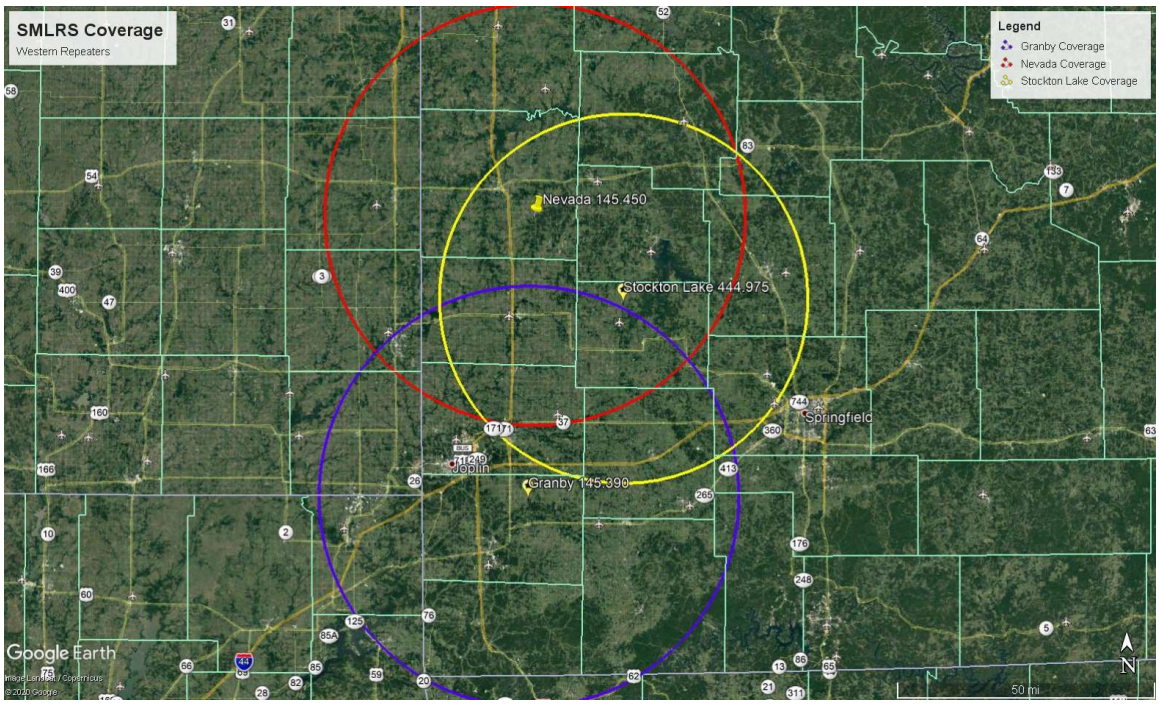
Outside of emergency status, amateur operators are encouraged to use the network for *NORMAL* communications. Using the network will help all operators gain familiarity with its use, capabilities and range of coverage. The following nets can also be used to gauge the system and amateur operators' current status of operation:

Nixa ARC Check-in Net	Thursdays	7:30 p.m.
Region D ARES VHF/UHF Net	Fridays	7:30 p.m.

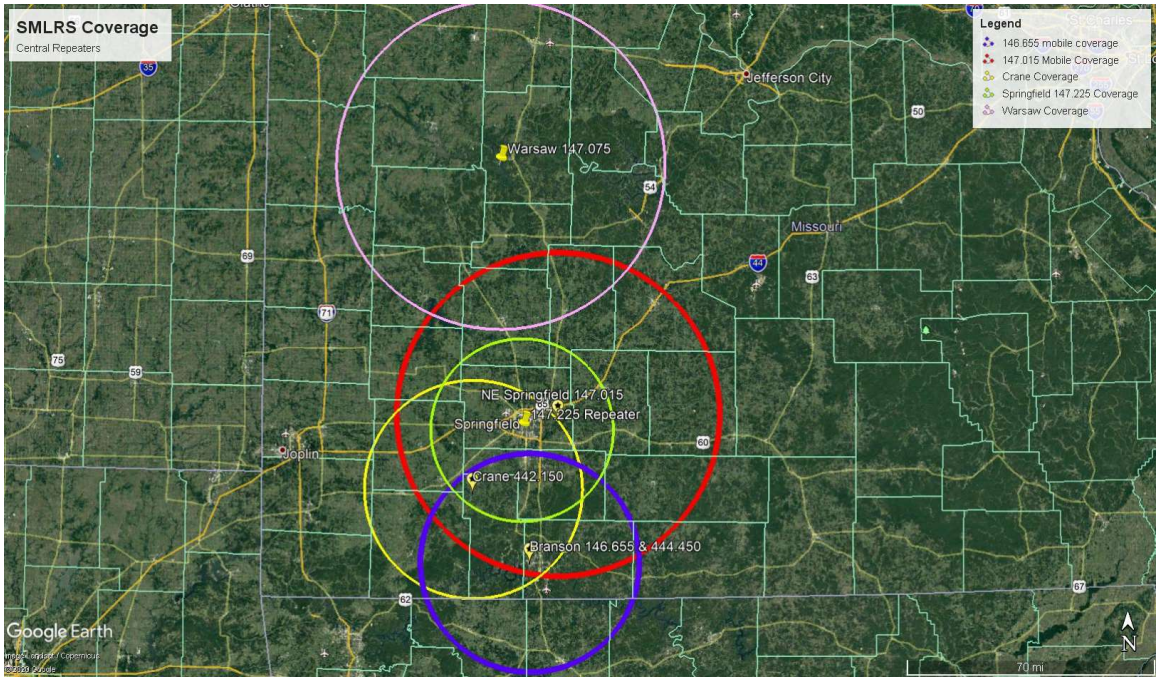
The network has robust power backup systems. Each repeater has a battery system to hold the network on the air if normal power sources are briefly interrupted or until the site generators activate and provide backup power to the communications site. If the Crane hub repeater fails, a code will substitute the 442.425 (+) repeater, PL 162. Hz, as the UHF link to link network repeaters together.

Below is a computer modeled map of the linked repeater system coverage

Western SMLRS Repeater System typical coverage



Central SMLRS Repeater System typical coverage



Eastern SMLRS Repeater System typical coverage