

Topic:	Cross-Band Repeat Radio Test
Speaker:	None
Date:	Saturday, January 11, 2003, 9:00am to 10:30am
Event:	Ad-hoc experiment session in the City Hall Parking Lot

On Saturday, January 11th, 15 CARES members met in the City Hall parking lot to hold an impromptu session to experiment with Cross Band Repeating. Here's a summary of that test.

The Test

- The objective of the session was to understand the opportunities and limitations of the cross-band repeat function that many mobile and handheld transceivers have.
- This was an ad-hoc session. The intent was to configure individual radios for cross-band repeat, observe how the configuration works, try different scenarios, and determine the next steps.
- Three cross-band repeat tests were performed:
 1. 2 meter to 440. We configured a radio to the frequency pair: 146.57 and 434.800. Cross-band repeat was enabled. Several members monitored either the 2 meter or 440 side while transmissions were made.
 2. 440 to 2 meter Repeater. Next, we configured a radio to the frequency pair 146.115+/PL=100 and 434.800. Cross-band repeat was enabled. Members could access the 2 meter repeater from the 440 side of the configuration.
 3. Two linked cross-band repeat configurations. Last test: we configured one cross-band radio to the frequency pair: 147.570 and 438.000. The second radio was configured to the frequency pair: 438.000 and 146.460. Cross-band repeat was enabled on both. Members confirmed that they could transmit on the CARES TAC-1 (147.570) and be heard on the CARES TAC-2 (146.460). Additionally, members could monitor and operate on the "link" frequency – 438.000 – as well.

Observations

- Most members have never tried their cross-band repeat capability. However, everyone was generally impressed by the capability and the possibilities.
- While several members could set up their mobile radios for cross-band repeat, there were a few members who had HTs that had this capability. One HT was actually used during test #3.
- A previous radio coverage survey of the City from City Hall to various field locations showed that the EOC should not have any problems with contacting any remote location. However, field-to-field communication contact integrity cannot be guaranteed.

Next Steps

- CARES to identify and standardize on a cross-band repeat 2 meter and 440 frequency pair.
- Identify specific locations where it may be likely to require cross-band repeat coverage throughout the city.
- Hold a drill to test this coverage.
- Update the CARES SOP to reflect this capability.

Revision

28-Jan-03 Original