

Raleigh/Durham Area Ham Repeater Systems April 2026

# **Current RDU Ham Linked Systems and Wide Area Repeater Systems**

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## **Linked Systems vs Standalone Repeaters**

Linked systems have multiple repeaters connected through RF and/or Internet links

Standalone repeaters are a single repeater which may or may not be connected to Internet

## **Raleigh/Durham Area Linked Systems**

Carolina 440 UHF Link System

KC4WDI Linked System

NC VA Fusion Network

Durham FM Association (DFMA) / NC4CD

NCPRN / SCHEART DMR System

## **Carolina 440 UHF Link System**

Dozens of linked repeaters covering much of the state of North Carolina

AllStar, EchoLink, DMR, UHF and VHF analog

<https://carolina440.net/>

## KC4WDI Linked System

145.17 Oxford NC / 100 Hz Tone

146.82 Laws NC / 77 Hz Tone

146.94 Butner NC / 100 Hz Tone

441.6 Raleigh NC / 77 Hz Tone

444.175 Durham NC / 77 Hz Tone

444.25 Chatham Mtn NC / 77 Hz Tone

442.425 Carthage NC / 77 Hz Tone

Future N4MEC 146.985 Creedmoor NC / 100 Hz Tone



## NC VA Fusion Network

Wires-X, DMR, YSF and P25 reflectors  
15 or more repeaters covering NC and VA  
Some mixed mode repeaters including analog

<https://www.ncvafusion.org/repeaters>

## **Durham FM Association WR4AGC / NC4CD**

145.45 Durham NC / 82.5 Hz Tone  
147.225 Hillsborough NC / 82.5 Hz Tone  
443.275 Rougemont NC / 100 Hz Tone

<http://dfma.org/dfmaR.html>

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## **NCPRN / SCHEART DMR System**

Dozens of DMR repeaters linked

System covers much of North Carolina, South Carolina (via SCHEART) and parts of Virginia

<https://ncprn.net/>

## **NC PRN System Notes for Raleigh Area**

Cary site was lost and not expected to return

New planned @1800 ft on WRAL tower on .2125

Backup system on .3375 will remain @300 ft

First NC PRN 2 meter repeater is in Chatham County

## **NC PRN System Notes in General**

All systems IP linked, no internet access though

Repeaters planned for Clinton, New Bern, and Taylorsville—Taylorsville waiting on duplexer tune

Aurora offline from lightning strike, awaiting parts

## **NC PRN Operating Notes**

There are two time slots on each site

Entire system is linked on Slot 2, Talkgroup 2

Move to a chat talkgroup on Slot 1 for longer talks

## Piedmont Coastal Repeater Network (PCRN)

Dozens of independent sites in NC, SC and VA  
Some are wide coverage, for example 145.21

145.21 @1200ft is backup Skywarn on 82.5 tone  
146.88 lower, plan is to get it back up higher  
147.105 Broadway on 82.5 tone

<https://www.pcrn.net/>

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## Raleigh Amateur Radio Society Repeaters

W4DW 146.64 "6-4" Fairgrounds 30-45 miles but not northwest, where there is a deep notch

W4RNC 145.13 RTP west Wake into Durham on 82.5 tone covers the notch from the "6-4"

W4RNC 444.525 Bayleaf on 82.5 tone up/down (down optional) for northeast

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## **NEW W4RNC 440.525 RARS Multi-Mode Digital**

Co-located w/ W4RNC 145.13 RTP machine

D-Star, DMR, Yaesu System Fusion and P25

Please unlink after use -- instructions on RARS site

System will time out after 15 min of inactivity though

## **Hints and Tips for Repeater Access**

Antenna: SWR, feed, common mode, RF ground

Get the antenna up in the air: Attic, outside (careful of lightning!) or as high as you can

Check tone / color code / slot / etc.

## Question and Answer

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Thank you to all of our excellent repeater owners  
who work so hard to make this possible!