

Colorado Council of Amateur Radio Clubs (CCARC)
70 cm Frequency Use Plan - 420.000 through 450.000 MHz

Frequency (MHz)	Usage:
420.0000 - 426.0000	ATV, Control Links and Experimental
426.0000 - 432.0000	ATV
<i>432.0000 - 432.0700</i>	<i>EME</i>
<i>432.0700 - 432.1000</i>	<i>CW Weak Signal</i>
<i>432.1000</i>	<i>SSB Calling Frequency</i>
<i>432.1000 - 432.3000</i>	<i>Mixed Mode and Weak Signal</i>
<i>432.3000 - 432.4000</i>	<i>Propagation Beacons</i>
<i>432.4000 - 433.0000</i>	<i>Mixed Mode and Weak Signal</i>
433.0000 - 434.5000	Auxiliary Operation (Full Duplex) - Inputs
<i>434.5000 - 435.0000</i>	<i>Mixed Mode, Digital and Voice</i>
<i>435.0000 - 438.0000</i>	<i>Satellite</i>
438.0000 - 439.5000	Auxiliary Operation (Full Duplex) - Outputs
<i>439.5000 - 440.0000</i>	<i>Mixed Mode, Digital and Voice</i>
440.0000 - 440.3000	Aux and Rptr Narrowband (Full Duplex) - Inputs
440.3000 - 440.7000	Auxiliary Operation (Full Duplex) - Inputs
<i>440.7000 - 441.3000</i>	<i>Mixed Mode Simplex - Voice</i>
441.3000 - 441.5000	Auxiliary Operation (Full Duplex) Wide Area - In
441.5000 - 441.8000	Auxiliary Operation (Full Duplex) - Inputs
441.8000 - 442.0000	Narrowband Digital Voice Repeaters - Inputs
442.0000 - 445.0000	FM Repeaters - Inputs
445.0000 - 445.3000	Aux and Rptr Narrowband (Full Duplex) - Outputs
445.3000 - 445.7000	Auxiliary Operation (Full Duplex) - Outputs
<i>445.7000 - 446.3000</i>	<i>Mixed Mode Simplex - Digital and Voice</i>
446.3000 - 446.5000	Auxiliary Operation (Full Duplex) Wide Area - Out
446.5000 - 446.7000	Auxiliary Operation (Full Duplex) - Outputs
446.7000 - 447.0000	Narrowband Digital Voice Repeaters - Outputs
447.0000 - 450.0000	FM Repeaters - Outputs

Frequencies in **boldface** type indicate spectrum coordinated by CCARC.
Italics type indicates shared user spectrum not coordinated by CCARC.

Notes: (per FCC Regulations)

1. 431 - 433 MHz - No Auxiliary or Repeater operation allowed.
2. 435 - 438 MHz - No Auxiliary or Repeater operation allowed.
3. 434.000 MHz - No ATV repeater operation allowed. Simplex only.

FM Voice Simplex Frequencies
24 Channels - 25 KHz spaced channels [16K0F3E]

445.7000	445.7250	445.7500	445.7750	445.8000	445.8250
445.8500	445.8750	445.9000	445.9250	445.9500	445.9750
446.0000	446.0250	446.0500	446.0750	446.1000	446.1250
446.1500	446.1750	446.2000	446.2250	446.2500	446.2750

Note: 446.000 MHz is the National Simplex Calling Frequency.

Note: These channels are shared usage and not coordinated by CCARC

Narrowband Digital Voice Simplex Frequencies
9 Channels - 12.5 KHz spaced channels [8K0F3E]

446.2000	446.2125	446.2250	446.2375	446.2500	446.2625
446.2750	446.2875	446.3000			

Note: These channels are shared usage and not coordinated by CCARC

Mixed mode (Voice and Data) Simplex Frequencies
24 Channels - 25 KHz spaced channels [16K0F3E]

440.7000	440.7250	440.7500	440.7750	440.8000	440.8250
440.8500	440.8750	440.9000	440.9250	440.9500	440.9750
441.0000	441.0250	441.0500	441.0750	441.1000	441.1250
441.1500	441.1750	441.2000	441.2250	441.2500	441.2750

Note: These channels are shared usage and not coordinated by CCARC

Mixed mode Wide Bandwidth Simplex Frequencies
10 Channels - 100 KHz spaced channels [100K0F3E]

434.5500	434.6500	434.7500	434.8500	434.9500
439.5500	439.6500	439.7500	439.8500	439.9500

Note: These channels may be used as simplex, or paired duplex.

Note: These channels are shared usage and not coordinated by CCARC

Amateur Television (ATV) Channels
2 Channels. 6 MHz Bandwidth [6M0A3E]

420 - 426 MHz. Video at 421.25 MHz, Aural at 425.75 MHz.

426 - 432 MHz. Video at 427.25 MHz, Aural at 431.75 MHz.

Note: Vestigial Sideband Filters must be utilized.

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Repeater Operation - Full Duplex - 119 Pairs, 25 KHz channel spacing, 5.0 MHz input / output												[16K0F3E]					
Input	/	Output	Input	/	Output	Input	/	Output	Input	/	Output	Input	/	Output	Input	/	Output
442.0250	/	447.0250	442.0500	/	447.0500	442.0750	/	447.0750	442.1000	/	447.1000	442.1250	/	447.1250	442.1500	/	447.1500
442.1750	/	447.1750	442.2000	/	447.2000	442.2250	/	447.2250	442.2500	/	447.2500	442.2750	/	447.2750	442.3000	/	447.3000
442.3250	/	447.3250	442.3500	/	447.3500	442.3750	/	447.3750	442.4000	/	447.4000	442.4250	/	447.4250	442.4500	/	447.4500
442.4750	/	447.4750	442.5000	/	447.5000	442.5250	/	447.5250	442.5500	/	447.5500	442.5750	/	447.5750	442.6000	/	447.6000
442.6250	/	447.6250	442.6500	/	447.6500	442.6750	/	447.6750	442.7000	/	447.7000	442.7250	/	447.7250	442.7500	/	447.7500
442.7750	/	447.7750	442.8000	/	447.8000	442.8250	/	447.8250	442.8500	/	447.8500	442.8750	/	447.8750	442.9000	/	447.9000
442.9250	/	447.9250	442.9500	/	447.9500	442.9750	/	447.9750	443.0000	/	448.0000	443.0250	/	448.0250	443.0500	/	448.0500
443.0750	/	448.0750	443.1000	/	448.1000	443.1250	/	448.1250	443.1500	/	448.1500	443.1750	/	448.1750	443.2000	/	448.2000
443.2250	/	448.2250	443.2500	/	448.2500	443.2750	/	448.2750	443.3000	/	448.3000	443.3250	/	448.3250	443.3500	/	448.3500
443.3750	/	448.3750	443.4000	/	448.4000	443.4250	/	448.4250	443.4500	/	448.4500	443.4750	/	448.4750	443.5000	/	448.5000
443.5250	/	448.5250	443.5500	/	448.5500	443.5750	/	448.5750	443.6000	/	448.6000	443.6250	/	448.6250	443.6500	/	448.6500
443.6750	/	448.6750	443.7000	/	448.7000	443.7250	/	448.7250	443.7500	/	448.7500	443.7750	/	448.7750	443.8000	/	448.8000
443.8250	/	448.8250	443.8500	/	448.8500	443.8750	/	448.8750	443.9000	/	448.9000	443.9250	/	448.9250	443.9500	/	448.9500
443.9750	/	448.9750	444.0000	/	449.0000	444.0250	/	449.0250	444.0500	/	449.0500	444.0750	/	449.0750	444.1000	/	449.1000
444.1250	/	449.1250	444.1500	/	449.1500	444.1750	/	449.1750	444.2000	/	449.2000	444.2250	/	449.2250	444.2500	/	449.2500
444.2750	/	449.2750	444.3000	/	449.3000	444.3250	/	449.3250	444.3500	/	449.3500	444.3750	/	449.3750	444.4000	/	449.4000
444.4250	/	449.4250	444.4500	/	449.4500	444.4750	/	449.4750	444.5000	/	449.5000	444.5250	/	449.5250	444.5500	/	449.5500
444.5750	/	449.5750	444.6000	/	449.6000	444.6250	/	449.6250	444.6500	/	449.6500	444.6750	/	449.6750	444.7000	/	449.7000
444.7250	/	449.7250	444.7500	/	449.7500	444.7750	/	449.7750	444.8000	/	449.8000	444.8250	/	449.8250	444.8500	/	449.8500
444.8750	/	449.8750	444.9000	/	449.9000	444.9250	/	449.9250	444.9500	/	449.9500	444.9750	/	449.9750			

Note: Shared Non Protected (SNP) pair

Note: Emergency Special Event (ESE) pair

Auxiliary Operation - Full Duplex - 59 Pairs, 25 KHz channel spacing, 5.0 MHz input / output												[16K0F3E]					
Input	/	Output	Input	/	Output	Input	/	Output	Input	/	Output	Input	/	Output	Input	/	Output
433.0250	/	438.0250	433.0500	/	438.0500	433.0750	/	438.0750	433.1000	/	438.1000	433.1250	/	438.1250	433.1500	/	438.1500
433.1750	/	438.1750	433.2000	/	438.2000	433.2250	/	438.2250	433.2500	/	438.2500	433.2750	/	438.2750	433.3000	/	438.3000
433.3250	/	438.3250	433.3500	/	438.3500	433.3750	/	438.3750	433.4000	/	438.4000	433.4250	/	438.4250	433.4500	/	438.4500
433.4750	/	438.4750	433.5000	/	438.5000	433.5250	/	438.5250	433.5500	/	438.5500	433.5750	/	438.5750	433.6000	/	438.6000
433.6250	/	438.6250	433.6500	/	438.6500	433.6750	/	438.6750	433.7000	/	438.7000	433.7250	/	438.7250	433.7500	/	438.7500
433.7750	/	438.7750	433.8000	/	438.8000	433.8250	/	438.8250	433.8500	/	438.8500	433.8750	/	438.8750	433.9000	/	438.9000
433.9250	/	438.9250	433.9500	/	438.9500	433.9750	/	438.9750	434.0000	/	439.0000	434.0250	/	439.0250	434.0500	/	439.0500
434.0750	/	439.0750	434.1000	/	439.1000	434.1250	/	439.1250	434.1500	/	439.1500	434.1750	/	439.1750	434.2000	/	439.2000
434.2250	/	439.2250	434.2500	/	439.2500	434.2750	/	439.2750	434.3000	/	439.3000	434.3250	/	439.3250	434.3500	/	439.3500
434.3750	/	439.3750	434.4000	/	439.4000	434.4250	/	439.4250	434.4500	/	439.4500	434.4750	/	439.4750			

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Narrowband Digital Voice Repeater and Auxiliary Operation - Full Duplex
 23 Pairs, 12.5 KHz channel spacing, 5.0 MHz input / output [8K0F3E]

Input	Output	Input	Output	Input	Output
440.0125	445.0125	440.0250	445.0250	440.0375	445.0375
440.0500	445.0500	440.0625	445.0625	440.0750	445.0750
440.0875	445.0875	440.1000	445.1000	440.1125	445.1125
440.1250	445.1250	440.1375	445.1375	440.1500	445.1500
440.1625	445.1625	440.1750	445.1750	440.1875	445.1875
440.2000	445.2000	440.2125	445.2125	440.2250	445.2250
440.2375	445.2375	440.2500	445.2500	440.2625	445.2625
440.2750	445.2750	440.2875	445.2875		

Note: Shared Non Protected (SNP) pair Note: Emergency Special Event (ESE)

Narrowband Digital Voice Repeater and Auxiliary Operation - Full Duplex
 24 Pairs, 12.5 KHz channel spacing, 5.0 MHz input / output [8K0F3E]

Input	Output	Input	Output	Input	Output
441.7250	446.7250	441.7375	446.7375	441.7500	446.7500
441.7625	446.7625	441.7750	446.7750	441.7875	446.7875
441.8000	446.8000	441.8125	446.8125	441.8250	446.8250
441.8375	446.8375	441.8500	446.8500	441.8625	446.8625
441.8750	446.8750	441.8875	446.8875	441.9000	446.9000
441.9125	446.9125	441.9250	446.9250	441.9375	446.9375
441.9500	446.9500	441.9625	446.9625	441.9750	446.9750
441.9875	446.9875	442.0000	447.0000		

Note: Shared Non Protected (SNP) pair Note: Emergency Special Event (ESE)

Auxiliary Operation - Full Duplex
 17 Pairs, 25 KHz channel spacing, 5.0 MHz input / output [16K0F3E]

Input	Output	Input	Output	Input	Output
440.3000	445.3000	440.3250	445.3250	440.3500	445.3500
440.3750	445.3750	440.4000	445.4000	440.4250	445.4250
440.4500	445.4500	440.4750	445.4750	440.5000	445.5000
440.5250	445.5250	440.5500	445.5500	440.5750	445.5750
440.6000	445.6000	440.6250	445.6250	440.6500	445.6500
440.6750	445.6750	440.7000	445.7000		

Auxiliary Operation - Full Duplex
 8 Pairs, 25 KHz channel spacing, 5.0 MHz input / output [16K0F3E]

Input	Output	Input	Output	Input	Output
441.5000	446.5000	441.5250	446.5250	441.5500	446.5500
441.5750	446.5750	441.6000	446.6000	441.6250	446.6250
441.6500	446.6500	441.6750	446.6750		

Auxiliary Operation - Simplex (Control Links and Auxiliary Linking)
 8 Channels, 25 KHz channel spacing [16K0F3E]

420.0250	420.0500	420.0750	420.1000	420.1250	420.1500
420.1750	420.2000				

Auxiliary Operation - Very Wide Area Coverage - Full Duplex
 8 Pairs, 25 KHz channel spacing, 5.0 MHz input / output [16K0F3E]

Input	Output	Input	Output	Input	Output
441.3000	446.3000	441.3250	446.3250	441.3500	446.3500
441.3750	446.3750	441.4000	446.4000	441.4250	446.4250
441.4500	446.4500	441.4750	446.4750		

Note: These pairs are intended for very wide-area linking systems only.

Revision History:

Rev A - Initial release in new format. No changes to content. April 2003. - K2AD

Rev B - Updated to include new auxiliary and simplex channels. Approved at April 23, 2005 General Meeting. - K2AD

Rev C - Updated to create new narrowband digital voice repeater channels. Approved at October 20, 2007 General Meeting. - K2AD

Rev D - Approved at the May 8, 2010 General Meeting - N0WBW