

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
442.0250	/	447.0250	442.0500	/	447.0500	442.0750	/	447.0750	442.1000	/	447.1000	442.1250	/	447.1250
442.1750	/	447.1750	442.2000	/	447.2000	442.2250	/	447.2250	442.2500	/	447.2500	442.2750	/	447.3000
442.3250	/	447.3250	442.3500	/	447.3500	442.3750	/	447.3750	442.4000	/	447.4000	442.4250	/	447.4500
442.4750	/	447.4750	442.5000	/	447.5000	442.5250	/	447.5250	442.5500	/	447.5500	442.5750	/	447.6000
442.6250	/	447.6250	442.6500	/	447.6500	442.6750	/	447.6750	442.7000	/	447.7000	442.7250	/	447.7500
442.7750	/	447.7750	442.8000	/	447.8000	442.8250	/	447.8250	442.8500	/	447.8500	442.8750	/	447.9000
442.9250	/	447.9250	442.9500	/	447.9500	442.9750	/	447.9750	443.0000	/	448.0000	443.0250	/	448.0500
443.0750	/	448.0750	443.1000	/	448.1000	443.1250	/	448.1250	443.1500	/	448.1500	443.1750	/	448.2000
443.2250	/	448.2250	443.2500	/	448.2500	443.2750	/	448.2750	443.3000	/	448.3000	443.3250	/	448.3250
443.3750	/	448.3750	443.4000	/	448.4000	443.4250	/	448.4250	443.4500	/	448.4500	443.4750	/	448.5000
443.5250	/	448.5250	443.5500	/	448.5500	443.5750	/	448.5750	443.6000	/	448.6000	443.6250	/	448.6500
443.6750	/	448.6750	443.7000	/	448.7000	443.7250	/	448.7250	443.7500	/	448.7500	443.7750	/	448.8000
443.8250	/	448.8250	443.8500	/	448.8500	443.8750	/	448.8750	443.9000	/	448.9000	443.9250	/	448.9500
443.9750	/	448.9750	444.0000	/	449.0000	444.0250	/	449.0250	444.0500	/	449.0500	444.0750	/	449.0750
444.1250	/	449.1250	444.1500	/	449.1500	444.1750	/	449.1750	444.2000	/	449.2000	444.2250	/	449.1000
444.2750	/	449.2750	444.3000	/	449.3000	444.3250	/	449.3250	444.3500	/	449.3500	444.3750	/	449.4000
444.4250	/	449.4250	444.4500	/	449.4500	444.4750	/	449.4750	444.5000	/	449.5000	444.5250	/	449.5500
444.5750	/	449.5750	444.6000	/	449.6000	444.6250	/	449.6250	444.6500	/	449.6500	444.6750	/	449.7000
444.7250	/	449.7250	444.7500	/	449.7500	444.7750	/	449.7750	444.8000	/	449.8000	444.8250	/	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
433.0250	/	438.0250	433.0500	/	438.0500	433.0750	/	438.0750	433.1000	/	438.1000	433.1250	/	438.1250
433.1750	/	438.1750	433.2000	/	438.2000	433.2250	/	438.2250	433.2500	/	438.2500	433.2750	/	438.2750
433.3250	/	438.3250	433.3500	/	438.3500	433.3750	/	438.3750	433.4000	/	438.4000	433.4250	/	438.4250
433.4750	/	438.4750	433.5000	/	438.5000	433.5250	/	438.5250	433.5500	/	438.5500	433.5750	/	438.5750
433.6250	/	438.6250	433.6500	/	438.6500	433.6750	/	438.6750	433.7000	/	438.7000	433.7250	/	438.7250
433.7750	/	438.7750	433.8000	/	438.8000	433.8250	/	438.8250	433.8500	/	438.8500	433.8750	/	438.8750
433.9250	/	438.9250	433.9500	/	438.9500	433.9750	/	438.9750	434.0000	/	439.0000	434.0250	/	439.0250
434.0750	/	439.0750	434.1000	/	439.1000	434.1250	/	439.1250	434.1500	/	439.1500	434.1750	/	439.1750
434.2250	/	439.2250	434.2500	/	439.2500	434.2750	/	439.2750	434.3000	/	439.3000	434.3250	/	439.3250
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	Input / Output
441.7250 / 446.7250	441.7375 / 446.7375	441.7500 / 446.7500	441.7875 / 446.7875
441.7625 / 446.7625	441.7750 / 446.7750	441.8125 / 446.8125	441.8250 / 446.8250
441.8000 / 446.8000	441.8125 / 446.8125	441.8250 / 446.8250	441.8625 / 446.8625
441.8375 / 446.8375	441.8500 / 446.8500	441.8625 / 446.8625	441.9000 / 446.9000
441.8750 / 446.8750	441.8875 / 446.8875	441.9250 / 446.9250	441.9375 / 446.9375
441.9125 / 446.9125	441.9250 / 446.9250	441.9625 / 446.9625	441.9750 / 446.9750
441.9500 / 446.9500	441.9625 / 446.9625	442.0000 / 447.0000	
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	Input / Output
441.5000 / 446.5000	441.5250 / 446.5250	441.5500 / 446.5500	441.6250 / 446.6250
441.5750 / 446.5750	441.6000 / 446.6000	441.6500 / 446.6500	

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