

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

Frequency (MHz)	Usage:
420.000 - 426.000	ATV, Control Links and Experimental
426.000 - 432.000	ATV
<i>432.000 - 432.070</i>	<i>EME</i>
<i>432.070 - 432.100</i>	<i>CW Weak Signal</i>
<i>432.100</i>	<i>SSB Calling Frequency</i>
<i>432.100 - 432.300</i>	<i>Mixed Mode and Weak Signal</i>
<i>432.300 - 432.400</i>	<i>Propagation Beacons</i>
<i>432.400 - 433.000</i>	<i>Mixed Mode and Weak Signal</i>
433.000 - 434.500	Auxiliary Operation (Full-Duplex) – Inputs
<i>434.500 - 435.000</i>	<i>Mixed Mode, Digital and Voice</i>
<i>435.000 - 438.000</i>	<i>Satellite</i>
438.000 – 439.500	Auxiliary Operation (Full-Duplex) - Outputs
<i>439.500 - 440.000</i>	<i>Mixed Mode, Digital and Voice</i>
440.000 – 440.700	Auxiliary Operation – Full Duplex - Inputs
<i>440.700 - 441.200</i>	<i>Mixed Mode Simplex – Voice</i>
441.200 – 441.500	Auxiliary Operation, Full-Duplex, Wide Area - Inputs
441.500 – 441.800	Auxiliary Operation, Full-Duplex - Inputs
441.800 – 442.000	Narrowband Digital Voice Repeaters (Inputs)
442.000 - 445.000	FM Voice Repeater (Inputs)
445.000 - 445.700	Auxiliary Operation – Full Duplex - Outputs
<i>445.700 - 446.300</i>	<i>Mixed Mode Simplex – Digital and Voice</i>
446.300 – 446.500	Auxiliary Operation, Full-Duplex, Wide Area (Outputs)
446.500 – 446.800	Auxiliary Operation, Full-Duplex (Outputs)
446.800 – 447.000	Narrowband Digital Voice Repeaters (Outputs)
447.000 - 450.000	FM Repeaters (Outputs)

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

Note: 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
19 Channels – 25 KHz spaced channels [16K0F3E]

445.7250	445.75	00	445.77	50	445.80	00	445.8250
445.8500	445.87	50	445.90	00	445.92	50	445.9500
445.9750	446.0000		446.02	50	446.05	00	446.0750
446.1000	446.12	50	446.15	00	446.17	50	

Note: **446.000** is the National FM Voice Simplex Calling Frequency
Note: These channels are shared usage and not coordinated by CCARC.

Narrowband Digital Voice Simplex Frequencies
8 Channels – 12.5 KHz spaced channels [8K0F1D]

446.2000	446.21	25	446.22	50	446.23	75	446.2500
446.2625	446.27	50	446.28	75			

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

Mixed Mode (Voice and data) Simplex Frequencies
19 Channels - 25 KHz spaced channels [16K0F3E]

440.7250	440.75	00	440.77	50	440.80	00	440.8250
440.8500	440.87	50	440.90	00	440.92	50	440.9500
440.9750	441.00	00	441.02	50	441.05	00	441.0750
441.1000	441.12	50	441.15	00	441.17	50	

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

Mixed mode Wide Bandwidth Simplex Frequencies
10 Simplex Channels – 100 KHz spaced channels [16K0F3E]

434.550	434.65	0	434.75	0	434.85	0	434.950
439.550	439.65	0	439.75	0	439.85	0	439.950

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

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

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Repeater Operation – Full Duplex - 120 Pairs, 25 KHz channel spacing, 5.0 MHz in/out [16K0F3E]

Input / Output	Input / Output	Input / Output	Input / Output	Input / Output	Input / Output
442.000 / 447.000	442.025 / 447.025	442.050 / 447.050*	443.500 / 448.500	443.525 / 448.525	443.550 / 448.550
442.075 / 447.075	442.100 / 447.100	442.125 / 447.125	443.575 / 448.575	443.600 / 448.600	443.625 / 448.625
442.150 / 447.150	442.175 / 447.175	442.200 / 447.200	443.650 / 448.650	443.675 / 448.675	443.700 / 448.700
442.225 / 447.225	442.250 / 447.250	442.275 / 447.275	443.725 / 448.725	443.750 / 448.750	443.775 / 448.775
442.300 / 447.300*	442.325 / 447.325	442.350 / 447.350	443.800 / 448.800	443.825 / 448.825*	443.850 / 448.850
442.375 / 447.375	442.400 / 447.400	442.425 / 447.425	443.875 / 448.875	443.900 / 448.900	443.925 / 448.925
442.450 / 447.450	442.475 / 447.475	442.500 / 447.500	443.950 / 448.950	443.975 / 448.975	444.000 / 449.000
442.525 / 447.525	442.550 / 447.550	442.575 / 447.575	444.025 / 449.025	444.050 / 449.050	444.075 / 449.075**
442.600 / 447.600	442.625 / 447.625	442.650 / 447.650	444.100 / 449.100**	444.125 / 449.125	444.150 / 449.150
442.675 / 447.675	442.700 / 447.700	442.725 / 447.725	444.175 / 449.175	444.200 / 449.200	444.225 / 449.225
442.750 / 447.750	442.775 / 447.775	442.800 / 447.800	444.250 / 449.250	444.275 / 449.275*	444.300 / 449.300
442.825 / 447.825	442.850 / 447.850	442.875 / 447.875	444.325 / 449.325	444.350 / 449.350	444.375 / 449.375
442.900 / 447.900	442.925 / 447.925	442.950 / 447.950	444.400 / 449.400	444.425 / 449.425*	444.450 / 449.450
442.975 / 447.975	443.000 / 448.000	443.025 / 448.025	444.475 / 449.475	444.500 / 449.500	444.525 / 449.525
443.050 / 448.050*	443.075 / 448.075	443.100 / 448.100	444.550 / 449.550	444.575 / 449.575	444.600 / 449.600
443.125 / 448.125	443.150 / 448.150	443.175 / 448.175	444.625 / 449.625	444.650 / 449.650	444.675 / 449.675
443.200 / 448.200	443.225 / 448.225	443.250 / 448.250	444.700 / 449.700	444.725 / 449.725	444.750 / 449.750
443.275 / 448.275	443.300 / 448.300	443.325 / 448.325*	444.775 / 449.775	444.800 / 449.800	444.825 / 449.825
443.350 / 448.350	443.375 / 448.375	443.400 / 448.400	444.850 / 449.850	444.875 / 449.875	444.900 / 449.900
443.425 / 448.425	443.450 / 448.450	443.475 / 448.475	444.925 / 449.925	444.950 / 449.950	444.975 / 449.975

Auxiliary Operation Pairs – Full Duplex - 60 Pairs, 25 KHz channel spacing, 5.0 MHz in/out [16K0F3E]

Input / Output	Input / Output	Input / Output	Input / Output	Input / Output	Input / Output
433.000 / 438.000	433.025 / 438.025	433.050 / 438.050	433.750 / 438.750	433.77 5 / 438.775	433.80 0 / 438.800
433.075 / 438.075	433.100 / 438.100	433.125 / 438.125	433.825 / 438.825	433.85 0 / 438.850	433.87 5 / 438.875
433.150 / 438.150	433.175 / 438.175	433.200 / 438.200	433.900 / 438.900	433.92 5 / 438.925	433.95 0 / 438.950
433.225 / 438.225	433.250 / 438.250	433.275 / 438.275	433.975 / 438.975	434.00 0 / 439.000	434.02 5 / 439.025
433.300 / 438.300	433.325 / 438.325	433.350 / 438.350	434.050 / 439.050	434.07 5 / 439.075	434.10 0 / 439.100
433.375 / 438.375	433.400 / 438.400	433.425 / 438.425	434.125 / 439.125	434.15 0 / 439.150	434.17 5 / 439.175
433.450 / 438.450	433.475 / 438.475	433.500 / 438.500	434.200 / 439.200	434.22 5 / 439.225	434.25 0 / 439.250
433.525 / 438.525	433.550 / 438.550	433.575 / 438.575	434.275 / 439.275	434.30 0 / 439.300	434.32 5 / 439.325
433.600 / 438.600	433.625 / 438.625	433.650 / 438.650	434.350 / 439.350	434.37 5 / 439.375	434.40 0 / 439.400
433.675 / 438.675	433.700 / 438.700	433.725 / 438.725	434.425 / 439.425	434.45 0 / 439.450	434.47 5 / 439.475

* - Shared Non Protected ** - Emergency and Special Event

**Auxiliary Operation Pairs – Full Duplex
28 Pairs, 25 KHz channel spacing, 5.0 MHz in/out [16K0F3E]**

Input / Output	Input / Output	Input / Output
440.025 / 445.02 5	440.050 / 445.050	440.075 / 445.075
440.100 / 445.10 0	440.125 / 445.125	440.150 / 445.150
440.175 / 445.17 5	440.200 / 445.200	440.225 / 445.225
440.250 / 445.25 0	440.275 / 445.275	440.300 / 445.300
440.325 / 445.32 5	440.350 / 445.350	440.375 / 445.375
440.400 / 445.40 0	440.425 / 445.425	440.450 / 445.450
440.475 / 445.47 5	440.500 / 445.500	440.525 / 445.525
440.550 / 445.55 0	440.575 / 445.575	440.600 / 445.600
440.625 / 445.62 5	440.650 / 445.650	440.675 / 445.675
440.700 / 445.70 0		

**Narrowband Digital Voice Repeater Operation - Full Duplex
14 Pairs, 12.5 kHz channel spacing, 5.0 MHz in/out [8K0F1D]**

441.8125 / 446.8125	441.8250 / 446.8250	441.83 75 / 446.8375
441.8500 / 446.8500	441.8625 / 446.8625	441.87 50 / 446.8750
441.8875 / 446.8875	441.9000 / 446.9000	441.91 25 / 446.9125
441.9250 / 446.9250	441.9375 / 446.9375	441.95 00 / 446.9500
441.9625 / 446.9625	441.9750 / 446.9750	

**Auxiliary Operation Pairs – Very Wide Area Coverage – Full Duplex
8 Pairs, 25 KHz channel spacing, 5.0 MHz in/out [16K0F3E]**

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

Input / Output	Input / Output	Input / Output
441.300 / 446.300	441.32 5 / 446.325	441.35 0 / 446.350
441.375 / 446.375	441.40 0 / 446.400	441.42 5 / 446.425
441.450 / 446.45 0	441.475 / 446.475	

**Auxiliary Operation Pairs – Full Duplex
9 Pairs, 25 KHz channel spacing, 5.0 MHz in/out [16K0F3E]**

441.500 / 446.500	441.52 5 / 446.525	441.55 0 / 446.550
441.575 / 446.575	441.60 0 / 446.600	441.62 5 / 446.625
441.650 / 446.650	441.67 5 / 446.675	441.70 0 / 446.700

**Auxiliary Operation – Simplex (Control links and linking)
8 Simplex Channels – 25 KHz spaced channels [16K0F3E]**

420.025	420.05 0	420.07 5	420.10 0	420.125
420.150	420.17 5	420.20 0		

**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.

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 Membership Meeting. – K2AD

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