

SERA FREQUENCY UTILIZATION PLAN for 220 MHz	
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Some Definitions:

Narrow-band FM transmission is 2.5 kHz maximum deviation consuming 11 to 12.5 kHz of bandwidth  
Wide-band FM transmission is 5 kHz maximum deviation consuming 13 to 16 kHz of bandwidth

Standard FM Repeaters - 45 Repeater Pairs, channel / frequency spaced at 20 KHz, 1.6 MHz in/out

222.500 - 224.100	222.520 - 224.120	222.540 - 224.140
222.560 - 224.160	222.580 - 224.180	222.600 - 224.200
222.620 - 224.220	222.640 - 224.240	222.640 - 224.240
222.680 - 224.280	222.700 - 224.300	222.720 - 224.320
222.740 - 224.340	222.760 - 224.360	222.780 - 224.380
222.800 - 224.400	222.820 - 224.420	222.840 - 224.440
222.860 - 224.460	222.880 - 224.480	222.900 - 224.500
222.920 - 224.520	222.940 - 224.540	222.960 - 224.560
222.980 - 224.580	223.000 - 224.600	223.020 - 224.620
223.040 - 224.640	223.060 - 224.660	223.080 - 224.680
223.100 - 224.700	223.120 - 224.720	223.140 - 224.740
223.160 - 224.760	223.180 - 224.780	223.200 - 224.800
223.220 - 224.820	223.240 - 224.840	223.260 - 224.860
223.280 - 224.880	223.300 - 224.900	223.320 - 224.920
223.340 - 224.940	223.360 - 224.960	223.380 - 224.980

Repeater Control / Link Frequencies, Block 1 of 2, 222.200 - 222.350 MHz, 7 channels, 20 KHz channel / frequency spacing

222.220    222.240    222.260    222.280    222.300    222.320    222.340

Repeater Control / Link Frequencies, Block 2 of 2, 223.910 - 224.080 MHz, 8 channels, 20 KHz channel / frequency spacing

223.920    223.940    223.960    223.980    224.000    224.020    224.040    224.060

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FM Voice Simplex Frequencies:

223.400    223.420    223.440    223.460    223.480    223.500\*    223.520  
223.540    223.560    223.580    223.600    223.620    223.640

\*223.500 is the National FM Voice Simplex Calling Frequency

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Packet / Digital Simplex Frequencies:

223.660    223.680    223.700    223.720    223.740    223.760    223.780

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High Speed Digital Channels: 100 KHz wide,

222.35 - 222.45 (222.40 Center)

223.80 - 223.90 (223.85 Center)

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## Frequency Spectrum Plan for 222-225 MHz

222.000 - 222.015 Guard Band (15 KHz)

222.015 - 222.050 EME - (Earth/Moon/Earth) (50 KHz)

222.050 - 222.060 Propagation Beacons (10 KHz)

222.060 - 222.100 Weak Signal CW/Experimental (40 KHz)

222.100 CW/SSB Calling Frequency

222.100 - 222.200 Weak Signal CW/SSB (100 KHz)

222.200 - 222.350 Repeater Control/Link Frequency (150 KHz)

222.350 - 222.450 Hi Speed Digital w/222.40 Center (100 KHz)

222.450 - 222.460 Propagation Beacons (10 KHz)

222.460 - 222.490 EME/Weak Signal/Experimental (30 KHz)

222.500 - 223.380 FM Repeater Inputs (880 KHz with 20 KHz spacing)

223.400 - 223.640 FM Simplex Voice (240 KHz)

223.660 - 223.780 Digital Channels (120 KHz with 20 KHz spacing)

223.800 - 223.900 Hi Speed Digital w/223.85 center (100 KHz)

223.910 - 224.080 Control & Link Frequencies (170 KHz)

224.100 - 224.980 FM Repeater Outputs (880 KHz with 20 KHz spacing)

224.990 - 225.000 Guard Band (10 KHz)

