

TASMA

Two Meter Area Spectrum Management Association
Frequency Coordination & Spectrum Management for Southern California

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2 Meter Band Plan Summary

<p>FM Simplex Frequencies (no internet linking)</p> <ul style="list-style-type: none">•144.310-144.375•144.405-144.490•145.510-145.570•146.430 (ATV voice)•146.445•146.460 (remote bases)•146.520 (calling freq.)•146.535•146.550•146.565 (T-hunts)•146.580•146.595•147.480•147.510•147.525•147.540•147.555•147.570	<p>Packet Frequencies</p> <ul style="list-style-type: none">•144.390 (APRS)•144.970•145.030•145.050•145.070•145.090•145.630•145.650•145.670•145.690	<p>Internet Linking Frequencies (IRLP, Echolink, eQSO)</p> <ul style="list-style-type: none">•145.710•145.725•145.740•145.755•145.770•145.785
	<p>Portable Repeater Pair for Special Event & Emergency Use</p> <ul style="list-style-type: none">•147.585 input 144.930 output	<p>Crossband Repeater Frequency</p> <ul style="list-style-type: none">•144.910

TASMA 2 METER BANDPLAN

TASMA COVERAGE AREA

TASMA coordinates 2 meter amateur band activities for Southern California. The borders of this area are: the Pacific Ocean on the west; Mexico on the south; the combined Arizona-Nevada border on the east, extending up to the Mono-Alpine County line; then south along the Mono-Toulumne County line, south along the Mono-Madera County Line, south along the Mono-Fresno County Line, south along the Fresno-Inyo County line, south along the Inyo-Tulare County line to the Kern County line, south along Highway 14 just a little west of the Kern-San Bernardino County line to the Los Angeles-Kern County line, then west along that line past the 5 freeway and along the Kern-Ventura County line to an area near the 33/166 intersection, then west along the Santa Barbara-San Luis Obispo County line to the Pacific Ocean. The Northern Amateur Relay Council of California (NARCC), Southern Nevada Repeater Council (SNRC), Amateur Radio Council of Arizona's Frequency Coordination Committee (ARCA) & (coordinator TBD) in Baja California, Mexico jointly coordinate areas adjacent to their respective service areas so as to avoid conflicts along our overlapping coverage areas.

The TASMA Technical Committee shall only coordinate repeaters to frequencies within this bandplan designated for normal, in-band fixed repeater use.

BAND PLAN

144.000 - 144.100 CW only (Part 97.61a)
144.100 - 144.275 AM, SSB & other weak signal/narrow bandwidth modes
144.275 - 144.300 Propagation Beacons
144.310 - 144.375 FM simplex (unchannelized)
144.390 - Digital (APRS)
144.405 - 144.490 FM simplex (unchannelized)
144.505 - Repeater output (paired with 145.105 input)
144.520 - 144.880 Repeater inputs: 20 kHz spacing
144.895 - Repeater output (paired with 145.495 input)
144.910 - Cross-band repeater input/output (not coordinated, CTCSS use mandatory)
144.930 - Portable repeater output, shared (paired with 147.585 input)
144.950 - Repeater output (paired with 147.405 input)
144.970 - Digital (packet)
144.985 - 145.015 Digital voice auxiliary inputs & outputs (i.e. D-Star): 10 kHz spacing
145.030 - 145.090 Digital (packet): 20 kHz spacing
145.105 - Repeater input (paired with 144.505 output)
145.120 - 145.480 Repeater outputs: 20 kHz spacing
145.495 - Repeater input (paired with 144.895 output)
145.510 - 145.570 FM simplex (unchannelized)
145.585 - 145.615 Digital voice auxiliary inputs & outputs (i.e. D-Star): 10 kHz spacing
145.630 - 145.690 Digital (packet): 20 kHz spacing
145.710 - 145.785 Fixed simplex base stations (internet links, autopatches, etc.: 15 kHz spacing)
145.800 - 146.000 OSCAR satellite use
146.010 - 146.385 Repeater input/output (15 kHz inverted tertiary sub-band plan; see text)
146.400 - Repeater input (paired with 147.435 output)
146.415 - Repeater input (paired with 147.450 output)
146.430 - 146.460 FM simplex: 15 kHz spacing
146.475 - Repeater input (paired with 147.420 output)
146.490 - Repeater input (paired with 147.495 output)
146.505 - Repeater input (paired with 147.465 output)
146.520 - National FM simplex
146.535 - 146.595 FM simplex: 15 kHz spacing
146.610 - 147.390 Repeater input/output (15 kHz inverted tertiary sub-band plan; see text)
147.405 - Repeater input (paired with 144.950 output)
147.420 - Repeater output (paired with 146.475 input)
147.435 - Repeater output (paired with 146.400 input)
147.450 - Repeater output (paired with 146.415 input)
147.465 - Repeater output (paired with 146.505 input)
147.480 - FM simplex
147.495 - Repeater output (paired with 146.490 input)
147.510 - 147.570 FM simplex: 15 kHz spacing
147.585 - Portable repeater input, shared (paired with 144.930 output)
147.600 - 147.990 Repeater input/output (15 kHz inverted tertiary sub-band plan; see text)

REPEATER SUB-BAND BANDPLAN 144.5 - 145.5 MHZ

Repeaters in the spectrum between 144.500 to 145.500 MHZ utilize a "low in-high out" configuration, on nineteen even numbered frequency pairs. Frequency pairs begin with 144.52/145.12 MHZ and end with 144.88/145.48 MHZ. Spacing is 20 kHz between repeater systems, and 600 kHz between repeater input and output. In addition, there are two additional 15 kHz band-edge pairs at 145.105 input/144.505 output and 145.495 input/144.895 output.

Input	Output	Input	Output
145.105	144.505	144.720	145.320
144.520	145.120	144.740	145.340
144.540	145.140	144.760	145.360
144.560	145.160	144.780	145.380
144.580	145.180	144.800	145.400
144.600	145.200	144.820	145.420
144.620	145.220	144.840	145.440
144.640	145.240	144.860	145.460
144.660	145.260	144.880	145.480
144.680	145.280	145.495	144.895
144.700	145.300		

REPEATER SUB-BAND BANDPLAN 146-148 MHZ

15 kHz spacing between repeaters utilizes an inverted 15 kHz sub-band plan, yielding 53 repeater pairs as follows:

Input	Output	Input	Output	Input	Output
146.010	146.610	146.280	146.880	147.750	147.150
146.625	146.025	146.895	146.295	147.165	147.765
146.040	146.640	146.310	146.910	147.780	147.180
146.655	146.055	146.925	146.325	147.195	147.795
146.070	146.670	146.340	146.940	147.810	147.210
146.685	146.085	146.955	146.355	147.225	147.825
146.100	146.700	146.370	146.970	147.840	147.240
146.715	146.115	146.985	146.385	147.255	147.855
146.130	146.730	147.600	147.000	147.870	147.270
146.745	146.145	147.015	147.615	147.285	147.885
146.160	146.760	147.630	147.030	147.900	147.300
146.775	146.175	147.045	147.645	147.315	147.915
146.190	146.790	147.660	147.060	147.930	147.330
146.805	146.205	147.075	147.675	147.345	147.945
146.220	146.820	147.690	147.090	147.960	147.360
146.835	146.235	147.105	147.705	147.375	147.975
146.250	146.850	147.720	147.120	147.990	147.390
146.865	146.265	147.135	147.735		

Existing systems coordinated to a pair that is reversed of the pair indicated in the above table will be "grandfathered" into the bandplan.

All repeater pairs are shared using geographic separation and coordinated technical parameters such as transmitter power and antenna pattern to achieve necessary isolation between repeaters.

The 144.74/145.34, 144.86/145.46, 146.22/82, 146.31/91, 146.37/97 & 147.93/33 repeater pairs are coordinated on a shared basis with Mexican repeater operations.

ESTABLISHED AREA "ODD SPLIT" (non-600 kHz) REPEATER PAIRS:

Input	Output
147.585	144.930 (portable repeaters only)
147.405	144.950
146.475	147.420
146.400	147.435
146.415	147.450
146.505	147.465
146.490	147.495

PORTABLE REPEATER PAIR

A wide-split repeater pair, 147.585 input/144.930 output, is available on a shared non-protected basis to facilitate the operation of small portable 2 meter repeaters. Repeaters utilizing this pair must use CTCSS or DCS access. Operation must be limited to no more than 72 hours total per month. Operation outside these limits will be considered uncoordinated operation unless approved on a case-by-case basis by the Technical Committee.

SUMMARY OF FM SIMPLEX FREQUENCIES:

- 144.310 - 144.375: Unchannelized simplex
- 144.345: FM voice for ATV
- 144.405 - 144.490: Unchannelized simplex
- 144.490: ARISS voice uplink (TRANSMIT FM voice here to communicate with amateurs on International Space Station)
- 145.510 - 145.570: Unchannelized simplex
- 145.800: ARISS voice & packet downlink (LISTEN here)
- 145.990: ARISS packet uplink (TRANSMIT packet here)
- 146.430: FM voice for ATV
- 146.445: FM simplex
- 146.460: Remote bases
- 146.520: National FM simplex frequency
- 146.535: FM simplex
- 146.550: FM simplex
- 146.565: T-Hunt Frequency
- 146.580: FM simplex
- 146.595: FM simplex
- 147.480: FM simplex
- 147.510: FM simplex
- 147.525: Remote bases
- 147.540: FM simplex
- 147.555: FM simplex
- 147.570: FM simplex

FIXED SIMPLEX BASE STATION FREQUENCIES

The following 6 simplex frequencies are available for fixed automatic simplex operations such as internet linking & simplex autopatch. Cross-band repeaters are not permitted per FCC Part 97. Use of selective access such as CTCSS or DCS is recommended:

145.710	145.725	145.740	145.755	145.770	145.785
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CROSS-BAND REPEATER FREQUENCY

144.910 MHz is available on a shared non-protected basis as an input/output for cross-band repeaters (i.e. dual-band mobile radios). Use of selective access such as CTCSS or DCS is mandatory.

DIGITAL VOICE AUXILIARY STATION FREQUENCIES

The following 4 pairs are available for very narrow band (compatible with 10 kHz channel spacing) full duplex digital voice auxiliary stations such as D-Star systems. Coordination is required.

Input	Output
144.985	145.585
145.595	144.995
145.005	145.605
145.015	145.615