## Proposed Two Metre (2m) Band Plan

The RAC Band Planning Committee has completed the new proposed 2m band plan.



Radio Amateurs of
Canada band planning committees
coordinate the development of
National Band Plans to provide
guidance for the usage of the
Canadian Amateur bands. These
committees are made up of
representatives from all regions of
Canada.

The committees prepare interim band plans after consulting with Amateurs across the country. These plans not only take into account the wishes of Canadian Amateurs, but are also coordinated with band usage in other countries through membership in the International Amateur Radio Union (IARU).

The RAC Board of Directors extends thanks to the members of the RAC Band Planning Committee for undertaking the task of reviewing and updating the VHF and UHF band plans over the next year.

Chair: Al Penney, VO1NO

## Members:

- Bill Elliott, VE1MR
- Don Falle, VE2DFO
- Stuart Truba, VE2XX
- Dana Shtun, VE3DS
- Derek Hay, VE4HAY
- Ken Oelke, VE6AFO
- Skip MacAulay, VE6BGT
- Ernest Clintberg, VE6EC
- Don Moman, VE6JY
- Mitchell Goodjohn, VE6SM
- Grant Furnald, VE6TA
- Ed Frazer, VE7EF
- George Merchant, VE7GM
- Dave Miller, VE7HR

A draft of the band plans is shown on the right for final input before it is submitted to the RAC Board of Directors for approval. If you have any comments or suggestions please send them to me at the email address provided below.

Serge, Bertuzzo, VA3SB RAC International Affairs Officer international@rac.ca

Frequency	Modes and Possible Uses
rrequericy	(please see the Notes on the following page)
144.000 – 144.100	EME, Narrow Band Digital, CW, Weak Signal Modes. See Note 1 on the opposite page.
	JT65 centred on 144.085 JA Window. See Note 2.
144.100 – 144.180	CW, SSB, Narrow Band Digital, EME, Weak Signal Modes. See Note 1. 144.174 FT8, 144.144/144.150 MSK144 Meteor Scatter,
	144.115 – 144.135 Digital EME centred on 144.125 MHz. See Note 2
144.180 – 144.265	CW, SSB, Narrow Band Digital, EME, Weak Signal and other Narrow Band Modes. See Note 1.
	Other modes with bandwidths less than 3 kHz, including FAX and SSTV.  144.200 SSB and CW Calling Frequency – See Note 3.
144.265 – 144.270	No transmissions – Guard Band to protect Beacon Network.
144.270 – 144.300	Propagation Beacon Network Exclusive.
	Note that 144.300 is the IARU Region 1 Calling Frequency, and could be used for Trans-Atlantic Attempts.
144.300 – 144.310	No transmissions – Guard Band to protect Beacon Network.  Note that 144.300 is the IARU Region 1 Calling Frequency, and could be used for Trans-Atlantic Attempts.
144.310 – 144.500	Wide Band Digital Modes (e.g.: Packet, APRS). See Notes 1 and 4.
	144.340 – National ATV Voice Coordination Frequency FM.
	144.390 – National APRS Frequency. See Note 5. 144.489 – National WSPR Frequency.
144.500 – 144.900	FM / Digital / Linear Repeater Inputs. See Note 6.
144.900 – 145.100	Wide Band Digital. See Notes 1 and 7.
145.100 – 145.500	FM / Digital / Linear Repeater Outputs. See Note 6.
145.500 – 145.590	ARISS Links – Space Communication Exclusive.
145.590 – 145.790	Wide Band Digital Modes. See Notes 1 and 8.
145.790 – 145.800	No transmissions. Guard Band to protect Satellite Sub-band.
145.800 – 146.000	Amateur Satellite Uplink / Downlink and ARISS Exclusive.
146.000 – 146.010	No transmissions. Guard Band to protect Satellite Sub-band.
146.010 – 146.370	FM / Digital / Linear Repeater Inputs. See Note 6.
146.400 – 146.595	FM Simplex. See Notes 9 and 10. 146.520 – National FM Calling Frequency. See Note 3
146.610 – 147.390	FM / Digital / Linear Repeater Outputs. See Note 6.
147.420 – 147.570	FM Simplex and Digital Hotspots using a 30 kHz raster. See Notes 11 and 12. Note that Digital channels are interwoven between these FM Simplex channels.
147.435 – 147.585	Wide Band Digital. See Notes 1 and 13.  Note that these Digital channels are interwoven between the FM Simplex channels at 147.420 – 147.570.
147.600 – 147.990	FM / Digital / Linear Repeater inputs. See Note 6.

## RAC

## Notes for Proposed Two Metre (2m) Band Plan

**Note 1:** Narrow Band Digital 2m modes are those with bandwidths of 3 kHz or less; for example, WSJT modes.

Wide Band Digital 2m modes are those with bandwidths greater than 3 kHz but less than 30 kHz; for example, Packet.

**Note 2:** Consult with the WSJT community regarding frequencies for EME and Terrestrial operations as these change with modulation schemes.

**Note 3:** Once contact is established on a Calling Frequency, operators should QSY to another frequency. For 144.200 MHz it is generally down for CW, and up for SSB. For 146.520 MHz FM, it is to any other clear FM simplex channel.

**Note 4:** Seven frequencies on a 20 kHz channel raster: 144.37, 144.39, 144.41, 144.43, 144.45, 144.47 and 144.49. Occupancy is to occur *only* when available Digital frequencies within the sub-bands 144.9 – 145.1 MHz and 145.59 – 145.79 MHz are exhausted. Consult with your local digital coordination body regarding maximum ERP, Bandwidth and coverage area within this sub-band. Operation may occur on 144.31 MHz provided operating bandwidth and ERP do *not* cause harmful interference within the propagation beacon network sub-band.

Note 5: Consult with your local coordination body.

**Note 6:** Repeaters include FM, Digital (DMR, Fusion, DSTAR and related) and linear modes. Consult with your local coordination body for frequencies and modulation scheme allocations specific to your area, if available. Hotspots are not to be used on Repeater frequencies.

**Note 7:** Ten frequencies on a 20 kHz channel raster: 144.91, 144.93, 144.95, 144.97, 144.99, 145.01, 145.03, 145.05, 145.07 and 145.09. Consult with your local coordination body.

**Note 8:** Eleven frequencies on a 20 kHz channel raster: 145.59, 145.61, 145.63, 145.65, 145.67, 145.69, 145.71, 145.73, 145.75, 145.77 and 145.79 MHz. Consult with your local coordination body.

**Note 9:** The frequencies 146.40, 146.43 and 146.46 MHz continue to be used as repeater inputs in some areas. Consult with your local coordination body.

**Note 10:** Thirteen channels on a 15 kHz channel raster: 146.415, 146.430, 146.445, 146.460, 146.475, 146.490, 146.505, 146.520, 146.535, 146.550, 146.565, 146.580 and 146.595 MHz.

**Note 11:** Six channels on a 30 kHz channel raster, 147.420, 147.450, 147.480, 147.510, 147.540, 147.570 MHz.

**Note 12:** The use of Digital Hotspots is not recommended on 2m. If they are used however, maximum power output should not exceed 500 mW. Gain antennas should not be used. The control operator must monitor the Hotspot whenever it is operating.

**Note 13:** Six channels on a 30 kHz channel raster: 147.435, 147.465, 147.495, 147.525, 147.555 and 147.585 MHz. Consult your local coordination body for available frequencies, ERP and bandwidth.