# REVIEW OF 70 cm BAND PLAN - MAY 2015

The band plan is currently subject to review. Changes are proposed to the band segments used for repeaters for the purpose of overcoming interference problems caused by LIPD ("Low Interference Potential" devices in the band 433.050 - 434.790 MHz.

Legacy Fixed Amateur licenses: Existing fixed amateur station licensees in the 431.000 - 431.950, 432.600 - 435.000 and 438.000 - 440.0000 MHz allocations made under previous band plans can remain on their current active frequencies until such time as they elect to cancel their licenses or they elect to change frequency to one of the new allocations. There will be no compulsion to change or force frequency relocation. Should legacy stations end up in a situation where their presence is blocking the development of new systems, the operators of the incumbent and new proposed licensee will be asked to find a mutually agreeable resolution to the issue in the spirit of amateur radio cooperation.

Current frequency allocations that will remain unchanged are shown in black. Segments where changes will occur are shown in blue.

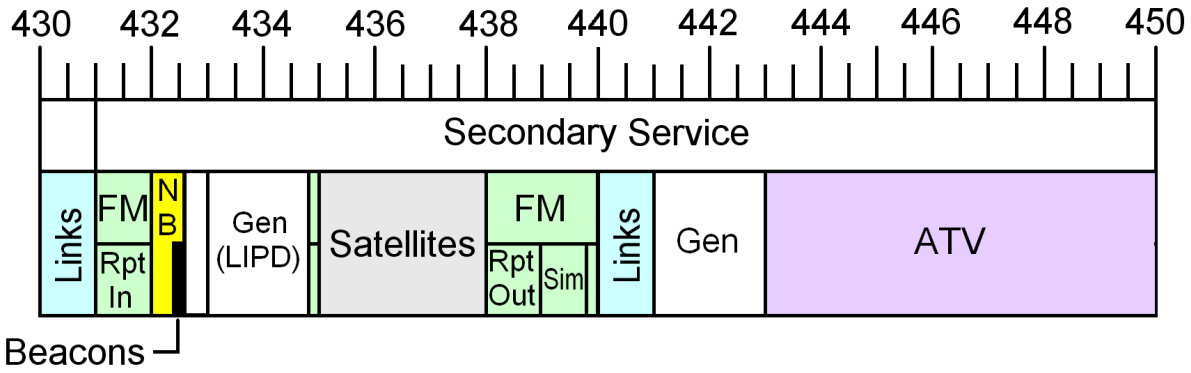
The WIA invites comment on these proposed band plan changes.

## *70 cm band – All licence classes*

**Band Allocation**

| | | |
|---|---|---|
| 420 - 450 MHz | RADIOLOCATION | Primary Service |
| 420 - 450 MHz | FIXED, MOBILE | Primary Service |
| 420 - 430 MHz | AMATEUR (no access from January 2013) | Secondary Service |
| 430 - 450 MHz | AMATEUR | Secondary Service |
| 435 - 438 MHz | AMATEUR SATELLITE | Permitted on non-interference basis |

**NOTE:** From January 2013, the 420 - 430 MHz band segment is no longer available for normal amateur operation.




| | | | |
|---|---|---|---|
| 430.025 - | 430.975 | REPEATER LINKS - Group A | (Note 7) |
| 431.0250 - | 431.9375 | REPEATER INPUTS Group A (7 MHz offset)<br>Paired with outputs 438.0250 - 438.9375 | (Note 6) |
| 431.950 - | 432.600 | NARROW BAND MODES | (Note 1) |
| 431.950 - | 432.000 | EME Guard band | |
| 432.000 - | 432.100 | EME | |
| 432.100 - | 432.400 | CW / SSB | |
| 432.100 | | Calling frequency: national primary | |
| 432.200 | | Calling frequency: national secondary | |
| 432.220 - | 432.240 | Digital DX modes | |
| 432.240 - | 432.300 | Guard band: New Zealand beacons | |
| 432.300 | | SSB chat frequency | |

| | | | |
|---|---|---|---|
| 432.320 - | 432.340 | Digital DX modes | |
| 432.400 - | 432.600 | Beacons | (Note 2) |
| | | | |
| 432.600 - | 433.000 | GENERAL / EXPERIMENTAL (future) | |
| 432.625 - | 432.975 | REPEATER INPUTS - 5.4 MHz offset (legacy) | (Note 6) |
| | | | |
| 433.025 - | 434.775 | SIMPLEX - General Use (all modes) | (Notes 4, 5, 6) |
| 433.025 - | 433.750 | Repeater inputs - 5 MHz offset (legacy) | |
| 434.000 - | 434.775 | Repeater links - Group C | |
| 434.275 - | 434.775 | Repeater inputs - 5 MHz offset (legacy) | |
| | | | |
| 434.800 - | 434.9875 | REPEATER INPUTS Group B (5 MHz offset) | |
| | | | |
| 435.000 - | 438.000 | AMATEUR SATELLITES | (Note 3) |
| | | | |
| 438.000 - | 438.9375 | REPEATER OUTPUTS (7 MHz offset) | (Note 6) |
| 438.0250 - | 438.7625 | Existing repeater outputs | |
| 438.7750 - | 438.9375 | New outputs | |
| | | | |
| 438.950 - | 439.775 | FM SIMPLEX | |
| 438.950 | | WICEN | |
| 439.000 | | National FM voice calling frequency | |
| 439.050 | | AX25 Packet Radio | |
| 439.075 | | AX25 Packet Radio | |
| 439.100 | | APRS | |
| 439.125 | | Internet gateways | |
| 439.150 | | Internet gateways | |
| 439.275 - | 439.775 | REPEATER OUTPUTS - 5.0 MHz offset (legacy) | (Note 6) |
| | | | |
| 439.800 - | 439.9875 | REPEATER OUTPUTS Group B (5 MHz offset) | (Note 6) |
| | | | |
| 440.025 - | 440.975 | REPEATER LINKS - Group B | (Note 7) |
| 441.000 - | 442.975 | GENERAL USE / EXPERIMENTAL | |
| | | | |
| 443.000 - | 450.000 | ATV | (Note 8) |

**Note 1: Narrow Band Modes**
This segment is reserved for modes such as CW, digital modes and SSB with bandwidths up to 4 kHz. Weak signal operation has absolute priority. Calling frequencies should be used only to make initial contact and then vacated as soon as possible. Please avoid any terrestrial operation within the EME segment. The "Digital DX modes" segments include recommended spot frequencies for SSB-based digital modes, on the same pattern as in Note 1 of the 2 metre band plan.

**Note 2: Beacons**
Beacon frequencies are allocated on a call area basis, e.g. VK1: 432.410 - 432.419, VK2: 432.420 - 432.429 etc. Beacon frequency spacing is 2 kHz. The beacon segment should be kept clear of other transmissions.

**Note 3: Amateur Satellites**
The satellite segment should be kept clear of all terrestrial operation.

**Note 4: LIPD Allocation**
Stations operating between 433.050 and 434.790 MHz may experience interference from LIPDs ("Low Interference Potential Devices"). Repeaters have no protection from interference caused by LIPDs.

**Note 5: Simplex**
FM channel spacing is 25 kHz. Channels reserved for special purposes should be kept clear of other operation.

**Note 6: Repeaters**
Channel spacing is 25 kHz for repeaters occupying 16 kHz bandwidth, or 12.5 kHz for repeaters occupying 10.1 kHz bandwidth.

New repeaters licensed in the repeater output segment 438.025 - 438.775 will have a 7.0 MHz offset. Existing repeaters can remain on 5 MHz offset until they relocate their receivers away from the LIPD band.
New repeaters licensed in the repeater output segment 439.8 - 440.0 will have a 5.0 MHz offset.
Existing repeaters in the repeater output segment 439.275 - 439.775 may remain but no new repeaters will be allocated in this band segment.

**Note 7: Repeater Links**

Link bands A and B provide a 10 MHz offset pair.
Where a link transmitter is co-sited with a 70cm repeater, the link will be allocated to the band segment 430.025 - 430.400 MHz. Corresponding co-sited 70cm repeaters will be confined to the 438.650-438.950 band segment in order to provide at least 1.5MHz Tx/Rx separation.
New links at sites without co-sited 70cm repeaters will not be allocated in the 430.000 - 430.400 MHz segment. Repeaters will not be primarily allocated in the 438.650 - 438.950 MHz segment for the same reason.
Links operating in the 441.000 - 443.000 MHz link segment can continue if required, however the primary future use for this segment is General / Experimental.
Repeater Link band C (434.000 - 434.775 MHz): This segment is to be used mainly with co-site 70cm that need Tx/Rx separation between repeater output and link receivers around 440 MHz. With most repeaters moving below 439 MHz, further link allocations in the 441 - 443 MHz segment will be only as a last resort. The link sub-band 434.0-434.25 will be available for sites which have an existing 70cm output allocation of 439.8-440.0 MHz.

**Note 8: Amateur Television**
AM transmissions must be VSB only. Video carrier frequency 444.250 MHz. For digital ATV, the recommended standard is DVB-T using a 7 MHz bandwidth centred on 446.500 MHz.

**Note 9: Legacy fixed amateur licences**

Existing legacy repeater, IRLP and AX25 licences allocated prior to September 2015 may remain on their existing channels unless the licensees choose to initiate a frequency change. New services will be planned around these pre-existing licences.