WIA Australian Band Plan Review

2025

Consultation TAC-2025/01

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1 Introduction

The last major revision of the Australian national Amateur Radio band plans administered by the WIA was carried out almost a decade ago. At that time, major changes were mostly made to the 30m, 2m and 70cm bands. With various changes to the Amateur Radio regulations since that time, including some spectrum losses and gains, it is now necessary to update the band plans to both reflect those regulatory changes as well as update them with information on current centres of activity. We have also used this as an opportunity to address many of the requests that have been received over the past 2-3 years for changes to various bands.

As a result, the WIA TAC committee has reviewed each band and made recommendations for changes where appropriate. Areas being addressed include:

- Better highlighting centres of activity for various modes – particularly AM and Emergency call channels on the HF bands
- Reviewing band plans vs current on air practice to see if better alignment can be achieved (630m, 160m and others)
- Revising bands where new spectrum access has been obtained (the lower 2MHz of 6m for Standard calls)
- Revising bands where spectrum has effectively been lost (upper 200 MHz of the 9cm band)
- Provision of alternate narrow band segments on 13 and 9 cm to help with adjacent band interference scenarios
- Revising usage recommendations given our secondary service obligations (23cm, 9cm)
- Adding new segments for new areas of interest (FM repeaters on 13, 9, 6 and 3cm)
- Promotion of new or revised wireless broadband segments (13, 6 & 3 cm)
- Revision of ATV Segments considering the extensive adoption of Digital ATV modes today
- Review of repeater sub-bands and the growth of digital voice hotspots on 2m and 70cm
- Provision of band plan data for the Microwave mm wavelength bands (24-134 GHz) showing current centres of activity

Along with this, the intention has been to improve the way the band plans are presented visually to make them simple to understand and follow. Feedback on the new presentation style is also most welcome!

So, as you can see, a lot has happened since the last wholesale review. Now, this is your opportunity to have a say in areas where you have an interest. We are looking for feedback on the proposals so that we can determine which changes to take forward and which to leave behind.

1.1 The Process

The consultation process will be conducted as follows:

1. The paper will be released publicly via the WIA website on October 17th
2. Consultation responses can be sent to wia.tac.consultations@gmail.com
3. Responses will be accepted from any licenced radio amateur or amateur radio club based in Australia only. This is a domestic matter and is not relevant to people outside of Australia.
4. While requests for clarification on any of the material will be answered, discussion on alternative proposals will only be received, and then be considered after the deadline closes.
5. The Consultation will remain open to receive responses up until December 12th. (8 weeks)
6. Responses will not be published; however, they may be used as input to the outcomes & recommendations paper that is expected to be published before January 31st 2026.
7. A final revised Australian Amateur Service Band Plan will then be published by the end of the first quarter of 2026.

So, over to you! Your input is valuable so now it's time for you to have your say.

2 Band Plan Format and Presentation

2.1 Overall Presentation

The last WIA band plan to be released was prepared by the previous TAC chairman, John Martin. Unfortunately, with John's passing, the original band plan documents and artworks were lost. This has been the lead driver for the work to build a replacement master document describing the Australian Amateur Radio band plans.

We have taken this opportunity to also review the impacts of the in-force ACMA Australian Radiofrequency Spectrum plan on how amateur radio operators can use their allocated spectrum. We have set out to more clearly advise everyone of who the primary and secondary services in each band, and what that means for radio amateurs sharing various bands. We have also updated what licence classes can access which bands, given some of the changes to the Amateur Service Class Licence in Australia that has been implemented since the last band plans were published.

One notable addition this time is that we have added more information on known "Centres of Activity" for particular modes. While these are not "allocations" per se, they do provide guidance on where you might find others engaging in those activities. We hope this enhances readability and helps guide people to where they can find more activity with their favourite modes.

Feedback Request #1

We would welcome feedback on the new format and its readability and usability. If you have any suggestions for improvement, we would like to hear from you!

3 Frequency Allocation Review

As well as reviewing the look and field of the band plans, the opportunity has also been taken to consider ways of simplifying them and making them clearer to understand. In some cases, we have sought to make them less prescriptive as well. This has led (particularly on the UHF/SHF bands) to a proposed simplification of the band plans in some cases, with more space set aside for “EXPERIMENTAL / ALL MODE” activity and less assigned to specific uses.

On the HF bands, several spot modifications have been proposed (predominantly around the Australian Emergency Communications centres of activity). Additional information has also been provided looking to explain the differences between “dial frequencies” on a radio and the actual frequency where the transmission is taking place (particularly relevant to narrow band data modes such as WSPR). Guidance on the highest or lowest “dial” frequency to use for some modes has also been provided to help people stay within the amateur spectrum.

Another area where some changes are proposed involves the management of digital ATV and the sideband noise D-ATV transmitters generate. With the near total demise of FM-ATV activity on 1.2 GHz and above, DVB-ATV has come to the fore as the primary TV transmission mode used by amateurs. This has prompted some changes to the ATV allocations.

Finally, we have had several requests for changes to the band plans to accommodate new modes, or frequency allocations to specific modes of operation. These are either included or have at least been raised for discussion within the Amateur Service. Your feedback is most welcome.

4 LF/MF Bands - Proposals

4.1 2200m Band Plan

No changes are proposed on this band.

4.2 630m Band plan

4.2.1 Proposed Revision of the 630m Band Plan

A substantial change is proposed for this band following discussion with several prominent active VK LF operators. The change involves rearranging the SSB vs CW segments and better articulating where the DATA segment is both in terms of live emission and USB dial frequency.

Full details of the proposal can be found in section 9.2 of this paper.

Feedback Request #2

Feedback is welcome on whether the proposed changes to the 630m band plan outlined in section 9.2 below are supported or whether to leave the plan as it currently is.

4.3 160m Band plan

4.3.1 Identification of 160m AM mode Centres of Activity

New references are included in the new Centres of Activity section seeking to highlight where existing AM VOICE activity occurs. Section 9.3 contains the proposed changes.

Feedback Request #3

Feedback is sought as to whether the included 160m AM Centres of Activity section correctly captured the activity as it is today.

5 HF Bands - Proposals

5.1 80m Band plan

5.1.1 Identification of 80m AM mode Centres of Activity

New references are included in the new Centres of Activity section seeking to highlight where existing AM VOICE activity occurs. (See section 9.4)

Feedback Request #4

Feedback is sought as to whether the included 80m AM Centres of Activity section correctly captured the activity as it is today.

5.1.2 Revise 80m Emergency Communications Centre of Activity

A proposal is also included to move the Emergency Communications centre of activity away from 3600 kHz as currently, use of that channel in LSB VOICE mode places voice user emissions inside the DATA Priority band segment.

Feedback Request #5

Feedback is sought, particularly from WICEN and other similar communities, on whether a move to 3610 kHz for Emergency Communications on 80m in Australia would be supported.

5.2 40m Band plan

The current proposed changes to this band are only minor at this stage and involve delivering improved clarity for two main centres of activity rather than any major reshuffle of general allocations. Any more significant changes to this band will only be considered after the IARU project examining the matter reaches its conclusion. See Section 9.5 for the full details of this band.

5.2.1 Identification of 40m AM mode Centres of activity

New references are included in the new Centres of Activity section seeking to highlight where existing AM VOICE activity occurs.

Feedback Request #6

Feedback is sought as to whether the included 40m AM Centres of Activity on 7125 kHz correctly captures the existing activity as it is today.

5.2.2 Revise 40m Emergency Communications Centre of Activity

A proposal is also included to move the Emergency Communications centre of activity away from the current Australian nominated frequency of 7075 kHz as current use of that channel in LSB VOICE mode overlaps with the global FT8 data centre of activity on 7074 kHz.

The recommendation is to move the Australian Emergency Communications channel to 7100 kHz to stay within the primary amateur radio spectrum segment of the band.

Feedback Request #7

Feedback is sought, particularly from the WICEN and similar communities, on whether a move to 7100 kHz for the Emergency Communications Call channel on 40m in Australia would be supported.

5.2.3 Formally Identify 7074 – 7080 kHz as DATA

A proposal is also included to formally recognise what has become the de facto global HF data segment for WSJT type DATA modes (including JS8Call). To this end, a DATA sub-band is proposed to be identified between 7074 – 7080 kHz with it discontinued for SSB Voice use.

Feedback Request #8

Feedback is sought, on whether finally recording that the segment 7074 – 7080 kHz on 40m is a global DATA sub-band is the right thing to do.

5.3 30m Band plan

5.3.1 Revise 30m SSB Recommended Sub-Band

New guidance is proposed for where VK operators should use SSB voice mode on 30m. Given VK is the only country that permits 30m SSB, and that the band plan is about guiding people to band segments where the least amount of impact to other operators is made, the new recommendation is that SSB activity be limited to between 10120 – 10128 kHz (USB Dial). This is a combined downshift shift and a small reduction in the amount of spectrum available. Activity below 10125 kHz should be particularly mindful of CW operators, and activity above 10130 should be discouraged due to the severe interference it can cause to international DATA DX communications that frequent that band segment.

Feedback Request #9

Feedback is sought on the revised SSB VOICE operating window on the 30m band being specified to cover 10120 – 10131 kHz (with 10128 kHz the highest USB dial frequency used), given the growing amount of international DATA mode activity above 10130 kHz. This means SSB above 10130 would be discouraged.

5.4 20m Band plan

5.4.1 Revise 20m Emergency Communications Centre of Activity

It is proposed that the WICEN / VK Emergency Communications channel of 14125 kHz consider realigning to the IARU Region 3 Emergency Communications frequency of 14300 kHz.

Feedback Request #10

Feedback is sought, particularly from the WICEN and similar communities, on whether a move to 14300 kHz for Emergency Communications on 20m in Australia would be supported in alignment with the IARU Region 3 band plan.

5.5 17m Band plan

No changes are proposed for 17m.

5.6 15m Band plan

No changes are proposed for 15m.

5.7 12m Band plan

5.7.1 Revise 12m Emergency Communications Centre of Activity

IARU Region 3 does not currently define an Emergency Communications frequency on 12m yet WICEN has nominated 24950 kHz. The problem observed with 24950 kHz is that it is in the middle of the prime DX VOICE activity found on the band internationally.

As a result, the proposal is to either a) remove the Emergency Communications designation completely, or b) define 24985 kHz as the new 12m Emergency Communications frequency to give it some separation from other amateur activity.

Feedback Request #11

Feedback is sought, particularly from the WICEN and similar communities, on whether 24950 kHz remains a suitable VOICE Emergency Communications channel in Australia or whether it should either a) move to a different frequency (24985 kHz is proposed) or b) should just be instead dropped as a centre of activity given it is not defined in the IARU Region 3 band plan.

5.8 10m Band plan

No changes are proposed for 10m.

6 VHF Band Plans

6.1 6m Band plan

There are some substantial changes proposed for 6m. These are driven predominantly by Standard class amateurs gaining access to the full band, as well as the rapid growth in DATA DX mode interest globally on 6m.

6.1.1 Revised DATA DX mode sub-band 50.180-50.330 MHz

A new DATA modes priority segment encompassing all data mode activity (EME, Meteor Scatter, FT8, Q65, JT65 etc) is proposed between 50.180 - 50.330 MHz. This recognises the common DATA mode centres of activity for EME, Meteor Scatter and Weak Signal ionospheric propagation now established worldwide.

Feedback Request #12

Feedback is sought on whether this 6m DATA mode segment revision (50.180 – 50.330 MHz) is supported by the Amateur Radio community in Australia.

6.1.2 New General Experimental sub-band 52.0-52.5 MHz

It is proposed to proceed with withdrawal of the separate legacy narrowband segment between 52.000-52.500 MHz now that standard grade licensees have access to the whole band and replace it instead with a wideband 'All Modes' modes segment. This opens the door for initial narrowband ATV experiments to take place (provided ATV operators take care that their upper sideband emissions do not disturb the FM simplex and repeater operators above 52.5 MHz).

This also means that the previous 2015 proposal to expand the 6m repeater segment has been shelved. This isn't seen as a significant impact, given the number of 6m repeaters that are not actually currently active even within the existing repeater segment.

Feedback Request #13

Feedback is sought on the merits of converting this band segment to an EXPERIMENTAL – ALL MODES segment focused on future wideband (up to 500 kHz BW) experimental modes or whether to continue with the original plan of expanding the 6m FM repeater channels into this segment.

6.1.3 Withdrawal of legacy beacon segment 50.280-50.320 MHz

It is planned to withdraw the legacy beacon segment between 50.280-50.320 MHz, clearing it for DATA users

Legacy beacons on withdrawn sub-bands can remain until the operators decide they wish to migrate into the 50.4 – 50.5 MHz sub-band.

Feedback Request #14

Feedback is sought on the merits of withdrawing this band segment for new 6m beacons and how much incentive should be provided for legacy beacons to complete the move to frequencies above 50.4 MHz.

6.2 2m Band plan

6.2.1 Repeater Block D/E Use Requirements tightened (-1.6 MHz offsets)

It is proposed to tighten the conditions under which -1.6 MHz offset repeaters can be assigned. Specifically, it is proposed that -1.6 MHz split repeaters are only to be assigned in channel Block D and E (147.0125 – 147.3875 MHz) only where an attempt has been made to first assign and operate a repeater on a +/- 600 kHz offset frequency pair, which has then failed due to collocated Land Mobile Service stations operating 600 kHz apart.

Several repeater operators have been applying for '-1.6 MHz' repeater offsets simply as a cost mitigation measure (cheaper filters). However, the issue with these repeater pairs is the impact they have on the FM simplex community between 145.4-145.8 and on the digital repeater band availability on 144.900 - 145.050 MHz. Every Block D and E frequency pair consumes effectively 2 repeater pairs in a district, as it blocks both a Block B and C frequency. Therefore, their use should be limited to only cases where the co-site commercial VHF services make a 600 kHz offset unworkable.

Feedback Request #15

Feedback is sought on the tightening of the allocation rules for repeater Block D and E -1.6 MHz repeater frequency pairs so that they are only allocated in cases where they are the last resort solution to overcoming co-site intermodulation interference from commercial VHF services.

7 UHF / SHF Band Plans

7.1 70cm Band plan

There are four substantial changes being considered for the 70cm band plan.

7.1.1 Expansion of the '-7 MHz' offset repeater sub-bands

Firstly, following the review of the responses to the 2023 consultation on this band plan, we are proposing to proceed with extending the 70cm '-7 MHz' offset repeater plan to include all repeaters between 439.625 MHz and 439.9875 MHz. The inputs for these repeaters coincide with the existing '-5.4 MHz' offset channels between 432.625 - 432.9875 MHz. What this enables is more frequency combining opportunities for repeater owners to multi-couple analogue and digital repeaters together into common antenna systems.

Given the positive response to this original proposal from the first round of consultations held in 2023, the WIA will move to include this change in the next release of the band plan.

7.1.2 Discontinuation of legacy offset repeater sub-bands

The second major change is to formally remove options for legacy repeater splits across most of the band. Specifically:

1) All new or modified repeater assignments between 438.025 - 438.925 MHz should now use -7 MHz offsets ONLY, with the old -5 and -5.4 MHz offsets previously used within that band segment being discontinued.
2) All new or modified repeater assignments between 439.625 - 439.7875 MHz will also only use -7 MHz offsets
3) All new or modified repeater assignments between 439.800 - 439.9875 MHz will still have the choice of using -7 MHz or -5 MHz offsets, but with the preference being for -7 MHz offset.
4) Having said that, existing repeaters in these segments will not be forced to move to -7 MHz unless they wish to make a change to their existing allocation licence conditions.
5) Repeaters in the old 439.275 - 439.625 MHz segment can continue until such time as they need to make a change to their technical licence conditions. Should a change be required (as initiated by the repeater operator) then the licence holder should expect to be reassigned a new frequency from one of the current -7 MHz repeater channels.

This will dramatically simplify the 70cm repeater band, permanently resolving interactions with the LIPD Class Licenced devices in 433.05 - 434.79 MHz, and removing confusion for repeater users in that only one offset (-7 MHz) will be used across Australia on the band into the future (except for the 439.8 - 440.0 MHz repeaters for the time being).

Feedback Request #16

Community feedback is sought on the proposal to completely discontinue access to old -5.4 MHz and -5.0 MHz repeater channel offset frequency pairs (excluding the 439.800 - 439.9875 MHz segment which can continue to choose either -5.0 or – 7.0 MHz offsets). Existing repeaters remaining on the other splits are "encouraged to move frequency" but it will not be mandatory.

7.1.3 Reintroduction of repeaters to 439.275 – 439.600 MHZ with '-5 MHz' offsets

A proposal has been raised to re-open the 439.275-439.600 MHz sub-band for new repeater allocations.

Legacy repeaters had been allowed to remain in this segment since the 2015 band plan revision, but it hasn't been available for new allocations since that time. The original reason the sub-band was removed from new repeater allocations was to:

a) provide sufficient spectrum space for simplex unassigned activity on the band (as unlike 2m, there was previously only 300 kHz identified for such activity, so the 2015 plan sought to expand that out to 850 kHz).
b) address the risk that new amateur repeaters would receive interference from LIPD devices, for which the ACMA had declared they would not provide interference protection for repeater stations against such interference
c) it allowed an additional repeater link band option to be created in the 434.0-434.775 MHz band which was intended to offset the loss of the 420-421 MHz allocation.

The new proposal is to allow repeaters using 5 MHz offsets back into the 439.275-439.600 MHz segment, using 5 MHz offsets. The aim was to:

a) allow such assignments when the new proposed repeater was deemed a "secondary" or "infill" type repeater in an area.
b) Further, it would place additional registrations in the ACMA Radiocommunications Register of Licences (RRL) showing the amateur service occupancy of the band.

The impact however is that:

a) The LIPD interference risk is restored
b) Simplex spectrum would (after considering 7.1.1 above) be reduced back to 300 kHz (which is partially offset by the new hotspot band being defined between 441.0-441.5 MHz).
c) It would require the removal of Link Band D from 434.000-434.775 MHz from the band plan, placing future restrictions on 70cm based link repeater network architectures.

Feedback Request #17

Community feedback is sought on whether to:

a) support a proposal to reintroduce repeaters into the 439.275-439.600 MHz sub-band noting the justifications and impacts presented above; or,
b) leave this band segment clear for simplex and general use activities.

7.1.4 Establishment of a new DMR/DSTAR/FUSION/P25 hotspot sub-band

With the rapid growth in users operating local hotspots (internet gateways) to access global digital voice networks, such as the multiple DMR, DSTAR, FUSION and P25 networks that abound these days, the is becoming clear that the current Digital Voice simplex channel capacity is inadequate.

Given the level of interest and activity in hotspots, and in particular the need to provide direct guidance on the best part of the band to operate them on (including helping steer people away from interfering with the Amateur Satellite Service), a new sub-band is proposed in the 441.000-441.500 MHz band for hotspot users to conduct their activities in.

Feedback Request #18

Feedback is sought on whether:

a) People agree that more hotspot space is required.
b) Is 500 kHz sufficient – or should there be more or less?
c) Is the placement of the activity in the 441 - 442 MHz band segment acceptable?

7.1.5 Designation of repeater channels for specific uses

The WIA has received a specific request to consider dedicating at least 2 repeater channels in the 70cm band plan specifically for use on the VK-DMR network. The aim as we understand is to better promote and highlight the VK-DMR network as being one of the largest on air linked digital voice networks in the country (with points of presence in almost every state except VK6).

It is fair to say that while we applaud ways of promoting DMR (and indeed any new or innovative mode) in general, the idea that it needs to be promoted by being given the privilege of having two specific named channels for DMR in the band plan is not in our view a positive way of supporting the request.

There are some very practical reasons for not wanting to name specific channels:

1) There are no universally clear channels available nationally today – so the naming would end up being state by state – causing additional complexity

2) Restricting site frequency selection agility, particularly on multi-coupled common antenna repeater sites, places constraints on frequencies based on the existing repeater's frequency pair which will often conflict with a notional national channel plan that seeks to direct DMR to use specific frequencies. This could have the opposite effect of preventing DMR repeater deployments.

3) The whole 70cm band plan is designed as -7MHz split, 12.5 or 25 kHz bandwidth multi-mode operation today, except for a small number of repeaters between 439.800-439.975 which can still use -5 MHz offsets too. There is nothing restricting DMR (or any other digital voice mode) use of any current 70cm band plan channel. Creating named channels would seem to increase the restrictions, rather than reduce them.

4) The only named national frequencies should be for "AUSTRALIA WIDE" licenced portable stations that are on air for no longer than 7 days from any given location. These exist today and are labelled as WICEN USE. The thing that is special about them is their *portable itinerant nature* – aspects that warrant a special frequency management approach.

For the reasons presented above, the WIA does not recommend creating "operating mode" specific repeater channel plans, as we argue they will create a more restrictive environment than the fully open transparent opportunities currently available.

Feedback Request #19

Feedback is sought on whether it is:

a) appropriate to designate particular repeater pairs as suitable only for specific modes / technologies or;

b) is it better to allow the bandwidth to be mode agnostic and support all operating modes on any repeater channel pair (except for the special portable repeater category systems operating under AUSTRALIA WIDE licence types).

7.2 23cm Band plan

The amateur service has a secondary allocation in the 1240-1300 MHz frequency band (the 23 cm band) which is shared with a number other radiocommunication services which have primary status in the band. The amateur allocation has come under significant scrutiny following complaints of interference from some amateur stations to the primary radionavigation-satellite service (RNSS) users. The RNSS systems operating in the band are GLONASS and Galileo. The interference resulted in an agenda item for the 2023 World Radiocommunication Conference (WRC-23) and this agenda item resulted in the development of an ITU-R Recommendation (ITU-R M.2164) and a new footnote (**RR** 5.332A) being added to the Radio Regulations at WRC-23. The recommendation and footnote, developed by the member state representatives at the various working party and conference meetings, set forth instructions on how to mitigate interference from amateur service transmitters into RNSS receivers.

Following on from this, the CEPT in Region 1 published their response and approach to managing the issue, which has not fully adopted all the ITU-R recommendations, but which has found a way forward that imposes fewer restrictions on the amateur service than those given in the ITU-R recommendation.

Based on this outcome, the WIA is now considering how Australian radio amateurs can continue to use the band, and how we can minimise the risks of triggering our national regulator, the ACMA, to enact changes here.

7.2.1 Risk Mitigation of ITU Footnote 5.332A

While the response to the WRC-23 agenda item was developed under the condition that the amateur service access was not to be withdrawn, the outcome was that a sizable part of the band could be rendered unusable, should further instances of interference to the radionavigation-satellite service be reported to national administrations. At WRC-23 the following footnote was added to the table of frequency allocations in the Radio Regulations:

> ***5.332A*** *Administrations authorizing operation of the amateur and amateur-satellite services in the frequency band 1 240-1 300 MHz, or portions thereof, shall ensure that the amateur and amateur-satellite services do not cause harmful interference to radionavigation-satellite service (space-to-Earth) receivers in accordance with No. 5.29 (see the most recent version of Recommendation ITU-R M.2164). The authorizing administration, upon receipt of a report of harmful interference caused by a station of the amateur or amateur-satellite services, shall take all necessary steps to rapidly eliminate such interference. (WRC-23)*

The WIA expects ACMA will also add this footnote to the Australian Radiofrequency Spectrum Plan.

The ACMA, by entering the footnote into the Australian Radio Spectrum Plan will set up the environment such that if a report of interference is made by users of the radionavigation-satellite service in Australia, they can then act quickly to amend the Amateur Class Licence and thus bring the measures given in Recommendations ITU- M.2164 into effect for Australian radio amateurs. The mitigation measures, described in ITU-R M.2164, severely limit amateur use of the band, specifically in the range 1258-1298 MHz, but also in 1240-1256 MHz.

To avoid this worst-case scenario, the WIA is recommending Australian radio amateurs observe the following voluntary changes to the 23 cm band plan, which are designed to remove the highest probability risks that amateur activity could cause interference. It is hoped that by making these pre-emptive changes to amateur activity on the band, that there will be no need to introduce the measures described in Recommendation ITU-R M.2164 into the Amateur Class Licence.

The specific voluntary changes proposed are:

1. Amateur TV repeater outputs will no longer be endorsed on the 23 cm band (they are best placed on 70 cm, 13 cm or 9 cm) and all remaining ATV activity on the band should focus on point-to-point ATV transmissions using directional antennas (e.g. uplinks to TV repeaters or point to point transmissions). Operators are also

encouraged to use the minimum transmitter power to achieve a reliable link and should note the withdrawl of explicit ATV activity segments above 1260 MHz in this new plan.

2. The current low duty cycle FM repeater activity may continue on the 1273/1293 MHz sub-bands but again, amateurs should look to use only the power necessary to support communications. High power should be avoided where possible. (Note: If the measures provided in M.2164 are implemented, there are no future options for 23 cm FM voice repeaters to continue to operate.)

3. High power operations (such as EME) should only occur above 1298 MHz (where we expect a new global EME segment will also be defined).

By proactively avoiding the riskiest activities, the amateur service should be able to limit the chances of interference complaints triggering formal action by ACMA. This is also in line with being a “Secondary Service” on this band.

The changes proposed here offer an outcome that should maximise continued use while minimizing interference risks.

Feedback Request #20

The full new draft 23cm band plan is included below in section 9.15. Feedback is most welcome on the proposed new band arrangements.

7.3 13cm Band plan

7.3.1 Supporting Narrowband Users in areas with high Wi-Fi utilisation

Narrow band users on the band have been reporting difficulties using the main 2403 - 2403.6 MHz narrowband modes segment for some time predominantly due to interference from Wi-Fi systems operating under the ISM licence that shares this band.

While the WIA does not propose to move the existing segment, we have taken steps to acknowledge a small additional narrowband use segment at the bottom of the band below Wi-Fi Channel 1 between 2400.0-2400.4 MHz, which amateurs can use as a local alternative should they need to.

In addition, for reference, we now clearly call out the NZ / JA Narrowband activity segment at 2424 MHz which may be useful for any attempts at trans-Tasman communications with our ZL neighbours on this band.

Feedback Request #21

Do you support the addition of a *secondary* narrow band segment between 2400.0-2400.4 MHz as an alternative where local Wi-Fi interference renders the primary sub-band unusable?

7.3.2 Introduction of VOICE REPEATER sub-band options

The WIA in 2024 was approached by a group interested in establishing FM voice repeaters on the bands between 2GHz - 10GHz. Given these weren't supported by the current band plans, a proposal has been developed to open a new 20 MHz offset VOICE REPEATER segment on the band, in the hope of stimulating new uses and activity on 2.4 GHz. The choice of offset was aligned with the arrangements in Japan, which has an established SHF band activity base.

Feedback Request #22

Do you support the addition of a duplex 20MHz offset FM voice repeater segment on the band operating on 2405 - 2406 MHz Repeater RX, 2425 - 2426 MHz Repeater TX?

7.3.3 Redefinition of ATV Channel Use

The WIA has left the 2x 20 MHz ATV segments intact, however the focus now has been to define these principally for DVB-ATV (either DVB-S or DVB-T). The centre frequencies nominated follow advice from the ATV community on existing hardware constraints that require channel centre frequencies to fall on frequency increments of whole 1 MHz numbers (not 0.5 MHz as previously used).

7.3.3.1 Digital ATV Channels

- 2411.000 – DVB ATV Channel 1 (Centre)
- 2419.000 – DVB ATV Channel 2 (Centre)
- 2435.000 – DVB ATV Channel 3 (Centre)
- 2443.000 – DVB ATV Channel 4 (Centre)

7.3.3.2 Analogue ATV Channels

- 2415.000 – FM ATV Channel 1
- 2439.000 – FM ATV Channel 2

Feedback Request #23

Do you support the revised DVB ATV Channel allocations on 13cm?

7.4 9cm Band plan

The WIA wishes to remind amateurs firstly that while a substantial part of the band (3400-3600 MHz) has been withdrawn from amateur use over most of Australia (except the remote interior), the band 3300-3400 MHz is open and should be targeted for increased usage.

7.4.1 Additional secondary Narrowband Segment Defined

The WIA originally consulted in 2023 on a proposed change to the 9cm band, specifically discussing whether to fully relocate the narrowband modes segment away from the upper band edge (where some amateurs have reported severe interference from the National Broadband Network's Wireless Broadband service).

Feedback received at the time mostly did not support moving the existing 3398 narrowband segment. In this edition, that feedback has been respected, however, to support those who are experiencing interference, an alternate narrow band segment has now been defined at 3385 – 3387 MHz.

Feedback Request #24

Do you support the addition of a *secondary* narrow band segment at 3385-3387 MHz to provide an option for those suffering from adjacent band interference from the NBN on 3398 MHz?

7.4.2 Wideband Activity Replan noting ITU-R Footnote 5.149

The previous consultation also proposed changes to the allocation of wideband channels for amateurs on the band. This was driven by an acknowledgement of ITU Footnote 5.149 regarding Radio Astronomy interference obligations when using the band. That footnote specifically calls for spectrum users to avoid the segments 3332-3339 MHz and 3348.8 – 3352.5 MHz within range of radio astronomy facilities. In recognition of this, the wide band channel plan has been revised. As this is a matter of executing on our secondary service obligations, these changes will appear in the next published band plan.

7.4.3 Introduction of VOICE REPEATER sub-band options

For the same reasons as those that drove the voice repeater proposal for 2.4 GHz, a new 40 MHz offset repeater pair has been proposed for the 3.3 GHz band.

Feedback Request #25

Do you support the addition of a duplex 40MHz offset FM voice repeater segment on the band operating on 3383 - 3384 MHz Repeater RX, 3343 - 3344 MHz Repeater TX?

7.4.4 Redefinition of ATV Channel Use

The WIA has rearranged the wideband use for this band in order to respect the radio astronomy restrictions in the middle of the band. As a result, the following DVB-ATV 8 MHz channels are available on this band:

- 3326.000 – DVB ATV Channel 1 (Centre)
- 3377.000 – DVB ATV Channel 2 (Centre)
- 3393.000 – DVB ATV Channel 3 (Centre) – preferred for ATV repeater outputs

Feedback Request #26

Do you support the revised DVB ATV Channel allocations on 9cm?

7.5 6cm Band plan

The 6cm band plan has been revised in several areas. The principal changes have sought to accommodate new activity types and also align the data channels with the Wi-Fi bands to provide easier pathways to amateur wide area networking.

7.5.1 Introduction of VOICE REPEATER sub-band options

As per 2.4 and 3.3 GHz, a new 40 MHz offset voice repeater allocation has been proposed, following enquiries from users.

Feedback Request #27

Do you support the addition of a duplex 40MHz offset FM voice repeater segment on the band operating on 5770 - 5775 MHz Repeater RX, 5730 - 5735 MHz Repeater TX?

7.5.2 Rearrangement of Wideband Channel Plans

The wideband (20 MHz) data and voice channels have been combined to create 40 MHz data channels that now align with existing Wi-Fi channels on the band. The aim here is to improve support for the Ham Meshtastic and other similar networking experimenters. The 20 MHz voice channels had never to our knowledge been utilised and so did not appear to be a useful addition to the band plan.

The narrowband (<250 kHz) voice simplex spectrum has been optimised in the shuffle of the data channels

Feedback Request #28

Do you support the removal of the unused 20 MHz wide voice channels and combining them into 40 MHz wide DATA channels aligned with the Wi-Fi channel raster?

7.5.3 ATV Channels redefined for DVB digital modulation

The ATV channel allocations have remained at 20 MHz bandwidth, but new centres of activity have been defined to better facilitate a clear understanding of where to operate DVB based ATV om the band. The following 10 MHz wide channels are defined, which are sufficient for a 5000 Msymbol/s DVB transmission + guard bands for the side-band emissions.

7.5.3.1 Digital ATV Channels

- 5675.0 - D-ATV Channel 1
- 5685.0 - D-ATV Channel 2
- 5740.0 - D-ATV Channel 3
- 5750.0 - D-ATV Channel 4
- 5820.0 - D-ATV Channel 5

7.5.3.2 Analogue ATV Channels

- 5680.0 - FM ATV Channel 1
- 5745.0 - FM ATV Channel 2

Feedback Request #29

Do you support the new clarified DVB ATV Channel plan proposed for the 6cm band?

7.6 3cm Band plan

The 3cm band plan has been revised in several areas.

7.6.1 Introduction of VOICE REPEATER sub-band options

A new 90 MHz offset voice repeater allocation has been proposed, following enquiries from users.

Feedback Request #30

Do you support the addition of a duplex 40MHz offset FM voice repeater segment on the band operating on 10335 - 10360 MHz Repeater RX, 10445 - 10450 MHz Repeater TX?

7.6.2 Rearrangement of Wideband Channel Plans

The wideband (20 MHz) data and voice channels have been combined to create up to 40 MHz wide data channels. The aim here is to improve support for the Ham data networking experimenters. The previous 20 MHz voice channels had never to our knowledge been utilised and so did not appear to be a useful addition to the band plan.

The narrowband (<250 kHz) voice simplex spectrum has been optimised in the shuffle of the data channels

Feedback Request #31

Do you support the removal of the unused 20 MHz wide voice channels and combining them into 40 MHz wide DATA channels (noting that other simplex voice spectrum has been proposed that can support up to 5 MHz wide voice transmissions if required)?

7.6.3 ATV Channels redefined for DVB digital modulation

The ATV channel allocations have remained at 20 MHz bandwidth, but new centres of activity have been defined to better facilitate a clear understanding of where to operate DVB based ATV om the band. The following 10 MHz wide channels are defined, which are sufficient for a 5000 Msymbol/s DVB transmission + guard bands for the side-band emissions.

The slots are still wide enough to accommodate 20MHz FM Analogue TV transmissions if people wish to use that mode as well, however digital ATV is the recommended as the preferred option.

7.6.3.1 Digital ATV Channels

- 10195.0 - D-ATV Channel 1
- 10205.0 - D-ATV Channel 2
- 10255.0 - D-ATV Channel 3
- 10265.0 - D-ATV Channel 4
- 10315.0 - D-ATV Channel 5
- 10325.0 - D-ATV Channel 6
- 10425.0 - D-ATV Channel 7
- 10435.0 - D-ATV Channel 8

7.6.3.2 Analogue ATV Channels

- 10200.0 - FM ATV Channel 1
- 10260.0 - FM ATV Channel 2
- 10320.0 - FM ATV Channel 3
- 10430.0 - FM ATV Channel 4

Feedback Request #32

Do you support the new clarified FM/DVB ATV Channel plan proposed for the 3cm band?

8 Remaining Microwave Bands

Apart from reviewing and updating the ITU documentation aspects of these bands, no new use recommendations have been made, although the narrow-band centres of activity have now been noted for 24, 47, 76, 122 and 134 GHz.

9 PROPOSED REVISIONS to the AUSTRALIAN AMATEUR RADIO BAND PLAN 2025

The Regulatory Environment

Our Amateur radio spectrum access rights in Australia are granted to us by the Australian Communications and Media Authority (ACMA), through each operator demonstrating competence in building and operating radio communications stations under the Australian **Radiocommunications (Amateur Stations) Class Licence 2023** and associated qualification recognition certificates and call sign assignments. The actual spectrum made available under this licence is defined in the Australian Radio Spectrum Plan, which follows **the International Telecommunications Union (ITU) Radio Regulations** to which Australia is a signatory.

The spectrum we use has various classifications and sharing arrangements that follow both domestic and international conventions. Two core classifications are whether our spectrum is:

- **PRIMARY** spectrum is where the Amateur Service can operate with an expectation of no harmful interference being received although specific sharing arrangements may apply in some cases
- **SECONDARY** spectrum is where the amateur service MUST not cause any interference to the primary spectrum holder and must accept all interference from the primary spectrum holder. That means if you hear something, even if it is not intelligible to you, do not then proceed to activate your transmitter on that frequency.

These outline the general priorities for who is responsible for interference coordination that we as the Amateur Service must follow when accessing the radio spectrum. These can be further modified by foot-notes in the radio spectrum plan as set out in the ITU radio regulations.

The final regulatory word on who is responsible for interference management then rests within the Radiocommunications Act 1992, and in the Amateur Class Licence. Specifically Part 3 section 15 “Operation of station – interference and spurious emissions” which states that “A person must not operate an amateur station if its operation causes harmful interference to radiocommunications”. Each individual operator is therefore responsible for not causing harmful interference.

However, if we were to stop there, conflicts would inevitably arise between different interest groups, particularly where some groups are less aware of their signal’s impact on another group’s activities or perhaps could not even detect the presence of the other groups signals given disparate modulation types and receiver bandwidths. To overcome this sort of problem, the Amateur Service takes inference management one step further.

The Voluntary Environment – Showing respect for fellow Amateur Radio operators

For many decades now, the amateur service, led by the **International Amateur Radio Union (IARU)**, has voluntarily sought ways to guide how the amateur radio spectrum is used, with the intent to minimise interference between different modes of operation. This is has been achieved by defining agreed spectrum use plans **(Band Plans)** that divide amateur spectrum into further usage segments, beyond the basic regulatory definitions, so as to reduce the chance of interference being caused between disparate transmission modes.

These ***band plans***, coordinated through the (IARU) (of which the WIA is the representative body here in Australia), are ***intended as guidelines that all radio amateurs are invited to respect and follow***. They are designed to reduce on air conflict by separating incompatible transmission modes into distinct spectrum sub-bands. They only successfully achieve their objectives when amateur operators show respect for each other's interests, and follow the band plans for their respective activities.

Band plans are also multi-tiered, with the top tier being the regional plans that are defined by the IARU (in our case, IARU Region 3). These are then converted into domestic plans, when required, in cases where domestic regulation may apply additional restrictions to the amateur spectrum in each country.

There are some basic principles underlying the IARU Region 3 Band Plans in these circumstances which are:

(1) In all cases of conflict between a band plan and the national regulations of a country, the latter shall prevail.

(2) Nothing in these band plans shall be construed as prohibiting different national arrangements, provided that harmful interference is not caused to stations in countries operating in accordance with the regional band plan.

(3) Notwithstanding item (2) above, Member Societies of IARU Region 3 are strongly urged to use these regional band plans as a basis for their national band plans.

This is how conflicts are resolved between national regulations and voluntary band plans.

Finally, all amateurs are urged to show respect on air for their fellow radio amateurs and for the other spectrum users who share spectrum bands with us. This fundamental principle is core to the harmonious use of our valuable and scarce amateur radio spectrum resources.

9.1 2200m Band

135.7 – 137.8 kHz – Secondary Service - Advanced Licensees Only

Spectrum Users

135.7 – 137.8 kHz [82 AUS68]

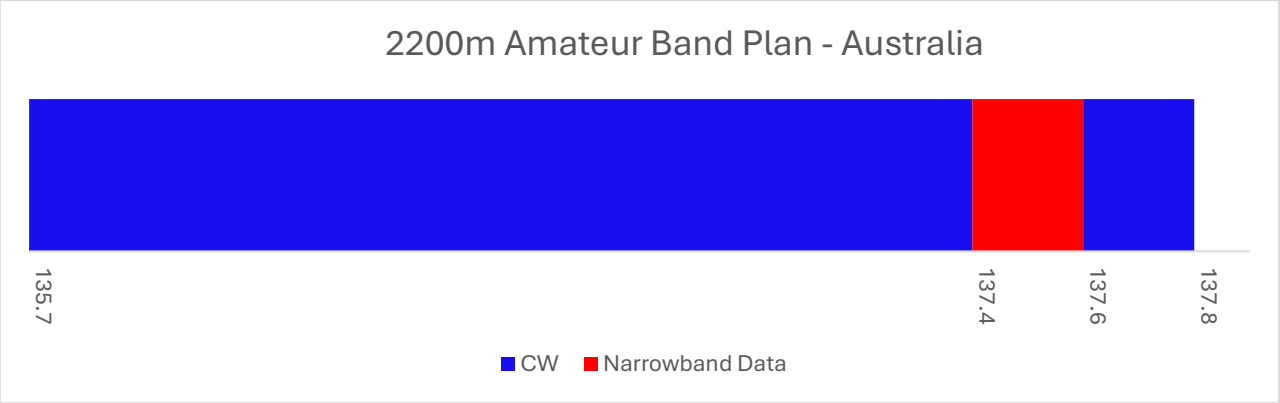
- **FIXED**
- **MARITIME MOBILE**
- **RADIONAVIGATION**
- *Amateur (Secondary)* [67A]

SECONDARY SERVICE NOTE:
Amateurs must not cause Harmful Interference to others.
Amateurs must accept Interference from the Primary user.

ITU-R Footnote 67A Stations in the amateur service using frequencies in the band 135.7–137.8 kHz shall not exceed a maximum radiated power of 1 W (e.i.r.p) and shall not cause harmful interference to stations of the radionavigation service

Amateur Band Plan

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
135.7	**137.4**	**CW**	< 500 Hz	**Priority**	
137.4	**137.6**	**DATA**	< 500 Hz	**Priority**	
137.6	**137.8**	**CW**	< 500 Hz	**Priority**	



Amateur Centres of Activity:

- 135.7 – 135.8 kHz – CW International DX Window
- 135.8 – 136.0 kHz – CW test transmissions and test beacons
- 136.5 – CW Centre of Activity
- 137.6 – 137.8 kHz – QRSS Slow CW

Proposed Centres of activity to be added

- *137.4 – 137.6 kHz – WSPR / FST4W – 136.0 kHz (USB Dial)*

9.2 630m Band

472 – 479 kHz - Secondary Service - Advanced Licensees Only

Spectrum Users

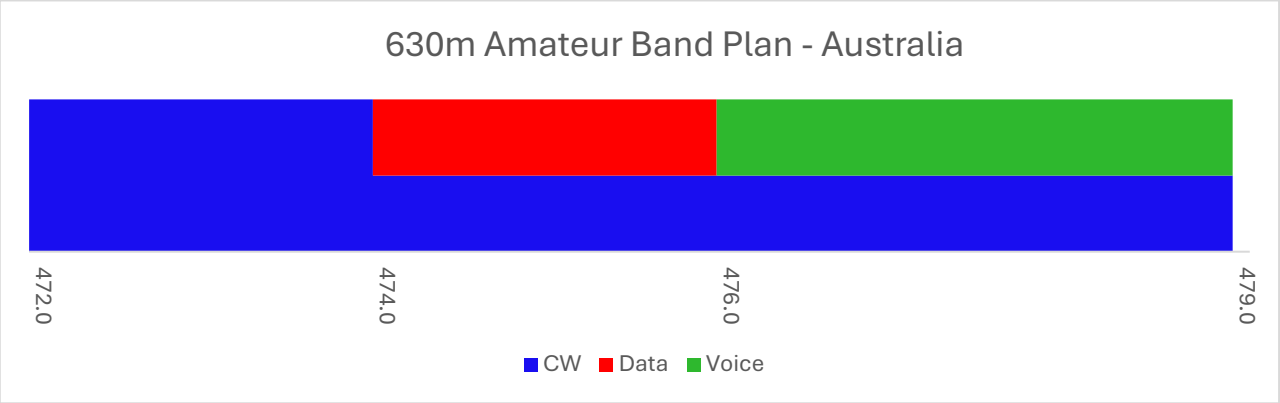
472 – 479 kHz [82 AUS68]

- **MARITIME MOBILE** [79]
- **AERONAUTICAL RADIONAVIGATION** [77 AUS49]
- *Amateur (Secondary)* [80A]

SECONDARY SERVICE NOTE:
Amateurs must not cause Harmful Interference to others.
Amateurs must accept Interference from the Primary user.

Australian Amateur Band Plan (Proposed April 2025)

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
472	**474**	**CW**	**< 500 Hz**	**Priority**	
474	**476**	**DATA** *CW*	< 500 Hz < 500 Hz	**Priority** *Shared*	Note DATA USB dial frequencies will be below 475 kHz in some situations
476	**479**	**VOICE** *CW*	**< 2.1 kHz** <500 Hz	**Priority** *Shared*	***NEW***



Amateur Centres of Activity (Proposed April 2025)

Previously the band plan recommended two centres of activity for SSB voice operation (479.3 kHz and 476.0 kHz). 479.3 kHz is no longer recommended as unless the audio passband is filtered correctly it will result in out of band emissions. 476 kHz is also not recommended as it will interfere with any WSPR weak signal data communications that are in progress.

To resolve the ambiguity of the current band plan, this new plan proposes that Lower Sideband voice transmissions occur solely within the 476 - 479 kHz portion of the band, using a the recommended LSB dial frequency of 478.5 kHz (placing all of the allowed 2.1 kHz emission within 476.4 - 478.5 kHz).

It is also worth noting that due to the very narrow nature of the band, that voice activity should be limited in nature to maximise the ability to share the band with as many users as possible.

Centres of Activity

- *475.6 – 475.8 kHz – WSPR / FST4W – 474.2 kHz (USB Dial) + 1400-1600 Hz*
- *478.5 kHz – Lower Sideband Voice (2.1kHz BW limited)*

9.3 160m Band

1800 – 1810 kHz – Primary Service (Shared) - Advanced Licensees Only

Spectrum users:

SHARED SERVICE NOTE:
Amateurs should not cause Harmful Interference to others.
Note the requirement to protect Loran C transmissions.

1800 – 1825 kHz

- **AMATEUR SERVICE – PRIMARY**

1825 – 1875 kHz [97]

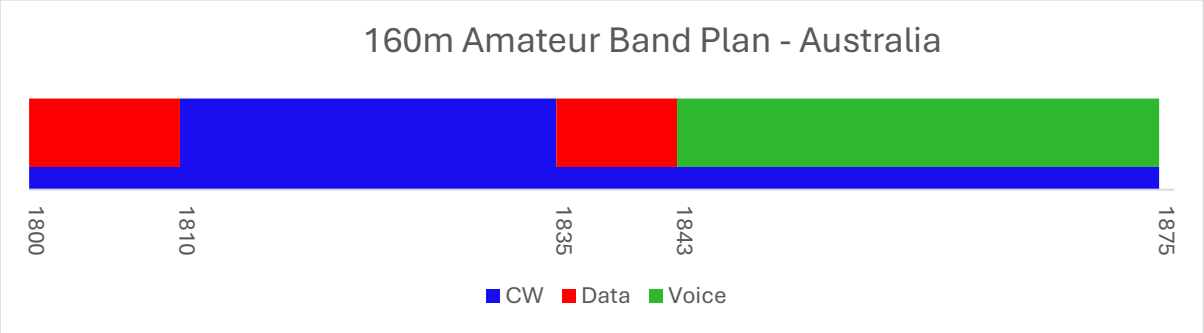
- **AMATEUR SERVICE – PRIMARY**
- RADIONAVIGATION – PRIMARY
- Radiolocation – Secondary

ITU Footnote 97

> *In Region 3, the Loran system operates either on 1 850 kHz or 1 950 kHz, the bands occupied being 1 825–1 875 kHz and 1 925–1 975 kHz respectively. Other services to which the band 1,800–2,000 kHz is allocated may use any frequency therein on condition that no harmful interference is caused to the Loran system operating on 1 850 kHz or 1 950 kHz.*

Amateur Band Plan

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
1800	**1810**	**DATA** *CW*	< 3kHz *< 500 Hz*	**Priority** *Shared*	Note: only available to Region II areas plus Australia
1810	**1835**	**CW**	< 500 Hz	**Priority**	
1835	**1840**	**DATA** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	
1840	**1843**	**DATA** *VOICE* *CW*	< 3 kHz < 6 kHz < 500 Hz	**Priority** *Shared* *Shared*	Voice AM activity in Australia on 1843 kHz should only occur DURING DAYLIGHT HOURS otherwise operate above 1850 kHz for AM
1843	**1875**	**VOICE / Image**	< 6 kHz	**Priority**	



Amateur Centres of Activity:

- *1835 - FT8 Fox/MSHV Expedition Mode – recommended (to avoid WSPR/FST4)*
- *1838 – 1838.2 kHz – WSPR/FST4 (USB dial frequency 1836.6)*
- *1838.2 – 1840 kHz*
  - *JT9/JT65 modes*
- *1840 – 1843 kHz - FT8 modes*
  - *FT8 1840 kHz (dial) – primary global network*
- *1843 kHz - AM Voice (Daylight hours only)*
- *1850 kHz and above – AM Voice (24x7)*

9.4 80m Band

3500 – 3700 kHz - Primary Service - All Licence Classes

3776 – 3800 kHz – Primary Service - Advanced Licensees only

Spectrum users:

3500 – 3700 kHz + 3776 – 3800 kHz

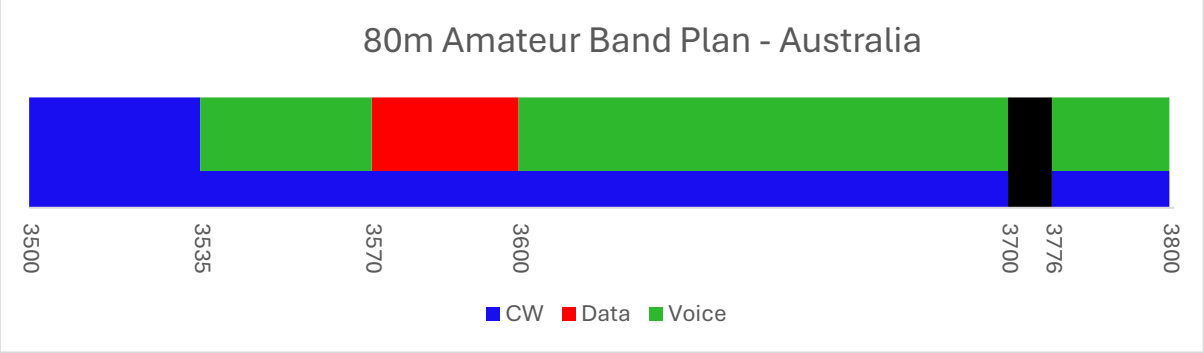
- **AMATEUR SERVICE – EXCLUSIVE**

Amateur Band Plan – All Licence Grades

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
3500	**3535**	**CW**	< 500 Hz	**Priority**	
3535	**3570**	**VOICE / Image** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	Lowest LSB dial 3538 kHz
3570	**3600**	**DATA** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	
3600	**3700**	**VOICE / Image** *CW*	< 6 kHz < 500 Hz	**Priority** *Shared*	Lowest LSB Dial 3603 kHz

Amateur Band Plan – Advanced Only

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
3776	**3800**	**VOICE / Image**	< 3 kHz	**Priority**	SSB DX WINDOW Lowest LSB Dial 3779 kHz



Centres of Activity (add to the band plan):

- *3560 kHz – CW QRP*
- *3570.0 – 3570.2 kHz – WSPR Data (USB 3568.6 kHz Dial)*
- *3570 – 3573 kHz - PSK/Weak signal Data*
- *3573 – 3579 kHz – WSJT Based Modes*
  - *FT8 Primary (3573 kHz USB Dial)*
  - *JT Modes (3576 kHz USB Dial)*
- *3690 kHz Voice QRP*
- *3620 kHz – AM activity*
- *3699 kHz – CW Training Beacon (VK2 originated)*

Frequencies VK Amateurs should avoid at night:

- *3585 - 3588 kHz*
  (HLL2 South Korea Weather Fax)
- *3622 - 3626 kHz*
  (JMH Japan Weather Fax)

Centres of Activity (proposed changes)

- *Move the WICEN Emergency Calling Frequency from 3600 kHz to 3610 kHz (to clear the data sub band).*

9.5 40m Band

7000 – 7100 kHz - Primary Service - All Licence Classes
7100 – 7300 kHz - Secondary Service - All Licence Classes

Spectrum users:

SECONDARY SERVICE NOTE:
Amateurs must not cause Harmful Interference to others.
Amateurs must accept Interference from the Primary user.

7000 – 7100 kHz

- **AMATEUR – PRIMARY**

7100 – 7200 kHz [AUS12 + ITU 141B]

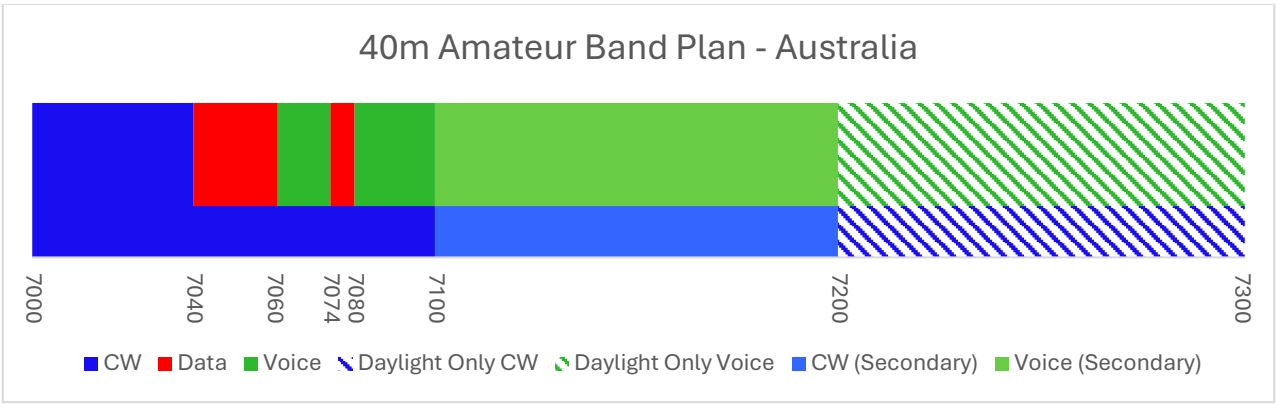
- **FIXED** – PRIMARY
- **MOBILE except aeronautical mobile** - PRIMARY
- *Amateur - SECONDARY*

7200 – 7300 kHz [AUS12 + ITU 141B]

- **BROADCASTING** - PRIMARY
- *Amateur - SECONDARY*

Amateur Band Plan

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
7000	**7040**	**CW**	< 500 Hz	**Priority**	
7040	**7060**	**DATA** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	
7060	**7074**	**VOICE / Image** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	LSB Voice Dial no lower than 7063 kHz
7074	**7080**	**DATA** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	***NEW** – noting global WSJT centre of activity*
7080	**7100**	**VOICE / Image** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	LSB Dial no lower than 7083 kHz
7100	**7200**	**VOICE / Image** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	Amateur Radio is a Secondary Service in Australia in this segment to FIXED and LAND MOBILE users
7200	**7300**	**VOICE / Image** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	Amateur Radio is a Secondary Service in Australia to BROADCASTING (Daylight only use possible)



Centres of Activity (Proposed changes)

- *Move the WICEN CoA from 7074 to 7100 kHz (remains within Australian Amateur Primary spectrum allocation)*

Centres of Activity (add to the band plan)

- *7030 kHz – CW QRP*
- *7040 – 7040.2 kHz – WSPR (USB Dial 7038.6)*
- *7046.9 – APRS 300 Baud (USB dial 7045.2 kHz with 1600/1800 Hz tones)*
- *7047.5 – 7050.5 kHz FT4 Global Primary (7047.5 USB dial)*
- *7050 – 7056 kHz Store and Forward Automatic Data (eg Winlink)- USB dial below 7053 kHz*
- *7056 – 7060 kHz FT8 Dxpedition (7056 kHz USB dial)*
- *7074 – 7077 kHz FT8 Global Primary (7074 USB dial)*
- *7077 – 7080 kHz JT/JS8 Data (7077 USB dial)*
- *7090 kHz – SSB Voice QRP*
- *7125 kHz – AM Domestic (preferred during daylight hours only)*
- *7171 kHz – SSTV*

9.6 30m Band

10100 – 10150 kHz – Secondary Service - Advanced Licensees Only

Spectrum users:

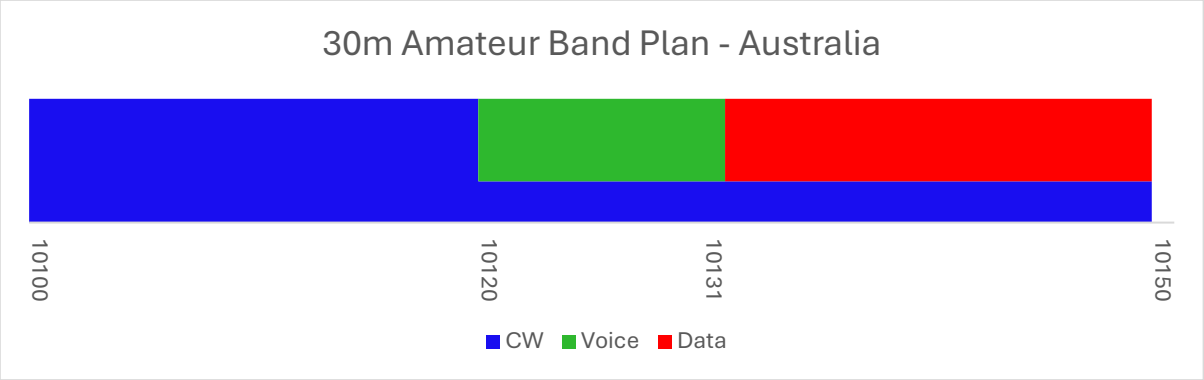
10100 – 10150 kHz

- FIXED – PRIMARY [AUS57]
- **Amateur – SECONDARY**

SECONDARY SERVICE NOTE:
Amateurs must not cause Harmful Interference to others.
Amateurs must accept Interference from the Primary user.

Amateur Band Plan

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
10100	**10120**	**CW**	< 500 Hz	**Priority**	10120 – 10150 kHz (Shared)
10120	**10131**	**VOICE** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	***NEW*** **-** Domestic Only USB (SSB) (proposed change) USB dial must remain below 10128 kHz
10131	**10150**	**DATA** CW	< 3 kHz < 500 Hz	**Priority** Shared	



Note: Only Australian Amateurs are permitted to use SSB on this band. SSB arrangements are purely domestic.

The proposed reduction to the VK Only voice sub-band is a result of the significant growth of global data mode activity above 10131 kHz.

Centres of Activity (add to band plan)

- *10131 – 10136 kHz – FT8 Expedition Primary*
- *10136 kHz – Global FT8 Primary*
- *10138.6 kHz (USB Dial) WSPR (10140.0-10140.2 kHz occupied BW)*
- *10140 kHz – Global FT4 Primary*
- *10147.6 kHz (USB Dial) APRS 300 Baud (10149.4-10149.6 kHz occupied BW)*

Note: The Australian Defence OTHR network is a legitimate primary user of this spectrum.

9.7 20m Band

14000 – 14350 kHz – Primary Service - Advanced and Standard Licensees

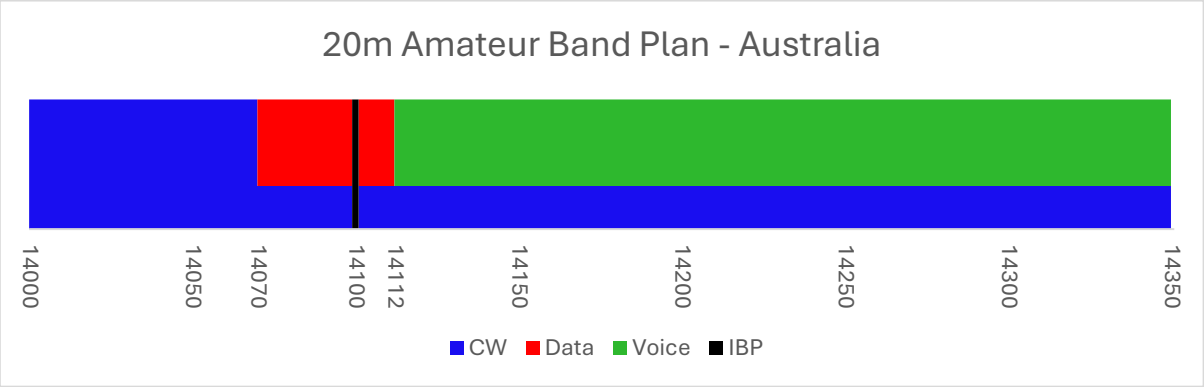
Spectrum users:

14000 – 14350 kHz

- **AMATEUR – EXCLUSIVE**

Amateur Band Plan

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
14000	**14070**	**CW**	**< 500 Hz**	**Priority**	
14070	**14099**	**DATA** *CW*	**< 3 kHz** < 500Hz	**Priority** *Shared*	
14099	**14101**	**IBP BEACONS**	**< 500 Hz**	**Priority**	
14101	**14112**	**DATA** *CW*	**< 3 kHz** < 500 Hz	**Priority** *Shared*	
14112	**14350**	**VOICE / Image** *CW*	**< 3 kHz** < 500 Hz	**Priority** *Shared*	Highest usable USB (SSB) dial frequency 14347 kHz



Centres of Activity

- 14125 kHz WICEN SSB
- 14230 kHz SSTV
- 14300 kHz IARU R3 Emergency Communications Calling Frequency

Centres of Activity (to add to band plan)

- *14060 kHz – CW QRP*
- *14070 – 14074 kHz – PSK/Olivia/Weak signal digital*
- *14074 kHz – FT8 Global Primary*
- *14080 kHz – FT4 Global Primary*
- *14096.0 – 14096.2 kHz - 14094.6 (USB Dial) WSPR*
- *14101 – 14112 kHz Store and Forward Automatic Data (e.g. Winlink)*
- *14285 kHz – Voice/ SSB QRP*

Proposal – 20m WICEN frequency to move to match IARU Region 3 Emergency Communications recommendations.

9.8 17m Band

18068 – 18168 kHz – Primary Service - Advanced Licensees Only

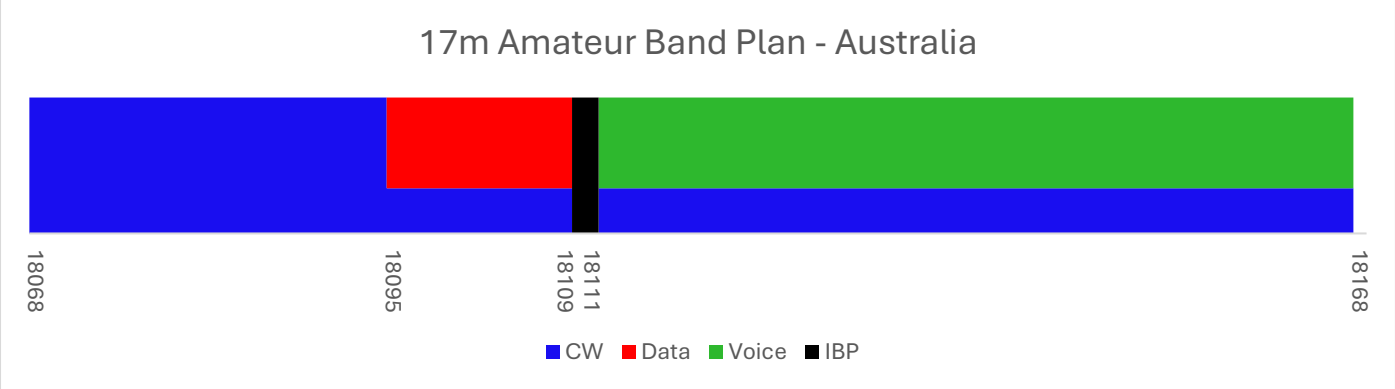
Spectrum Users

18068 – 18168 kHz

- **AMATEUR – EXCLUSIVE**

Amateur Band Plan

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
18068	**18095**	**CW**	< 500 Hz	**Priority**	
18095	**18109**	**DATA** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	
18109	**18111**	**IBP BEACONS**	< 500 Hz	**Priority**	
18111	**18168**	**VOICE** *CW*	< 3 kHz <500 Hz	**Priority** *Shared*	Highest usable USB (SSB) dial frequency 18165 kHz



Centres of Activity

- 18150 kHz WICEN SSB
- 18160 kHz IARU R3 Emergency Calling

Centres of Activity (to add to band plan)

- *18100 kHz – FT8 Global Primary*
- *18104 kHz – FT4 Global Primary*
- *18106.0 – 18106.2 kHz – WSPR (USB Dial 18104.6)*

9.9 15m Band

21000 – 21450 kHz – Primary Service - All Licence Classes

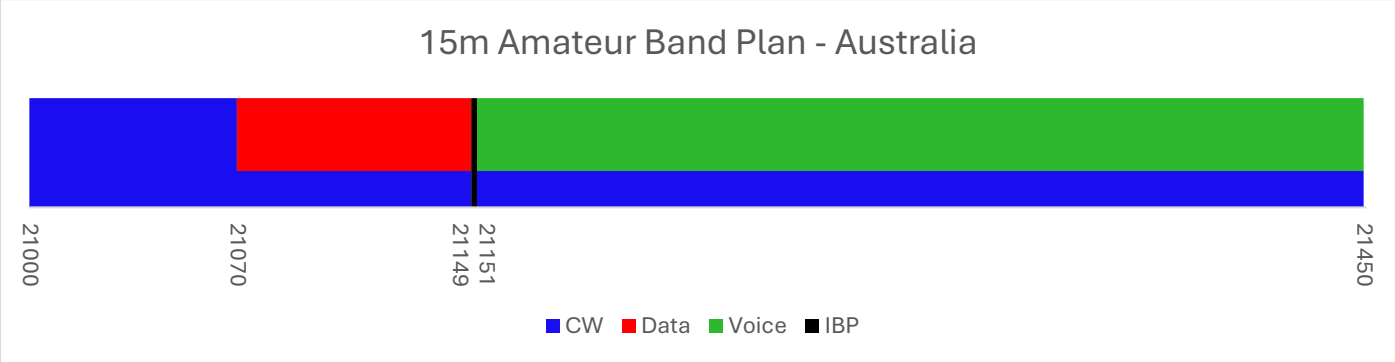
Spectrum Users

21000 – 21450 kHz

- **AMATEUR – EXCLUSIVE**
- **AMATEUR SATELLITE - EXCLUSIVE**

Amateur Band Plan

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
21000	**21070**	**CW**	< 500 Hz	**Priority**	
21070	**21149**	**DATA** *CW*	< 3 kHz *< 500 Hz*	**Priority** *Shared*	
21149	**21151**	**IBP BEACONS**	< 500 Hz	**Priority**	
21151	**21450**	**VOICE** *CW*	< 3 kHz *< 500 Hz*	**Priority** *Shared*	Highest usable USB (SSB) dial frequency 21447 kHz



Centres of Activity

- 21190 kHz WICEN SSB – poor choice as can be interfered with during RTTY contests
- 21340 kHz SSTV
- 21360 kHz IARU R3 Emergency Calling

Centres of Activity (to add to band plan)

- *21060 kHz – CW QRP*
- *21070 – 21074 kHz – PSK/Olivia/Weak signal digital*
- *21074 – FT8 Global Primary*
- *21140 – FT4 Global Primary*
- *21096.0 – 21096.2 kHz – WSPR (USB Dial 21094.6)*
- *21385 – SSB/Voice QRP*

9.10 12m Band

24890 – 24990 kHz – Primary Service - Advanced Licensees Only

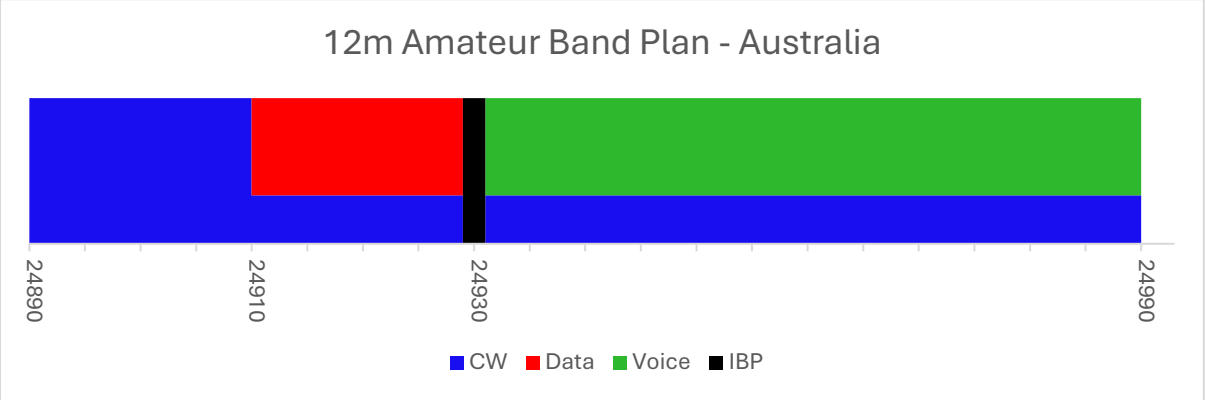
Spectrum Users

24890 – 24990 kHz

- AMATEUR – EXCLUSIVE
- AMATEUR SATELLITE - EXCLUSIVE

Amateur Band Plan

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
24890	**24910**	**CW**	< 500 Hz	**Priority**	
24910	**24929**	**DATA** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	
24929	**24931**	**IBP BEACONS**	< 500 Hz	**Priority**	
24931	**24990**	**VOICE** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	Highest usable dial frequency 24987 kHz



Centres of Activity

- Delete 24950 kHz WICEN SSB (Poor choice as often used for DX)

Centres of Activity (to add to band plan)

- *24915 kHz – FT8 Global Primary*
- *24919 kHz – FT4 Global Primary*
- *24926.0 – 24926.2 kHz – WSPR – (USB Dial 24924.6 kHz)*

9.11 10m Band

28000 – 29700 kHz – Primary Service - All Licensees

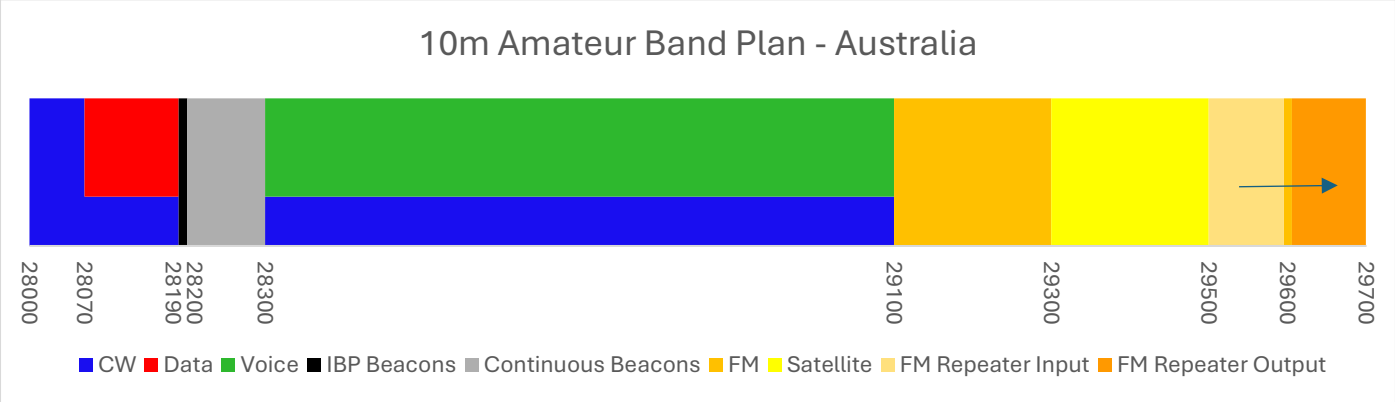
Spectrum Users

28000 – 29700 kHz

- AMATEUR – EXCLUSIVE
- AMATEUR SATELLITE - EXCLUSIVE

Amateur Band Plan

Lower (kHz)	*Upper (kHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
28000	**28070**	**CW**	< 500 Hz	**Priority**	28070-29100 kHz (Shared)
28070	**28190**	**DATA** *CW*	< 3 kHz *< 500 Hz*	**Priority** *Shared*	
28190	**28200**	**BEACONS (Time Shared)**	< 500 Hz	**Priority**	International Beacon Project 28200 kHz
28200	**28300**	**BEACONS (Continuous)**	< 500 Hz	**Priority**	
28300	**29100**	**VOICE / Image Modes** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	(Highest USB dial 29097 kHz)
29100	**29300**	**VOICE (Wideband FM)**	<16 kHz	**Priority**	Mainly FM
29300	**29510**	**SATELLITE**		**Priority**	
29510	**29590**	**VOICE REPEATER Input (FM)**	<16 kHz	**Priority**	
29590	**29610**	**VOICE ANALOGUE Simplex**	<16 kHz	**Priority**	29600 International FM Call Channel
29610	**29700**	**VOICE REPEATER Output (FM)**	<16 kHz	**Priority**	-100 kHz Offset



Centres of Activity

- 28060 kHz CW QRP
- 28330 kHz Digital Voice
- 28360 kHz Voice QRP
- 28450 kHz WICEN Emergency Communications Australia Domestic
- 28680 kHz SSTV

Centres of Activity (to add to band plan)

- *28060 kHz – CW QRP*
- *28070 – 28074 kHz – PSK/Olivia/Weak signal digital*
- *28074 kHz – FT8 Global Primary*
- *28126.0 – 28126.2 kHz – WSPR (USB Dial 28124.6 kHz)*
- *28180 kHz – FT4 Global Primary*
- *28385 kHz – SSB/Voice QRP*

9.12 6m Band

50 - 52 MHz Secondary Service - Standard and Advanced Licensees

52 - 54 MHz Primary Service - Standard and Advanced Licensees

Spectrum Users

SECONDARY SERVICE:
Amateurs must not cause Harmful Interference.
Amateurs must accept Interference from the Primary user.

50.000 – 52.000 MHz

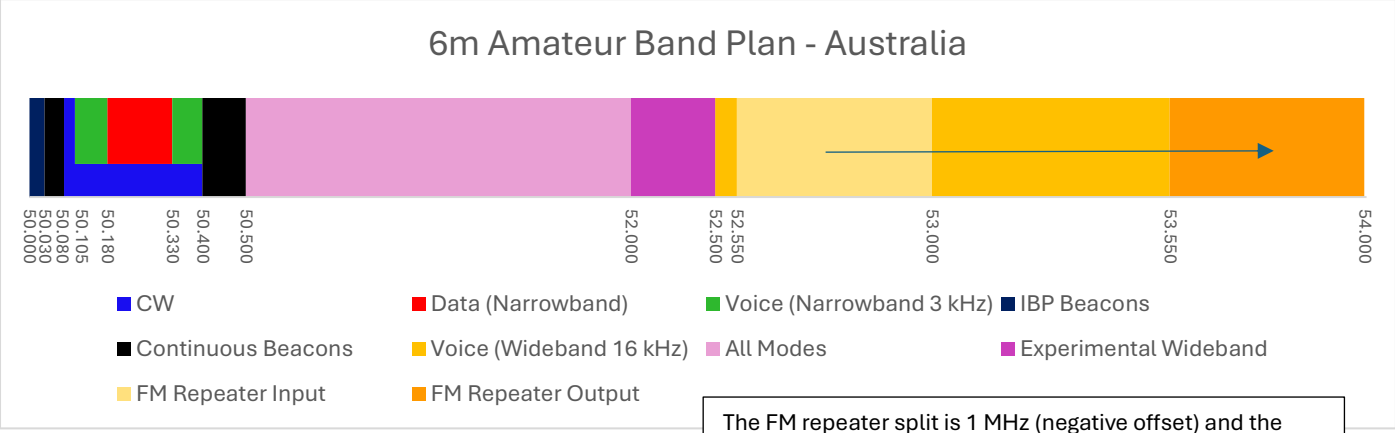
- **BROADCASTING – Primary** (note Defence has allocations across this portion of the band)
- *Amateur – Secondary*

52.000 – 54.000 MHz

- **AMATEUR – Exclusive**

Amateur Band Plan

Lower (MHz)	*Upper (MHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
50.0000	**50.0300**	**BEACONS (IBP Time Coordinated)**	< 500 Hz	**Exclusive**	
50.0300	**50.0800**	**BEACONS (International)**	< 500 Hz	**Priority**	
50.0800	**50.1050**	**CW**	< 500 Hz	**Priority**	
50.1050	**50.1800**	**VOICE NARROWBAND (eg SSB)** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	
50.1800	**50.3300**	**DATA Modes**	< 3 kHz	**Priority**	
50.3300	**50.4000**	**VOICE (eg SSB - Domestic Narrowband)** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	
50.4000	**50.5000**	**BEACONS (Domestic 24x7)**	< 500 Hz	**Exclusive**	
50.5000	**52.0000**	**ALL MODES**	< 8kHz	**Priority**	
52.0000	**52.5000**	**EXPERIMENTAL WIDEBAND**	< 500 kHz	**Priority**	
52.5000	**52.5375**	**ANALOGUE VOICE Simplex (eg FM)**	< 25 kHz	**Priority**	
52.5375	**53.0000**	**ANALOGUE Voice Repeater Inputs**	< 25 kHz	**Priority**	
53.0000	**53.5500**	**VOICE Simplex (eg FM, AM, Digital)**	< 25 kHz	**Priority**	
53.5500	**54.0000**	**ANALOGUE Voice Repeater Outputs**	< 25 kHz	**Priority**	



The FM repeater split is 1 MHz (negative offset) and the channel spacing is 25 kHz.
Six repeater channels are allocated exclusive use in the following call areas:
52.750 / 53.750 - VK5/8
52.800 / 53.800 - VK6
52.825 / 53.825 - VK7
52.900 / 53.900 - VK3
52.850 / 53.850 - VK2
52.950 / 53.950 - VK4
The remaining channels are available for use in any call area. Repeater channels are co-ordinated nationally to reduce the possibility of interstate sporadic E interference.

Centres of Activity

- 50.090 MHz – International CW Calling Frequency
- 50.110 MHz – International SSB Calling Frequency
- 50.150 MHz – National SSB Calling Frequency
- 52.050 MHz – APRS AX.25 AFSK
- 52.150 MHz – WICEN Emergency Communications
- 52.300 MHz – ARDF Centre of Activity
- 52.525 MHz – International FM Call Channel

Centres of Activity (to add to band plan)

- *50.223 MHz – Q65 EME Global Expedition*
- *50.230 MHz – FSK441 Meteor Scatter*
- *50.276 MHz – JT65 / Q65 Global Primary*
- *50.2946 – 50.2948 MHz – WSPR (USB Dial 50.293 MHz)*
- *50.313 MHz – FT8 Global Primary*
- *50.323 MHz – FT8 Global Secondary*
- *53.100 MHz – AM Centre of Activity*

9.13 2m Band

144 – 148 MHz – Primary Service - All License Classes

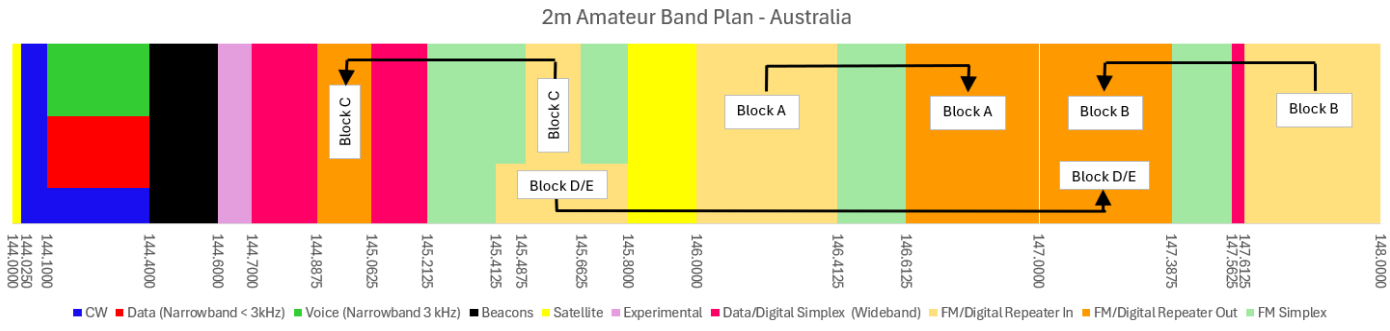
Spectrum Users

144.000 – 148.000 MHz

- AMATEUR – Exclusive
- AMATEUR SATELLITE – Primary

Amateur Band Plan

Lower (MHz)	*Upper (MHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
144.0000	**144.0250**	**SATELLITE**		**Exclusive**	
144.0250	**144.1000**	**CW**		**Priority**	
144.1000	**144.4000**	**SSB / Voice** *Data* *CW*	*< 3 kHz* *< 3 kHz* *< 500 Hz*	**Priority** *Shared* *Shared*	
144.4000	**144.6000**	**BEACONS**		**Exclusive**	
144.6000	**144.7000**	**EXPERIMENTAL**		**Priority**	
144.7000	**144.8875**	**DATA / DIGITAL VOICE Simplex**	*< 25 kHz*	**Priority**	
144.8875	**145.0625**	**DATA / DIGITAL VOICE Repeater Output** *(Block C)*	*< 12.5 kHz*	**Priority**	
145.0625	**145.2125**	**DATA / DIGITAL VOICE Simplex**	*< 25 kHz*	*Priority*	
145.2125	**145.4125**	**ANALOGUE Simplex**	**< 25 kHz**	**Priority**	
145.4125	**145.4875**	**ANALOGUE Simplex** *ANALOGUE/DIGITAL Voice Repeater Inputs (Block E1)*	*<25 kHz* *< 25 kHz*	**Priority** *Shared*	*Block E1 on special circumstances only*
145.4875	***145.6625***	***DATA / DIGITAL VOICE Repeater Input (Block C)*** *ANALOGUE/DIGITAL Voice Repeater Inputs (Block D)*	*< 12.5 kHz* *< 25 kHz*	*Priority* *Shared*	*Block D on special circumstances only*
145.6625	**145.8000**	**ANALOGUE Simplex** *ANALOGUE/DIGITAL Voice Repeater Inputs (Block E2)*	*< 25 kHz* *< 25 kHz*	*Priority* *Shared*	*Block E1 on special circumstances only*
145.8000	**146.0000**	**SATELLITE**			
146.0000	**146.4125**	**ANALOGUE/DIGITAL Voice Repeater Inputs** (Block A)	*< 25 kHz*	*Priority*	
146.4125	**146.6125**	**ANALOGUE Simplex**	**< 25 kHz**	**Priority**	
146.6125	**147.0125**	**ANALOGUE/DIGITAL Voice Repeater Output** (Block A)	**< 25 kHz**	**Priority**	
147.0125	**147.0875**	**ANALOGUE/DIGITAL Voice Repeater Output** (Block B) *ANALOGUE/DIGITAL Voice Repeater Output (Block E1)*	*< 25 kHz* *< 25 kHz*	**Priority** *Shared*	*Block E1 on special circumstances only*
147.0875	**147.2625**	**ANALOGUE/DIGITAL Voice Repeater Output** (Block B) *ANALOGUE/DIGITAL Voice Repeater Output (Block D)*	*< 25 kHz* *< 25 kHz*	*Priority* *Shared*	*Block D on special circumstances only*
147.2625	**147.3875**	**ANALOGUE/DIGITAL Voice Repeater Output** (Block B) *ANALOGUE/DIGITAL Voice Repeater Output (Block E2)*	*< 25 kHz* *< 25 kHz*	*Priority* *Shared*	*Block E2 on special circumstances only*
147.3875	**147.5625**	**ANALOGUE Simplex**	**< 25 kHz**	**Priority**	
147.5625	**147.6125**	**DATA / DIGITAL VOICE Simplex**	**< 25 kHz**	**Priority**	
147.6125	**148.0000**	**ANALOGUE/DIGITAL Voice Repeater Input** (Block B)	**< 25 kHz**	**Priority**	
Note:	Block D, E1 and E2 repeater input frequency allocations are "Shared" with priority simplex and data repeater channels. These are only for use when a co-site 3rd order intermodulation check FAILS against a co-site commercial service in the 148-174 MHz band. ***No -1.6 MHz offset repeaters shall be allocated in circumstances where a 600 kHz repeater offset would have worked.***				



Centres of Activity

- 144.100 MHz – National SSB Calling Frequency
- 144.110-144.200 – Q65/JT65 Data (Earth-Moon-Earth) international
- 144.174 MHz – FT8 Data domestic
- 144.200 MHz – New Zealand SSB Calling Frequency
- 144.230 MHz – MSK441 Meteor Scatter Data
- 144.4904 – 144.4906 MHz – WSPR (USB Dial 144.489 MHz)
- 144.750 MHz – Simplex High Power hotspot area coverage (digital voice modes)
- 145.175 MHz – National APRS
- 145.200 MHz – National WICEN APRS
- 145.250 MHz – CW Training and News Beacons (Modulated FM)
- 145.300 MHz – National ARDF Frequency
- 145.325 MHz – Simplex Internet voice gateways (e.g. Echolink)
- 145.350 MHz – Simplex Internet voice gateways (e.g. Echolink)
- 145.375 MHz – Simplex Internet voice gateways (e.g. Echolink)
- 145.650 MHz – Legacy CW Training and News Beacons (Modulated FM)
- 145.700 MHz – National Secondary ARDF Frequency
- 146.500 MHz – National FM Simplex Call Channel
- 147.400 MHz – ATV Liaison
- 147.525 MHz – Simplex Internet voice gateways (e.g. Echolink)
- 147.550 MHz – Simplex Internet voice gateways (e.g. Echolink)

Centres of Activity (to add to band plan)

- *144.700 - 144.8875 MHz - Digital Voice Hotspot sub-bands*
- *147.5625 - 147.6125 MHz - Digital Voice Hotspot sub-bands*

9.14 70cm Band

430 – 450 MHz – Secondary Service - All Licensees

Spectrum Users

430.000 – 450.000 MHz

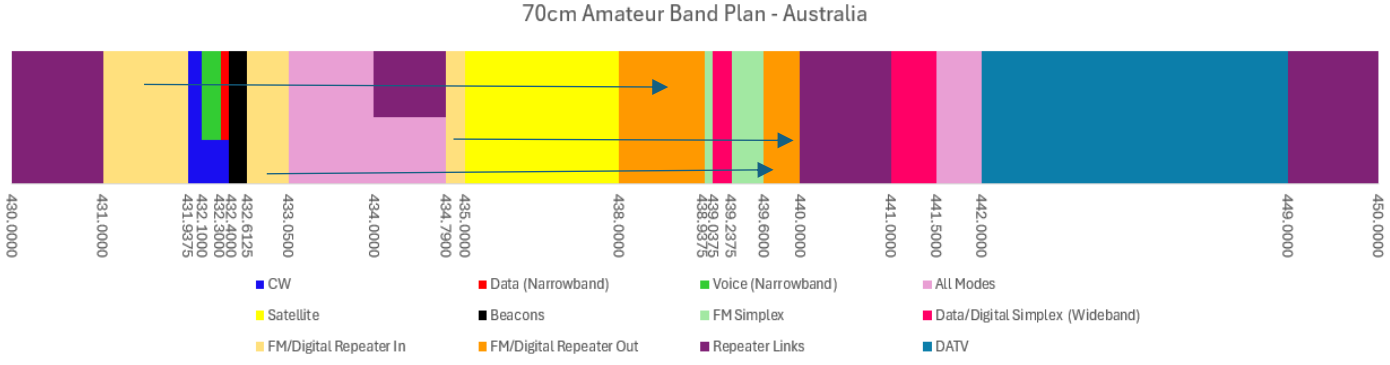
- **RADIOLOCATION – Primary**
  (AUS101A - This service is designated to be used principally for the purposes of defence and national security. The Department of Defence is normally consulted in considering non-defence use of this service.)
- *Amateur – Secondary*
- *Amateur Satellite – Secondary 435 – 438 MHz (Footnote)*

SECONDARY SERVICE:
Amateurs must not cause Harmful Interference to others.
Amateurs must accept Interference from the Primary user.

NOTE: Amateur repeaters are not afforded protection from LIPD users in the 433.050-434.790 MHz Sub-band.

Amateur Band Plan

Lower (MHz)	*Upper (MHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
430.0000	**431.0000**	**REPEATER LINKS**	< 16 kHz	**Priority**	Link Block A
431.0000	**431.9375**	**ANALOGUE/DIGITAL REPEATER VOICE – inputs**	< 16 kHz	**Priority**	Repeater Block A -7 MHz Offset
431.9375	**432.1000**	**CW**	< 500 Hz	**Priority**	
432.1000	**432.3000**	**VOICE (Narrowband)** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	
432.3000	**432.4000**	**DATA (Narrowband)** *CW*	< 3 kHz < 500 Hz	**Priority** *Shared*	
432.4000	**432.6000**	**BEACONS**	< 500 Hz	**Exclusive**	
432.6000	**433.0500**	**ANALOGUE/DIGITAL REPEATER VOICE – inputs**	< 16 kHz	**Priority**	Repeater Block B -7 MHz Offset
433.0500	**434.0000**	*Low Interference Potential Devices Licence Band* **ALL MODES - EXPERIMENTAL**		*Shared*	*Non-Amateur*
434.0000	**434.7900**	*Low Interference Potential Devices Licence Band* **REPEATER LINKS**	< 16 kHz	*Shared*	*Non-Amateur* Link Block D – no protection granted by ACMA
434.7900	**435.0000**	**ANALOGUE/DIGITAL REPEATER VOICE – inputs**	< 16 kHz	**Priority**	Repeater Block B (alt) -5 MHz Offset
435.0000	**438.0000**	**AMATEUR SATELLITE**		**Exclusive**	
438.0000	**438.9375**	**ANALOGUE/DIGITAL REPEATER VOICE – output**	< 16 kHz	**Priority**	Repeater Block A -7 MHz Offset
438.9375	**439.0375**	**ANALOGUE VOICE Simplex**	< 16 kHz	**Priority**	
439.0375	**439.2375**	**DIGITAL VOICE Simplex**	< 16 kHz	**Priority**	
439.2375	**439.6125**	**ANALOGUE VOICE Simplex**	< 16 kHz	**Priority**	
439.6125	**439.7875**	**ANALOGUE/DIGITAL REPEATER VOICE – output**	< 16 kHz	**Priority**	Repeater Block B -7 MHz Offset
439.7875	**440.0000**	**ANALOGUE/DIGITAL REPEATER VOICE – output**	< 16 kHz	**Priority**	Repeater Block B Either -7 MHz or -5 MHz Offset
440.0000	**441.0000**	**REPEATER LINKS**	< 16 kHz	**Priority**	Link Block B
441.0000	**441.5000**	**DIGITAL VOICE Simplex**	< 16 kHz	**Priority**	***NEW*** Hotspot preferred
441.5000	**442.0000**	**ALL MODES**		**Priority**	
442.0000	**449.0000**	**DIGITAL AMATEUR TELEVISION (DVB)**	< 7 MHz	**Priority**	5000 ksym / Sec max
442.000	449.000	DVB Channel 1 – 445.500 MHz			
449.0000	**450.0000**	**REPEATER LINKS**	< 16 kHz	**Priority**	Link Block C



Centres of Activity

- 432.000 – 432.100 MHz – EME Activity
- 432.100 – Domestic SSB Call Channel
- 432.313 – Domestic FT8
- 438.950 – WICEN FM Analogue
- 439.000 – National FM Analogue Call Channel
- 439.100 – National 70cm ARPS Channel
- 439.125 – Simplex Internet voice gateways (eg Echolink)
- 439.150 – Simplex Internet voice gateways (eg Echolink)
- 439.200 – Voice Digital Call Channel
- 439.400 – ARDF Channel
- 445.500 – DVB-T ATV Channel 1

Centres of Activity (to add to band plan)

- *441.000 – 441.500 MHz - Digital Voice Hotspot sub-bands*

9.15 23cm Band

1240 – 1300 MHz – Secondary Service - Standard and Advanced Licensees

SECONDARY SERVICE:
Amateurs must not cause Harmful Interference to others.
Amateurs must accept Interference from the Primary user.

AUS101: This band is designated to be used principally for the purposes of defence and national security. The Department of Defence is normally consulted in considering non-defence use of this band.

ITU 5.332A : defines restrictions that will come into force if interference to GNSS services by amateur stations is reported.

RADIO ASTRONOMY: Beware of causing interference to CSIRO facilities at Narrabri, Parkes, Coonabarabran (NSW), Mt Pleasant (Tas), Ceduna (SA), Murchison (WA), Tidbinbilla (ACT)

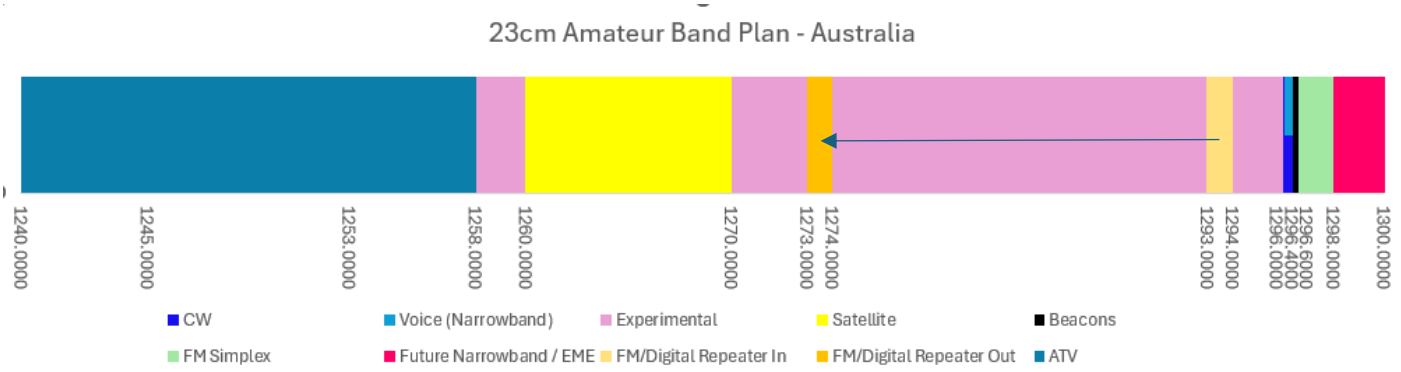
Spectrum Users

1240.000 – 1300.000 MHz

- **EARTH EXPLORATION SATELLITE – Primary**
- **RADIOLOCATION – Primary**
- **RADIONAVIGATION – SATELLITE – Primary**
- **SPACE RESEARCH – Primary**
- *Amateur – Secondary*
- *Amateur Satellite – Secondary 1260–1270 MHz (Footnote)*

Amateur Band Plan

Lower (MHz)	*Upper (MHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
1240.000	**1258.000**	**AMATEUR TELEVISION**	< 7 MHz	**Priority**	**Max symbol rate of 5000 kSymbol/sec**
1241.500	1248.500	DVB Channel 1 (1245 MHz centre)	< 7 MHz		
1249.500	1256.500	DVB Channel 2 (1253 MHz centre)	< 7 MHz		
1258.000	**1260.000**	*Experimental*		**Priority**	***NEW***
1260.000	**1270.000**	**AMATEUR SATELLITE**		**Priority**	
1270.000	**1273.000**	*Experimental*		**Priority**	***NEW***
1273.000	**1274.000**	**VOICE REPEATER ANALOGUE/DIGITAL (outputs)**	< 25 kHz	**Priority**	
1274.000	**1293.000**	*Experimental*		**Priority**	***NEW***
1293.000	**1294.000**	**VOICE REPEATER ANALOGUE/DIGITAL (inputs)**	< 25 kHz	**Priority**	
1294.000	**1296.000**	*Experimental*	< 25 kHz	**Priority**	***NEW***
1296.000	**1296.100**	**CW (MOON BOUNCE (EME))** *DATA*	< 500 Hz < 3 kHz	**Priority** *Shared*	
1296.100	**1296.400**	**VOICE (SSB)** *DATA*	< 3kHz < 3 kHz	**Priority** *Shared*	
1296.400	**1296.600**	**BEACONS**	< 500 Hz	**Priority**	
1296.600	**1298.000**	**SIMPLEX ANALOGUE/DIGITAL VOICE**	< 25 kHz	**Priority**	
1298.000	**1300.000**	**FUTURE EME / Narrowband Segment**	< 500 Hz	**Priority**	***NEW***



NOTE: ITU WRC 2024 put in place the potential for severe restrictions to be applied to amateur service use of the 23cm band if interference complaints are reported to ACMA by the GNSS service community as a result of amateur service activity. While we understand that no interference impacts to the primary spectrum users of this band to date have been reported in Australia, these new ITU guidelines, if triggered, risk the imposition of substantial power restrictions to Amateur Radio activity across much of the 23cm band.

To avoid triggering these conditions, and following the recent CEPT proposal to only enact the restrictions on the amateur service in spectrum used by the Galileo GNSS network, the WIA recommends that:

a) activity within the range 1258 – 1296 MHz be limited solely to individual operator itinerant experiments.
b) Existing and future amateur television repeater outputs should no longer remain on the 23cm band (due to their high transmit duty cycle and hence higher probability of generating interference, even below 1258 MHz).
c) Point to point ATV repeater uplinks from individual operators can still be supported but the use of directional antennas is encouraged. ATV activity should also concentrate on using frequencies initially below 1258 MHz.
d) the WIA, for now, also supports the continued use of the FM voice repeater allocations at 1273-1274/1293-1294 MHz, however such repeaters should be kept low in number in a given geographic area to limit the risk of interference complaints being made. This support is based on the current very low duty cycle 23cm repeater activity observed in Australia which implies a very low risk of interference to GNSS reception.

As a further preparatory step, the WIA proposes to re-define spectrum above 1298 MHz in the band plan as nominated for future narrow band/EME use (given the relaxations afforded this segment in the ITU plan). Unfortunately, this means that existing wideband data systems in this segment should consider moving to other bands or cease operation entirely.

It is only by careful consideration of how amateur activity can minimise impacts to the GNSS service that reasonable access can be maintained to the majority of the spectrum in this band. We call on all amateurs to please observe these new guidelines, to ensure the longevity of access to this spectrum for all.

Centres of Activity

- Amateur Television
  - 1245.000 – DVB Digital ATV Channel 1
  - 1253.000 – DVB Digital ATV Channel 2
- 1296.000 – 1296.100 EME CW/Digital Modes
- 1296.100 – Narrowband Voice (SSB) Call Channel
- 1296.300 – 1296.400 – Narrowband Data Modes (DX / Weak Signal)
- 1297.000 – Analogue Voice Call Channel (FM 25 kHz)
- 1297.400 – ARDF Beacons and Activity
- 1298.000 – 1300.000 Future Narrowband Segment (for international alignment)

9.16 13cm Band

2300 – 2302 MHz – Secondary Service - Advanced Licensees only

2400 – 2450 MHz – Secondary Service - Advanced and Standard Licensees only

Spectrum Users

2300.000 – 2302.000 MHz
2400.000 – 2450.000 MHz

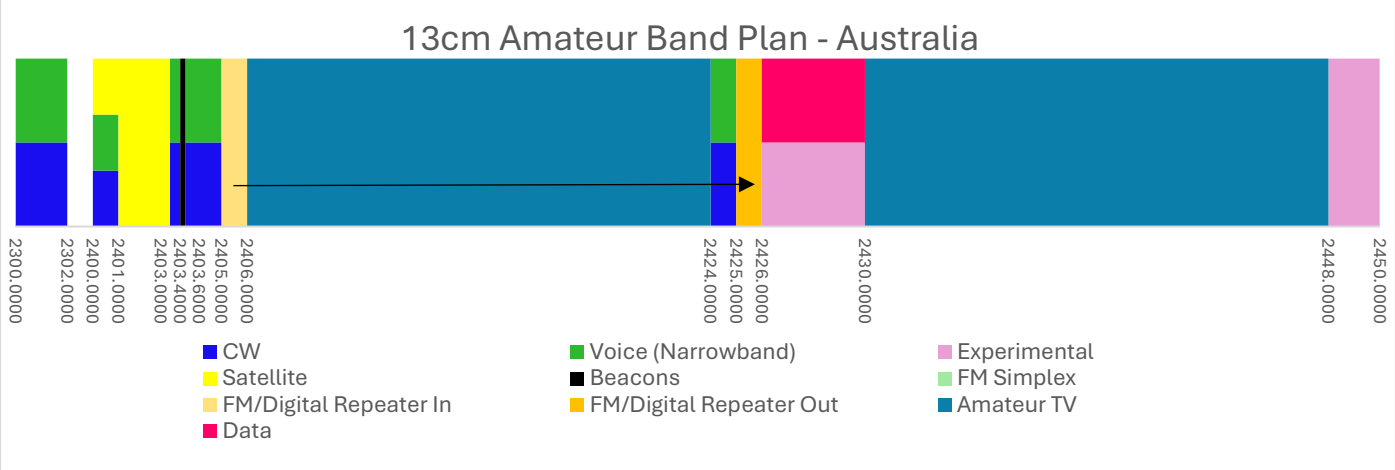
SECONDARY SERVICE:
Amateurs must not cause Harmful Interference to others.
Amateurs must accept Interference from the Primary user.

RADIO ASTRONOMY: Beware of causing interference to CSIRO facilities at Narrabri, Parkes, Coonabarabran (NSW), Mt Pleasant (Tas), Ceduna (SA), Murchison (WA), Tidbinbilla (ACT)

- **FIXED – Primary**
- **MOBILE – Primary**
- **RADIOLOCATION – Primary**
- **INDUSTRIAL SCIENTIFIC MEDICAL** *(Footnote 150)*
- *Amateur – Secondary*
- *Amateur Satellite – Secondary 2400–2450 MHz (Footnote 282)*

Amateur Band Plan

Lower (MHz)	*Upper (MHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
2300.000	**2302.000**	**NARROW BAND MODES**	**< 3 kHz**	**Priority**	
2400.000	**2400.400**	**AMATEUR SATELLITES** *NARROW BAND MODES (Secondary)*	*< 3kHz*	**Priority** *Shared*	***NEW*** *- Wi-Fi Ch 1 Gap*
2400.400	**2403.000**	**AMATEUR SATELLITES**		**Priority**	
2403.000	**2403.100**	**MOON BOUNCE (EME) CW** *DATA*	< 500 Hz < 500 Hz	**Priority** *Shared*	
2403.100	**2403.400**	**VOICE (Narrowband)** *DATA*	< 3kHz < 3kHz	**Priority** *Shared*	
2403.400	**2403.600**	**BEACONS**	< 500 Hz	**Priority**	
2403.600	**2405.000**	**SIMPLEX ANALOGUE/DIGITAL VOICE**	< 25 kHz	**Priority**	
2405.000	**2406.000**	**VOICE REPEATER INPUT (20 MHz Offset)**	< 25kHz	**Priority**	***NEW***
2406.000	**2424.000**	**AMATEUR TELEVISION**		**Priority**	
2407.500	*2414.500*	*DVB CHANNEL 1 – 2411 MHz*	*< 7 MHz*		
2415.500	*2422.500*	*DVB CHANNEL 2 – 2419 MHz*	*< 7 MHz*		
2424.000	**2425.000**	**NARROW BAND MODES** *(Secondary)*	**< 3 kHz**	**Priority**	**NEW** *- Wi-Fi Ch 1-6 Gap + ZL Narrowband Sub-band*
2425.000	**2426.000**	**VOICE REPEATER OUTPUT (20 MHz Offset)**	**<25 kHz**	**Priority**	**NEW** *- Wi-Fi Ch 1-6 Gap*
2426.000	**2430.000**	**DATA (WIDEBAND)**	< 5 MHz	**Priority**	
2430.000	**2448.000**	**AMATEUR TELEVISION**		**Priority**	
2431.500	*2438.500*	*DVB CHANNEL 3 – 2435 MHz*	*< 7 MHz*		
2439.500	*2446.500*	*DVB CHANNEL 4 – 2443 MHz*	*< 7 MHz*		
2448.000	**2450.000**	**ALL MODES**	< 2 MHz	**Priority**	***NEW*** **-** Wi-Fi Ch 6-11 Gap



Centres of Activity

- 2400.000 – 2401.000 – Narrowband Secondary window (avoids Wi-Fi interference)
    - 2400.100 Narrowband Voice (SSB) Call Channel (Alternate)
- 2403.000 – 2403.100 – EME Moon bounce
- 2403.100 – Narrowband Voice (SSB) Call Channel
- 2403.300 – 2403.400 – Narrowband Data Modes (DX / Weak Signal)
- 2404.000 – Analogue Voice Call Channel (FM 25 kHz)
- 2404.100 – ARDF Beacons and Activity
- 2411.000 – DVB ATV Channel 1 (Centre)
- 2415.000 – FM ATV Channel 1
- 2419.000 – DVB ATV Channel 2 (Centre)
- 2424.000 – 2425.000 - Narrowband Secondary window (avoids part Wi-Fi + Cellular/NBN interference)
- 2435.000 – DVB ATV Channel 3 (Centre)
- 2439.000 – FM ATV Channel 2
- 2443.000 – DVB ATV Channel 4 (Centre)

9.17 9cm Band

3300 – 3400 MHz – Secondary Service - Advanced Licensees only

3400 – 3600 MHz – Restricted Geographic Access – Advanced Licensees only

SECONDARY SERVICE:
Amateurs must not cause Harmful Interference to others.
Amateurs must accept Interference from the Primary user.

This band is primarily used by Defence for radars.

RADIO ASTRONOMY: Beware of causing interference to CSIRO facilities at Narrabri, Parkes, Coonabarabran (NSW), Mt Pleasant (Tas), Ceduna (SA), Murchison (WA), Tidbinbilla (ACT). A 250km buffer zone is required around these sites in the 3332–3339 MHz and 3345.8–3352.5 MHz sub-band

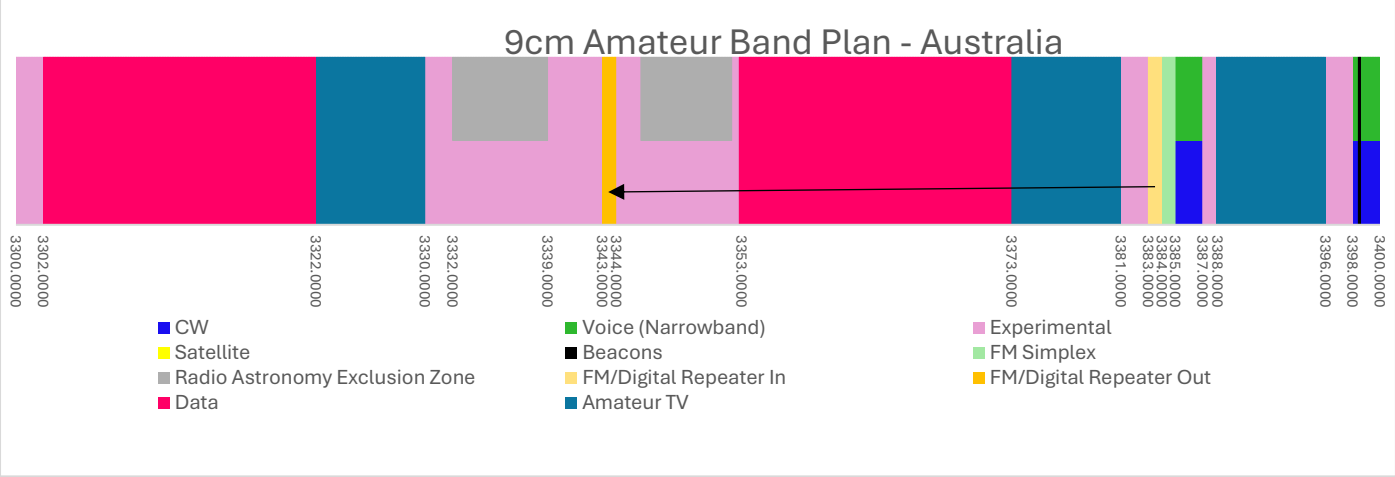
Spectrum Users

3300.000 – 3400.000 MHz

- **RADIOLOCATION – Primary** *(AUS100A – Defence Band)*
- *Amateur – Secondary*
- *Radio Astronomy - ITU Footnote 5.149*

Amateur Band Plan

Lower (MHz)	*Upper (MHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
3300.000	**3302.000**	**EXPERIMENTAL**		Priority	***NEW***
3302.000	**3322.000**	**WIDEBAND DATA**	< 20 MHz	Priority	***NEW***
3322.000	**3330.000**	**AMATEUR TELEVISION**		Priority	***NEW***
3322.500	3329.500	DVB ATV Channel 1 – 3326 MHz	< 7 MHz		
3330.000	**3343.000**	**EXPERIMENTAL**		Shared	***NEW***
3332.000	***3339.000***	***RADIO ASTRONOMY EXCLUSION BAND***		*Exclusive*	*Within 250km of named radio astronomy sites*
3343.000	3344.000	**VOICE REPEATER OUTPUT (40MHz offset)**	< 25 kHz	Priority	***NEW***
3344.000	3353.000	EXPERIMENTAL		Priority	***NEW***
3345.800	***3352.500***	***RADIO ASTRONOMY EXCLUSION BAND***		*Exclusive*	*Within 250km of named radio astronomy sites*
3353.000	**3373.000**	**WIDEBAND DATA**	< 20 MHz	Priority	***NEW***
3373.000	**3381.000**	**AMATEUR TELEVISION**		Priority	***NEW***
3373.500	3380.500	DVB ATV Channel 2 – 3377 MHz	< 7 MHz	Shared	
3381.000	**3383.000**	**EXPERIMENTAL**	< 7 MHz	Shared	***NEW***
3383.000	**3384.000**	**VOICE REPEATER INPUT (40 MHz offset)**	< 25 kHz	Priority	***NEW***
3384.000	**3385.000**	**VOICE SIMPLEX**	< 25 kHz	Priority	***NEW***
3385.000	**3387.000**	**NARROWBAND (Secondary)**	< 3kHz	Priority	***NEW***
3387.000	**3388.000**	**EXPERIMENTAL**	< 7 MHz	Priority	***NEW***
3388.000	**3398.000**	**AMATEUR TELEVISION**			***NEW***
3389.500	3396.500	DVB ATV Channel 3 – 3393 MHz	< 7 MHz	Priority	
3398.000	**3398.400**	**CW** **SSB**	< 500 Hz < 3 kHz	Shared Shared	
3398.400	**3398.600**	**BEACONS**	< 500 Hz	Priority	
3398.600	**3400.000**	**EXPERIMENTAL**	< 2 MHz	Priority	
3400.000	***3600.000***	***RESTRICTED***			***NEW*** See Notes



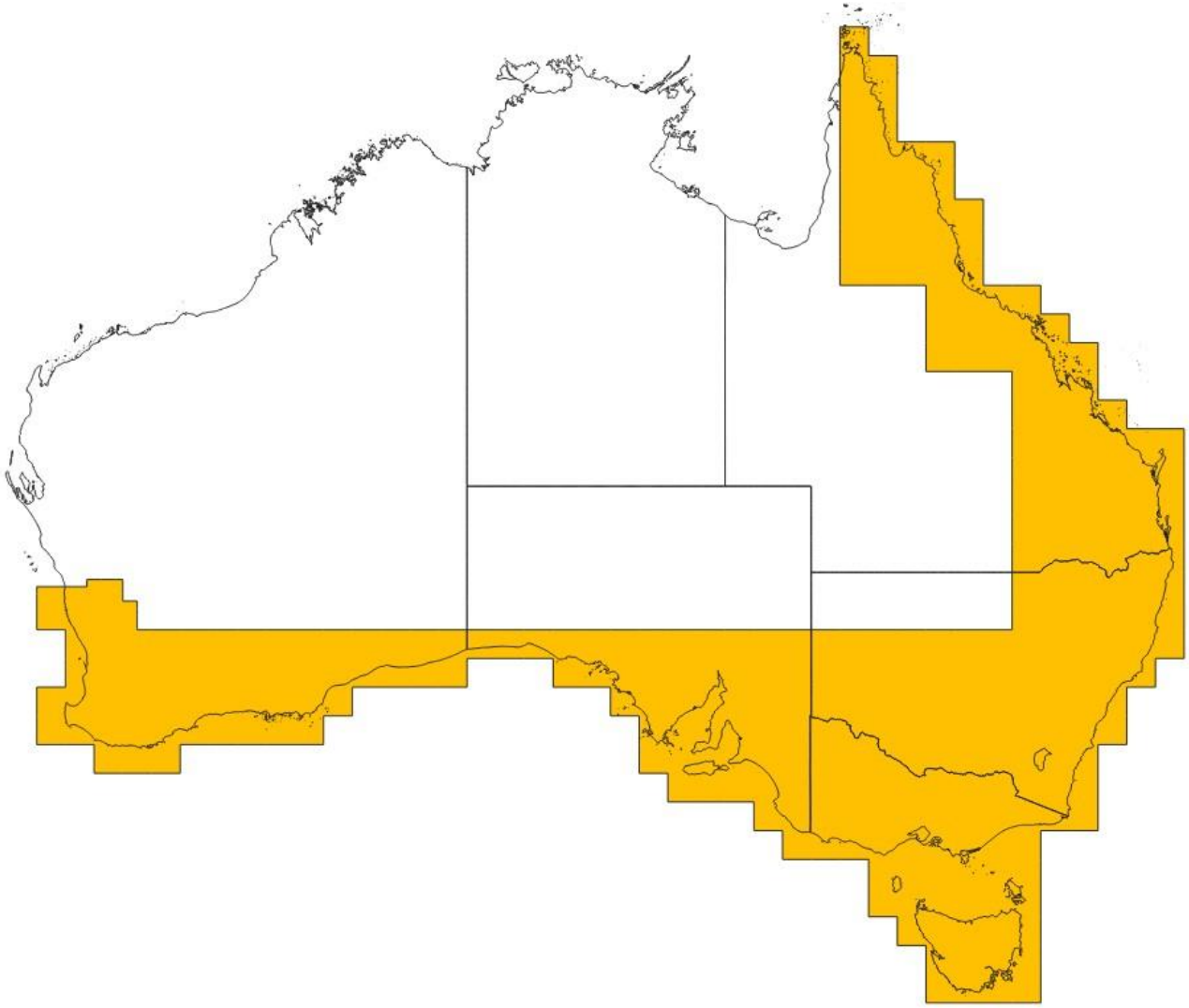
Centres of Activity:

- 3399.000 – 3400.000 – EME Moon bounce (split frequency operation)
- 3398.100 – Narrowband Voice (SSB) Call Channel
- 3398.300 – 3398.400 – Narrowband Data Modes (DX / Weak Signal)
- 3386.000 – Analogue Voice Call Channel (FM 25 kHz)
- 3386.300 – ARDF Beacons and Activity
- 3398.400 – 3398.600 Beacon Sub-band

Band Notes:

1) The Amateur service allocation between 3400-3600 MHz has been withdrawn for most of the populated parts of Australia, and in the remaining areas, is only made available on a secondary basis, with Wireless Broadband Point-To-Multipoint services having priority.

Exclusion Zone (Orange) – No Amateur Service access to 3400 – 3600 MHz



While the Class licence still lists this band outside of the exclusion zone, access is subject to a requirement not to cause harmful interference to the primary spectrum users. Due to the nature of these restrictions, the WIA recommends that any activity on this band take place solely within 3300-3400 MHz.

2) The new voice repeater sub-bands are to be allocated on a 100 kHz channel raster starting at 3343.100 MHz (+ 40 MHz offset)

9.18 6cm Band

5650 – 5850 MHz – Secondary Service Advanced & Standard Licensees

Spectrum Users

5650.000 – 5725.000 MHz

- **RADIOLOCATION – Primary** *(AUS101A – Defence Band)*
- *MOBILE Primary 446A 450A*
- *Amateur – Secondary*
- *Space Research (deep space) 282 AUS87*

5725.000 – 5850.000 MHz 150 AUS87 AUS96

- **RADIOLOCATION – Primary** *(AUS101A – Defence Band)*
- **INDUSTRIAL SCIENTIFIC MEDICAL**
- *Amateur – Secondary*

5830.000 – 5850.000 MHz

- *Amateur-satellite (Space to earth) – Secondary*

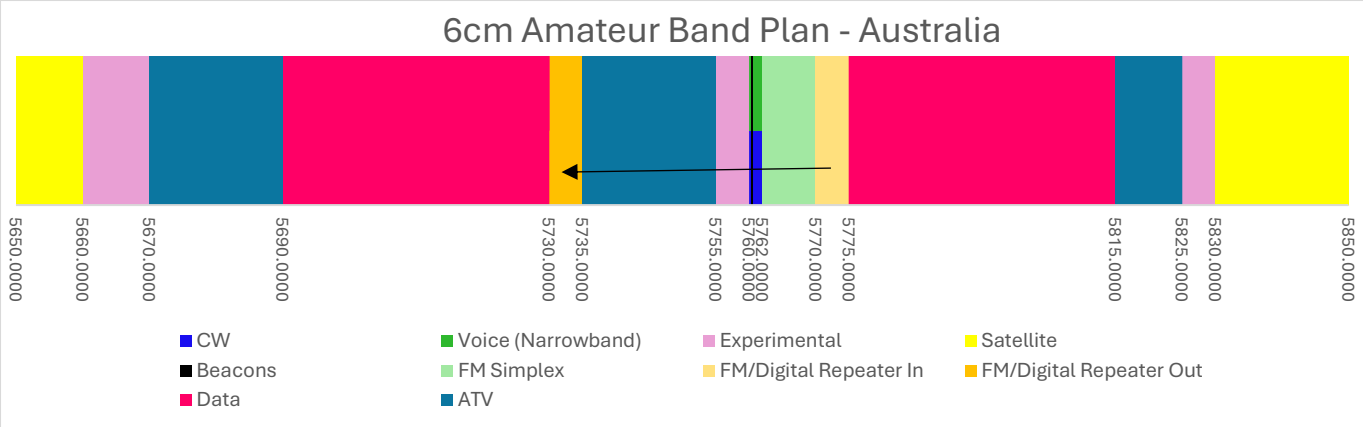
SECONDARY SERVICE:
Amateurs must not cause Harmful Interference to others.
Amateurs must accept Interference from the Primary user.

This band is primarily used by Defence for radars.

RADIO ASTRONOMY: Beware of causing interference to CSIRO facilities at Narrabri, Parkes, Coonabarabran (NSW), Mt Pleasant (Tas), Ceduna (SA), Murchison (WA), Tidbinbilla (ACT). A 250km buffer zone is recommended around these sites

Amateur Band Plan

Lower (MHz)	*Upper (MHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
5650.000	**5660.000**	**AMATEUR SATELLITE (Uplinks)**		**Priority**	
5660.000	**5670.000**	**ALL MODES - EXPERIMENTAL**		**Priority**	***NEW***
5670.000	**5690.000**	**AMATEUR TELEVISION**		**Priority**	***NEW***
5671.500	*5678.500*	*DVB ATV Channel 1 – 5675 MHz*	*< 7 MHz*	***Priority***	
5681.500	*5688.500*	*DVB ATV Channel 2 – 5685 MHz*	*< 7 MHz*	***Priority***	
5690.000	**5730.000**	**WIDEBAND DATA**	< 40 MHz	**Priority**	***NEW*** Wi-Fi Ch 140/144 @ 20MHz or 142 @ 40 MHz
5730.000	**5735.000**	**VOICE REPEATER OUTPUTS (40MHz offset)**	< 25 kHz	**Priority**	***NEW***
5735.000	**5755.000**	**AMATEUR TELEVISION**	< 7 MHz	**Priority**	***NEW***
5736.500	*5743.500*	*DVB ATV Channel 3 – 5740 MHz*	*< 7 MHz*	***Priority***	
5746.500	*5753.500*	*DVB ATV Channel 4 – 5750 MHz*	*< 7 MHz*	***Priority***	
5755.000	**5760.000**	**ALL MODES - EXPERIMENTAL**		**Priority**	***NEW***
5760.000	**5760.400**	**CW** **VOICE (Narrowband SSB)**	< 500 Hz < 3kHz	*Shared* *Shared*	
5760.400	**5760.600**	**BEACONS**	< 500 Hz	**Priority**	
5762.000	**5770.000**	**FM SIMPLEX**	< 100 kHz	**Priority**	***NEW***
5770.000	**5775.000**	**VOICE REPEATER INPUTS (40 MHz Offset)**	< 25 kHz	**Priority**	***NEW***
5775.000	**5815.000**	**WIDEBAND DATA**	< 40 MHz	**Priority**	***NEW*** Wi-Fi Ch 157/161 @ 20MHz or 159 @ 40 MHz
5815.000	**5825.000**	**AMATEUR TELEVISION**			***NEW***
5816.500	5823.500	DVB ATV Channel 5 – 5820 MHz	< 7 MHz	**Priority**	
5825.000	**5830.000**	**ALL MODES - EXPERIMENTAL**		**Priority**	***NEW***
5830.000	**5850.000**	**AMATEUR SATELLITE (Downlinks)**		**Priority**	



Centres of Activity

- 5760.000 – 5760.100 – EME Moon bounce
- 5760.100 – Narrowband Voice (SSB) Call Channel
- 5760.300 – 5760.400 – Narrowband Data Modes (DX / Weak Signal)
- 5765.000 – Analogue Voice Call Channel (FM 25 kHz)
- 5765.300 – ARDF Beacons and Activity
- 5760.400 – 5760.600 - Beacon Sub-band
- 5675.0 - DATV Channel 1
- 5680.0 - FMATV Channel 1
- 5685.0 - DATV Channel 2
- 5740.0 - DATV Channel 3
- 5745.0 - FM ATV Channel 2
- 5750.0 - DATV Channel 4
- 5820.0 - DATV Channel 5

Band Notes:

Voice repeaters are to be allocated on a 100 kHz channel raster starting from 5730.1 MHz (+40 MHz offset)

9.19 3cm Band

10 – 10.5 GHz – Secondary Service - Advanced only

Spectrum Users

10.0 – 10.4 GHz

- **EARTH EXPLORATION SATELLITE (active) – Primary**
- **FIXED Primary** *AUS101A*
- **MOBILE Primary** *AUS101A*
- **RADIOLOCATION Primary** *AUS101A*
- *Amateur – Secondary*

10.4 – 10.45 GHz

- **FIXED Primary** *AUS101A*
- **MOBILE Primary** *AUS101A*
- **RADIOLOCATION Primary** *AUS101A*
- *Amateur – Secondary*

10.45 – 10.5 GHz

- **RADIOLOCATION Primary***AUS101A*
- *Amateur – Secondary*
- *Amateur Satellite - Secondary*

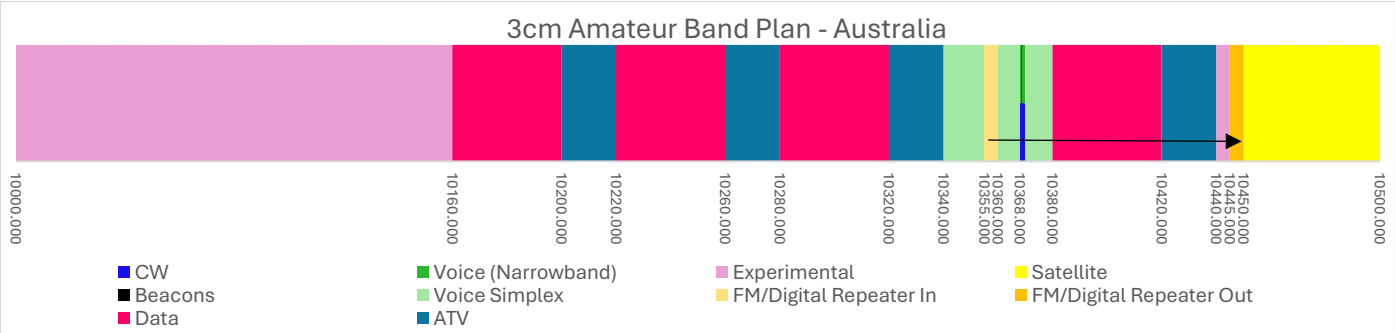
SECONDARY SERVICE:
Amateurs must not cause Harmful Interference to others.
Amateurs must accept Interference from the Primary user.

This band is primarily used by Defence for radars.

RADIO ASTRONOMY: Beware of causing interference to CSIRO facilities at Narrabri, Parkes, Coonabarabran (NSW), Mt Pleasant (Tas), Ceduna (SA), Murchison (WA), Tidbinbilla (ACT). A 250km buffer zone is recommended around these sites

Amateur Band Plan

Lower (MHz)	*Upper (MHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
10000.0	**10160.0**	**EXPERIMENTAL ALL MODES**		**Priority**	
10160.0	**10200.0**	**WIDEBAND DATA**		**Priority**	***NEW***
10200.0	**10220.0**	**AMATEUR TELEVISION**		**Priority**	
10220.0	**10260.0**	**WIDEBAND DATA**		**Priority**	***NEW***
10260.0	**10280.0**	**AMATEUR TELEVISION**		**Priority**	
10280.0	**10330.0**	**WIDEBAND DATA**		**Priority**	***NEW***
10320.0	**10340.0**	**AMATEUR TELEVISION**		**Priority**	
10340.0	**10355.0**	**DIGITAL / ANALOGUE VOICE**	**<500 kHz**	**Priority**	***NEW***
10355.0	**10360.0**	**VOICE REPEATER INPUTS** (90MHz Offset)	**<50 kHz**	**Priority**	***NEW*** 90MHz based on JA
10360.0	**10368.0**	**DIGITAL / ANALOGUE VOICE**	**< 500 kHz**	**Priority**	
10368.0	**10368.1**	**EME Only**	< 3 kHz	**Priority**	
10368.1	**10368.4**	**CW** **SSB**	< 500 Hz < 3kHz	Shared Shared	
10368.4	**10368.6**	**BEACONS**	< 500 Hz	Priority	
10370.0	**10380.0**	**DIGITAL / ANALOGUE VOICE**	**< 25 kHz**	**Priority**	
10380.0	**10420.0**	**WIDEBAND DATA**		**Priority**	***NEW***
10420.0	**10440.0**	**AMATEUR TELEVISION**		**Priority**	
10440.0	**10445.0**	**EXPERIMENTAL ALL MODES**		**Priority**	
10445.0	**10450.0**	**VOICE REPEATER OUTPUTS** (90 MHz Offset)		**Priority**	***NEW***
10450.0	**10500.0**	**AMATEUR SATELLITE**		**Priority**	



Centres of Activity

- 10368.200 – 10368.300 – Digital EME Moon bounce
- 10368.100 – Narrowband Voice (SSB) Call Channel
- 10368.300 – 10368.400 – Narrowband Data Modes (DX / Weak Signal)
- 10368.400 – 10368.600 – Beacon Sub-band
- 10205.0 – DATV Channel 1
- 10210.0 - FM ATV Channel 1
- 10215.0 - DATV Channel 2
- 10265.0 - DATV Channel 3
- 10270.0 - FM ATV Channel 2
- 10275.0 - DATV Channel 4
- 10325.0 - DATV Channel 5
- 10330.0 - FM ATV Channel 3
- 10335.0 - DATV Channel 6
- 10425.0 - DATV Channel 7
- 10430.0 - FM ATV Channel 4
- 10435.0 - DATV Channel 8

Band Notes:

Voice repeaters are to be allocated on a 100 kHz channel raster starting from 10355.1 MHz (+90 MHz offset)

9.20 12mm Band

24.00 – 24.05 GHz – Primary Service - Advanced Licensee only

24.05 – 24.25 GHz – Secondary Service – Advanced Licensee only

Spectrum Users

24.0 – 24.050 GHz *AUS87 (Radio Astronomy)*

- **AMATEUR – Primary**
- **AMATEUR SATELLITE – Primary**
- **INDUSTRIAL SCIENTIFIC MEDICAL – Footnote 150**

24.050 – 24.250 GHz

- **RADIOLOCATION Primary** *AUS101A*
- *Amateur – Secondary*
- *Earth Exploration Satellite – Secondary*

SECONDARY SERVICE:
Amateurs must not cause Harmful Interference to others.
Amateurs must accept Interference from the Primary user.

This band is primarily used by Defence for radars.

RADIO ASTRONOMY: Beware of causing interference to CSIRO facilities at Narrabri, Parkes, Coonabarabran (NSW), Mt Pleasant (Tas), Ceduna (SA), Murchison (WA), Tidbinbilla (ACT). A 250km buffer zone is recommended around these sites

Amateur Band Plan

Lower (MHz)	*Upper (MHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
24000.0	**24050.0**	**SATELLITE**		**Priority**	
24048.0	**24050.0**	**NARROWBAND CW/VOICE/BEACON**	< 3kHz	**Priority**	
24050.0	**24250.0**	**ALL MODES**		**Priority**	

Centres of Activity

- 24048.000 – 24048.100 – EME Moon bounce
- 24048.100 – Narrowband Voice (SSB) Call Channel
- 24048.300 – 24048.400 – Narrowband Data Modes (DX / Weak Signal)
- 24048.400 – 24048.600 – Beacon Sub-band

9.21 6mm Band

47.0 – 47.2 GHz – Primary Service - Advanced Licensee only

Spectrum Users

47.0 – 47.2 GHz *AUS87 (Radio Astronomy)*

- **AMATEUR – Primary**
- **AMATEUR SATELLITE – Primary**

RADIO ASTRONOMY: Beware of causing interference to CSIRO facilities at Narrabri, Parkes, Coonabarabran (NSW), Mt Pleasant (Tas), Ceduna (SA), Murchison (WA), Tidbinbilla (ACT). A 250km buffer zone is recommended around these sites

Amateur Band Plan

Lower (MHz)	*Upper (MHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
47000.0	**47088.0**	**ALL MODES**		**Priority**	
47088.0	**47090.0**	**NARROWBAND CW/VOICE/BEACON**	< 3kHz	**Priority**	
47090.0	**47200.0**	**ALL MODES**		**Priority**	

Centres of Activity

- 47088.000 – 47088.100 – EME Moon bounce
- 47088.100 – Narrowband Voice (SSB) Call Channel
- 47088.300 – 47088.400 – Narrowband Data Modes (DX / Weak Signal)
- 47088.400 – 47088.600 – Beacon Sub-band

9.22 4mm Band

76.0 – 77.5 GHz – Secondary - Advanced only

77.5 – 78.0 GHz – PRIMARY - Advanced only

78.0 – 81.0 GHz – Secondary - Advanced only

Spectrum Users

76.0 – 77.5 GHz *AUS87 (Radio Astronomy 149)*

- **RADIO ASTRONOMY**
- **RADIOLOCATION**
- *Amateur – Secondary*
- *Amateur Satellite – Secondary*
- *Space research (space to earth)*

RADIO ASTRONOMY: Beware of causing interference to CSIRO facilities at Narrabri, Parkes, Coonabarabran (NSW), Mt Pleasant (Tas), Ceduna (SA), Murchison (WA), Tidbinbilla (ACT). A 250km buffer zone is recommended around these sites

Footnote 559B (77.5-78 GHz) RADIOLOCATION: shall be limited to short-range radar for ground-based applications, including automotive radar. The technical characteristics of those radars are provided in the most recent version of Recommendation ITU-R M.2057.

77.5 – 78.0 GHz *AUS87 (Radio Astronomy 149)*

- **AMATEUR – Primary**
- **AMATEUR-SATELLITE – Primary**
- **RADIOLOCATION (559b)**
- *Radio Astronomy - Secondary*
- *Space research (space to earth) – Secondary*

78.0 – 79.0 GHz *AUS87 (Radio Astronomy 149 560)*

- **RADIOLOCATION**
- *Amateur – Secondary*
- *Amateur Satellite – Secondary*
- *Space research (space to earth)*
- *Radio Astronomy - Secondary*
- *Space research (space to earth) – Secondary*

79.0 – 81.0 GHz *AUS87 (Radio Astronomy 149)*

- **RADIO ASTRONOMY**
- **RADIOLOCATION**
- *Amateur – Secondary*
- *Amateur Satellite – Secondary*
- *Space research (space to earth) – Secondary*

Amateur Band Plan

Lower (MHz)	*Upper (MHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
76000.0	**76032.0**	**ALL MODES**		**Priority**	**Note:-** Radioastronomy interference avoidance requirements – no activity within 250km of: Parkes (NSW), Narrabri (NSW), Coonabarabran (NSW), Tidbinbilla (ACT), Mt Pleasant (Tas), Ceduna (SA), Murchison (WA)
76032.0	**76034.0**	**NARROWBAND MODES CW/SSB/DATA**	< 3kHz	**Priority**	
76034.0	**77500.0**	**ALL MODES**		**Priority**	
77500.0	**78000.0**	**ALL MODES**		**Priority**	
78000.0	**81000.0**	**ALL MODES**		**Priority**	

Centres of Activity

- 76032.100 – Narrowband Voice (SSB) Call Channel
- 76032.300 – 76032.400 – Narrowband Data Modes (DX / Weak Signal)
- 76032.400 – 76032.600 – Beacon Sub-band

* NOTE: the WIA does not recommend using the Region 2 narrowband segment at 77.5-77.50 GHz due to the risk of interference with vehicle radar systems.

9.23 2.5mm Band

122.25 – 123.0 GHz – PRIMARY - Advanced only

Spectrum Users

122.25 – 123.0 GHz

- **FIXED - Primary**
- **INTER-SATELLITE – Primary**
- **MOBILE – Primary**
- **INDUSTRIAL SCIENTIFIC MEDICAL** – *Footnote 138*
- *Amateur – Secondary*

Amateur Band Plan

Lower (GHz)	*Upper (GHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
122.250	**122.251**	**NARROWBAND MODES**	< 3 kHz	**Priority**	Secondary
122.251	**122.990**	**ALL MODES**		**Priority**	
122.990	**122.991**	**NARROWBAND MODES**	< 3 kHz	**Priority**	Lower Absorption
122.991	**123.000**	**ALL MODES**		**Priority**	

Centres of Activity

- 122250.100 – Narrowband Voice (SSB) Call Channel
- 122991.100 - secondary Narrowband (lower atmospheric absorption)

9.24 2mm Band

134 – 136 GHz – PRIMARY - Advanced only

136 – 141 GHz – Secondary – Advanced only

Spectrum Users

134.0 – 136.0 GHz

- **AMATEUR - Primary**
- **AMATEUR-SATELLITE – Primary**
- *Radio Astronomy – Secondary*

136.0 – 141.0 GHz

- **RADIO ASTRONOMY - Primary**
- **RADIOLOCATION – Primary**
- *Amateur – Secondary*
- *Amateur Satellite - Secondary*

Amateur Band Plan

Lower (GHz)	*Upper (GHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
134.000	**134.001**	**NAROW BAND MODES**		**Priority**	
134.001	**141.000**	**ALL MODES**			

Centres of Activity

- 134.000 – 134.001 GHz – Narrowband Centre of Activity *

* This segment is preferred as the devices currently being used to activate this band do not always operate successfully above 134.4 GHz

9.25 1.2mm Band

241 – 248 GHz – Secondary - Advanced only

248 – 250 GHz – Primary – Advanced only

Spectrum Users

241.0 – 248.0 GHz

- **RADIO ASTRONOMY - Primary**
- **RADIOLOCATION – Primary**
- **INDUSTRIAL SCIENTIFIC MEDICAL** – *Footnote 138*
- *Amateur – Secondary*
- *Amateur Satellite – Secondary*

248.0 – 250.0 GHz

- **AMATEUR - Primary**
- **AMATEUR-SATELLITE – Primary**
- **INDUSTRIAL SCIENTIFIC MEDICAL** – *Footnote 138*
- *Radio Astronomy – Secondary*

Amateur Band Plan

Lower (GHz)	*Upper (GHz)*	*Use*	*Bandwidth*	*Priority*	*Notes*
241.000	**250.000**	**ALL MODES**		**Priority**	