Spectrum planning framework

Frequency coordination requirements review work program 2021–22

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[Introduction 1](#_Toc85194267)

[Program of review 2](#_Toc85194268)

[Frequency coordination requirements (RALIs) 5](#_Toc85194269)

[Appendix A: List of consultation submissions 10](#_Toc85194270)

[Appendix B: Summary and response to submissions 11](#_Toc85194271)

# Introduction

The Australian Communications and Media Authority (ACMA) is committed to reviewing spectrum planning technical frameworks to ensure they are current and consistent with current technologies and operational practices. Broadly, this comprises 2 workstreams:

Ensuring currency of frequency coordination requirements for apparatus-licensed services. This material is predominately recorded in administrative policy documents referred to as RALIs – Radiocommunications Assignment and Licensing Instructions.

Consideration of spectrum licence technical frameworks and ensuring the continuing appropriateness of spectrum embargoes.

In 2020, we consulted on a program for reviewing spectrum licence technical frameworks. The updated work program is available on the [ACMA website](https://www.acma.gov.au/spectrum-licence-technical-framework-review). Therefore, spectrum licence technical frameworks are outside the scope of this work program.

In the [draft *Five-year spectrum outlook 2021–26*](https://www.acma.gov.au/five-year-spectrum-outlook) (FYSO), we committed to seek industry comment on a draft work program for updating frequency coordination arrangements in various bands. This [consultation process](https://www.acma.gov.au/consultations/2021-07/draft-frequency-coordination-requirements-review-work-program-consultation-252021) occurred from 7 July 2021 to 8 August 2021, with 5 responses received (as listed in [Appendix A](#_Appendix_A-_List)). The work program was updated based on industry input, and a summary and response to submissions is provided in [Appendix B](#_Appendix_B-_Summary). This document outlines the final work program for reviewing frequency coordination requirements over the coming 12 to 18 months.

The review work program included in this document will guide the ACMA in undertaking this work. Importantly, in all cases, any proposed changes will be subject to further consultation. The timeframes provided give an indication of when we intend to undertake this work, however, exact timings will be influenced by broader priorities and any issues identified during the consultation and review process.

# Program of review

In Table 1 below, we outline the program of work that the ACMA intends to undertake to update our suite of frequency assignment and coordination rules. For completeness, it includes activities already identified in the FYSO. In some cases, the activities listed are consequential tasks from other projects or matters that have been separately raised with the ACMA.

There are currently 28 documents, primarily RALIs, that contain frequency assignment and coordination instructions (other RALIs that do not contain assignment and coordination instructions; for example, band plan RALIs, are outside the scope of this review). The proposed review timetable is listed in Table 1 below. The proposed reviews are discussed in further detail below.

While RALI MS03 – Spectrum Embargoes is not included in Table 1, as part of our normal work we will review this document across the next 12–18 months to ensure embargoes are still required and fit-for-purpose.

We have provided indicative timing of the review periods for the relevant RALIs. Exact timings will be influenced by broader priorities and any issues identified during the consultation and review process. Note that while various issues have been identified for consideration in this document, depending on further consideration issues may be added or removed for formal consultation on specific documents. Any potential changes identified in the review process will be investigated which may – or may not – result in those changes being made.

The Regulator Performance Guide[[1]](#footnote-2) outlines the principles of best practice that underpin the government’s expectations of regulators and their performance. The principles are:

**Continuous improvement and building trust**: regulators adopt a whole-of-system perspective, continuously improving their performance, capability and culture to build trust and confidence in Australia’s regulatory settings.

**Risk-based and data-driven**: regulators manage risks proportionately and maintain essential safeguards while minimising regulatory burden and leveraging data and digital technology to support those they regulate to comply and grow.

**Collaboration and engagement**: regulators are transparent and responsive communicators, implementing regulations in a modern and collaborative way.

We will look to identify opportunities to improve our suite of frequency assignment and coordination documents as part of this review, in collaboration with stakeholders. The improved frameworks will support ongoing industry innovation, including by facilitating the adoption of the latest technologies.

Current status of frequency assignment and coordination documents

|  |  |  |  |
| --- | --- | --- | --- |
| Identifier | Title | Review required? | Expected timeframe for undertaking revision |
| FX01 | Frequency assignment requirements for narrowband fixed and mobile services with wideband fixed services in the 403–420 MHz band | No | - |
| FX03 | Microwave fixed services frequency coordination including information on RPE data files | Yes | Q4 2021–Q2 2022 |
| FX14 | Point-to-multipoint fixed services in specified parts of the 3.4–3.5 GHz band | Planned for suppression | 3400–4000 MHz TLG process commenced Q2 2021, finishing Q1 2022 |
| FX16 | Point-to-multipoint fixed services in the VHF high, 400 MHz and 800 MHz bands | No | - |
| FX17 | Frequency assignment requirements for narrowband single channel 2 frequency  point-to-point services in the VHF high and  400 MHz bands | No | - |
| FX19 | Frequency coordination and licensing procedures for apparatus licensed broadband wireless access services in the 1900–1920 and 3575–3700 MHz bands | Yes | 3400–4000 MHz TLG process commenced Q2 2021, finishing Q1 2022 |
| FX20 | Millimetre wave point-to-point (self-coordinated) stations operating in the 58 GHz, 75 GHz and 85 GHz bands | No | - |
| FX21 | Television outside broadcasting services in the bands 1980–2110 MHz and 2170–2300 MHz | No | Update finalised April 2021 |
| FX22 | Frequency assignment requirements for the fixed service in the 800 MHz band | Yes | Q4 2021 to  Q1 2022 |
| FX23 | Frequency coordination and licensing procedures for point-to-multipoint services in  the 5.6 GHz band | Yes | Q1–Q2 2022 |
| LM02 | Paging services | No | - |
| LM05 | Frequency assignment procedures for land mobile services adjacent to TV channels 2, 3 and 6 | No | - |
| LM08 | Frequency assignment requirements for the land mobile service | Yes | Phase 1:  Q1–Q2 2022  Phase 2:  Q1–Q2 2023 |
| LM09 | Frequency assignment procedures for apparatus licensed wireless audio devices | No | - |
| MS31 | Notification zones for apparatus licensed services around radio astronomy facilities | No | - |
| MS32 | Coordination of apparatus licensed services within the ARQZWA | No | - |
| MS33 | Frequency coordination and licensing procedures for apparatus licensed PTS in the  2 GHz bands | Yes | Q1–Q2 2022 |
| MS34 | Frequency coordination and licensing procedures for apparatus licensed PTS in the 1800 MHz band | Yes | Q1-Q2 2022 |
| MS35 | Coordination of 2.5 GHz band spectrum licensed transmitters with radiodetermination stations operated by the Department of Defence in the 2700–2900 MHz band | No | - |
| MS37 | Coordination of spectrum licensed devices operating in the 2.3 GHz band with SRS earth stations in the 2290–2300 MHz band | No | - |
| MS38 | Coordination between earth station transmitters in the fixed-satellite service and other services in the 27.5–30 GHz band | Yes | Q4 2021–Q1 2022 |
| MS39 | Frequency coordination and licensing procedures for apparatus licensed public telecommunications services in the 3.5 GHz band | Planned for suppression | 3400–4000 MHz TLG process commenced Q2 2021, finishing Q1 2022 |
| MS43 | Coordination procedures between New Norcia earth station and other services in the bands: 7145–7235 MHz, 8400–8500 MHz,  25.5–27.0 GHz, 31.8–32.3 GHz, and  34.2–34.7 GHz | Yes | Q4 2021–Q1 2022 |
| MS44 | Frequency coordination procedures for the earth station protection zones | Yes | Q3–Q4 2021 |
| MS45 | Frequency coordination requirements between microwave fixed point to point links and FSS earth stations | Yes | Q4 2021–Q1 2022 |
| MS46 | Licensing and coordination procedures for  area-wide apparatus licensed services in the 26/28 GHz bands | Yes | Q4 2021–Q1 2022 |
| SM26 | Restrictions on Apparatus Licensing in Spectrum Licensed Spaces | No | - |
| SP 4/93 | Coordination procedures for the licensing of services sharing the 857–861 MHz band | No | Due for suppression by 30 June 2023 |

## Frequency coordination requirements (RALIs)

### FX03

RALI FX03 details arrangements for microwave fixed services frequency coordination. A significant review of RALI FX03 arrangements will be conducted between Q4 2021 and Q2 2022. A consultation process will be conducted to consider a range of updates, some of which stem from recent ACMA band reviews. The updates to be considered will include:

Implementation of relevant outcomes of the 3700–4200 MHz review. These are outlined in the [*Replanning the 3700–4200 MHz band: Outcomes paper*](https://www.acma.gov.au/consultations/2020-07/planning-options-3700-4200-mhz-band-consultation-222020) and involves reviewing arrangements for point-to-point services in the 3.8 GHz band.

Implementation of relevant outcomes of the 2 GHz band (1980–2010 and   
2170–2200 MHz) review. These are outlined in the [*Replanning the 2 GHz band (1980–2010 and 2170–2200 MHz): Outcomes paper*](https://www.acma.gov.au/consultations/2020-07/replanning-options-2-ghz-band-consultation-232020) and involves reviewing 7.2 GHz television outside broadcast (TOB) arrangements to reflect current digital technologies used, including development of coordination arrangements to support the transition of 2 GHz TOB licensees.

Consideration of new channel arrangements of 56 MHz and 112 MHz in the   
14.5–15.35 GHz band (the 15 GHz band) and consideration of arrangements for channel aggregation more broadly across point-to-point bands.

Review of the minimum front-to-back (F/B) ratio requirements and consideration of potential changes to the minimum antenna requirement framework.

Consideration of additional information regarding transmitter/antenna/polarisation diversity.

Consideration of non-binding reference (for purposes of guidance only) to relevant European Telecommunication Standards Institute (ETSI) Standards and Federal Communication Commission (FCC) Rules under Section 2.1.4 of RALI FX3.

Consideration of the existing approach to protection ratios and potential improvements to this coordination mechanism.

Consideration of the current approach to minimum path lengths and potential changes to that approach.

As part of the review, the entire RALI will be considered to ensure it remains up to date, including references to external documents such as International Telecommunications Union Radiocommunication Sector (ITU-R) recommendations and reports.

### FX14

RALI FX14 details arrangements for point-to-multi-point fixed services in specified parts of the 3.4–3.5 GHz band. The intention is to suppress RALI FX14 and absorb relevant content into a new RALI that includes apparatus assignment and licensing arrangements for wireless broadband services across the entire 3400–4000 MHz band. Consolidating arrangements for apparatus licensed wireless broadband use into a single RALI will help simplify access to this band by interested parties. This is expected to maximise the overall public benefit derived from use of the band allowing for a combination of uses and users, including both wide-area and local-area wireless broadband services. This work is part of the 3400–4000 MHz TLG process which commenced in Q2 2021 and is expected to conclude in Q1 2022.

### FX19

Frequency coordination and licensing procedures for apparatus licensed broadband wireless access services in the 1900–1920 and 3575–3700 MHz bands are outlined in RALI FX19. Existing material regarding the 3575–3700 MHz band will be removed, and relevant content absorbed into a new RALI containing assignment and licensing arrangements for wireless broadband services across the 3400–4000 MHz band. Consolidating arrangements for apparatus licensed wireless broadband use into a single RALI will help simplify access to this band by interested parties. This is expected to maximise the overall public benefit derived from use of the band allowing for a combination of uses and users including both wide-area and local-area wireless broadband services. This work is part of the 3400–4000 MHz TLG process which commenced in Q2 2021 and is expected to conclude in Q1 2022.

At the same time, minor updates will be made to arrangements in the 1900–1920 MHz band to account for the removal of spectrum licences in metropolitan areas in this band.

There will also be a review of the 1880–1920 MHz band commencing in Q4 2021. The 1880–1920 MHz band may be a candidate for changes to support new technologies including DECT-2020, local area wireless broadband applications such as private networks and Future Rail Mobile Communications Systems. This may result in future changes to RALI FX19.

### FX22

RALI FX22 contains frequency assignment requirements for the fixed service in the 800 MHz band.

A technical liaison group (TLG) was established in December 2020 to consider technical frameworks to support the reallocation of the 850 MHz and 900 MHz bands.[[2]](#footnote-3) Feedback from the TLG highlighted a need to incorporate coordination arrangements to enable coexistence of fixed services in the 800 MHz band and services operating under the 850 MHz band spectrum licences. This RALI will be updated to take into account changes made to the 850 MHz and 900 MHz spectrum licence technical frameworks. Work is expected to occur across Q4 2021 and Q1 2022.

### FX23

Frequency coordination and licensing procedures for point-to-multi-point services in the 5.6 GHz band are detailed in RALI FX23. We intend to make editorial updates and update Annex D, which contains the locations and parameter values for potential sites for future weather radars. This will ensure the 5.6 GHz band is available for utilisation to its full potential by ensuring co-ordination with incumbent services is based on the most up-to-date technical characteristics. This work is expected to occur across Q1 and Q2 2021.

### LM08

RALI LM8 contains frequency assignment requirements for the land mobile service. The ACMA intends to review aspects of LM08 in two phases.

In the phase 1, the service models will be looked at and maybe subject to review.   
This would include looking at the frequency distance reuse constraints for 400 MHz including whether changes are appropriate for new digital systems. This is planned to occur across the first half of 2022.

Phase 2 of RALI LM8 update will consider implementing the required amendments aligned with the 803–960 MHz band review [decision paper](https://www.acma.gov.au/publications/2015-12/report/acmas-long-term-strategy-803-960-mhz-band-decision-paper) published in 2015.

As described in the decision paper, the planned LM8 update in Q1–Q2 2023 will include:

Amending frequency limits for the 800 MHz trunked land mobile band in Annex A (Table A1) from 806–870 MHz to 806–854 MHz.

Removing Table B4.2, renaming Table B4.2a as Table B4.2 (which will put into effect the removal of the allocation at 820–825/865–870 MHz) and changing channel numbers from 201–440 to 1–240.

Removing Table B4.1, renaming Table B4.1a as Table B4.1 and changing channel numbers from 201–440 to 1–240.

Amending Annex E to reflect changes to adjacent services and operating frequencies.

Amending E4 to describe services conforming to technical frameworks to be developed for the 850 MHz expansion band, operating upper adjacent (that is, at the 809/854 MHz boundary).

Retaining existing frequency-distance constraints and technical parameters for intermodulation checking purposes.

### MS33

Frequency coordination and licensing procedures for apparatus licensed Public Telecommunications Services (PTS) in the 2 GHz bands are detailed in RALI MS33. This RALI will be updated to include support for active antenna systems (AAS). This work is planned to be conducted in parallel with updates to RALI MS34 in Q1 and Q2 2022.

### MS34

Frequency coordination and licensing procedures for apparatus licensed PTS in the 1800 MHz bands are detailed in RALI MS34. This RALI will be updated to support AAS and review assignment priorities in remote areas. This work is planned to be conducted in parallel with updates to RALI MS33 in Q1 and Q2 2022.

### MS38

Arrangements for coordination between earth station transmitters in the fixed-satellite service and other services in the 27.5–30 GHz band are outlined in RALI MS38. This RALI is linked to RALI MS46 and may be updated as part of any improvements made to RALI MS46 (see below). Work on this revision is planned to occur in Q4 2021 and Q1 2022.

### MS39

RALI MS39 contains frequency coordination and licensing procedures for apparatus licensed public telecommunications services in the 3.5 GHz band. The intention is to suppress RALI MS39 and absorb relevant content into a new RALI that includes apparatus assignment and licensing arrangements for wireless broadband services across the entire 3400–4000 MHz band. Consolidating arrangements for apparatus licensed wireless broadband use into a single RALI will help simplify access to this band and allow for a combination of uses and users, including both wide-area and local-area wireless broadband services. This work is part of the 3400–4000 MHz TLG process which commenced in Q2 2021 and is expected to conclude in Q1 2022.

### MS43

RALI MS43 outlines coordination procedures between New Norcia earth station and other services in the bands: 7145–7235 MHz, 8400–8500 MHz, 25.5–27.0 GHz,   
31.8– 32.3 GHz, and 34.2–34.7 GHz. Several updates are required to this RALI, including updating technical characteristics of some transmitters and receivers listed in the RALI and including arrangements for Tidbinbilla earth stations in the bands currently covered by the RALI, as well as the 22.55–23.15 GHz band.

Arrangements for the 25.5–27 GHz band are now covered under RALI MS46 which provides a consistent treatment of frequency coordination requirements in this band. It is intended that detailed frequency coordination requirements for the 25.5–27 GHz band will be removed from RALI MS43 to avoid duplication and the risk of inconsistencies. However, to ensure visibility, cross references between RALI MS 43 and RALI MS 46 will be included.

This work will occur in Q4 2021 and Q1 2022.

### MS44

RALI MS 44, which outlines frequency coordination procedures for the earth station protection zones (ESPZs), will be updated to extend eastern ESPZs to cover parts of the 3400–3575 MHz band that are not subject to spectrum licensing. These updates have been discussed within the recent 3.4 GHz TLG and supported by members. This update commenced with consultation in Q3 2021 and is expected to be finalised in Q4 2021. Further potential changes to MS44 will be considered on a case-by-case basis.

### MS45

Frequency coordination requirements between microwave fixed point-to-point links and fixed-satellite service (FSS) earth stations is detailed in RALI MS45. This RALI will be further incrementally developed by the addition of arrangements in additional frequency bands, starting with additional earth transmit bands. This work will occur in Q4 2021 and Q1 2022.

### MS46

RALI MS46 details licensing and coordination procedures for area-wide apparatus licensed services in the 26/28 GHz bands. The coexistence arrangements contained in this RALI include several new concepts which are used for the first time in Australia’s spectrum management regime. The ACMA plans to review this RALI to identify areas where updates can be made to improve its clarity and operation in Q4 2021 and Q1 2022. This will include the insertion of cross references between RALI MS 43 and RALI MS 46.

### SP 4/93

SP 4/93 contains coordination procedures for the licensing of services sharing the 857–861 MHz band. This document will be suppressed by 30 June 2023 as part of the implementation of the view of the 803–960 MHz band – the frequencies covered by this document have been reallocated for spectrum licensing, and assignment instructions for the relocated services are now contained in RALI FX 22.

# Appendix A: List of consultation submissions

Five submissions were received from the following organisations, and are available on the [ACMA website](https://www.acma.gov.au/consultations/2021-07/draft-frequency-coordination-requirements-review-work-program-consultation-252021):

Australian Mobile Telecommunications Association (AMTA)

Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Communications Alliance Satellite Services Working Group (CA SSWG)

Department of Defence

Inmarsat and Intelsat.

# Appendix B: Summary and response to submissions

A summary and response to submissions is provided related to each RALI is provided below. Where a RALI is not included, no comments were received in relation to the document in submissions. Views expressed by submitters to be involved in the review of a RALI have been noted by the ACMA but not explicitly commented on below. All reviews of RALIs will be subject to public consultation which will provide the opportunity for submitters to participate in the review.

## FX03

The CA SSWG, along with Inmarsat and Intelsat, noted their interest in the review of RALI FX03. They supported coordination processes and protection criteria being included between FSS and FS in this RALI (e.g., 3580–4200 MHz & 5925–6425 MHz C-bands, 10.7–11.7 GHz, 12.75–13.25 GHz Ku-bands, 17.7–19.7 GHz,   
27.5–29.5 GHz Ka-bands, etc) from the relevant ITU-R Recs, including   
ITU-R SF.1006 & SM.1448-1.

Defence supported the proposal to introduce wider bandwidths of 56 MHz and 112 MHz in the 15 GHz band as well as options for channel aggregation across other bands allocated to fixed services.

Defence suggested listing of the relevant European Telecommunication Standards Institute (ETSI) Standards and Federal Communication Commission (FCC) Rules under Section 2.1.4 of RALI FX3.

Defence also suggested adjusting protection ratios (PRs) to improve spectrum efficiency, while still meeting the required performance standards for fixed links. Defence is of the view that the PRs are too high due to an overestimation of the fade margin which is calculated for a 0.01% outage. Defence suggested an option to coordinate fixed links taking into account the actual required availability provided by the link operator. They noted that Ofcom[[3]](#footnote-4) use such a model.

Defence requested consideration of developing alternative methods suitable for future software driven coordination procedures.

Defence suggested the introduction of an approach to minimum path lengths similar to that used by Ofcom, where operators are able to apply for links of any viable path length in any of the co-ordinated frequency bands, but an increased fee is incurred when diverging from the reference value, or higher data rate systems could be permitted.

Defence suggests a review of the minimum antenna requirement framework rather than only reviewing the front-to-back ratios, again pointing to Ofcom’s approach to the issue which specifies the minimum class of antenna rather than simply considering front-to-back ratios.

### Response to submissions

Processes for coordination between the FSS and the fixed service are outlined in other RALIs such as MS45. The scope of RALI FX03 is limited to intra-service coordination within the fixed service.

The suggestions from the Department of Defence will be considered when reviewing RALI FX03. The work program has been updated to acknowledge these suggestions. However, the potential benefits of these suggestions will need to be identified and weighed up against any implications of employing more complex arrangements. The perspectives of other fixed link operators will be important in informing answers to these questions. Importantly, some aspects of the Defence suggestions go beyond frequency assignment rules to including pricing considerations. If pursued these would need to be considered in conjunction with pricing work and hence would likely be considered on a separate time frame to other possible changes.

It should also be noted that out of policy exemptions can be requested where more complex coordination processes show the viability of an assignment.

While the addition of further information regarding antenna performance could be considered, the inclusion of equipment standards is a broader issue potentially outside the scope of RALI FX03 and would in any event need to be considered in the context of the cost/benefit of potential additional regulation.

## FX14

The CA SSWG, along with Inmarsat and Intelsat, noted their interest in the review of RALI FX14.

### Response to submissions

RALI FX14 will be considered as part of the 3400–4000 MHz TLG process.

## FX19

The CA SSWG, along with Inmarsat and Intelsat, noted their interest in the review of RALI FX19.

### Response to submissions

The 3575–3700 MHz aspects of RALI FX19 will be considered as part of the   
3400–4000 MHz TLG process. The 1900–1920 MHz aspects will be considered as part of the review of the 1880–1920 MHz band.

## LM08

AMTA suggested the review of RALI LM8 should be separated into separate stages. They suggested amendments to Annex E to reflect changes to adjacent services and operating frequencies be made considerably earlier than 30 June 2023, suggesting mid-2022 for this change. They requested that, at the same time, clear guidance be inserted into RALI LM8 to reinforce that pre-transition or ‘legacy’ arrangements are only temporary and that any trunked land mobile service (TLMS) in the pre-transition arrangements are subject to a requirement to shift down to the post-transition arrangements by no later than the compliance date.

AMTA intimated that other editorial modifications noted in the draft review work program would occur quickly around the compliance date in mid-2024. They noted it may be useful to maintain plans for the legacy arrangements – for information only –until there are no more services using those arrangements.

AMTA did not object to a review of frequency/distance constraints being undertaken prior to or in parallel to reviewing other parts of RALI LM8.

Defence suggested the development of coordination criteria that enables the use of terrain to enhance spectrum use considering the increased use of complex spectrum management tools.

### Response to submissions

At this stage, given that coexistence with future spectrum licence services is outlined in the spectrum licence technical framework for the 850 MHz band, we intend to continue with the implementation plan for the 803–960 MHz band outlined in the [decision paper](https://www.acma.gov.au/publications/2015-12/report/acmas-long-term-strategy-803-960-mhz-band-decision-paper).

Pre-transition or ‘legacy’ arrangements for TLMS in the 850 MHz band in which spectrum licences are due to be allocated via auction in late 2021 will cease by the commencement of the spectrum licences on 1 July 2024. There is ample guidance in ACMA documentation to illustrate this policy.

The work program has been updated to reflect consideration of the system model and 400 MHz frequency/distance reuse constraints. In phase 1 of RALI LM8 update in   
Q1–Q2 2022, an investigation into the calculation and modelling procedures for the RALI LM8 frequency distance requirements will be completed. Other suggestions received will also be considered in the review. However, the potential benefits of these suggestions will need to be weighed up against any costs of implementation of more complex arrangements. It should also be noted that out of policy exemptions can be requested where more complex coordination processes show the viability of an assignment.

## MS37

AMTA suggested that RALI MS37 should also be reviewed to consider the impacts of base stations employing AAS with dynamic beamforming, similar to the reviews of RALIs MS33 and MS34 foreshadowed in the draft review work program.

### Response to submissions

The ACMA will consider the impacts of base stations employing AAS in future revisions to RALI MS37. However, this will not be added to this work plan as it is currently not scheduled to occur within the next 12–18 months.

## MS38

The CA SSWG, along with Inmarsat and Intelsat, noted their interest in the review of RALI MS38.

CSIRO noted that the applicable frequency range of RALI MS38 had recently been reduced to apply only to the 27.5–30 GHz band.

### Response to submissions

The frequency range has been corrected in the final review work program.

## MS39

The CA SSWG, along with Inmarsat and Intelsat, noted their interest in the review of RALI MS39.

### Response to submissions

RALI MS39 will be considered as part of the 3400–4000 MHz TLG process.

## MS43

CSIRO supported the proposed review of RALI MS43, in particular the addition of Canberra Deep Space Communication Complex (CDSCC) (Tidbinbilla) and associated coordination criteria as well as the addition of the 22.55–23.15 GHz band (the 22 GHz band).

However, CSIRO does not support the foreshadowed removal and transfer of the current 26 GHz band sharing criteria and methodology in RALI MS43 to RALI MS46. While RALI MS46 correctly refers to the need to ‘coexist with space research service (SRS) earth stations operating in the range 25.5–27.0 GHz’, CSIRO believe the methodology for coexistence should remain in RALI MS43 as this has been (and should remain) the ultimate reference for the continued sharing of other services with SRS in the multiple bands within which SRS operates. CSIRO suggested the inclusion of the fundamental rules in RALI MS46 could be appropriately complemented with a cross-reference to RALI MS43.

CSIRO suggested that the reviews of both RALIs MS43 and MS46 occur concurrently within one public consultation.

### Response to submissions

Given the nuances of the area-wide apparatus licence (AWL) framework, compared to traditional site-based apparatus licensing, it is preferred that all coordination arrangements for the 26/28 GHz bands remain in a consolidated manner in RALI MS46 (including coordination arrangements with New Norcia and CDSCC). Cross references between RALI MS43 and MS46 will be included.

Given this preference, the ACMA does not believe it crucial for the reviews of RALI MS43 and MS46 to run concurrently, however exact timings are yet to be determined.

## MS44

The CA SSWG, along with Inmarsat and Intelsat, noted their interest in the review of RALI MS44.

### Response to submissions

RALI MS44 will be considered as part of the 3400–4000 MHz TLG process.

## MS45

The CA SSWG, along with Inmarsat and Intelsat, noted their interest in the review of RALI MS45.

### Response to submissions

Additional Earth transmit frequency bands will be considered for inclusion in RALI MS45 in Q4 2021 to Q1 2022.

## MS46

The CA SSWG, along with Inmarsat and Intelsat, noted their interest in the review of RALI MS46.

CSIRO believes that the inclusion of a cross reference in RALI MS46 pointing to RALI MS43 as the ultimate technical reference for determining acceptable sharing coexistence with SRS within the prescribed 200 km radius coordination zones around New Norcia and CDSCC stipulated in RALI MS46 would be the simplest, most unambiguous and appropriate structure and ensures all possible coexistence considerations are addressed, including the defined exclusion zones around these sites provided in RALI MS43.

CSIRO suggested that the reviews of both RALIs MS43 and MS46 occur concurrently within one public consultation.

Defence suggested considering the use of area wide licences for land mobile services operating in the 400 MHz and 800 MHz bands. While Defence acknowledged that this option is not feasible for high and medium density areas, they noted it might be an achievable solution for land mobile systems operating in rural and remote areas which would facilitate Defence usage of land mobile services in Defence’s training areas across Australia.

### Response to submissions

It is preferred that all coordination arrangements for the 26/28 GHz bands remain in RALI MS46 (including coordination arrangements with New Norcia and CDSCC). Cross references between RALI MS43 and MS46 will be included.

Given this preference, the ACMA does not believe it crucial for the reviews of RALI MS43 and MS46 to run concurrently, however exact timings are yet to be determined.

We note Defence’s suggestion regarding the possible use of AWLs in the 400 MHz and 800 MHz bands. Given RALI MS46 is limited to AWLs in the 26/28 GHz bands, prospective arrangements for AWLs in other bands is outside the scope of this review. Expansion of the use of AWLs to other bands would generally be considered as part of the broader work program included in the FYSO.

## MS03 Spectrum Embargoes

The CA SSWG, along with Inmarsat and Intelsat, noted their interest in the review of embargoes 23, 42, 48, 72, 78 and 79. They suggested that embargo 78 needs to be amended now to allow new FSS assignments in the 3800–4000 MHz range, especially at existing earth station sites, now that the ACMA has released their [*Replanning the 3700–4200 MHz band – Outcomes paper*.](https://www.acma.gov.au/consultations/2020-07/planning-options-3700-4200-mhz-band-consultation-222020)

### Response to submissions

Embargo 78 is likely to be amended in stages, simultaneous with the proposed allocation processes in the 3400–4000 MHz range, outlined in the FYSO.

1. Available on the [Department of Prime Minister and Cabinet website](https://deregulation.pmc.gov.au/sites/default/files/regulator-performance-guide.pdf). [↑](#footnote-ref-2)
2. See the [Radiocommunications (Spectrum Re-allocation—850/900 MHz Band) Declaration 2020](https://www.legislation.gov.au/Details/F2020L01407). [↑](#footnote-ref-3)
3. Ofcom is the UK's communications regulator. More information is available on [their website](https://www.ofcom.org.uk/). [↑](#footnote-ref-4)