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Radiocommunications Assignment and Licensing Instruction

**FREQUENCY PLAN FOR SERVICES IN THE  
800 MHZ BAND  
(803–890 MHZ)**

## Amendment History

Date	Comments
August 2015	Initial draft covering material taken from the Radiocommunications 900 MHz Band Plan 1992
September 2015	Finalised RALI following public consultation.
July 2016	Updated to prepare for the transition of single frequency fixed services as per Milestone 1 of the 803-960 MHz review implementation plan, see: <a href="#">The ACMAs long-term strategy for the 803-960 MHz band</a> . The primary change is to provide a new channelling raster for fixed services in the 845-849 MHz segment, and to remove redundant allocations in the 825-845 and 870-890 MHz segments.
August 2018	Updated to provide incremental allocation changes (contained in appendix A-D) to support the 803-960 MHz review implementation plan until completion.
July 2020	Update to include provisions previously contained in Embargo 64. These include provisions to give priority access to services required to relocate as a result of the <a href="#">803–960 MHz review</a> . See IFC 12/2020.
November 2024	Editorial and factual update, including: <ul style="list-style-type: none"> <li>• Extending the frequency range subject to spectrum licensing to include 814-825 MHz / 859-870 MHz<sup>1</sup> in Figure 1 and Table 1.</li> <li>• Removing out-of-date and redundant appendices.</li> <li>• Providing information about the spectrum reservation in 809-814/854-859 MHz for a public safety mobile broadband capability.</li> </ul>

Suggestions for improvements to Radiocommunications Assignment and Licensing Instruction MS 40 may be addressed to The Manager, Spectrum Planning Section, ACMA at PO Box 78, Belconnen, ACT, 2616, or by e-mail to [freqplan@acma.gov.au](mailto:freqplan@acma.gov.au). It would be appreciated if notification to ACMA of any inaccuracy or ambiguity found be made without delay in order that the matter may be investigated, and appropriate action taken.

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<sup>1</sup> Refer to the applicable reallocation declaration and [RALI SM26](#) for this range.

## Table of Contents

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<b>1</b>	<b>PURPOSE.....</b>	<b>3</b>
<b>2</b>	<b>FUTURE ARRANGEMENTS IN THIS FREQUENCY BAND.....</b>	<b>3</b>
<b>3</b>	<b>SPECTRUM ARRANGEMENTS .....</b>	<b>3</b>
3.1	ASSIGNMENT CONDITIONS .....	4
<b>4</b>	<b>RALI AUTHORISATION.....</b>	<b>4</b>
	<b>APPENDIX A: ALLOCATION AND CHANNELLING ARRANGEMENTS.....</b>	<b>5</b>

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# FREQUENCY PLAN FOR THE 800 MHz BAND 803 - 890 MHz

## 1 Purpose

The purpose of this Radiocommunications Assignment and Licensing Instruction (RALI) is to set out spectrum planning arrangements for radiocommunications services in the frequency band 803 to 890 MHz (known as the 800 MHz Band). The RALI specifies the service allocations including the frequency limits of each allocation segment, and the channelling arrangements within these segments (where applicable).

This RALI, together with the related RALI MS 41 (for the 900 MHz band) replaces the *Radiocommunications 900 MHz Band Plan 1992* which ceased on 1 October 2015 under “sunsetting” provisions of the *Legislative Instruments Act 2003*.

In making decisions, accredited frequency assigners and the ACMA’s officers should take all relevant factors into account and decide each case on its merits. Issues relating to this document that appear to fall outside the enunciated policy should be referred to the Manager, Spectrum Engineering Section, PO Box 78, Belconnen, ACT, 2616, or by e-mail to [freqplan@acma.gov.au](mailto:freqplan@acma.gov.au).

## 2 Future arrangements in this frequency band

The ACMA commenced a review of arrangements in the 803–960 MHz frequency band in May 2011 (the Review). The scope of the Review included services operating within the band 820-960 MHz, as well as consideration of future use of the 803-820 MHz segment vacated as part of the digital dividend. In November 2015, the ACMA completed the Review and released its decision in the paper: ‘[The ACMA’s long-term strategy for the 803-960 MHz band](#)’ (the Decision paper). The Decision paper contains a range of decisions on reforms to the 803-960 MHz band, as well as a detailed plan for the implementation of these reforms (see Section 3.3 of the Decision paper).

Previous versions of this RALI provided incremental changes to the spectrum allocations in the 800 MHz band, effective at different points in time between 1 July 2020 and 1 July 2024, to support the implementation of the new arrangements in the 800 MHz band. These incremental changes aligned with the Review implementation plan detailed in the Decision paper. As such the spectrum allocations in Appendix A now reflect the final arrangements in the band at the completion of the review implementation process.

## 3 Spectrum arrangements

Spectrum allocation and channelling arrangements for the 800 MHz band are contained Appendix A.

As detailed in the Decision paper, arrangements may be introduced to allow two frequency fixed links to access spectrum in the adjacent trunked land mobile segment (806-809/851-854 MHz) on a secondary basis as a means of alleviating potential congestion in the future (see section 3.2.3.1 of the Decision paper). These arrangements are currently not included in the spectrum allocations detailed in the appendices to this RALI. The ACMA will consider introduction of these arrangements at a future date if congestion issues arise.

### **3.1 Assignment Conditions**

Services are to be assigned in accordance with this RALI.

Channelling arrangements other than those specified in this RALI may be authorised where such arrangements provide for more efficient use of the spectrum, when compared to the channelling arrangements specified for that segment in this RALI. In determining the spectrum efficiency of a service, without limiting the range of matters which may be taken into account, the following matters may be considered:

- Occupied bandwidth;
- Adjacent channel performance;
- The distance from the transmitter that the channel may be used again without causing harmful interference; and
- The impact that introduction of the service will have upon existing services

## **4 RALI Authorisation**

Approved      07/11/2024

Manager  
Spectrum Planning Section  
Spectrum Planning and Engineering Branch  
Communications Infrastructure Division  
Australian Communications and Media Authority

## **Appendix A: Allocation and Channelling Arrangements**

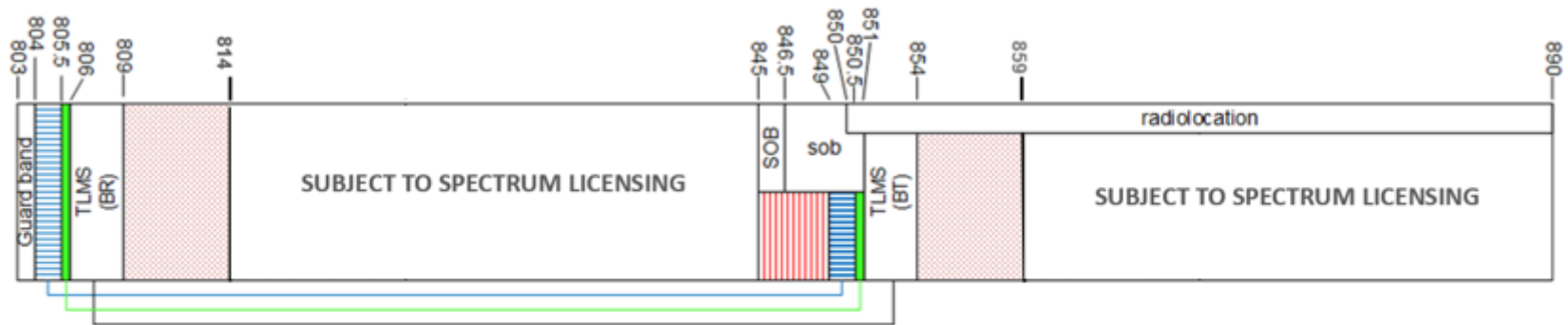
The allocation and channelling arrangements for the 800 MHz band are set out in the following figure and tables:





**Figure 1: 800 MHz band services (803 - 890 MHz) diagram**

**Table 1: Service allocations and channelling arrangements for primary services**

**Table 2: Service allocations and channelling arrangements for secondary services**

Figure 1: 800 MHz band (803 – 890 MHz) services diagram



-  RESERVED FOR A PSMB CAPABILITY
-  FIXED POINT-TO-POINT (TWO FREQUENCY)
-  FIXED POINT-TO-MULTIPOINT (TWO FREQUENCY)
-  FIXED POINT-TO-POINT (SINGLE FREQUENCY)

Note: This diagram should be read in conjunction with Tables 1 and 2 (including notes) of the Plan.

ABBREVIATIONS	
BR =	Base Receive
BT =	Base Transmit
┌ =	Paired segment
TLMS =	Trunked Land Mobile Service
SOB =	Sound Outside Broadcast Link

LEGEND
Services printed in upper case letters are primary services. See Table 1.
Services printed in lower case letters are secondary services. See Table 2.

**Table 1: Service allocations and channelling arrangements for primary services (note 1)**

Item	Segment frequency limits (MHz) (lower limit exclusion, upper limit inclusive)	Service allocation	Paired segment (MHz)	Maximum channel bandwidth (kHz)	Channel centre frequency formula	Range of integer values for variable 'n' (inclusive)	First channel/last channel centre frequency (MHz)
1	803 - 804	Guard band (see note 2)					
2	804 – 805.5	Fixed point-to-point (two frequency)	849 – 850.5	200	$803.99375 + n$ (0.0125)	1 to 120	804.00625 805.49375
3	805.5 - 806	Fixed point-to-multipoint (two frequency, base receive)	850.5 – 851	25	$805.49375 + n$ (0.0125)	1 to 40	805.50625 805.99375
4	806 - 809	Land Mobile Service (trunked, base receive) (see note 3)	851 – 854	25	$805.99375 + n$ (0.0125)	1 to 240	806.00625 808.99375
5	809 - 814	Set aside pending government consideration of a public safety mobile broadband (PSMB) capability (see notes 4 and 4a)					
6	814 - 845	Subject to spectrum licensing (see note 5)					
7	845 - 846.5	Fixed point-to-point (single frequency) (see note 6)		400	$844.99375 + n$ (0.0125)	1 to 120	845.00625 846.49375



Item	Segment frequency limits (MHz) (lower limit exclusion, upper limit inclusive)	Service allocation	Paired segment (MHz)	Maximum channel bandwidth (kHz)	Channel centre frequency formula	Range of integer values for variable 'n' (inclusive)	First channel/last channel centre frequency (MHz)
		Sound Outside Broadcast Link					
8	846.5 - 849	Fixed point-to-point (single frequency) (see note 6)		400	$846.49375 + n$ (0.0125)	1 to 200	846.50625 848.99375
9	849 – 850.5	Fixed point-to-point (two frequency)	804 – 805.5	200	$848.99375 + n$ (0.0125)	1 to 120	849.00625 850.49375
10	850.5 - 851	Fixed point-to-multipoint (two frequency, base transmit)	805.5 – 806	25	$850.49375 + n$ (0.0125)	1 to 40	850.50625 850.99375
11	851 - 854	Land Mobile Service (trunked, base transmit) (see note 3)	806 – 809	25	$850.99375 + n$ (0.0125)	1 to 240	851.00625 853.99375
12	854 - 859	Set aside pending government consideration of a PSMB capability (see notes 4a and 7)					
13	859 – 890	Subject to spectrum licensing (see note 5)					

**Notes:**

1. The allocations for these primary services are represented in Figure 1.
2. No services are to be assigned in the 803-804 MHz guard band.
3. Segments referenced by this note may be authorised for use by users of:

- land mobile services (two frequency), if such services are used in conjunction with a land mobile service (trunked); or
  - other land mobile services that make equivalent or more efficient use of the spectrum, as compared to the designated service allocation.
4. No new assignments are to be made in this segment.
  - 4a. In May 2020, the Minister for Communications, Cyber Safety and the Arts announced the government’s communications policy objectives for the 850/900 MHz band, including support for a public safety mobile broadband (PSMB) capability. To support this capability, the frequency range 809-814-854-859 MHz was withheld from the Radiocommunications (Spectrum Re-allocation – 850/900 MHz Band) Declaration 2020, that declared spectrum in the frequency ranges 814–825 MHz, 859–870 MHz, 890–915 MHz and 935–960 MHz where subject to spectrum licensing.
  5. This frequency range is subject to spectrum licensing in defined areas, see [RALI SM26](#). No apparatus licences may be issued in bands and areas that are subject to spectrum licensing provisions,
  6. Services in this segment which were licensed prior to 1 July 2016 do not need to comply with the specified channelling arrangements, with the exception of the maximum channel bandwidth.
  7. No new assignments are to be made in this segment, other than secondary radiolocation services (see Table 2).

**Table 2: Service allocations and channelling arrangements for secondary services (note 1)**

Item	Segment frequency limits (MHz) (lower limit exclusion, upper limit inclusive)	Service allocation
1	846.5 - 850	Sound Outside Broadcast Link
2	850 – 851	Sound Outside Broadcast Link
		Radiolocation (see note 2)
3	851 - 890	Radiolocation (see note 2)

**Notes:**

1. The allocations for these secondary services are represented in Figure 1.
2. Assignments to users other than the Department of Defence or the Australian Defence Force will not normally be authorised for this service. In this segment the service is primary in offshore areas.