

Five-year spectrum outlook 2018–22

Progress report for July–December 2018

MARCH 2019

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Introduction

The *Five-year spectrum outlook 2018–22* (FYSO) six-monthly progress report describes the current status of activities outlined in the most recent FYSO. The publishing of this information is in line with the [Spectrum Review's](#) call for greater government transparency and accountability.

The ACMA is committed to providing regular updates on processes and explanations of changes to its plans. Further updates and next steps for the ACMA's spectrum management activities will be outlined in the forthcoming draft FYSO 2019–23.

The report consists of nine tables that describe progress in delivering the ACMA's 2018–19 work program for the period of 1 July to 31 December 2018. Where applicable, it provides reasons for any timeframe slippage or change in direction.

Six-month FYSO progress

Table 1: Planning—establishing new planning frameworks

Planning stage	Project priorities	FYSO timeframe	Progress/update
Monitoring	600 MHz (617–698) 3.3 GHz (3300–3400) 4.5 GHz (4400–4500) 4.8 GHz (4800–4990) Bands under study at WRC-19 agenda items 1.16 and 1.13 5G bands considered internationally other than under WRC-19 1.13 40–50 GHz	Continue to monitor domestic and international developments in these bands to identify usage trends	Ongoing
Initial investigation	2 GHz (1980–2010 and 2170–2200 MHz)	Q4: Discussion paper on planning issues to consider in the band	No change to projected timeframe
	3.8 GHz (3700–4200)	Q4: Discussion paper on planning issues to consider in the band	No change to projected timeframe
	28 GHz (27.5–29.5 GHz)	Q1: Discussion paper on planning issues to consider in the band	Completed: Discussion paper published (IFC: 36/2018) Q1 2018–19
	Extended MSS L-band (1518–1525 and 1668–1675 MHz)	Further consideration deferred until Q3/4 2019–20	No change to projected timeframe
Preliminary replanning	26 GHz (24.25–27.5 GHz)	Q1: Consult on frequency, area and licensing configuration options	Completed: Options paper published Q1 2018–19 (IFC: 32/2018) Planning decision targeted for Q3/4 2018–19
	1.5 GHz (1427–1518 MHz)	Further consideration (including a possible	Options paper Q3/4 2019–20

Planning stage	Project priorities	FYSO timeframe	Progress/update
		options paper) deferred until Q3/4 2019–20	
Re-planning	5.6 GHz (parts of 5600–5650 MHz)	Q2: Progress technical coordination rules and allocation arrangements for site-based point-to-multipoint uses outside of metropolitan areas, including for the transition of services from the 3.6 GHz to the 5.6 GHz band, where possible	Completed: Discussion paper published May 2018 (IFC: 13/2018) RALI released Q2 2018–19
	850 MHz expansion band (809–824 MHz and 854–869 MHz)	Decision paper outlined transition milestones for incumbent services making way for new mobile broadband. Allocation timeframes tied to those of the 900 MHz band (assuming 900 MHz is ultimately reallocated)	Implementation of outcomes is ongoing and on track
	900 MHz (890–915 MHz and 935–960 MHz)	Considering options for timing of band reorganisation, including potential clearance and reallocation processes	Consultation on finalisation of reconfiguration method Q4 2018–19

Table 2: Planning—optimising established planning frameworks

Project priorities	FYSO timeframe	Progress/update
<p>Make final decisions on LAP variations for AM to FM conversion in Burnie, Devonport, Queenstown and Scottsdale</p>	<p>Q1, Q2</p>	<p>LAP variations for Burnie, Devonport, Queenstown have been finalised</p> <p>Expect to finalise Scottsdale in Q4 2018–19 once agreement is reached with the licensee about continuation of the AM transmission</p>
<p>Develop and consult on proposals for AM to FM conversion for Lithgow, Bega, Cooma, Goulburn and Nowra</p>	<p>Q2</p>	<p>Lithgow not to proceed in 2018–19. It will be restored to workplan when licensee agrees to transmitter specifications</p> <p>Consultation for Bega and Cooma to proceed in Q3 2018–19. Bega, Cooma and Goulburn have been delayed due to the complexity of flow-on changes required to existing services</p> <p>Goulburn is pending the necessary third-party agreement for a frequency change. If agreement is reached, consultation would occur in Q4 2018–19.</p> <p>Nowra has been delayed; the ACMA has not accepted the licensee’s proposed transmitter specifications on engineering grounds. Unlikely that a new proposal would be submitted and approved before Q1 2019–20.</p>
<p>Further consider whether variations to the Brisbane digital radio channel plan are appropriate to improve digital coverage</p>	<p>Q2</p>	<p>Delay to Q1 2019–20</p> <p>On hold, pending consideration of a new submission from commercial licensees in adjacent licence areas</p>

Project priorities	FYSO timeframe	Progress/update
Following completion of digital radio allotment planning, consult on a variation to the Canberra digital radio channel plan that would allow a power increase	Q1	Consultation complete, final decision in Q3 2018–19
Complete engineering and consult on over 15 new digital radio channel plans for the next-mover DAB+ markets	Q2	Allotment planning completed To consult on Mandurah channel plan Q3 2018–19 Other markets subject to commitment of licensees to 2020 rollout timeframe
Develop and consult on the potential for re-planning analog radio services in Perth, following the clearance of Band II TV in Bunbury	Q2	Internal engineering work has been completed
Earth stations—codify frequency coordination of earth stations with point-to-point links (in the 6 and 6.7 GHz bands)	Q2	Discussion paper released Q3 2018–19 (IFC: 1/2019)
Space objects: Finalise changes to Radiocommunications (Communication with Space Object) Class Licence 2015 and Radiocommunications (Foreign Space Objects) Determination 2014	Q1	Completed Instrument finalised Q1 2018–19
Consider feasibility of inclusion of 10.7–11.7 GHz in Communications Space Objects Class Licence	Q4	No change to projected timeframe
ESIMs—review regulatory arrangements for earth stations in motion (ESIM) in Ku-band	Q3	No change to projected timeframe
Regulatory arrangements: General review of licensing procedures for space-based communications systems	Q2	Delay due to staff departures

Project priorities	FYSO timeframe	Progress/update
Commence update of regulatory arrangements for small satellites	Q2	Work underway, consultation paper to be released in Q3 2018–19
Consider applications for test and demonstration purposes in the 2 GHz band	Ongoing	Ongoing
Manage filing and coordination of Australian satellite systems	Ongoing	Ongoing
Consultation on proposed update of the LIPD to respond to industry requests	Q2	Completed consultation paper released Q2 2018–19 (IFC: 45/2018)
Facilitation of early access to the 928–935 MHz band for low-power wide-area IoT applications	Ongoing	Ongoing

Table 3: Major price-based allocations

Project priorities	FYSO timeframe	Progress/update
3.6 GHz	Q4 2017–18: Final applicant information package released Q2 2018–19 (November): Auction commences	Completed: AIP released Q1 2018–19 Completed: Auction commenced and concluded Q2 2018–19
26 GHz	Q3/4 2018–19: ACMA planning decision* Q1 2019–20: Reallocation recommendation	No change to projected timeframe
850/900 MHz	Q2 2018–19: Configuration options decision	Finalisation of reconfiguration method for 900 MHz band now Q1/2 2019–20
1.5 GHz	Q2/3 2019–20: ACMA planning decision	See Table 1

**Based on scenario 1 in the 2018–22 FYSO forward allocation work plan.*

Table 4: Regulatory review and reform (Spectrum Review implementation)

Project priorities	FYSO timeframe	Progress/update
Annual work program	Q1: Publish final program Q4: Consult on draft work program	Final work program published in Q1 2018–19 No change to projected timeframe for consultation on draft 2019–23 FYSO
Planning and technical frameworks	Consult on revised arrangements following the release of second Exposure Draft Radiocommunications Bill package	No change to projected timeframe
Licensing and licensing transition	Consult on revised arrangements following the release of second Exposure Draft Radiocommunications Bill package	No change to projected timeframe
Pricing review implementation	Consult on revised arrangements following the release of second Exposure Draft Radiocommunications Bill package	No change to projected timeframe
Equipment rules	Consult on revised arrangements following the release of second Exposure Draft Radiocommunications Bill package	No change to projected timeframe
Accreditation arrangements	Consult on revised arrangements following the release of second Exposure Draft Radiocommunications Bill package	No change to projected timeframe

Table 5: Licensing

Project priorities	FYSO timeframe	Progress/update
Mobile phone jammer regulatory arrangements	Q1: Review of instruments due to expire in November 2018	Radiocommunications (Use by Corrective Services NSW of PMTS Jamming Devices at Lithgow Correctional Centre) Exemption Determination 2018 registered Q2 2018–19
Body scanners in airports	Q1: Finalise consultations and consider changes to the current applicable licensing during 2018–19	Consultation finalised Q1 2018–19 Radiocommunications (Body Scanning—Aviation Security) Class Licence 2018 registered Q2 2018–19
Renew amateur certificates of proficiency arrangements	Q2: Finalise arrangements for certificates of proficiency before expiry of the current deed with WIA (February 2019)	Consultation closed Q1 2018–19 (IFC: 16/2018) Approach to market closed Q2 2018–19 Deed for service delivery by the Australian Maritime College established February 2019.
Consideration of changes to amateur licence conditions	2018–19	To be progressed in Q3/4 2018–19
VHF marine radio use	Q4: Consider changes to the channels specified for maritime radio	Consultation paper released Q2 2018–19 (IFC: 28/2018)
400 MHz band	Ongoing transition of licences to appropriate segments of the 400 MHz band before the completion of the final milestone in 2019–20	Ongoing
Review of licensing arrangements for drones, and prohibitions and exemptions for drone jamming	Q4: First stage review	Monitoring international developments in spectrum management and licensing for drones First stage review overtaken by ongoing work with interdepartmental contact network on regulatory options for drone management and counter-drone technologies

Table 6: Pricing

Project priorities	FYSO timeframe	Progress/update
Commercial broadcasting tax arrangements	Q1: First tax assessment	Ongoing assessments of taxes have commenced
Preparation for review of <i>Commercial Broadcasting (Tax) Act 2017</i>	Q4: Information to be issued about planned arrangements for the review required to be conducted after 1 July 2019	No change to projected timeframe
400 MHz opportunity-cost pricing	Continued monitoring of band use	Monitoring will be on a semi-regular basis. It is expected that publication and consultation on the monitoring will only occur if there is anecdotal evidence suggesting that demand is increasing and there is congestion in the band
Apparatus licence taxes	Annual updates for CPI from 5 April each year	Consultation on proposed changes to annual apparatus licence taxes published Q2 2018–19 (IFC: 42/2018) Amendments to the taxes were made in Q3 2018–19 New taxes commence on 5 April 2019
Spectrum licence taxes	Q1: Adjustments for new spectrum-licensed bands	Radiocommunications (Spectrum Licence Tax) Determination 2014 No. 2 registered Q1 2018–19

Table 7: Compliance and enforcement

Project priorities	FYSO timeframe	Progress/update
Audit of mobile handset compliance outcomes	Q1: Report publication	Delayed due to reprioritisation of reactive work—scheduled for Q3
Gold Coast Commonwealth Games readiness priority compliance area	Q1: Report publication	Delayed due to reprioritisation of reactive work—scheduled for Q3

Table 8: International engagement

Project priorities	FYSO timeframe	Progress/update
Fourth meeting of the APT Conference Preparatory Group (Asia Pacific) for WRC-19 (APG 19-4)	Q3 (7–12 January 2019)	Meeting held Q3 2018–19
Second Conference Preparatory Meeting for WRC-19 (CPM 19-2)	Q3 (18–28 February 2019)	On track. Meeting to be held Q3 2018–19

Table 9: Consultation plans

Issue	FYSO timeframe	Progress/update
28 GHz discussion paper	Q1 2018–19	Discussion paper published Q1 2018–19 (IFC: 36/2018)
26 GHz options paper	Q1 2018–19	Options paper published Q1 2018–19 (IFC: 32/2018)
3.7–4.2 GHz discussion paper	Q4 2018–19	No change to projected timeframe
Four DRCPs for 12–14 licence areas	Q2 2018–19	Consultation expected to proceed on Mandurah in Q3 2018–19. Other licence areas will proceed once licensees agree to technical start-up in 2020
Consider AM–FM conversion proposals in five NSW areas	Q2 2018–19	<p>Delayed to Q3/4 2018–19</p> <p>Lithgow not to proceed in 2018–19. Will be restored to workplan when licensee agrees to transmitter specifications</p> <p>Consultation for Bega and Cooma to proceed in Q3 2018–19. Bega, Cooma and Goulburn have been delayed due to the complexity of flow-on changes required to existing services</p> <p>Goulburn is pending the necessary third-party agreement for a frequency change. If agreement is reached, consultation would occur in Q4 2018–19</p> <p>Nowra has been delayed; the ACMA has not accepted the licensee’s proposed transmitter specifications on engineering grounds. Unlikely that a new proposal would be submitted and approved before Q1 2019–20</p>

Issue	FYSO timeframe	Progress/update
Spectrum arrangements for small satellites	Q3 2018–19	No change to projected timeframe
Space-based comms—update (CSO Class Licence and FSO Determination)	Q1 2018–19	Completed
General review of space licensing procedures consultation paper	Q2 2018–19	Delayed due to staff departures
2 GHz (1980–2010 and 2170–2200 MHz discussion paper)	Q4 2018–19	No change to projected timeframe
3.4–3.575 GHz Reconfiguration Options discussion paper	Q3 2018–19	Projected timeframe now Q4 2018–19. Delayed due to further consideration of options
ESIM in the Ku-band	Q3 2018–19	No change to projected timeframe
Consider feasibility of inclusion of 10.7–11.7 GHz in Communications Space Objects Class Licence	Q4 2018–19	No change to projected timeframe
Frequency coordination requirements review work program	Q1 2018–19: Finalised work program following consideration of industry submissions. Future consultations in accordance with finalised work program	Finalised review work program published September 2018
850/900 MHz planning decision	Q2 2018–19	Planning decision settled Finalisation of reconfiguration method for 900 MHz band now Q1/2 2019–20
Consideration of changes to amateur licence conditions	2018–19	To be progressed in Q3/4 2018–19

Issue	FYSO timeframe	Progress/update
VHF marine radio channels—consider changes	2018–19	Consultation paper released Q2 2018–19 VHF marine radio use (IFC: 28/2018)
Drone regulation	Q2 2018–19	Ongoing Monitoring international developments in spectrum management and licensing for drones Working with interdepartmental contact network on regulatory options for drone management and counter-drone technologies
400 MHz OC pricing information paper	Q3 2018–19	Monitoring will be on a semi-regular basis No current requirement for this activity. It is expected that publication and consultation on the monitoring will only occur if there is anecdotal evidence suggesting that demand is increasing and there is congestion in the band; this is not the case currently
Short range devices/ITS standard	Q2 2018–19: Completion of consultation started 4 July	Instruments made by the ACMA Authority on 3 December 2018
VHF radiotelephone equipment—maritime mobile services	Q1 2018–19	Consultation paper released Q2 2018–19 (IFC: 28/2018)
Brisbane analog LAP variation	Q3 2018–19	On hold, pending staff reconsideration of the proposals
Regional Queensland LAP variations	Q3 2018–19	On track for consultation paper release in March 2019
RFT for spectrum licensing business systems	Q1 2018–19	Delayed pending release of the second Exposure Draft Radiocommunications Bill package
Set digital radio start date for Canberra, Darwin and Hobart	Q2 2018–19	Delayed to Q3/4 2018–19 Waiting for ACCC approval of access undertakings

Issue	FYSO timeframe	Progress/update
Finalising digital radio allotment plans for Tranche 2 (Western Australia, South Australia and north Queensland)	Q1 2018–19	Completed
Canberra DRCP power increase	Q2 2018–19	Consultation complete (IFC: 43/2018)
Make over 15 new digital radio channel plans for the next-mover DAB+ markets	Q2 2018–19	Commence Q3 2018–19, subject to commitment of licensees to 2020 rollout timeframe
Options for re-planning radio services in Perth, following the clearance of Band II TV in Bunbury	Q2 2018–19	Delayed to Q4 2018–19
1710–1785/1805–1880 MHz (1800 MHz) in remote areas discussion paper	Q4 2018–19	No change to projected timeframe