Explanatory Paper

Draft Variation to Licence Area Plan for Remote Central and Eastern Australia Radio – No. 1 of 2009
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### CALL FOR SUBMISSIONS

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Call for Submissions

Submissions on the matters raised in this Explanatory Paper may be made to the Australian Communications and Media Authority (ACMA) as follows:

By email:  lais@acma.gov.au

By mail:  Draft LAP and FAP Variation – Remote Central and Eastern Australia Radio
Broadcast Planning Section
Australian Communications and Media Authority
PO Box 78
BELCONNEN ACT 2616

By fax:  (02) 6219 5200

Please quote file reference ACMA2007/1501 in your reply.

Any enquiries concerning matters raised in this document should be directed to Mr Christopher Roberts on 1300 850 115.

The closing date for submissions is 5.00pm, Friday 13 March 2009.

All submissions received will be made available for public inspection on the ACMA website.¹ (www.acma.gov.au)

¹ Note that any submission marked “In Confidence”, “Confidential” or similar, cannot be considered by the ACMA in finalising the LAP variation or FAP variation.
Preliminary Views

Preliminary View – Commercial Radio – Remote North East Zone RA1

<table>
<thead>
<tr>
<th>ACMA proposes to make channel capacity available in Eurong and Gin Gin for the existing 4BRZ and 4RBL commercial radio broadcasting services.</th>
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<tbody>
<tr>
<td>• 4RBL to operate on 103.3 MHz from Water Tower Reservoir Hill Gin Gin with a maximum ERP of 25 W; and</td>
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<tr>
<td>• 4BRZ to operate on 92.1 MHz from Water Tower Reservoir Hill Gin Gin with a maximum ERP of 25 W.</td>
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<tr>
<td>• 4RBL to operate on 97.3 MHz from Eurong with a maximum ERP of 25 W (OD).</td>
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<tr>
<td>• 4BRZ to operate on 94.9 MHz from Eurong with a maximum ERP of 25 W (OD).</td>
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<tr>
<th>ACMA proposes to vary the technical specifications of the existing 4RBL and 4BRZ commercial radio broadcasting services at Childers as follows:</th>
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<tr>
<td>• 4RBL to operate on 106.7 MHz from Queensland Comms Site Mt Goonaneman Access Rd Mt Goonanemen with a maximum ERP of 2 kW (OD);</td>
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<tr>
<td>• 4BRZ to operate on 102.5 MHz from Queensland Comms Site Mt Goonaneman Access Rd Mt Goonanemen with a maximum ERP of 2 kW (OD);</td>
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<th>ACMA proposes to remove the technical specification of the 4RBL commercial radio broadcasting service at Burrum Heads as follows:</th>
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<tr>
<td>• 105.9 MHz from Burrum, with a maximum ERP of 75 W mixed polarisation.</td>
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| ACMA proposes that the title of the Remote North East Zone RA1 licence area be varied to ‘Regional and Rural Queensland/New South Wales RA1’. |

BACKGROUND

The Australia Broadcasting Authority (ABA) determined the Remote Central and Eastern Australia (Radio) (RC&E) Licence Area Plan (LAP) in October 1996. The RC&E LAP includes the Remote North East Zone RA1 (RNEZ) licence area and was last varied in relation to that licence area in March 2006.

The Rebel Radio Network (RRN) is the licensee of the commercial radio broadcasting services 4RBL and 4BRZ in the RNEZ licence area. RRN has requested that ACMA:

- increase the maximum effective radiated power (ERP) to 2 kW for its 4RBL (106.7 MHz) and 4BRZ (102.5 MHz) services operating from transmitters at the Queensland Communications (QC) site, Mount Goonaneman, QLD (near the population centre of Childers);
- plan for 25 W transmitters for the 4RBL and 4BRZ services in Eurong, Fraser Island;
- plan for 25 W transmitters for 4RBL and 4BRZ services in Gin Gin, QLD currently operating on a test basis on 103.3 MHz and 92.1 MHz, respectively, at 250 W; and
- remove from the LAP an existing specification for a translator for the 4RBL service at Burrum Heads.

RRN has also requested that the name of the RNEZ licence area is changed in the LAP to ‘Regional and Rural Queensland/New South Wales RA1’.
The frequency allotment plan (FAP) of the VHF-FM Band determined on 10 August 1994\(^2\), under subsection 25(2) of the *Broadcasting Services Act 1992* is proposed to be varied as a consequence of the proposed LAP variations.

In performing its functions under Part 3 of the *Broadcasting Services Act 1992* (the Act), ACMA is to promote the objects of the Act, including the economic and efficient use of the radiofrequency spectrum, and have particular regard to the criteria set out in section 23 of the Act.

ACMA promotes the object at section 3(1)(a) of the Act\(^3\) by making available a mix of different types of broadcasting services in an area.

**ACMA's planning consideration in cases of fortuitous reception**

Paragraph 23(g) of the Act requires ACMA to have regard to such other matters as it considers relevant when performing its functions under Part 3 of the Act.

As part of its considerations, ACMA will consider the level of fortuitous reception and signal overspill from one licence area to another. When making planning decisions ACMA has to balance the need for radio services to adequately cover a licence area while minimising signal overspill. Given the focus of technical specifications of a service being directed to ensuring adequate coverage of a licence area, fortuitous reception is not protected by ACMA when making planning decisions. However, in many cases some fortuitous coverage will be inevitable and necessary for providing adequate coverage to the licence area.

Consequently, ACMA considers that fortuitous coverage is acceptable in circumstances where a licensee is operating within the frequency and power specifications of their licence as planned in the LAP but that signal overspill would become unacceptable when a licensee exceeds these specifications.

A field survey to determine the current overspill signal levels in adjacent licence areas and an engineering assessment have been conducted by the ACMA on the RRN proposals for the increases in maximum ERP at Mount Goonaneman. The further proposals are discussed below.

**DISCUSSION**

The RC&E LAP enables RRN to provide two commercial radio services (4RBL and 4BRZ) in the RNEZ licence area.

The LAP currently provides for:

- one transmitter for each of the 4RBL and 4BRZ services (on 106.7 MHz and 102.5 MHz, respectively) at the Broadcast Australia (BA) site, Mount Goonaneman, QLD (near the population centre of Childers) at a maximum ERP of 500 W (OD) and a transmitter height of 70 metres; and
- one transmitter for the 4RBL service (on 105.9 MHz) at Burrum Heads, QLD at a maximum ERP of 75 (OD) W and a transmitter height of 15 metres.

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\(^2\) The Frequency Allotment Plan in relation to FM radio in Remote Commercial Radio North East zone was varied in August 2002, December 2003 and March 2006.

\(^3\) To promote the availability to audiences throughout Australia of a diverse range of radio and television services offering entertainment, education and information.
Further, ACMA has issued a transmitter licence on a test basis for the 4RBL service on 103.3 MHz at Gin Gin, QLD at a maximum ERP of 250 W (OD) and a transmitter height of 20 metres.

RRN has advised ACMA that it believes that the existing technical specifications do not enable it to adequately serve its licence area. It has requested the variations referred to above to better serve its licence area, including the population on Fraser Island.

**Childers (Mt Goonaneman)**

In December 2003, the ABA varied the RC&E LAP to allow RRN to operate its 4RBL and 4BRZ services on 106.7 MHz and 102.5 MHz, respectively from the BA site at Mt Goonaneman at a maximum ERP of 500 W and a transmitter height of 70 metres.

Owing to difficulties achieving access to the BA site, RRN subsequently requested permission from ACMA to broadcast its services from the Mt Goonaneman QC site at a maximum ERP of 1 kW and a transmitter height of 20 metres. ACMA agreed to this request and decided that a further LAP variation was not required as the new specifications were within the acceptable range permitted by the Technical Planning Guidelines.

RRN currently operates the 4BRZ service from the QC site at 1kW maximum ERP (OD) at a transmitter height of 14 metres.

RRN has raised concerns that the existing specifications do not allow it to provide an adequate level of coverage to its licence area, particularly in Burrum Heads and Fraser Island, noting that it is not commercially viable to operate its services on a separate frequency and transmitter at Burrum Heads.

ACMA has conducted desktop modelling to predict the coverage of the RNEZ licence area from the QC site at a maximum ERP of 2 kW (OD) with an antenna height of 20 metres. The predictions indicate that an improved, suburban grade of coverage would be provided within the RNEZ licence area to the population centres of Childers and Burrum Heads, while a rural grade of coverage would be afforded to Kingfisher Bay in Fraser Island.

ACMA has also conducted a field strength survey to determine the signal overspill levels into neighbouring licence areas from the Mt Goonaneman QC site at the operating maximum ERP of 1 kW OD and antenna height of 14 metres. The field measurements have been extrapolated to indicate that no significant signal overspill would be delivered into neighbouring licence areas from the Mt Goonaneman QC site by a service operating at a maximum ERP of 2 kW (OD), with an antenna height of 14 metres, and that significant change to the median overspill field strength is unlikely at the current LAP transmitter antenna height of 20 metres.

The former ABA considered that any increase above 1 kW of the maximum allowable ERP of the transmitters at the Mt Goonaneman QC site would not be necessary as the 1 kW would adequately serve the mainland RNEZ licence area (with the exception of Gin Gin). However, based on the results of the field strength survey referred to above, ACMA has formed the preliminary view that maximum ERP of the 4RBL and 4BRZ services could be increased to 2kW without increasing median overspill strength in the adjacent licence areas to receivable levels provided transmitter height is not increased beyond 20 metres.
**Conclusion**

ACMA seeks comment on a proposed LAP variation that would enable 4RBL and 4BRZ to operate with a maximum ERP of 2 kW (OD) with mixed polarisation at an antenna height of 20 metres from the Mt Goonanemen QC site.

**Eurong (Fraser Island)**

In October 1996, the ABA determined the RC&E LAP to specify Fraser Island within the RNEZ licence area. In January 1998, the ABA extended the Maryborough RA1 licence area to include Fraser Island and Burrum Heads, causing it to overlap with the RNEZ licence area. The ABA’s decision to extend the licence area was motivated by a lack of commercial radio services transmitting to Fraser Island.

RRN has advised that it is unable to effectively serve Fraser Island under existing specifications allowed in the LAP. To resolve this issue it has requested an increase in maximum ERP for its services operating from Mt Goonaneman, and the planning of specifications to allow two services at 25 W (OD) at Eurong on the east coast of Fraser Island.

Engineering analysis undertaken by ACMA has identified two frequencies (97.3 MHz and 94.9 MHz) which at 25 W (OD) will provide coverage to population centres on the east coast of Fraser Island, whilst minimising overspill.

**Conclusion**

ACMA seeks comment on a proposed LAP variation that would enable 4RBL and 4BRZ operate with a maximum ERP of 25 W (OD) and transmitter height of 30 metres from Eurong on 97.3 MHz and 94.9 MHz, respectively.

**Burrum Heads**

In October 1996, the ABA made the RC&E LAP with specifications permitting RRN to operate its 4RBL service from Burrum Heads, Queensland on 105.9 MHz at 75 W and a transmitter height of 15 metres.

RRN has advised that it has been unable to establish a service using these specifications, and that if the LAP is varied to permit a 2 kW service from Mt Goonaneman then this planned service will be unnecessary.

**Conclusion**

ACMA seeks comment on a proposed LAP variation to remove from the LAP the specifications for the 4RBL service at Burrum Heads on 105.9 MHz.

**Gin Gin**

ACMA has issued a transmitter licence to permit RRN to operate its 4RBL service from Gin Gin, QLD on 103.3 MHz at 250 W and a transmitter height of 20 metres.

ACMA has also planned additional spectrum for RRN to provide its 4BRZ service at Gin Gin on 92.1 MHz with the same maximum ERP and antenna height as the 4RBL service.

RRN has advised that if the maximum ERP for its services transmitted from Mt Goonaneman is increased from 1 kW to 2 kW it will be able to serve Gin Gin adequately with services operating at 25 W instead of 250 W.
Conclusion

ACMA seeks comment on a proposed LAP variation that would enable 4RBL and 4BRZ to operate on 103.3 MHz and 92.1 MHz respectively with a maximum ERP of 25 W (OD) from the Water Tower, Reservoir Hill site at Gin Gin.

Renaming of the Remote Commercial Radio Service North East Zone RA1 licence area

In October 1996, the ABA determined the RC&E LAP to establish the ‘Remote Commercial Radio Service North East Zone RA1’ licence area. This title reflected the initial intention behind the allocation of the commercial licence in the licence area. Under the former Broadcasting Act 1942 the service provided under the commercial licence now associated with the RNEZ licence area (4RBL) was specified to be a ‘remote commercial radio service’. Following the passage of the Act in 1992, the 4RBL service is regarded as ‘a commercial service.

RRN has requested that ACMA varies the LAP to change the name of the RNEZ licence area from ‘Remote Commercial Radio Service North East Zone RA1’ to ‘Regional and Rural Queensland/New South Wales RA1’.

Conclusion

ACMA seeks comment on a proposed LAP variation that would change the name of the RNEZ licence area from ‘Remote Commercial Radio Service North East Zone RA1’ to ‘Regional and Rural Queensland/ New South Wales RA1’.