Explanatory Paper
Draft Variation to Licence Area Plan for Adelaide Radio - No.1 of 2009

AUGUST 2009
Contents

Call for Submissions ........................................................................................................1
Explanatory Note ..............................................................................................................2
Preliminary View - Commercial Radio - Adelaide .........................................................3
Preliminary View – High Power Open Narrowcasting ..................................................5
Preliminary View – Licence Areas ................................................................................6
Call for Submissions

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

By email: lais@acma.gov.au

By mail: Draft Variation No.1 of 2009 to LAP for Adelaide Radio
Broadcast Planning Section
Australian Communications and Media Authority
PO Box 78
BELCONNEN ACT 2617

By fax: (02) 6219 5347

Please quote file reference ACMA2009/709 in your reply.

Any enquiries concerning matters raised in this document should be directed to Ms Rebecca Press (02) 6256 2874.

The closing date for submissions is 11 September 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.
Explanatory Note

This explanatory paper accompanies the draft licence area plan (LAP) variation for Adelaide.

The ACMA generally considers variations to LAPs in response to submissions made to it or on becoming aware of technical issues that need addressing.

The ACMA has received two submissions in relation to radio services in the Adelaide market. In summary, the submissions request the ACMA to consider:

- permitting day/night switching of transmission power for the commercial radio broadcasting service known as 5DN; and
- changing the technical specifications for the high power open narrowcasting (HPON) service operated by RadioTAB.

A full discussion on these requests is set out in the ACMA’s preliminary views below.

The draft variation also makes some minor amendments to correct drafting errors and updates the licence area definitions so that the licence area populations are defined in accordance with the 2006 ABS Census data.

**Legislative Framework**

The ACMA prepares LAPs under subsection 26(1) of the *Broadcasting Services Act 1992* (the BSA). LAPs determine the number and characteristics, including technical specifications, of broadcasting services in particular areas of Australia with the use of the broadcasting services bands. The ACMA may vary LAPs under subsection 26(2) of the BSA.

Section 23 of the BSA imposes specific obligations on the ACMA when carrying out its planning functions, including, amongst other things, that the ACMA is required to perform its functions in a way that promotes the objects of the Act, including the economic and efficient use of the radiofrequency spectrum.

The object of most obvious importance to the ACMA’s powers in relation to section 26 of the BSA is that at paragraph (a) of subsection 3(1), that being:

> to promote the availability to audiences throughout Australia of a diverse range of radio and television services offering entertainment, education and information.

Section 27 of the BSA provides that the ACMA must make provision for wide public consultation when considering whether to make or vary a LAP.
Preliminary View - Commercial Radio - Adelaide

In order to improve coverage of the commercial radio broadcasting service provided by the licensee of licence number SL4190 (5DN) in Adelaide, the ACMA is proposing to vary the technical specification of this service to permit day/night transmitter power switching. The current licensee of 5DN is Southern State Broadcasters Pty Ltd. It is proposed that 5DN operate on:

- 1323 kHz from Wingfield, with a maximum cymomotive force (CMF) of 1.085 kV (day) / 880 V (night), which is equivalent to a transmitter power of 5 kW (day) / 3.3 kW (night) with a directional antenna pattern.

The current LAP technical specification provides for 5DN to operate on 1323 kHz from Gepps Cross with a maximum CMF of 465 V (2 kW) with an omni-directional antenna pattern.

5DN requested an increase in day time transmitter power from 2 kW, with an omni directional pattern to 10 kW, with a directional pattern to allow its commercial radio broadcasting service in Adelaide to improve coverage in the north and south of the licence area. The proposal included a limit on the transmitter power to 3.3 kW at night to provide protection to a co-channel service at Northam in WA.

5DN has also requested to operate its service from an alternate site.

The ACMA’s assessment indicates that a 10 kW daytime operation along with 3.3 kW during night time using a directional antenna pattern increases coverage inside the licence area considerably and has no influence on the usable field strengths of any co or adjacent channel services within Australia or neighbouring countries.

However, during daytime, there is a significant increase in signal overspill, at a suburban grade, into neighbouring commercial radio licence areas. As the 10kW power level produced excessive signal overspill, 5DN was advised to conduct field assessments to determine the extent of signal overspill that a lower power of 5kW during daytime would produce. The results indicate that the usable signal overspill into neighbouring commercial licence areas is marginal when the lower power of 5 kW is used.

The percentage of population in the three neighbouring radio markets that may receive signal overspill is tabulated below.

<table>
<thead>
<tr>
<th>Adjacent Licence areas</th>
<th>Existing: 2kW, OD, Day and Night time Power (Rural Grade 0.5 mV/m)</th>
<th>3.3 kW, DA Night time Power (Night time Eu= 2.8 mV/m)</th>
<th>5 kW, DA, Day time Power (Rural Grade 0.5 mV/m)</th>
<th>10 kW, DA, Day time Power (Rural Grade 0.5 mV/m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Murray</td>
<td>7.5%</td>
<td>5.5%</td>
<td>8.7%</td>
<td>30%</td>
</tr>
</tbody>
</table>
In April 2007, a test transmission licence authorised under paragraph 34(1)(g) of the BSA was issued to 5DN to allow it to operate on 5kW during the day and 3.3kW at night. The test transmissions, conducted over a period of 18 months, were designed to ensure that there were no diurnal and seasonal affects on MF-AM broadcasting services within Australia or neighbouring countries due to the power increase.

To date, no complaints about degradation to existing services or interference have been received by 5DN or the ACMA whilst 5DN has been authorised to operate under the test transmission licence.
Preliminary View – High Power Open Narrowcasting

The ACMA is proposing to vary the technical specifications of the high powered open narrowcasting (HPON) service operated by RadioTAB in Adelaide to change the antenna radiation pattern. It is proposed the RadioTAB HPON service operate on:

- 1539 kHz from Paralowie, with a maximum cymomotive force (CMF) of 1.12 kV which is equivalent to a transmitter power of 5 kW with a directional antenna pattern.

The frequency 1539 kHz was first made available in 1994, under section 34 of the BSA, for a HPON service in Adelaide.

The HPON service was implemented at a transmitter power of 5 kW, with a directional antenna radiation pattern with CMF restrictions in two directions. These restrictions identified the maximum CMF limitations towards Sydney and Gold Coast at certain elevations.

In 2001, when the licence area plan for Adelaide radio was determined, the technical specification made available for the HPON service on 1539 kHz described a radiation pattern different to the one already implemented.

This inconsistency was discovered in 2005 when the current licensee, RadioTAB was investigating complaints of poor reception of the HPON service.

The ACMA now proposes to take the opportunity to align the LAP technical specification with the actual operating parameters.
Preliminary View – Licence Areas

The ACMA proposes that the existing commercial and community radio licence areas in the Adelaide licence area plan be redefined using 2006 Census boundaries, but otherwise remain unchanged.

The licence areas for the commercial and community radio services in Adelaide, Adelaide Foothills, Adelaide South West, Barossa Valley, Port Adelaide and Salisbury are currently described by reference to now outdated Census figures. The Australian Bureau of Statistics (ABS) has now made available to the ACMA the most recently published census count (i.e. 2006), as prepared by the Australian Statistician.

Therefore, the ACMA proposes that the licence areas in the Adelaide LAP be redefined using 2006 Census boundaries, but otherwise remain unchanged.