Explanatory paper
Draft Variation to Licence Area Plan - Darwin Radio - No.2 of 2012

DECEMBER 2012
Background

This explanatory paper accompanies the proposed Draft Variation to Licence Area Plan - Darwin Radio - No.2 of 2012.

The broadcast planning functions of the ACMA are set out in Part 3 of the Broadcasting Services Act 1992 (BSA). In performing its planning functions, the BSA requires the ACMA to promote the objects of the BSA\(^1\), including the economic and efficient use of radiofrequency spectrum, and to have regard to the planning criteria set out in section 23.

The ACMA refers to the General Approach to Analog Planning when it considers the planning of broadcasting services. This document sets out the legislative framework and planning criteria as well as the general approach to the planning of broadcasting services. It also contains a record of advice and assumptions about matters relevant to the ACMA’s broadcast planning functions and powers.

Under section 26 (Preparation of licence area plans) of the BSA, the ACMA\(^2\) must, by legislative instrument, prepare licence area plans (LAPs) that determine the number and characteristics, including technical specifications, of broadcasting services that are to be available in particular areas of Australia with use of the broadcasting services bands (BSB), and those plans must be consistent with the relevant frequency allotment plan (FAP).

The ACMA may vary LAPs under subsection 26(2) of the BSA and generally considers variations in response to submissions received or on becoming aware of technical issues that need addressing.

The ACMA has received requests from the licensees of the existing Darwin radio broadcasting services 8ABCFM, 8DDD, 8JJJ, 8PNN, 8SBSFM, 8HOT & 8MIX, 8GGG, 8KNB & 8TOP, and the Katherine radio broadcasting service 8KTR, asking the ACMA to consider varying the Darwin LAP to improve the performance of their services and to make a frequency available for a new community radio broadcasting service, which could be used by Radio Print Handicapped (RPH) to operate a dedicated radio for the print handicapped radio service for Darwin.

The ACMA has considered the above requests and found that the proposed amended operations will improve coverage and reception quality of those services and that making available a new community radio service which could be targeted to a print handicapped audience, will complement existing community radio services and result in a currently underserved segment of the Darwin audience being better covered.

The ACMA is also aware that additional amendment to the Darwin LAP are needed to formalise the operation of the existing 8PNN radio services at Darwin and Katherine which commenced operation several years ago, and that there is a need to update the existing technical specifications of most other radio services to reflect those services current approval and operation.

These changes are discussed in the preliminary views that follow:

\(^1\) Section 3 of the BSA.
\(^2\) The broadcast planning functions of the ACMA were performed by the Australian Broadcasting Authority prior to 1 July 2005.
Preliminary views - National, Commercial and Open Narrowcasting radio

Preliminary view 1 - 8ABCFM, 8DDD, 8JJJ, 8PNN and 8SBSFM

The ACMA proposes to vary the technical specifications of the 8ABCFM, 8DDD, 8JJJ, 8PNN and 8SBSFM national radio broadcasting services by updating the description of their Darwin transmitter site, modifying their output radiation pattern and increasing their antenna height. It is proposed that these services will now operate from:

> Broadcast Australia Tower, Deloraine Road, Knuckey Lagoon with a maximum ERP of 30 kW DA and a maximum antenna height of 120 m on their existing frequencies of frequencies 107.3, 105.7, 103.3 and 100.9 MHz, respectively.

The ACMA proposes to formalise the operation of the existing national radio broadcasting service 8PNN at Darwin and Katherine by making channel capacity available for them in the Darwin LAP. It is proposed that these services will continue to operate from:

> Broadcast Australia Tower, Deloraine Road, Knuckey Lagoon with a maximum ERP of 30 kW DA and a maximum antenna height of 120 m on frequency 102.5 MHz.
> Broadcast Site Lot 3135 (13) Chardon Street Katherine with a maximum ERP of 1 kW OD and a maximum antenna height of 42 m on frequency 105.3 MHz.

8ABCFM, 8DDD, 8JJJ, 8PNN and 8SBSFM have requested that they be allowed to improve the performance of their services by modifying their output radiation pattern and increasing their antenna height to reflect their current operation. In particular, they have proposed that the current 500 watt restriction in the sector 355° T - 25° T be reduced to 5° T - 15° T and that their antenna height be increased by 1 metre to 120 metres. The existing restriction was planned to other radiocommunications services.

8ABCFM, 8DDD, 8JJJ, 8PNN and 8SBSFM have advised that this reduction in the restriction will match their actual current operating conditions.

The increase of antenna is minimal and will not change the planned performance of the any of the services.

As a result the ACMA proposes to amend the Darwin LAP to allow a reduction in the ERP restriction by reducing the sector restricted from 355°T - 25 to 5°T - 15°T and increasing the antenna height to 120 metres.

To other radiocommunications services while maintaining site flexibility, the ACMA proposes that new special conditions be included on these services. These conditions
will provide maximum site change flexibility while placing the onus on each of the licensees to ensure their operation protects other radiocommunications services.

It is also proposed to amend the Darwin LAP to formalise the operation of the existing 8PNN services at Darwin and Katherine. These service have been operational since August 1997 (Darwin) and August 2008 (Katherine) and were planned at the request of the Minister (in respect of Darwin) and as a part of the rollout of NewsRadio services to all communities with a population of 10,000 or more (in respect of Katherine).

A consequence of formalising the permission of 8PNN Darwin is that the number of open narrowcasting services in Darwin will be reduced by one.

### Preliminary view 2 - 8HOT and 8MIX

The ACMA proposes to formalise the operation of the existing local coverage transmitters of the Darwin commercial radio broadcasting services 8HOT and 8MIX at Adelaide River by making them available in the Darwin LAP. It is proposed that these services will operate from:

- **Broadcast/Comms Tower, Broadcast Australia Site, 208 Dorat Road, 1 km SSE of Adelaide River** with a maximum effective radiated power (ERP) of 50 watts (W) omni-directional (OD) and a maximum antenna height of 30 metres (m) on the frequencies 102.1 and 98.1 MHz, respectively.

The ACMA proposes to vary the technical specifications of the 8HOT and 8MIX commercial radio broadcasting services to change the details of their Darwin transmitter site, maximum power levels and antenna height. It is proposed that these services will now operate from:

- **Broadcast Australia Tower, Deloraine Road, Knuckey Lagoon** with a maximum ERP of 30 kW DA and a maximum antenna height of 120 m on their existing frequencies of frequencies 100.1 and 104.9 MHZ, respectively.

It is also proposed that the Darwin RA1 licence be updated to 2006 census data but otherwise remain unchanged.

The Darwin LAP provides for two commercial radio broadcasting services (8HOT and 8MIX) at Darwin.

8HOT is planned to operate from Palmerston Water Tower with a maximum ERP of 15 kW OD on frequency 101.1 MHz, while 8MIX is planned to operate from Deloraine Road with a maximum ERP of 30 kW DA on frequency 104.9 MHz.

The 8MIX specification currently includes a special condition allowing alternative operation from Palmerston Water Tower at 15 kW OD. Both 8HOT and 8MIX operated according to the specifications for the Palmerston Water Tower site.

In February 2010, the licensee of 8HOT and 8MIX proposed that both services be allowed to change transmitter site to Deloraine Road and operate according to the 8MIX planned power level of 30 kW DA.
The 8MIX proposal satisfied the *Broadcasting Services (Technical Planning) Guidelines 2007* and it was considered that a change in the site for 8HOT was appropriate, its maximum ERP should be limited to 15 kW DA prior to being considered as part of a variation to the Darwin LAP.

Assessment by the ACMA was found that operation at 30 kW 8HOT will not cause interference to the reception of nearby broadcasting service, and that increasing the maximum ERP to 30 kW will result in increased coverage within the Darwin area.

Increasing the maximum power level of the 8HOT service and allowing a change of transmitter site represents an economic and efficient use of radiofrequency spectrum. It is also likely to promote the objects of the Act as it will at the increased power allow both services to provide equitable coverage.

As a consequence of the changes to 8ABCFM, 8DDD, 8JJJ, 8PNN and 8SBSFM described in *Preliminary View 1* the ACMA proposes that the 8HOT and 8MIX also adopt that proposed radiation pattern (the 500 watt restriction in the sector 355°T - 25°T be reduced to 5°T - 15°T and that their antenna height be increased by 1 metre to 120 metres). This will ensure that all services operating from Deloraine Road, Knuckey Lagoon are planned to operate consistently.

It is also proposed to amend the Darwin LAP to formalise the operation of the 8HOT and 8MIX services at Adelaide River. These services have been licensed since January 2005 and were planned under the Government’s Commercial radio Blackspots Program. Their proposed operation is described above.

The Darwin RA1 licence area, updated to 2006 census data is illustrated in the document “Licence Area Maps” that accompanies this explanatory paper.

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3 Part 2, Section 15 of *Broadcasting Services (Technical Planning) Guidelines 2007.*
Preliminary Views - Community radio

Preliminary view 3 - 8GGG, 8KNB and 8TOP

The ACMA proposes to vary the technical specifications of the 8GGG, 8KNB and 8TOP community radio broadcasting services by changing their Darwin transmitter site, modifying their output radiation pattern and increasing their antenna height. It is proposed that these services will now operate from:

- Broadcast Australia Tower, Deloraine Road, Knuckey Lagoon with a maximum ERP of 30 kW DA and a maximum antenna height of 120 m on their existing frequencies 97.7, 94.5 and 104.1 MHZ, respectively.

The ACMA also proposes that the existing Darwin RA2 and Darwin RA3 licence areas be extended to reflect the coverage achieved if the services of those licence areas are operated from their nominal locations in accordance with the changes above and to define those new boundaries using 2006 census data.

8GGG, 8KNB and 8TOP have requested that they be allowed to improve the performance of their services by modifying their transmission site, output radiation pattern and increasing their antenna height of their Darwin transmitters.

In particular they have proposed that they be allowed to match the performance and coverage of the 8ABCFM, 8DDD, 8JJJ, 8PNN and 8SBSFM and 8HOT and 8MIX as described in Preliminary View 1 and 2.

A consequence of the above 8GGG, 8KNB and 8TOP request is that their licence areas (Darwin RA2 and RA3) will require revision so that they match the coverage by operation from the proposed new transmitter site at Deloraine Road, Knuckey Lagoon.

In considering requests to improve the operation of an existing community radio broadcasting service and to extend its licence area boundaries, the ACMA as a general rule considers the following issues:

- the relevance of the service to the community in the area proposed to be served. The ACMA would generally look for indications of local relevance to listeners in the area proposed to be served;
- whether it is practical for community members in the area proposed to be served to participate in the provision of the service; and
- whether there are better options available for improving the availability of community broadcasting services in the area.

Assessment by the ACMA has found that it is possible for 8GGG, 8KNB and 8TOP to increase each of their maximum ERP to 30 kW and that this would result in equitable coverage between all radio services in Darwin. It is also considered that there is a community interest between the services provided by 8GGG, 8KNB and 8TOP and the wider Darwin area.

Also that there is currently no evidence of any other aspirant broadcasters or groups in the Darwin area who, by operating a community radio broadcasting service in those expanded areas, would better promote the objects of Act.
The ACMA further believes that allowing the proposed changes will result in 8GGG, 8KNB and 8TOP being able to provide a service that matches the changing needs of the Darwin community.

The ACMA therefore proposes to vary the technical specifications of the 8GGG, 8KNB and 8TOP community radio broadcasting services by changing their Darwin transmitter site, modifying their output radiation pattern and increasing their antenna height.

It is proposed that these services will now operate from Broadcast Australia Tower, Deloraine Road, Knuckey Lagoon with a maximum ERP of 30 kW DA and a maximum antenna height of 120 m on their existing frequencies of 97.7, 94.5 and 104.1 MHz, respectively.

The ACMA also proposes that the existing Darwin RA2 and Darwin RA3 licence areas be extended to reflect the coverage achieved if the services of those licence areas are operated from their nominal locations in accordance with the specifications above and to define those new boundaries using 2006 census data.

The varied licence areas, using 2006 census data are illustrated in the document “Licence Area Maps” that accompanies this explanatory paper.

Preliminary view 4 - 8RPH

The ACMA proposes to make channel capacity available for a new Darwin community radio broadcasting service. It is proposed that this service will operate from:

> Broadcast Australia Tower, Deloraine Road, Knuckey Lagoon with a maximum ERP of 30 kW DA and a maximum antenna height of 120 m on frequency 101.7 MHz and that the Darwin RA1 licence area be designated as its licence area.

Radio for Print Handicapped (RPH) has requested that the ACMA consider varying the Darwin LAP to make channel capacity be made available for a new community radio broadcasting service at Darwin. RPH has indicated that it would apply to be allocated a licence for the new services and, if successful, would use it to commence a dedicated radio for the print handicapped service.

RPH services are currently provided in all state and territory capitals except Darwin, as well as the regional communities of Albury, Bendigo, Devonport, Geelong, Launceston, Mildura, Newcastle, Shepparton, Wagga Wagga, Warragul, Warrnambool and Wollongong.

RPH has submitted that a community interest exists between the service proposed and the print handicapped community of Darwin, and this community interest is currently unserved. The ACMA has investigated these community interests and confirms that this is the case. The ACMA is not currently aware of any other aspirant broadcasters or groups in the Darwin area who may be interested in operating a community radio broadcasting service.

FM frequency 101.7 MHz from the Deloraine Road, Knuckey Lagoon, with a maximum ERP of 30 kW DA, is available and is suitable for the provision of a new community radio broadcasting service at Darwin.
The ACMA believes making this frequency available for a new community radio broadcasting service is an economic and efficient use of radiofrequency spectrum. It will also improve spectrum productivity and efficiency, as it makes available a service that is likely to be taken up.

The ACMA considers this preliminary view will promote the objects of the Act, in particular the objects at paragraph 3(1) (a), (f) and (g). It increases the mix of, and overall number of, broadcasting services available and is likely to increase the provision of diverse radio programming and coverage of matters of local significance in Darwin.

**Preliminary view 5 - 8KTR**

The ACMA proposes to vary the technical specifications of the existing community radio broadcasting services 8KTR at Katherine and Tindal to change their nominal location and increase the maximum power level.

> It is proposed that 8KTR Katherine operate from 12 M1 Water Tank Katherine with a maximum ERP of 1 kW OD and that 8KTR Tindal operates from Comms Centre RAAF Base TINDAL with a maximum power level of 200 W OD.

The ACMA proposes that the existing Katherine RA1 licence area be redefined using 2006 census data but otherwise remain unchanged.

8KTR has requested that the ACMA consider allowing an increase of maximum power of its transmitters at Katherine and Tindal. 8KTR have proposed that the transmitters operate on 1 kW and 200 W respectively and that these levels will result in improved coverage and reception in the licence area.

8KTR is currently authorised to operate its transmitters at 150 W each. The Tindal transmitter is currently operated on behalf of 8KTR by RAAF Base Tindal via a ‘retransmission’ licence and is currently being operated at 200 W.

Assessment has found that the 8KTR transmitter at Katherine could be operated at 1 kW and that if transmissions were increased to this level it would result in improved coverage and reception quality within the licence area as a whole. Increasing the power of the additional transmitter at Tindal to 200 W is possible and will reflect the actual operating conditions.

The Katherine RA1 licence area, updated to 2006 census data is illustrated in the document “Licence Area Maps” that accompanies this explanatory paper.
The ACMA proposes to update the schedules and attachments in the Darwin LAP.

The ACMA proposes to make minor amendments to all of the schedules and to each of the attachments- that contain the characteristics, including technical specifications, of the radio broadcasting services in the Darwin and Katherine area.

The ACMA does not intend these minor amendments to alter any existing rights or obligations. It proposes to replace schedules and attachments in their entirety, without changing the substantive parts, to facilitate these minor amendments.

The proposed change to schedules includes removing the words “Licence Area Plan - Darwin Radio – October 1995” from the heading at Schedules One, Two, Three, Four and Five and substituting the heading “Licence Area Plan : Darwin Radio”. This information was included for ease of reference only, but may be confusing.

The proposed changes to the attachments involve updating technical specifications (where appropriate) such as the service licence number, specification number, nominal location, AMG reference and/or maximum antenna height.

This information has been updated for ease of reference only and does not signify a change to the planned performance of the transmitters, but rather amends the LAP to reflect their current operation and ensure that they are described in the same manner as other recently varied radio LAPs.

These minor amendments are tabled below. Text that has been struck-through has been removed with the new entry recorded in red.

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Submissions

Submissions, quoting file reference ACMA2011/1222, are invited in writing by 5 pm, 11 January 2013.

The preferred method for the receipt of submissions is by email to rps@acma.gov.au, otherwise submissions can be posted to:

Draft LAP Variation - Darwin Radio – No.2 of 2012
Radio Planning Section
Australian Communications and Media Authority
PO Box 78
Belconnen ACT 2616

Any enquiries concerning matters raised in this document should be directed to Christopher Roberts on (02) 6219 5157.

Publication of submissions
All submissions received will be made available for public inspection on the ACMA’s web site at http://www.acma.gov.au.

Under subsection 27(2) of the Broadcasting Services Act 1992 (BSA), the ACMA is required to make all submissions available for public inspection. Any submission marked ‘In confidence’, ‘Confidential’ or similar, will not be considered by the ACMA in finalising this LAP variation.

Effective consultation
The ACMA is working to enhance the effectiveness of its stakeholder consultation processes, which are an important source of evidence for its regulatory development activities. To assist stakeholders in formulating submissions to its formal written consultation processes, it has developed Effective consultation: A guide to making a submission. This guide provides information about the ACMA’s formal written public consultation processes and practical guidance on how to make a submission.