Joint Submission to the Parliamentary Joint Committee on Law Enforcement *Inquiry into the Spectrum for Public Safety Mobile Broadband*, June 2013

1. The Australian Capital Territory, New South Wales, the Northern Territory, Victoria and Western Australia (jurisdictions) welcome the Parliamentary Joint Committee on Law Enforcement's *Inquiry into the Spectrum for Public Safety Mobile Broadband* (the Inquiry)[1]. The need to ensure public safety agencies (PSAs) have adequate capabilities to respond efficiently and effectively when disasters occur has been agreed by all Australian Governments[2]. This capability must meet business-as-usual operational needs and support responders effectively when crisis events occur.

Background

2. On 29 October 2012, the Australian Communications and Media Authority (ACMA) announced that it would make 10 MHz of radiofrequency spectrum from the 800MHz band (5 MHz+5 MHz) and 50 MHz of spectrum from the 4.9 GHz band, available for a nationally interoperable public safety mobile broadband network (PSMB)[3].
3. In a letter to the Prime Minister in July 2012, the Premiers of Victoria, New South Wales, Queensland and Western Australia requested an allocation of at least 20 MHz (10 MHz + 10 MHz) (letter at Attachment A). All States and Territories consider ACMA's reservation to be inadequate, as it is based on a 'business-as-usual approach,' which does not take into account future needs and is insufficient for large-scale or major events[4].

Joint States and Territories Submission to ACMA and SCPEM

4. To facilitate further consideration of the States' requirement for additional spectrum, States and Territories produced a joint submission outlining concerns about the inadequacy of ACMA's reservation and the policy, technical, operational and financial evidence for the basis of these concerns.
5. The position of jurisdictions on the matter of spectrum for PSMB is outlined in the Joint States and Territories Submission to the Standing Council on Police and Emergency Management (SCPEM) and ACMA in March 2013. This document, at Attachment B for the Committee's consideration, was endorsed by Police and Emergency Services Ministers in all States and Territories via SCPEM in April 2013 and was noted by the Council of Australian Governments (COAG) in April 2013.
6. Jurisdictions acknowledge that the Terms of Reference for the Inquiry are broad, and not all of the Terms of Reference are addressed in this submission. However, jurisdictions consider that this submission sufficiently outlines the issues of primary concern.

Key concerns of jurisdictions regarding the inadequacy of the current reservation

7. As emphasised in the submission, the reservation of 10 MHz in the 800 MHz band and 50 MHz in the 4.9 GHz band for this capability is inadequate due to:

   a) Growth (relevant to the Inquiry's Term of Reference a)

   PSAs' business-as-usual mobile demands will continue to grow as demand for PSAs' services increase due to growth in the Australian population, increased adoption of mobile data services by PSAs' and evolution of PSA mobile broadband applications. This growth is reflected in international comparisons, particularly in the United States, Canada and parts of Europe[5] (pp. 6 – 7 of Attachment B).

[1] This submission has been endorsed by officials in the jurisdiction outlined.
[2] Council of Australian Governments, April 2013, *Communique*, p4, available from: http://www.coag.gov.au/sites/default/files/COAG_Communique_190413.pdf
[3] Australian communications and Media Authority, *The ACMA to deliver multi-layered spectrum solution to support public safety mobile broadband capability,* Media Release
[4] As expressed by States and Territories in the Joint Submission to SCPEM and ACMA at Attachment B.
[5] Deloitte, February 2013, *Emergency Services Long Term Strategic Plan – International Public Safety Broadband, p3 - 5*

Experience in these countries indicates that 10 MHz of spectrum does not provide sufficient bandwidth for incidents that occur on a daily basis. As a result, Governments have allocated, or are considering allocating, greater amounts of spectrum for use by PSAs.

b) Medium to Large Scale Incidents (relevant to the Inquiry's Term of Reference a)

Spectrum allocation must take into account demand for medium and large scale incidents including the increasing frequency of natural disasters, and likelihood of a major urban incident such as a terrorist attack, natural disaster or security operation for an international event (pp. 8 – 13 of Attachment B). The ACMA did not provision sufficient spectrum for these types of incidents given its view that it is not "appropriate to provide high value spectrum for rare contingencies"[6]. However jurisdictions do not support the ACMA's view that these types of incidents are rare contingencies or "once-in-a-generation events"[7].

c) Proposed Mitigation Options (relevant to the Inquiry's Terms of Reference a and d)

Jurisdictions are concerned about the technical and operational viability of the ACMA's proposed mitigation options, including commercial arrangements, to provide PSAs with sufficient data during a major urban incident. While jurisdictions acknowledge that some arrangements with commercial carriers may be a necessary part of a PSMB capability, it is noted that commercial networks are known to present issues when congested or otherwise under duress, such as during emergency situations[8].

To reduce the risks associated with commercial carrier arrangements, jurisdictions request that the Commonwealth ensure that a sufficient regulatory framework underpins priority access, quality of service and network management arrangements with commercial carriers. Furthermore, jurisdictions consider it important to have no constraints on PSMB spectrum licenses issued to jurisdictions so as to best leverage commercial arrangements and synergies with commercial carriers (pp. 18 – 23 of Attachment B).

Cost sharing and spectrum availability (relevant to the Inquiry's Terms of Reference b and c)

8. As a national PSMB network will produce a significant public safety benefit for the people of Australia, jurisdictions expect that the Commonwealth will make spectrum available at no cost to the States and Territories. After all, radiofrequency spectrum is ultimately a resource that belongs to the citizens of Australia.
9. The costs arising from building this capability must be transparent and equitably shared between the Commonwealth and the States. Given that the Commonwealth has auctioned the 700 MHz spectrum for a significant financial dividend, part of this dividend should be spent on the costs arising from building a technically robust capability for PSAs in the 800 MHz band.
10. Jurisdictions urge the allocation of an adequate amount of spectrum, specifically any additional spectrum to the current 10 MHz reservation, as soon as practicable and no later than 2020. Certainty regarding when, and where in the band, spectrum will become available is essential to inform State and Territory business planning and system design processes. To date, the ACMA has been unwilling or unable to provide advice on these points.
11. Due consideration should be given to jurisdictions' concerns when calculating the overall value of spectrum for PSMB. This includes:
    - the higher level of operational risks to PSAs should spectrum allocation be insufficient;
    - the opportunity costs of additional investments by State and Territory Governments in building a PSMB capability with a lower spectrum allocation; and
    - the public safety benefit that a PSMB capability will provide to all Australians.

[6] ACMA, October 2012, *Spectrum for public safety radiocommunications: Current ACMA initiatives and decisions*, p.15.
[7] *Ibid,* p.14.
[8] Public Safety Mobile Broadband Steering Committee, September 2012, *Public Safety Mobile Broadband National Implementation Plan*, p5.

700MHz and 800MHz bands, cost sharing and availability (relevant to the Inquiry's Term of Reference b)

12. The Commonwealth, States and Territories have noted the similar technical and operational characteristics between the 700 MHz and 800 MHz bands[9]. Despite this, spectrum in the 800MHz band was offered for a PSMB capability. Jurisdictions understand that this was due to:
    - **the importance of regional harmonisation:** the 800 MHz being promoted in the Asia-Pacific region as a band for public protection and disaster relief;
    - **commercial value of the 700 MHz band:** the 700 MHz band is estimated by the ACMA to be valued at approximately 28 per cent higher (per MHz) than the 800 MHz band; and
    - **the assumption that no 700 MHz spectrum would be available following its commercial auction:** this assumption proved inaccurate, as two paired 15 MHz segments (30 MHz in total) in the 700 MHz band remain available following the conclusion of the auction due to a lack of commercial interest**.**

13. Jurisdictions acknowledge the rationale for provision of spectrum in the 800 MHz band for this capability. However, note that spectrum is now available in the 700 MHz band and that provision within that band is expected to reduce the costs of a PSMB network. The reduction in costs is due to the 700 MHz band's ability to support commercially available public safety grade equipment and systems integration solutions (whereas the 800 MHz band currently does not). Provision within the 700 MHz band would also provide the opportunity to harmonise with a number of countries that have standardised in the 700 MHz band, including the United States.

14. Further, as noted above, it is uncertain when 800 MHz spectrum will become available for PSMB. This uncertainty would be removed if provision was made in the 700 MHz band, which will become available with the orderly switch-off of analogue television across Australia by the end of 2013.

Applications dependent on broadband spectrum (relevant to the Inquiry's Term of Reference e)

15. Both the *2009 Victorian Bushfire Royal Commission* and the Review of *2010-2011 Flood Warnings and Response* noted the positive impacts that improved information sharing between agencies and with the community can have before, during and after emergency incidents. In line with these observations, jurisdictions recognise the need for a higher level of information interoperability between emergency services both now and into the future. Broadband spectrum will form the basis for the applications driving this higher level of information sharing. The Victorian Government has released an *Information Interoperability Blueprint*, outlining a vision for a *Victorian Information Network for Emergencies* dependent on broadband spectrum, which will contribute significantly to saving lives and property. These documents are attached for the Committee's consideration at Attachments C and D respectively.

Conclusion

16. The Queensland Floods Commission of Inquiry regards "as vital, the allocation of broadband spectrum to Australia's emergency services organisations, to avoid congestion on narrowband communications and to assist Australian emergency service organisations achieve interoperability, giving them the best means of communicating and co-operating[10]." All Australian Governments have indicated support for such a capability. Jurisdictions encourage due consideration of the concerns outlined in the submission at Attachment B, to ensure Australian PSAs have the capability they need for the protection of life and property both now and into the future.

[9] Department of Broadband, Communications and the Digital Economy, December 2012, *Fact Sheet 3: Public Safety Mobile Broadband Capability 700Mhz v 800MHz – Suitability for Australian Public Safety Use.*

[10] Queensland Floods Commission of Inquiry, March 2012, *Final Report,* p399.