



Parliamentary Joint Committee on Law
Enforcement Inquiry into Spectrum for
Public Safety Mobile Broadband

12 June
2013

Submission by Association of Public-
Safety Communications Officials
(APCO) Australasia

Parliamentary Joint Committee on Law Enforcement

Inquiry into Spectrum for Public Safety Mobile Broadband

This Submission provides a response to the Terms of Reference for the Inquiry by the Parliamentary Joint Committee on Law Enforcement into spectrum for public safety mobile broadband announced by the Committee on 28 June 2013.

Comments on the Terms of Reference

The time frame for the preparation of Submissions is extremely short given that the matters under consideration will set the strategic direction for the development of public safety broadband communications and information technologies for the foreseeable future and in turn the ability of Australia's Public Safety Agencies (PSAs) to use these technologies to meet the expectations of the Australian community.

The questions posed in the Terms of Reference all relate to public safety spectrum when the real question is how PSAs will use the proposed national broadband capability to then determine the amount of spectrum required as a critical component of arrangements to provide this capability.

The Terms of Reference focus this Inquiry on "Law Enforcement" which is at odds with the accepted "All Hazards All Agencies" approach used by the Emergency Management Sector. All PSAs will require access to the national public safety broadband capability and should by the nature of their operations use this capability to continue the movement towards a fully integrated and interoperable environment able to meet public expectations of the PSAs.

It is assumed that the Committee will take into consideration the work by the Public Safety Mobile Broadband Steering Committee together with the related outcomes of the meetings of the Standing Council for Police and Emergency Management (SCPEM) and the Council of Australian Governments (COAG).

In the context of the above the Committee is also referred to the following documentation in support of this submission:

- (a) Submission by Association of Public-Safety Communications Officials (APCO) Australasia dated 22 February 2013 to the Australian Communications Media Authority (ACMA) Discussion Paper "The 803–960 MHz band—exploring options for future change"
- (b) TETRA Critical Communications Association (TCCA) Critical Communications Broadband Working Group (CCBG) White Paper.
www.tandcca.com/Library/Documents/CCBGMissionCriticalMobileBroadbandwhitepaper2013.pdf

Responses to the Questions in the Terms of Reference

- (a) How much broadband spectrum law enforcement agencies need to be able to communicate safely and effectively during mission-critical events such as natural disasters and potential terrorist incidents;**

There is no simple answer to this question and it is one that being contemplated by the global public safety community. The communications capability of the general public has for the first time exceeded that of the PSAs largely on the basis of the availability of broadband technologies and a willingness to exchange information through various channels on a real time always connected basis.

PSAs require a matching broadband capability provided by the Public Safety Communications and Information Management Technologies Sector. This broadband capability will transform existing PSA Standard Operating Procedures and Operational Doctrine and the concepts of Situational Awareness and Complete Operating Picture.

PSAs will need time to define the manner in which they can best utilise the capabilities that broadband technologies will provide through actual field use and sharing their experiences with the global public safety community. The lessons learned can then be capitalised on through an evidence and research based approach to determine an appropriate amount of spectrum to meet PSA demand through a range of sources that reflects the value of spectrum as an asset used to the benefit of the broader community.

A number of countries have either made an allocation or commenced discussion about the amount of spectrum for public safety communications relative to the cost of the infrastructure required to support a broadband communications capability for PSAs.

- (b) Which of the 700 or 800 MHz bands is the most appropriate for law enforcement agencies given the current licensees occupying spectrum;**

The ACMA has announced the allocation of dedicated spectrum for PSAs in the 800 MHz band. This decision is understood to have been based upon the ACMA's charter to ensure the most effective allocation of spectrum. From a technical perspective it is understood that there is no substantial advantage between the 700 and 800 MHz bands.

The more substantive question is which band most effectively provides for broadband interoperability and capability nationally and across International Telecommunications Union (ITU) Region 3 (Asia Pacific) for Personal Protection and Disaster Recovery (PPDR) purposes (both narrowband and broadband).

Decisions relating to PPDR spectrum are expected to be taken at the World Radio Congress in 2015 at which the ACMA will represent Australia.

- (c) How the necessary spectrum for public safety should be secured in a timely manner;**

PSAs need to provide evidence to the ACMA to change its present position that 10MHz is sufficient to meet their operational needs. As previously indicated it will take time for PSAs to determine how a broadband capability will change their method of operation.

The opportunity should be taken to utilise the proposed allocation but on the condition that the ACMA will maintain the opportunity to increase the allocation by up to a further 10MHz if this increase is proven to be needed.

PSAs should actively share information about their experiences with broadband to add to the global body of knowledge and the development of “end cases”, as has been done in the USA and Europe, as evidence to support the allocation of public safety spectrum.

(d) What arrangements should be put in place to ensure that, in extreme circumstances, law enforcement agencies can effectively use spectrum of commercial carriers to protect public safety and maintain public order;

It is assumed that this question relates to the ability of PSAs to be able to technically and contractually roam onto commercial networks to utilise their capacity and capability for public safety purposes and so gain access to the operator’s spectrum.

The definition of what constitutes “extreme circumstances” needs to be understood because these circumstances may well mean that the commercial operator’s network is not available to roam onto e.g. it is not operating because of the circumstances in question.

This pre-emption ability will need to be underpinned by sophisticated contractual arrangements that build upon those arrangements that will need to be in place to allow the PSAs access to broadband capabilities for day to day operations outside the dedicated core of the proposed Public Safety Mobile Broadband Network.

(e) What applications dependent on broadband spectrum will contribute significantly to saving lives and property?

At this point in time broadband LTE technology is about the use of data and NOT voice and hence it should be expected that there will be a wide range of applications developed to support the use of data by PSAs to deliver services to meet public expectations. These applications will be determined by the manner in which the concept of “Big Data” is interpreted by the PSAs.

The consideration of what constitutes a “public safety app” in a broadband environment has begun through the initiative of APCO International to establish the “Appscommunity” website located at www.appcomm.org. This website allows apps developed in either the general or the public safety community to be submitted and shared. This initiative is also aimed at exposing the apps development community to the needs of the public safety market so that public safety apps may be produced through the mainstream apps development process.

Performance measures associated with the use of these apps by PSAs in saving lives and property would need to be developed in parallel with the understanding of the manner in which PSAs will use the capabilities that broadband will offer.

(f) The impact on law enforcement agencies which utilise the available spectrum in relation to budgets, implementation strategies, current infrastructure and existing technology;

It appears that there have been no allocations made by the States and Territories’ relevant to the proposed Public Safety Mobile Broadband Network unless this has been done as part of the National Implementation Plane endorsed by the SCPEM.

While there is no doubt that the proposed Public Safety Mobile Broadband Network capability is required by PSAs the rate of change in technologies, the need to share infrastructure and risk allocation, the potential to use different procurement models and the need to at least keep pace with the communication capabilities of the public will have an impact upon PSA Budgets yet to be determined.

(g) Any other related matters.

National Broadband Network

The ability to utilise the National Broadband Network (NBN) as part of the architecture for Australia's PSA communication network needs to be considered. This potential has been examined in the report prepared by the University of Melbourne in December 2012 in association with the Australian Broadband Applications Laboratory titled "Broadband Communications Options for Public Safety Agencies" available at www.dbcde.gov.au

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