Police Federation of Australia
The National Voice of Policing

PFA SUBMISSION ON ACMA DISCUSSION PAPER: THE 803-960 MHZ BAND–EXPLORING OPTIONS FOR FUTURE CHANGE

INTRODUCTION

The Police Federation of Australia (PFA) has a vital interest in the ACMA's proposals for the 800 MHz band and, in particular, what they will mean for public safety mobile broadband (PSMB) capability in the future.

We represent Australia's 56,000 police officers in all States and Territories and the Australian Federal Police and their need for effective, modern and interoperable communications to undertake their essential functions. Of course PSMB capability is also critical to the partner organisations of police–the fire and rescue, ambulance, and emergency services–making approximately 400,000 first responders nation-wide who will be affected by ACMA decisions taken in 2013 regarding spectrum for public safety.

The ACMA's decision on the **quantum** of spectrum for public safety mobile broadband will determine for decades to come the communications capability available to those first responders, especially in times of natural disasters and other emergencies. This submission therefore concentrates on that aspect of the Discussion Paper, most particularly Chapter 5–PSMB in the 800 MHz band.

It is worth recalling also that the ACMA refused to countenance any of the best spectrum in the 700 MHz band for public safety mobile broadband which will all go to the big telecommunications companies at the April 2013 auction.

THE ACMA OCTOBER 2012 DECISION

As the Discussion Paper says, the ACMA decided on 29 October 2012 "to set aside 2 x 5 MHz (10 MHz total) of dedicated paired spectrum from the 800 MHz band for use by PSAs to deploy dedicated PSMB networks. The ACMA believes this quantum of spectrum is sufficient to enable deployment of a PSMB capability".

The PFA considers it important to challenge the decision of the ACMA in the national interest and the interests of public safety.

We do so based on five grounds:

- The objects of the Radicommunications Act 1992
- The ACMA's responsibility towards public safety agencies (PSAs)
- The capability 10 MHz will provide
- The shortfall and the available evidence on what constitutes "adequate" spectrum for public safety
- The consequences of the ACMA decision including for Regional Australia.

THE OBJECTS OF THE RADICOMMUNICATIONS ACT 1992

The Act sets out a number of objects, including object 3(b) which is to:

(b) "make adequate provision of the spectrum:

(i) for use by agencies involved in the defence or national security of Australia, law enforcement or the provision of emergency services."

This is a very unusual provision in an objects clause. Most clauses of this nature set out a range of matters which the relevant authority must have regard to in reaching decisions. By contrast, this is quite specific. The history of this clause, its origin in the principal Act and the strengthening of it in 2003 amendments, are set out in a recent paper by the Department of Broadband, Communications and the Digital Economy (DBCDE), called *Objects of the Radiocommunications Act 1992,* September 2012.

As that paper points out,

> "Paragraph (b) was included to avoid any disadvantage to public and community services arising from the implementation of market-based reforms.[11] In 2003, section 3(b) was amended to explicitly recognise the spectrum needs of defence, national security, law enforcement and emergency services agencies.[12]
>
> The EM (Explanatory Memorandum) for the amending Bill states that the object was added to *strengthen the existing* [general provisions regarding the use of spectrum by operational agencies]*...by providing an express acknowledgment of the importance of adequate access to radiofrequency spectrum by these agencies*.[13] This is the only amendment to the objects clause that has occurred in the past 20 years."

THE ACMA'S RESPONSIBILITY TOWARDS PUBLIC SAFETY AGENCIES (PSAs)

The ACMA paper, at page 43, acknowledges that "the Radiocommunications Act **compels** the ACMA to 'make adequate provision of the spectrum for use by agencies involved in ... law enforcement or the provision of emergency services'".

The fact that spectrum below 1 GHz is in short supply and needs to be carefully managed to best serve the community is accepted by all interested parties including the PFA. AS the ACMA paper rightly says, "(t)he challenge for the ACMA is to provide

adequate spectrum for PSAs to carry out their duties effectively, while optimising the benefit of the spectrum as a whole to the community".

So the essential question is "What constitutes adequate provision for public safety agencies?" This can be tested by looking at:

- the capability 10 MHz will provide

- the shortfall and the available evidence on what constitutes "adequate" spectrum for public safety and

- the consequences, including for Regional Australia.

THE CAPABILITY 10 MHz WILL PROVIDE

As the ACMA concedes, in announcing that it will set aside 10 MHz, this is "sufficient spectrum for day-to-day and pre-planned use" (page 43). In other words, this will be sufficient for ordinary communications when nothing goes wrong.

THE SHORTFALL AND THE AVAILABLE EVIDENCE ON WHAT CONSTITUTES "ADEQUATE" SPECTRUM FOR PUBLIC SAFETY

The ACMA seems to accept that this is **not adequate spectrum** for the many occasions when things do go wrong, as they invariably do in the world of policing and emergency services. The ACMA says "(n)evertheless, it is accepted that for some major incidents that occur at short notice, the capacity afforded by any conventional cellular network may not be enough to satisfy the demand in the vicinity of those incidents".

To put it plainly, the Act requires the ACMA to turn its mind to the spectrum needs of public safety agencies for the difficult mission critical work that they must do to protect life and property in times of disaster and emergencies when their services are most necessary and urgent. It is exactly when the PSAs needs are most acute that the spectrum proposed will be **half** what is needed.

We believe that it is precisely the PSA needs in times of emergencies and natural disasters that the Act is directed at, and where the ACMA proposal falls seriously short.

This is not mere conjecture on our part.

Public safety agencies in the USA initially had 10 MHz of spectrum. This fell well short of what they needed to effectively communicate. After a national campaign by all the PSA organisations over several years to rectify this shortfall, they finally achieved 20 MHz in early 2012 with the support of both sides of the US Congress and President Obama. Their new national network, FirstNet, is now being established to provide interoperable mobile broadband communications across the country.

A number of comparable countries to Australia, including the USA, Canada and Germany, which have also examined this matter have concluded that at least 20 MHz is necessary (some have found that more is needed). The ACMA decision flies in the face of this hard evidence.

The Government's PSMB Steering Committee has copious evidence from Australian expert research (including by Gibson Quai-AAS Consulting, now UXC Consulting) that 20 MHz of spectrum is the minimum required in Australia (see PSMB Spectrum Quantum Calculation and PSMB Demand Requirements).

Motorola Solutions, in a recent demonstration in Perth, was able to show the capability that would result from 10 MHz of spectrum (the very limited geographic area of communication coverage). Other experts in the field including NSW Police Commissioner Andrew Scipione, retired NSW Police Assistant Commissioner, Bob Waites, current NSW Police Assistant Commissioner Peter Barrie (each of whom has been actively involved in police and emergency communications), together with Tait Communications, Australian Radio Communications Industry Association (ARCIA) and the Association of Public-Safety Communications Officials Australasia (APCO) are all of the considered view that a minimum of 20 MHz of the 800 MHz spectrum is essential.

All of Australia's Police Commissioners believe that PSAs need a minimum of 20 MHz of spectrum in the 800 MHz band.

The Premiers of NSW, Victoria, Queensland and Western Australia wrote to the Prime Minister in July 2012 recommending that the Government allocate a minimum of 20 MHz of spectrum for emergency services. We understand the Labor State and Territory leaders also support the need for this amount of spectrum for mobile broadband communications. Leaders in various States have since condemned the ACMA's October 2012 decision.

All States and Territories signed up to the PSMB Implementation Plan at the November 2012 Ministerial Council meeting of Police and Emergency Services Ministers so that there can be no doubt about their commitment to interoperable mobile broadband communications for their public safety agencies.

It is clear that the ACMA decision flies in the face of all the available expert evidence here in Australia and overseas.

The ACMA clouds the issue when they present their decision in sophisticated language describing their solution as a "layered 'system of systems' approach−providing 10 MHz of the 800 MHz band and scope for 'cells on wheels', plus 50 MHz in the 4.9 GHz band. The latter is a complete red herring because it is only useful for stationary, localized incidents like a siege, not a moving bushfire, flood or an incident where criminals or terrorist are on the move. The 4.9 GHz band is spectrum for which there is little if any demand because of its serious limitations. In addition, it is fanciful to imagine using 'cells on wheels' during natural disasters, so that is also a red herring.

The only test of what constitutes adequate spectrum for public safety is the amount set aside in the 800 MHz band.

THE CONSEQUENCES OF THE ACMA DECISION INCLUDING FOR REGIONAL AUSTRALIA

Given that 10 MHz will be inadequate during critical incidents and natural disasters, the ACMA seems to envisage that police and emergency services will be able to switch over to the commercial carriers communications networks. This is called roaming.

It is difficult to envisage how that would work since the carriers' systems frequently go down (e.g. towers, power, cables, systems) when life-threatening natural disasters occur, as Telstra's did in all of north Queensland (landline, mobile and Internet) during the January 2013 flooding and tornados in Queensland and in the 2013 Tasmanian bushfires.

Every Royal Commission and Inquiry following recent natural disasters, including the Black Saturday Royal Commission in Victoria and the Queensland Floods Royal Commission, has highlighted the power and communications failures of the commercial carriers (and sometimes the public safety agencies' lack of interoperability) hampering emergency response and rescue efforts.

The ACMA has not detailed the legal arrangements it is planning to implement to guarantee that the public safety agencies like SES, police and fire services have instant, reliable access to the commercial networks when they need it, what terms and conditions will apply, or who will ensure that these arrangements work in practice.

The ACMA proposal that PSAs rely on commercial carriers during natural disasters is at odds with:

- their acceptance of the unanimous Senate Committee recommendation that public safety agencies need their own dedicated spectrum for their networks;

- the statement that "Radiocommunications networks are a critical component of public safety operations." (Discussion Paper page 42)

- the statement that "The requirements of networks for such operations are generally different from other types of networks, including commercial mobile networks." (Discussion Paper page 42)

It is no exaggeration to say that the ACMA decision not to provide adequate spectrum for public safety will cost lives and property and result in economic loss well beyond that which would otherwise result if PSAs had effective mobile broadband communications. We are currently not in a position to quantify such losses but they will be able to be assessed in the future. We know that the cost of natural disasters in Australia runs into the millions of dollars per annum, and that the

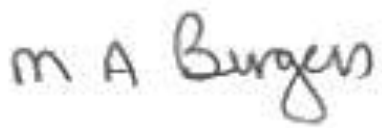
frequency and severity of natural disasters is expected to increase according to experts in natural disaster costs from reinsurers including Swiss Re and Munich Re.

It is also clear from the pattern of natural disasters in Australia that regional Australia is likely to be disproportionately harmed as a consequence of the ACMA proposals. Witness the huge bushfires that affected the Coonabarabran region of NSW in January 2013, the bushfires in regional Tasmania and The Wimmera in Victoria, the floods in north Queensland and northern NSW, and bushfires in WA in February 2013. Regional Australia will be more seriously affected simply because radio communications are more problematic in regional and remote areas.

These are not rare events. They are predictable, seasonal occurrences across regional Australia for which police and emergency services must be prepared and equipped, including with modern, effective communications as the public of Australia would expect.

There is no doubt that Regional Australia in particular will be seriously affected by the ACMA decision which we think is correctly described as shortsighted and foolhardy in our letter to the ACMA Chairman of 18 January 2013.

The PFA appeals to the ACMA to reconsider its decision and set aside a minimum of 20 MHz of the 800 MHz band of spectrum for public safety mobile broadband communications.



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