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Communications Alliance and AMTA
Joint Submission

Australian Communications
and Media Authority

Review of radiocommunications prohibitions and exemptions framework



About AMTA

The Australian Mobile Telecommunications Association (AMTA) is the peak industry body representing Australia's mobile telecommunications industry. Its mission is to promote an environmentally, socially and economically responsible, successful and sustainable mobile telecommunications industry in Australia, with members including the mobile network operators and service providers, handset manufacturers, network equipment suppliers, retail outlets and other suppliers to the industry. For more details about AMTA, see <http://www.amta.org.au>.

About Communications Alliance

Communications Alliance is the primary telecommunications industry body in Australia. Its membership is drawn from a wide cross-section of the communications industry, including carriers, carriage and internet service providers, content providers, equipment vendors, IT companies, consultants and business groups. Its vision is to provide a unified voice for the telecommunications industry and to lead it into the next generation of converging networks, technologies and services. The prime mission of Communications Alliance is to promote the growth of the Australian communications industry and the protection of consumer interests by fostering the highest standards of business ethics and behaviour through industry self-governance. For more details about Communications Alliance, see www.commsalliance.com.au.



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Changes and developments in technology

In the mobile and wireless sector, technological development has been both rapid and constant since the *Radiocommunications Act 1992* (the Act) established the current regulatory framework of prohibitions and exemptions that protect mobile communications networks from undue disruption or interference. In 1992, the use of 2G technology was not yet widespread and in 2020 the deployment of 5G networks is gathering momentum and almost all Australians now own a smartphone.¹ The deployment of 5G and the IoT brings with it an associated proliferation of devices and applications which will also put pressure on the prohibition and exemption framework.

Mobile and wireless networks, complemented by the NBN, are fundamental to delivering connectivity to the community, businesses and industry. Connectivity is an enabling force in our economy and society, driving productivity and innovation. Mobile and wireless networks are also critical to ensuring public safety through the provision of services including Triple Zero.

The Associations believe it is essential that the regulatory framework is both robust and flexible to ensure that networks are protected from undue interference or disruption. In relation to the framework of prohibitions and exemptions this requires a holistic policy approach, rather than the somewhat ad hoc approach that has been utilised to date, particularly around exemption determinations which have proliferated in recent years. This proliferation of exemptions across jurisdictions for various agencies and purposes has resulted in a fragmented and uncoordinated framework that only serves to undermine the overall policy of prohibition.

A holistic and consistent whole of government approach needs to balance the safeguarding of our communications networks with other important interests or objectives, including those of national security and law enforcement. The Associations look forward to being able to participate in consultation on the longer-term strategy for managing the threat of malicious drones.

The Associations strongly support the necessity of the [Radiocommunications \(Prohibited Device\) \(RNSS Jamming Devices\) Declaration 2014](#) (RNSS Jamming Device Prohibition) and the [Radiocommunications \(Prohibition of PMTS Jamming Devices\) Declaration 2011](#) (PMTS Jamming Device Prohibition) as these two instruments give effect to the overall policy of prohibition of devices that can potentially cause undue interference to communication networks. We strongly believe that prohibition should be the cornerstone that the regulatory framework is built upon.

The telecommunications industry makes a significant investment in spectrum resources to deploy mobile and wireless networks which play a critical role in our communications infrastructure and

¹ Deloitte Mobile Consumer Survey 2019, [Australia Reaches Peak Smartphone](#), 91% of Australians now own a smartphone

given this investment, the Associations assert that allocated spectrum should be available to licence holders free from interference by non-compliant equipment or other users.

We also acknowledge that the management of spectrum resources is increasingly complex as both the number of users and types of use increase. 5G and the continued growth of the IoT will put pressure on the regulatory framework of prohibitions and exemptions as both devices and applications proliferate. Sharing and co-existence mean that interference must be adequately managed so that licence holders are able to make full and efficient use of their allocated spectrum and we have long advocated for the ACMA to be sufficiently funded so that it is able to both manage interference issues and enforce compliance when necessary.

The prohibition regime

The Associations believe that a policy of prohibition is necessary and fundamental to the regulatory framework. In practice, this means that our starting point should be that devices and equipment must be compliant to be used in Australia. Further, non-compliant devices and uses that can cause interference to mobile and wireless networks should be illegal and this should be strictly enforced. We realise that this can pose a challenge as new devices and applications proliferate and also recognise that law enforcement and national security agencies will have legitimate requirements for some exemptions. Likewise, we appreciate that Australian manufacturers can be restricted under the current framework from manufacturing and testing equipment for overseas markets. However, we are cautious about the expansion of exemptions as allowing exemptions to become 'business as usual' can mean that the overall policy of prohibition is undermined, along with the property rights of licence holders. We are open to more flexible ways to enable appropriate exemptions; however, we strongly believe that the prohibition of devices that pose a risk of interference to mobile and wireless networks should remain the focus for policy-makers.

Devices that should be prohibited

The Associations believe that the prohibition regime needs to incorporate devices with the following characteristics:

- Devices designed to cause interference to mobile/wireless networks or wi-fi² or to interrupt a radiocommunications signal e.g. jamming devices, [In Confidence]
- Devices that may not be designed specifically to cause interference but that have a high potential to cause interference due to their intended use e.g. IMSI grabbers/catchers

² We note that class licensed devices are not entitled to protection from interference but that this needs to be balanced against the increasing reliance on wi-fi as well as convergence e.g. mobile calls over wi-fi

- Devices that may cause interference if their use is not carefully managed by the user, in co-operation and co-ordination with mobile and wireless network operators e.g. RNSS repeaters, pseudolites

Exemption determinations

There are several exemptions now in place that allow for the use of various types of jamming devices. Some of these exemptions are quite specific and limited to a particular location, facility or time period. Others are more open-ended, as they are for the purposes of a particular agency.

For example, there are exemptions in place for jamming devices in relation to corrective services facilities (Lithgow and Goulburn in NSW), bomb disposal and visits to Australia by VIPs. The exemptions in relation to correctional facilities have supporting arrangements that allow for communication between the facility managers and the mobile carriers on an ongoing basis. Whereas the arrangements for bomb disposal and VIP visits provide exemptions for short duration and specific location events.

The exemption and supporting arrangements for counter -drone measures are for long duration with location unspecified. Notification for trials or testing can be given beforehand but when these measures are implemented for real-life situations it is likely that notification will be made after the event. This means that the risk of unintended consequences will be higher and less manageable/predictable in real time. Industry believes that there needs to be robust notification framework in place so that network operators are able to manage any interference to networks as well as avoid any reaction that may adversely impact on the operations of law enforcement activity as it happens.

The Associations have previously raised our concerns that there is not a proliferation of exemptions across jurisdictions for various agencies and purposes. Such a proliferation will only result in a fragmented and uncoordinated approach that only serves to undermine the overall policy of prohibition of jamming devices.

[In Confidence]

We also note that the mobile and wireless network operators do not have visibility of the specification of the technical characteristics of the drone jammers currently in use by the AFP or proposed for use by other agencies. Without an appropriate explanation of the technology being used, it is difficult to accurately assess the risk of potential interference to users of adjacent frequencies.

Exemptions for drone jamming devices

Drone devices have many useful and innovative applications and have the potential to impact productivity in manufacturing, agriculture, health and public safety as well as small businesses such as real estate. Unfortunately, as drone technology becomes more available there is also an increased risk of misuse and even malicious use of drones.

The Associations understand that the Government is seeking to develop a long term, whole-of-government policy to manage the risk associated with drones and that the proposed Exemption will therefore have a duration of two years. However, we are concerned that these short-term arrangements could easily become adopted as ‘business as usual’ if a more holistic approach is not adopted sooner. We look forward to early engagement with Government in relation to the development of a long-term policy approach.

We believe that the proposed short-term arrangements place too much weight on only one type of counter measure i.e. jamming and do not consider the full range of potential tools to minimise the risks posed by drones, such as detection systems, geo-fencing, and/or limiting supply of illegal devices. The mobile and wireless network operators are also willing to engage directly with law enforcement and security agencies regarding potential network-based solutions that could be useful in preventing malicious drone activity.

Our concerns with the proposed Exemption include:

- [In Confidence]
- [In Confidence] There remains a risk that counter drone devices could cause interference in adjacent bands.
- [In Confidence]
- [In Confidence]
- Expanding the use of counter drone devices to more agencies will result in an uncoordinated usage and increase the risk of disproportionate interference to communications networks.
- There is always a risk of misuse associated with any use of the jamming devices, whether purposeful or accidental and this risk increases as usage is increased.

Need for notification framework

The Associations submit that there is a clear need for a notification framework for when counter drone devices are used under the proposed Exemption. As there will now be multiple agencies both testing and also deploying operational use as necessary; a framework for notifying affected parties is necessary to ensure that they are able to manage any resulting interference to networks. Lack of notification could result in network operators taking remedial actions to manage interference that could in turn impact on the operations of agencies.

The Associations note that the framework used for exemptions in relation to bomb disposal and VIP visits has worked well in most instances and provides a useful blueprint for processes that would work in relation to counter drone measures. We note that the notification framework used for bomb disposal and VIP visits enabled prior warning to be provided to mobile network operators in advance of training exercises and that there was often strong engagement between network operators and agencies in relation to these exercises.

Advance notification enables operators to manage any customer complaints appropriately as well as manage networks when there is an increase in the noise floor. Network operators are also then able to voluntarily provide feedback to agencies on the impact seen to networks during the exercise.

Clearly, it is understandable that in a real live threat situation that network operators may not get advance warning, but they should be made aware as soon as possible, as this assists with the management of customer complaints/expectations. Notification also enables network operators to appropriately manage any media questions (i.e. refer media queries to the ACMA).

[In Confidence]

[In Confidence]

[In Confidence]

[In Confidence]

[In Confidence]

Trials of RNSS repeater devices

The Associations recognise the potential public benefit associated with the proposed trials of RNSS repeater devices in tunnels around Sydney. While these devices are not designed to cause disruption to mobile networks there is still a potential for interference to networks that needs to be appropriately and effectively managed by the ACMA and all stakeholders.

The Associations note that successful trials of jamming devices in correctional facilities in NSW were achieved through close consultation with all stakeholders, including mobile network operators and Corrective Services NSW, facilitated by the ACMA. We would therefore expect the proposed trial to follow a similar path and that Transport for NSW (TfNSW) would be required to consult closely with network operators in relation to the trial, including testing phases, placement of devices and the provision of timely data reports from tests and trials. The Associations consider that an obligation for the TfNSW to consult with network operators in relation to the trial needs to be either included in the Declaration or in the licence conditions. If such an obligation cannot be included in the licence conditions, then we suggest that the penalty for causing interference to mobile networks needs to be a sufficient deterrent so that the licence owner will have a strong incentive to actively engage with mobile network operators during the trial.

We note that the potential risk for interference to mobile networks will be greatly affected by the placement of devices e.g. near tunnel entrances and exits, air vents etc.

While the paper proposes 3 options to facilitate trials, we do not consider it is appropriate to facilitate removal of 'RNSS devices' from the current prohibition at this stage. The potential risk of interference to networks from use of GPS repeaters is also a wide-area issue and should be carefully managed. The interference risk and impact on one site has the potential to cascade to both a combination of neighbouring sites and even adjacent networks operated by other parties. We therefore consider an exemption approach, adopted in line with the description above, is the preferred approach to facilitate the RNSS repeater trials in road tunnel.

Irrespective of the approach taken, the next step would be to require further consultation with all stakeholders on the technical guidelines and licence conditions.

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