EXPLANATORY STATEMENT

Issued by the Authority of the Australian Communications and Media Authority

Radiocommunications (Low Interference Potential Devices) Class Licence Variation 2006 (No.1)

Radiocommunications Act 1992

Legislative Provisions

Paragraph 134(b) of the *Radiocommunications Act 1992* (the Act) allows the Australian Communications and Media Authority (ACMA), by notice published in the *Commonwealth Gazette*, to vary one or more of the conditions of a class licence.

A class licence is a disallowable instrument for the purposes of the *Legislative Instruments Act 2003*, pursuant to section 139 of the Act.

Purpose

This variation to the *Radiocommunications (Low Interference Potential Devices) Class Licence 2000* (the LIPD Class Licence) extended the existing arrangements to allow for the introduction and use of new technology**.**

Background

It is a requirement of the Act that the operation of all radiocommunications transmitters within Australia be authorised by a radiocommunications licence.

A class licence is one type of licence available to authorise the operation of radiocommunications transmitters. It is an effective and efficient means of spectrum management for services where a limited set of common frequencies is employed, and equipment is operated under a common set of conditions. A class licence sets out the conditions under which any person is permitted to operate any device to which the class licence is applicable; it is not issued to an individual user, and does not involve the payment of licence fees. The licences are issued by ACMA by a notice published in the *Commonwealth Gazette.* They involve minimal licence administration by ACMA.

The LIPD Class Licence authorises the operation of a wide range of low power radiocommunications devices in various segments of the radiofrequency spectrum. The LIPD Class Licence sets out the conditions under which many types of short range devices may operate. These transmitters do not require individual frequency coordination because of their low interference characteristics. Examples of equipment covered by the LIPD Class Licence include garage door openers, radiofrequency identification transmitters, and personal alarms.

Issues

There were four individual changes introduced by this variation.

1. Ultra wideband short-range vehicle radar systems

Ultra wideband short-range vehicle radar (UWB SRR) is a radiocommunications technology that enables the precise detection, location and tracking of movement of persons or objects at distances of up to 30m from the vehicle. It operates as a motor vehicle safety aid capable of providing collision avoidance warnings to the driver and assisting with improved airbag activation and suspension systems that better respond to road conditions.

The United States of America, the United Kingdom and parts of Europe have made regulatory arrangements that support the operation of UWB SRR in the 24 GHz band. ACMA has been approached by a number of automotive suppliers and the Federal Chamber of Automotive Industries seeking the introduction of similar arrangements in Australia to support the inclusion of these devices as a feature in some luxury vehicles due to go on sale in 2006. While initially limited to luxury models, with increased demand and economies of scale, UWB SRR systems are likely to become a future option in many motor vehicles.

There were concerns for potential interference in relation to passive sensing systems on low earth orbiting satellites and radio astronomy service stations operating in the 24 GHz band and to fixed services in the 22-23 GHz band. However, because UWB SRR systems operate at very low power levels, technical and operational characteristics are such that they present little interference risk to each other, or other users of the spectrum.

After technical analysis of frequency sharing issues and the potential interference risk to existing and future services as a result of UWB SRR systems, ACMA has included a provision in the LIPD Class Licence to authorise the operation of UWB SRR systems in Australia across the 22-26.5 GHz frequency band. Studies indicate that, provided mitigation factors are taken into account, it is possible for 24 GHz UWB SRR to share this spectrum with existing services. In particular, exclusion zones have been established to protect radio astronomy stations at Parkes, Narrabri, the Canberra Deep Space Communications Complex at Tidbinbilla and the Radio Astronomy Park in Western Australia.

This variation is related to a change in the *Australian Radiofrequency Spectrum Plan* regarding footnote 5.340 of the International Telecommunication Union Radio Regulations which prohibits emissions in the band 23.6 – 24 GHz amongst other bands.

2. Wireless microphones

Wireless microphones are widely used within the media and entertainment industries and in many forums where public speech is required. The previous power limit imposed by the LIPD was not consistent with commercially available and generally used wireless microphones. ACMA has varied the maximum EIRP to allow limits compatible with available technology.

The UHF frequency band used by wireless microphones is designated as a broadcasting services band and is used principally by television broadcasting services. The band is also used by biomedical telemetry devices which are also authorised by the LIPD Class Licence.

The interference potential resulting from an increase in transmitter power has been assessed and it has been concluded that wireless microphones having an EIRP up to 100 mW have an acceptable interference potential with television broadcast services provided that certain deployment constraints are observed.

3. Radio local area networks (RLANs) in the 5 GHz band

RLANS are used to form short-range connections between networked computers without the need for interconnecting cables. They are commonly used by companies to connect workplace devices such as personal computers and by hotels and airports to provide wireless internet connections for their customers. ACMA has varied the LIPD Class Licence to authorise RLAN operations in the 5470-5600 and the 5650-5725 MHz frequency ranges. This extends RLAN access to the majority of the band in accordance with increased international activity but will allow for protection of weather radar in the 5600-5650 MHz band.

4. 900 MHz Frequency hoppers

Previous arrangements for 900 MHz frequency hoppers set a minimum of 25 hop channels to be used by wideband frequency hopping spread spectrum devices in the 915-928 MHz band. This minimum has been reduced to 20 to accommodate industry requests in regard to some imported technologies. No detrimental impact is expected on the adjacent services.

The *Radiocommunications (Low Interference Potential Devices) Class Licence Variation 2006 (No.1)* commenced on the day after registration.

Consultation

ACMA consulted with the Office of Regulation Review (ORR) who advised that a Regulation Impact Statement is not required for the amendment to the LIPD Class Licence (ORR ID: 8329). ORR noted that the proposed variations are of a minor and machinery nature, and do not substantially alter existing arrangements.

Notice of ACMA's intended variations was published in the *Commonwealth Gazette* and a public consultation period offered. Twenty-five submissions were received and were taken into account when preparing this variation.

Details of the Determination are set out in Attachment 1.

ATTACHMENT 1

Notes about instrument

Section 1 Name of Variation

Section 1 provides for the citation of the instrument.

Section 2 Commencement

Section 2 states the day on which the instrument has effect.

Section 3 Variation of the *Radiocommunications (Low Interference Potential Devices) Class Licence 2000.*

Section 3 provides that Schedule 1 varies the *Radiocommunications (Low Interference Potential Devices) Class Licence 2000.*

Schedule 1 Amendments

[1] Section 3A

Item [1] inserts a definition for *coverage area* in relation to a broadcasting station.

[2] Section 3A

Item [2] inserts a definition for *nominated distance of a specified Australian radio-astronomy site* in relation to the exclusion zones for the protection of radio astronomy stations from ultra wideband short-range vehicular radar.

[3] Schedule 1, item 22

Item [3] separates the frequency band 520-820MHz with a maximum EIRP of 3 mW from item 22 and inserts the frequency band into a new item, item 22A, under modified operating conditions.

[4] Schedule 1, after item 45B

Item [4] inserts a new item, item 46, for Radio Local Area Network transmitters with operating frequencies and conditions.

[5] Schedule 1, item 51

Item [5] varies the limitation in column 5 of item 51 to allow a reduced minimum number of hopping frequencies for spread spectrum devices.

[6] Schedule 1, after item 54

Item [6] inserts a new item, item 56, for Ultra-wideband short-range vehicle radar systems, with operating frequencies and conditions.

[7] Further amendments-renumbering of items in Schedule 1

Item [7] renumbers the items in Schedule 1 as required.