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Partial Revision of the 2004 Radio Regulations, as incorporated in the International Telecommunication Union Final Acts of the World Radiocommunication Conference 2007 (WRC-07)

Background

2.1 The Agreement proposes that Australia consents to be bound by the Partial Revision of the Radio Regulations, as incorporated in the Final Acts of the World Radiocommunication Conference (WRC-07) of the International Telecommunication Union (ITU), done at Geneva on 16 November 2007.[1]

2.2 The ITU is a specialised agency of the United Nations whose membership includes 191 governments and about 700 non-government entities. Its purpose is to maintain and extend international cooperation in the improvement and rational use of telecommunications of all kinds, including radio frequency spectrum. To this end the ITU establishes treaty arrangements and recommends

1 National Interest Analysis (NIA), para 1.

world standards for telecommunications and radio communications services, including satellite services. [2]

2.3 Australia has been a member of the ITU and its predecessor, the International Telegraph Union, since Federation. Australia's participation in ITU activities is focussed on supporting uniform international telecommunications standards and appropriate use of radio frequency spectrum to avoid harmful interference between radio communications systems of different countries.[3]

2.4 It is intended for Australia to notify its consent as soon as possible after the completion of Australia's domestic treaty process.

2.5 Australia has already made a declaration maintaining its longstanding position on the use of the geostationary communication satellite orbits and it intends to maintain this declaration at the time of notifying Australia's consent to be bound by the revision of the Radio Regulations.[4]

Reasons for Australia to take treaty action

2.6 The main benefits of this Agreement for Australia are:

- the alignment of Australia with the rest of the world in its regulation of the radiofrequency spectrum;
- the alignment to international regulations that will allow for continued international compatibility;
- bringing the maritime mobile service into line with current maritime communications technology, including distress and safety transmissions within the Global Maritime Distress and Safety System (GMDSS);
- the enhancement of aeronautical security and modernisation of civil aviation telecommunication systems through changes aimed at alleviating spectrum congestion and making additional spectrum available for aeronautical and air traffic management applications; and

2 Mr Brenton Thomas, *Transcript of Evidence*, 13 October 2008, p. 2.

3 Mr Brenton Thomas, *Transcript of Evidence*, 13 October 2008, p. 2.

4 NIA, para 3.

- extending existing primary frequency allocations for the Earth-exploration satellite service (EESS) to facilitate research and exploration of Earth resources and environmental elements. [5]

Other considerations

2.7 In addition to revising the Radio Regulations, a World Radiocommunication Conference is empowered to 'deal with any other question of a worldwide character within its competence' (Article 13 Constitution and Article 7 Convention). To this end, WRC-07 deleted, adopted and revised a range of resolutions and recommendations, which are also set out in its Final Acts. [6]

2.8 Resolutions and recommendations do not bind Member States. Rather, they provide guidance to Member States on the implementation of the Radio Regulations and to the various organs of the ITU on administrative matters. As such, the only part of the Final Acts that is legally binding—and therefore constituting a treaty action that is subject to Australia's domestic treaty process—is the Partial Revision of the Radio Regulations.[7]

2.9 Australia will retain its sovereign right to control transmissions within and into its territory and to protect Australian users from interference from foreign systems.[8]

Obligations

2.10 The WRC-07 revisions of the Radio Regulations made several changes that impact on the international allocation and use of the radiofrequency spectrum. As part of the Radio Regulations, these changes will become binding upon Australia. The following provides a brief outline of some of the key changes arising out of the WRC-07 revision of the Radio Regulations.[9]

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5 NIA, paras 5-12.
6 NIA, paras 5-12.
7 NIA, paras 5-12.
8 NIA, para 5.
9 NIA, para 20.

Identification of new bands for International Mobile Telecommunications

2.11 The WRC-07 revisions expanded the frequency range identified for International Mobile Telecommunications (IMT).[10] However, because Australia has no close neighbours, spectrum arrangements for broadcasting services in Australia in this band are a national regulatory issue that have no significant impact on Australia's international obligations in the context of the Radio Regulations.[11]

Maritime procedures

2.12 International regulations related to the maritime mobile service were updated to reflect current maritime communications technology, including distress and safety transmissions within the Global Maritime Distress and Safety System:

- the 156.525 MHz band (156.4875–156.5625 MHz) was made the international distress frequency for digital selective calling; and
- the frequencies 161.975 MHz and 162.025 MHz, which are the aeronautical identification system (AIS) frequencies, were also made available to the mobile-satellite service for reception of AIS information.[12]

2.13 The changes agreed to at WRC-07 will improve global maritime navigation and provisions for maritime distress and safety.[13]

Aeronautical services

2.14 Aeronautical security has been enhanced and civil aviation telecommunication systems modernised through:

- upgrading the radiolocation service to primary allocation status in the bands 9000−9200 MHz and 9300−9500 MHz;
- allocating additional spectrum for aeronautical telecommand and high bit-rate aeronautical telemetry; and
- adding new allocations for the aeronautical mobile (R) service.[14]

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10 IMT refers to the family of advanced mobile technologies that will support for example third generation wireless broadband services such as WiMAX.

11 Additional bands identified for use by IMT include 450470 MHz and 2.32.4 GHz.

12 NIA, para 22.

13 NIA, para 25.

14 NIA, para 24.

2.15 The changes agreed to at WRC-07 will improve global civil aviation safety.[15]

Earth-exploration satellite service (EESS)

2.16 The primary frequency allocations for EESS (which monitor the natural emissions of the planet, with consequent applications such as predicting and monitoring natural disasters, meteorology and climate change) were extended, facilitating research and exploration of Earth resources and environmental elements. [16]

2.17 The WRC-07 revisions also approved proposals concerning the use and further development of satellite systems using highly inclined orbits, high altitude platforms, and the compatibility and sharing between different space and terrestrial services. [17]

Other Matters

2.18 The WRC-07 revisions also approved proposals concerning the use and further development of satellite systems using highly inclined orbits and high altitude platform stations (HAPS), as well as the compatibility and sharing between different space and terrestrial services. The 135.7-137.8 kHz band was made available for low-power secondary amateur use.[18]

2.19 The WRC-07 outcome for satellites in highly inclined orbits, HAPS, sharing compatibility studies and amateur service allocations are viewed as ongoing and necessary initiatives that may benefit the Australian community in the longer term.[19]

2.20 The WRC-07 revisions also advocated the development of spectrum management guidelines for radiocommunications in emergency and disaster relief, as well as identification and maintenance of available frequencies for use in the early stages of humanitarian assistance in the aftermath of a disaster. The ITU will develop a database for frequency management in disaster situations. [20]

15 NIA, para 25.
16 NIA, para 26
17 NIA, para 26.
18 NIA, para 27
19 NIA, para 27.
20 NIA, paras 23-26.

Implementation

2.21 The Committee noted that if Australia fails to notify its decision by 1 January 2012, it will be deemed to have provisionally consented to be bound by the revisions, until it notifies its decision. Inaction by Australia may have a negative effect on Australia's standing within the ITU and on Australia's negotiating position at future reviews of the Radio Regulations.[21]

2.22 Australia's obligations under the Radio Regulations are implemented through the *Australian Radiofrequency Spectrum Plan* (ARSP), which is prepared by the Australian Communications and Media Authority (ACMA) in accordance with sections 30 and 34 of the *Radiocommunications Act 1992*. The existing ARSP will be updated by ACMA to take account of the WRC-07 revision. [22]

Costs

2.23 There are no identifiable direct costs to Commonwealth, State or Territory Governments arising from the proposed treaty action.[23]

2.24 In regards to whether or not the new arrangements under the Agreement would impact on the price of telecommunications in Australia, the Committee noted evidence from the Australian Communications and Media Authority which stated:

> While you could not say exactly what the price outcome might be for telecommunications services, there are clearly going to be new services available through the WRC-07 processes in region 2[24]. The question then is whether we within Australia pick up those sorts of rearrangements or spectrum as well. Some of that is subject to the spectrum planning that ACMA is undertaking at this time.[25]

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21 NIA, para 12.

22 NIA, para 29.

23 NIA, para 30.

24 Region 2 refers to Americas, Greenland and some of the eastern Pacific Islands. Australia is in ITU Region 3

25 Mr Martin Lensson, Australian Communications and Media Authority, *Transcript of Evidence,* 13 October 2008, p.5

Consultation

2.25 A representative from the Department of Broadband, Communications and the Digital Economy stated that:

> In preparation for the WRC-07, ACMA undertook an extensive stakeholder consultation process through its International Radio Communications Advisory Committee.[26]

2.26 Australian industry and government representatives were consulted and there was general support for the proposed treaty action from relevant stakeholders and acknowledgment of the benefits of the WRC-07 revision to Australia.[27]

Matters arising

2.27 The Committee received a submission with comments from various Western Australian agencies including:

- the Western Australian Office of e-Government;
- the Office of State Security and Emergency Coordination; and
- the Western Australian Police.

2.28 The submission highlighted comments made by the national Law Enforcement Security Radio Spectrum Committee (LESRSC) to ACMA in July 2008:

> *"Among the spectrum used by police forces is a part of 1.6 MHz wide slots within the 450-470 MHz band known as the Law Enforcement and Public Safety (LEPS) spectrum. Currently LEPS spectrum facilitates cross jurisdictional communications. In addition, jurisdictions use a number of frequencies (11) in the 480-490 MHz band for National Counter Terrorism Committee (NCTC) operations.*
>
> *Following the WRC-2007, the 450-470 MHz spectrum has been identified on a global basis for IMT2000 applications. If 450-470 MHz is set aside for IMT2000 applications, law enforcement and security agencies will lose access to 450-470 MHz spectrum. This*

26 Mr Brenton Thomson, *Transcript of Evidence,* 13 October 2008, p.3.

27 NIA, para 25-41.

> *impacts on interoperability capability for cross jurisdictional communications.*
>
> *In the absence of clear direction on future spectrum allocations, jurisdictions continue to invest to maintain and/or enhance their existing systems. As such, Federal Government should sufficiently assist any relocation following the current spectrum reform. Otherwise an average 7 years may be required to relocate the existing systems."*

2.29 The WA agencies then comment that:

> WA Police are represented on LESRSC, and have reiterated their concern over this proposed change. WA Police highlight that the 450-470 MHz band is common for all law enforcement agencies in Australia, and particularly in WA there is a significant investment in communications systems operating in this band. There is a view that there would need to be a substantial lead time (for example the 7 years suggested by LESRSC) in planning to move out of this band if it is to be re-allocated for international mobile communications as proposed by WRC-2007.[28]

Conclusions and recommendation

2.30 The Committee notes the submission of the Western Australian Office of e-Government, Office of State Security and Emergency Coordination and Western Australian Police which raises concerns about proposed spectrum changes under the treaty. [29]

2.31 The Committee considers that the Government should give consideration to these concerns before ratifying the treaty.

2.32 Overall the Committee considers that the proposed Agreement will be of benefit to Australia in aligning its radio-frequency spectrum with the rest of the world. The Committee also notes that Australia will retain its sovereign right to control transmission within and into its territory and to protect Australian users from interference from foreign systems. The Committee therefore recommends that binding treaty action be taken.

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28 Submission 6, p.2.

29 Submission 6, p.2.

Recommendation 1

The Committee supports the *Partial Revision of the 2004 Radio Regulations, as incorporated in the International Telecommunication Union Final Acts of the World Radiocommunication Conference 2007* (WRC-07) and recommends that binding treaty action be taken.