

National Interest Analysis [2016] ATNIA 13

with attachment on consultation

**Partial Revision of the 2012 Radio Regulations
as incorporated in the International Telecommunication Union
Final Acts of the World Radiocommunication Conference (WRC-15)**

(Geneva, 27 November 2015)

[2016] ATNIF 29

NATIONAL INTEREST ANALYSIS: CATEGORY 2 TREATY

SUMMARY PAGE

Partial Revision of the 2012 Radio Regulations as incorporated in the International Telecommunication Union Final Acts of the World Radiocommunication Conference (WRC-15)

(Geneva, 27 November 2015)

[2016] ATNIA 13

[2016] ATNIF 29

Nature and Timing of Proposed Treaty Action

1. It is proposed that Australia consent to be bound by the Partial Revision of the Radio Regulations, as incorporated in the Final Acts of the World Radiocommunication Conference (WRC-15) of the International Telecommunication Union (ITU), done at Geneva on 27 November 2015. Australia intends to notify the Secretary-General of the ITU of its consent as soon as possible after the completion of the domestic treaty-making requirements.
2. The Radio Regulations set radiocommunications standards and govern global and regional access to the radiofrequency spectrum and satellite orbits. The Radio Regulations (including their appendices), together with the International Telecommunication Regulations, constitute the Administrative Regulations of the ITU. The Administrative Regulations complement the basic instruments of the ITU—the *Constitution of the International Telecommunication Union* and the *Convention of the International Telecommunication Union* (“the Constitution” and “the Convention”, [\[1994\] ATS 28](#)) and are binding on Member States (Article 4(3) Constitution).
3. World Radiocommunication Conferences are empowered to partially or, in exceptional cases, completely revise the Radio Regulations (Article 13(1) Constitution). Such conferences are held approximately every four years. WRC-15 partially revised the Radio Regulations, as set out in the Final Acts of that conference.
4. Most of the WRC-15 revisions of the Radio Regulations will enter into force on 1 January 2017 for those Member States that have notified their consent to be bound to the ITU Secretary-General by that date (Article 54 Constitution and Article 59.13 revised Radio Regulations). The remaining provisions will take effect from the special dates stipulated in Resolutions 31 and 99 of WRC-15, as indicated in Article 59.14 of the revised Radio Regulations. For a Member State that has not notified its consent by 1 January 2017, the revisions will apply provisionally to that State until it notifies of its decision on whether it consents to be bound and will enter into force for that State from the date it notifies its consent to be bound (unless the Member State opposed or entered a reservation at the time of signature of the revision in question). If Australia fails to notify its decision within a period of thirty-six months, that is, by 1 January 2020, it will be deemed to have consented to be bound by the revisions (Article 54 Constitution).

Overview and National Interest Summary

5. The ITU is a specialised agency of the United Nations with 193 Member States. It is concerned with international cooperation in the use of telecommunications and the radiofrequency spectrum. To this end, it establishes treaties and recommends world standards for telecommunication and radiocommunications services, including satellite services. Australia has been a Member of the ITU and its predecessors since Federation.

6. The purpose of the Radio Regulations is to ensure the rational, efficient and equitable use of the radiofrequency spectrum. The Radio Regulations contain allocations to over 40 types of radiocommunications services. They also provide technical, operational and regulatory conditions for the use of the radiofrequency spectrum and the geostationary-satellite and non-geostationary-satellite orbits. ITU Members are required to ensure that the spectrum is used internationally in a manner that will prevent harmful interference to other services.

7. For the purposes of managing the global radiofrequency spectrum, the world is divided into three Regions:¹

- Region 1: Europe, Africa, the Middle East west of the Persian Gulf and including Iraq, the former Soviet Union and Mongolia.
- Region 2: the Americas, Greenland and some of the eastern Pacific Islands.
- Region 3: most of Asia (excluding the former Soviet Union), east of and including Iran, and most of Oceania. Australia is in ITU Region 3.

8. To ensure that the Radio Regulations facilitate the introduction of new technical advances, they are periodically reviewed (and may be revised) by a World Radiocommunication Conference. WRC-15, held in Geneva from 2 to 27 November 2015, was such a conference and resulted in the revisions under consideration.

9. The principal benefits arising from the WRC-15 revisions of the Radio Regulations include:

- identification of additional spectrum to meet the growing demand for mobile broadband services;
- the enhancement of aeronautical communications capability through:
 - a spectrum allocation for global flight tracking, which will enable aircraft to transmit real-time position information to satellites anywhere in the world;
 - a spectrum allocation for wireless avionics, which allow for the heavy and expensive wiring used in aircraft to be replaced by wireless systems; and
 - allowing the use of existing communications infrastructure to facilitate the integration of unmanned aircraft into airspace shared with conventional air traffic;

¹ Radio Regulations Article 5 Section 1 'Regions and areas'

- new spectrum allocations for Earth observation systems, to facilitate the deployment of next-generation, high-resolution satellites that will deliver enhanced imagery to support increased global capabilities in areas such as environmental monitoring, disaster relief, land use and coastal surveillance purposes;
- harmonisation of spectrum allocations for public protection and disaster relief (PPDR) communications, to facilitate manufacturing economies of scale and the interoperability of equipment during multinational operations;
- a globally harmonised regulatory framework for short-range automotive radar in vehicles, to facilitate the deployment of these radar systems for collision-avoidance and driver-warning purposes; and
- improvements to international satellite coordination methods.

Reservations and declarations

10. The ITU Constitution permits a Member State to make reservations at the time of signing revisions to the Radio Regulations and to maintain such reservations at the time of notifying its consent to be bound (Article 54). Pursuant to the Vienna Convention on the Law of Treaties, a reservation ‘purports to exclude or modify the legal effect of certain provisions of the treaty in their application to that State’. It is also accepted international practice for States to be able to make declarations at the time of signing or ratifying a treaty.

A declaration differs from a reservation in that it does not purport to exclude or modify the legal effect of the treaty, but merely sets forth the State’s interpretation of the treaty.

11. Member States made a series of statements at WRC-15 in response to the partial revision of the Radio Regulations, which are set out in the Final Acts under the heading ‘Declarations and Reservations’. Australia made three such statements:

Number 59:

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2015), the delegation of Australia reserves for its Government the right to take any measures it might deem necessary to safeguard its interests if another Member State of the International Telecommunication Union in any way fails to respect the conditions specified in the Final Acts or if the reservations made by any Member State should be prejudicial to the operation of radiocommunication services in Australia or its full sovereign rights.

The delegation of Australia further declares that it reserves for its Government the right to make declarations or reservations when depositing its instrument of ratification for amendments to the Radio Regulations adopted at this World Radiocommunication Conference (Geneva, 2015).

Number 110:

For the Federal Republic of Germany, Australia, Canada, the Republic of Croatia, the United States of America, Finland, France, Hungary, Ireland, Japan, Luxembourg, Norway, New Zealand, the Kingdom of the Netherlands, the United Kingdom of Great Britain and Northern Ireland, Sweden and the Confederation of Switzerland:

The delegations of the above-mentioned States, referring to the declaration made by the Republic of Colombia (No. 37), inasmuch as these and any similar statements refer to the Bogota Declaration of 3 December 1976 made by equatorial countries and to the claims of those countries to exercise sovereign rights over segments of the geostationary-satellite orbit, or to any related claims, consider that the claims in question cannot be recognized by this Conference. The above-mentioned delegations also wish to state that reference in Article 44 of the Constitution to the “geographical situation of particular countries” does not imply recognition of a claim to any preferential rights to the geostationary-satellite orbit.

Number 119:

For the Federal Republic of Germany, Australia, Austria, Canada, the Republic of Estonia, the United States of America, Georgia, the Republic of Latvia, the Republic of Lithuania, Luxembourg, the Republic of Moldova, the Kingdom of the Netherlands, the Republic of Poland, Romania, the United Kingdom of Great Britain and Northern Ireland, the Republic of Slovenia and Sweden:

The delegations of the above-mentioned countries hereby support the declaration made by Ukraine (No. 86) and declare that they remain committed to uphold the sovereignty and territorial integrity of Ukraine. They do not recognize the illegal referendum in Crimea, which is in clear violation of the Ukrainian Constitution and they strongly condemn the illegal annexation of Crimea and Sevastopol to the Russian Federation and will not recognize it. They further believe that there is no place for the use of force and coercion to change borders in Europe in the 21st Century.

Therefore, they call upon the International Telecommunication Union (ITU) to implement rapidly the terms of Resolution 68/262 (2014) of the United Nations General Assembly that "calls upon all States, international organizations and specialized agencies not to recognize any alteration of the status of the Autonomous Republic of Crimea and the city of Sevastopol" and to "refrain from any action or dealing that might be interpreted as recognizing any such altered status".

12. Statement 59 allows Australia to make further reservations or declarations upon notifying its consent to be bound. It is not proposed that Australia should make any further reservations or declarations, and therefore there is no need to maintain this statement when Australia notifies its consent to be bound.
13. Statement 110 was made by Australia, together with other like-minded countries, to counter claims by equatorial countries, such as Columbia, concerning preferential rights to geostationary-satellite orbit slots. This statement has been made at all WRC meetings since 1995.
14. Statement 119 was made by Australia, together with other like-minded countries, to support the sovereignty and territorial integrity of Ukraine in relation to the Republic of Crimea and city of Sevastopol.
15. It is proposed that Australia should maintain statements 110 and 119 when it notifies its consent to be bound.

Reasons for Australia to Take the Proposed Treaty Action

16. The proposed treaty action would align Australia with the rest of the world in its regulation of the radiofrequency spectrum and would allow for continued international compatibility. Australia would retain its sovereign right to control transmissions within and into its territory and to protect Australian users from interference from foreign systems. Consenting to be bound by the revisions would make possible the introduction of new communication technologies, improved end user efficiencies, enhanced public safety and greater access to wireless networking and broadband data services. It would also continue Australia's good standing in the ITU and enable Australia to maintain its position that the geographical situation of particular countries does not enable them to claim any preferential rights to the geostationary-satellite orbit.

17. As noted in paragraph 4 above, if Australia takes no action and has not notified its consent to be bound by 1 January 2020, Australia will be deemed to have consented to be bound from that date. However, inaction by Australia may have a negative effect on Australia's standing within the ITU and on Australia's negotiating position at future World Radiocommunication Conferences. In contrast, notification to the ITU Secretary-General of Australia's consent to be bound by the WRC-15 revision would maintain Australia's good standing in the ITU and would place Australia's administration of the radiofrequency spectrum in line with the rest of the world.

Obligations

18. The WRC-15 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 (if accepted) will become binding upon Australia. However, the Radio Regulations do not oblige Australia to adopt new spectrum allocations in its domestic framework. Member States may make alternative allocations on the condition that no interference is generated to services in neighbouring states that are allocated in accordance with the Radio Regulations.

19. The following provides a brief outline of some of the key changes arising from the WRC-15 revision of the Radio Regulations. References are provided to the text of the Radio Regulations where relevant. Spectrum allocations are made in the Radio Regulations at Article 5, Section IV – Table of Frequency Allocations (TFA); references to footnotes in the TFA are included for each allocation cited below.

International Mobile Telecommunications (IMT)

20. Additional spectrum for IMT was identified to meet the growing demand for mobile broadband services. IMT identification means that the specified spectrum band is allocated for mobile telephony and/or mobile broadband services. This enables use of the band by these services (subject to the required planning and allocation arrangements in each country) and provides protection from interference from other services. It does not oblige a country to use the band for IMT.

21. Spectrum is identified for IMT on a global, regional, or country-specific basis. The following table provides a snapshot of IMT identifications that affect Australia (being either global, Asia-Pacific (Region 3), or country-specific):

Frequency band	Scope of IMT identification	Reference
698-790 MHz (700 MHz band)	Global, with exceptions	5.317A (Regions 1 and 2) 5.313A (Australia's name added to the footnote)
1 427-1 518 MHz (1.5 GHz band)	Global, with exceptions	5.341A (Region 1) 5.341B (Region 2) 5.341C (Region 3) 5.346A (Region 3)
3 400-3 600 MHz (C-band)	Region 1; and country-specific in Regions 2, 3	5.430A (Region 1 IMT) 5.541B (Region 2) 5.432B (Region 3 3 400- 3 500 MHz -Australia's name added) 5.433A(Region 3 – 3 500- 3 600 MHz -Australia's name added)

Aeronautical services

22. The tracking of civil aviation has been enhanced with a new global spectrum allocation in the range 1 087.7-1 092.3 MHz.² This allocation will enable aircraft to transmit real-time position information to satellites anywhere in the world, including in oceanic, polar other remote regions. This is part of the ITU's response to the disappearance of Malaysian Airlines Flight MH370 in March 2014.

23. Aeronautical efficiency will be improved with a new spectrum allocation in the range 4 200-4 400 MHz for use by short-range wireless communication systems on-board aircraft.³ Known as wireless avionics intra-communications (WAIC), these systems are designed to replace the heavy and expensive wiring required for aircraft operation with wireless communication systems. Implementation of WAIC systems will significantly reduce the weight of aircraft, resulting in reduced fuel consumption and lower operational costs.

24. A complex technical Resolution was adopted which makes way for the use of existing satellite communications infrastructure by unmanned aircraft systems (commonly known as 'drones'), subject to forthcoming technical and regulatory arrangements by the International Civil Aviation Organisation. This will facilitate the integration of unmanned aircraft into airspace shared with conventional air traffic.⁴

² *Radio Regulations*, Article 5, Table of Frequency Allocations (TFA) with footnote 5.328AA

³ TFA with footnote 5.436

⁴ Resolution **155 (WRC-15)**

Automotive

25. Spectrum was identified on a global basis in the range 77.5-78 GHz for use by short-range automotive radar in vehicles, as well as allowing development of applications for other ground based usage, notably aircraft wing tip radar to assist pilots to taxi aircraft around busy airports. This provides a globally-harmonised regulatory framework for vehicle manufacturers to deploy automotive radar for collision-avoidance and driver-warning systems.⁵

Maritime procedures

26. International regulations relating to the maritime mobile service were updated to revise frequencies and channelling arrangements which will enhance the Automatic Identification System (AIS). This system facilitates the automatic identification of oceanic vessels by providing information to other ships and coast stations on cargo, position, course and speed.⁶

27. New provisions were included for the frequency bands 161.9375-161.9625 MHz and 161.9875-162.0125 MHz to support new applications for data exchange using AIS technology.⁷

28. The changes agreed at WRC-15 will improve global maritime navigation and provisions for maritime distress and safety.

Science

29. A global spectrum allocation for tracking, telemetry and command of Earth exploration-satellite service (EESS) spacecraft has been made in the frequency band 7 190-7 250 MHz.⁸ Existing systems are experiencing harmful interference in the 2 GHz band, as it is becoming increasingly congested with terrestrial communication services.

30. Further, an extension of 600 MHz to the global allocation to the EESS was agreed in the ranges 9 200-9 300 MHz (an additional 100 MHz) and 9 900-10 400 MHz (an additional 500 MHz). The extension will enable future space-based satellite radars to transmit higher resolution surface imagery, independent of cloud cover, to support increased global capabilities in areas including disaster mitigation and relief planning, humanitarian aid, land use, environmental and climate change monitoring, and coastal surveillance.⁹

Amateur service

31. The amateur radiocommunications community received a new global secondary allocation of 15 kHz in the range 5 351.5-5 366.5 kHz, enhancing capability for disaster relief and emergency communications and providing opportunity for research and development of new communication modes.¹⁰

⁵ TFA with footnote 5.559B

⁶ Appendix 18

⁷ TFA with footnote 5.228AA

⁸ TFA with footnote 5.460A

⁹ TFA with footnote 5.474A

¹⁰ TFA with footnote 5.133B

Satellite coordination

32. The international coordination of satellite networks has been improved through:
- enhancing the powers of the ITU to determine if a satellite frequency assignment has been brought into use by a satellite network operator, thereby reducing instances of unused satellite frequency assignments;
 - increasing the transparency of satellite network deployments through publication by the ITU of satellite networks that have been brought into use;
 - replacing some procedures for submitting advance publication information (API) with automatically generated API information, which introduces efficiencies and reduces delays in the filing satellite networks; and
 - reducing the ‘coordination arc’ in two major satellite frequency bands (C-band and Ku-band), which determines the range of neighbouring satellites that are potentially affected by a satellite deployment. National administrations hosting satellites within the coordination arc must be consulted to ensure that a new satellite will not interfere with existing services. Reducing the arc results in a more efficient coordination process for new satellite deployments.

Implementation

33. 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 section 30 of the *Radiocommunications Act 1992*. The existing ARSP will be updated by the ACMA to take account of the WRC-15 revision.

Costs

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

Regulation Impact Statement

35. The Office of Best Practice Regulation (Department of the Prime Minister and Cabinet) has been consulted and advised that a Regulation Impact Statement is not required.

Future Treaty Action

36. Under Article 13 of the ITU Constitution, a World Radiocommunication Conference may partially or completely revise the Radio Regulations. The next World Radiocommunication Conference will be held in 2019 (WRC-19). The framework for the WRC-19 agenda was developed and agreed at WRC-15. Based on the results of lead-up studies, further changes to the Radio Regulations will be considered at that conference. Future revisions will be subject to Australia’s domestic treaty-making requirements.

Withdrawal or Denunciation

37. To withdraw from the Radio Regulations, it would be necessary for Australia to denounce the ITU Constitution and Convention by notification to the Secretary-General of the ITU. In accordance with Article 57 of the Constitution, this would have to be done as a single instrument, denouncing the Constitution and the Convention simultaneously. Such denunciation would take effect at the expiration of one year from the date of receipt of its notification by the Secretary-General of the ITU.

38. Any denunciation would be subject to Australia's domestic treaty-making requirements.

Contact details

Spectrum Branch

Department of Communications and the Arts

ATTACHMENT ON CONSULTATION

Partial Revision of the 2012 Radio Regulations, as incorporated in the International Telecommunication Union Final Acts of the World Radiocommunication Conference (WRC-15)

(Geneva, 27 November 2015)

[2016] ATNIA 13

[2016] ATNIF 29

CONSULTATION

39. The Australian Communications and Media Authority (ACMA) consulted key stakeholders in the three-year cycle leading up to WRC-15. This work led to the development of Australian positions for each agenda item considered at WRC-15, which were incorporated into the Australian Delegation Brief for WRC-15.

40. Australian industry and government representatives were invited to participate in the preparation of the Australian positions for WRC-15 through the Preparatory Group for WRC-15 (PG WRC-15), convened by the ACMA. PG WRC-15 met regularly over the three-year cycle to develop Australian positions to take to WRC-15.

41. Organisations that contributed to the Australian Delegation Brief for WRC-15, or participated in PG WRC-15 and/or its study groups included representatives of state and territory governments, amateur users and private industry including the aeronautical, broadcasting, equipment supply and manufacturing, national security and public safety, science, satellite, telecommunications, transport (automotive, aviation and maritime) and infrastructure sectors.

42. Some of the above-mentioned groups sent representatives to participate in the Australian Delegation to WRC-15. Following the conference, the ACMA held a debriefing session on the outcomes for industry and government representatives on 8 March 2016.

43. Australia's obligations under the Radio Regulations are implemented through the *Australian Radiofrequency Spectrum Plan (ARSP)*, which is prepared by the ACMA in accordance with section 30 of the *Radiocommunications Act 1992*. The existing ARSP will be updated by the ACMA to accord with the WRC-15 revision of the Radio Regulations. A draft revised ARSP is expected to be released by the ACMA in the second half of 2016 for public comment, as required by section 33 of the *Radiocommunications Act 1992*. The ACMA anticipates the revised ARSP will commence on 1 January 2017.

44. The States and Territories were consulted on the proposed ratification of the WRC-15 Final Acts through the Commonwealth-State/Territory Standing Committee on Treaties (SCOT) schedule of treaties under negotiation, consideration or review by the Australian Government.

45. There is general support for the proposed treaty action from relevant stakeholders and acknowledgment of the benefits of the WRC-15 revision to Australia.