ICTS Region 3 Report

AMT Spectrum Encroachment in the Asia-Pacific Community

Presented at the *ICTS Special Session, 2018 ETTC (Nuremberg, Germany)*
26 June, 2018

Tim Chalfant, ICTS Region 3 Coordinator (acting)

The International Consortium for Telemetry Spectrum
www.TelemetrySpectrum.org

Topics Presented

- APG (APT Preparatory Group) Meeting
- Region 3 AMT Threats ay WRC 19
- Need AMT/ICTS POC’s in Region 3
- APT Points of Contact

ASIA-PACIFIC TELECOMMUNITY

APT Conference Preparatory Group

APT Conference Preparatory Group for World Radiocommunication Conference (APG) has been developed with the objective of harmonizing views and developing common proposals from the Asia-Pacific region for the World Radio Conference (WRC).

The main objective of APG is to organize coordinated regional activities to ensure that the interests of APT Members are properly represented. The activities include but are not limited to:

- Develop APT Common Proposals for WRCs and on matters related to ITU Radiocommunication Assemblies (RAs);
- Develop APT contributions to ITU-R Conference Preparatory Meetings (CPMs); and
- Assist APT Member countries, especially developing countries, in their preparations for **WRCs,** RAs and CPMs.

APT Conference Preparatory Group (APG)

Chairman: Dr. Kyu-Jin Wee (Rep. of Korea)
Vice Chairman: Mr. Neil Meaney (Australia) & Mr. Xiaoyang Gao (People's Republic of China)
Editorial Chairman: Dr. Tommy Chee (New Zealand)

WP	CPM Report Chapter	WRC-19 Agenda Items	Chairman
WP1	**Chapter 1:** Land mobile and fixed services	1.11, 1.12,1.14, 1.15	Ms. Zhu Keer (People's Republic of China)
WP2	**Chapter 2:** Broadband applications in the mobile service	1.13, **1.16**, 9.1 (issues 9.1.1, 9.1.5, 9.1.8)	Dr. Kyung-Mee Kim (Republic of Korea)
WP3	**Chapter 3:** Satellite services	1.4, 1.5, 1.6, 7, 9.1 (issues 9.1.2, 9.1.3, 9.1.9)	Mr. Muneo Abe (Japan)
WP4	**Chapter 4:** Science services	1.2, 1.3, 1.7	Dr. Atmadji W. Soewito (Indonesia)
WP5	**Chapter 5:** Maritime, aeronautical and amateur services	1.1, 1.8, 1.9, 1.10, 9.1 (issue 9.1.4)	Mr. Bui Ha Long (Socialist Republic of Viet Nam)
WP6	**Chapter 6:** General issues	2, 4, 8, 9.1 (issues 9.1.6, 9.1.7),10	Mr. Taghi Shafiee (Islamic Republic of Iran)

APT Conference Preparatory Group for WRC-19

APG19-3

12 March 2018 - 16 March 2018, Perth, Australia

- Reviewed the results of APG19-2;
- Reviewed each WRC-19 Agenda item and continue developing APT preliminary views based on input contributions from APT Members;
- Reviewed the activities of other regional organisations, in particular, their preliminary views/position with a view to fostering inter-regional cooperation;
- Next Meetings;
  - APG19-4: 7-12 January 2019, Republic of Korea
  - APG19-5: 31 July – 6 August 2019, Japan

APT Members are encouraged to contribute to the meetings of APG-19 to prepare for WRC-19.

WRC-19 AMT Threats in Region 3

Agenda item 1.16
to consider issues related to wireless access systems, including radio local area networks (WAS/RLAN), in the frequency bands between 5 150 MHz and 5 925 MHz, and take the appropriate regulatory actions, including additional spectrum allocations to the mobile service, in accordance with Resolution 239 (WRC-15).

- **IMPACT to Region 3 AMT: Significant**
- *5 GHz RLAN Rules; Radio local area network ("RLAN") interests seek relaxation of OOBE limits for emissions from RLANs into AMT band, 5091-5150 MHz*
- *Relaxing Out-Of-Band Emissions from RLAN into the AMT band, outside the limits of M1459, would interfere with AMT operations at 5 091 to 5 150 MHz in region 3 (see No 5.446B).*
- *APT members support studies being conducted in ITU-R in accordance with Resolution 239 (WRC-15).*
- *APT members are of the view that the protection of incumbent services including their current and planned use in the frequency bands 5 150-5 350 MHz.*

WARNING :APT members have NOT noted the AMT interference concern.

WRC-19 AMT Threats in Region 3

New Aeronautical Recommendation

A new proposed item, introduced by the French, seeks to secure a new protection criteria for aeronautical mobile service ("AMS") systems operating in the frequency band 4400 – 4990 and 5150-5250 MHz.

- **IMPACT to Region 3 AMT: Limited**
- *While not a Region 3 AMT Band, it is in Australia and other Asia-pacific administrations. .*
- *The AMT community needs to watch this recommendation development to ensure that AMT (a subset of the AMS), and the established AMT Recommendation ITU-R M. 1459, is not impacted.*
- *The protections of M-1459 must be enforced from AMS interference with AMT.*

Need ICTS Contacts in ITU-Region 3

- **Australia** *Australian Communications & Media Authority (ACMA), Royal Australian Air Force (RAAF), Woomera Test Range*
- **China** *Ministry of Information Industry, Radio Regulation Dpmt; Chinese Flight Test Establishment, Res. Institute of Telemetry.*
- **India** *Telcom Regulatory Authority, Ministry of Communiction & IT, Aeronautical Development Agency (ADA), ISRO et al.*
- **Indonesia** *Dpmt of Communications & Information, Radio Regulations; National Institute for Aeronautics & Space (LAPAN) et.al.*
- **Korea** *Ministry of Information & Communication, Korea Aerospace Research Institute (KARI), Korea Aerospace Industries (KAI).*
- **Malaysia** *M´ian Communications & Multimedia Commision, Dpmt of Civil Aviation Malaysia.*
- **Singapore** *Infocomm Development Authority of Singapore, Dpmt of Civil Aviation Authority of Singapore (CAAS).*
- *??*

Region 3 Points of Contacts

http://www.apt.int/

- APG: APT Preparatory Group for WRC-19
  - Chair; Dr. Kyu-Jin Wee, kjwee56@rapa.or.kr

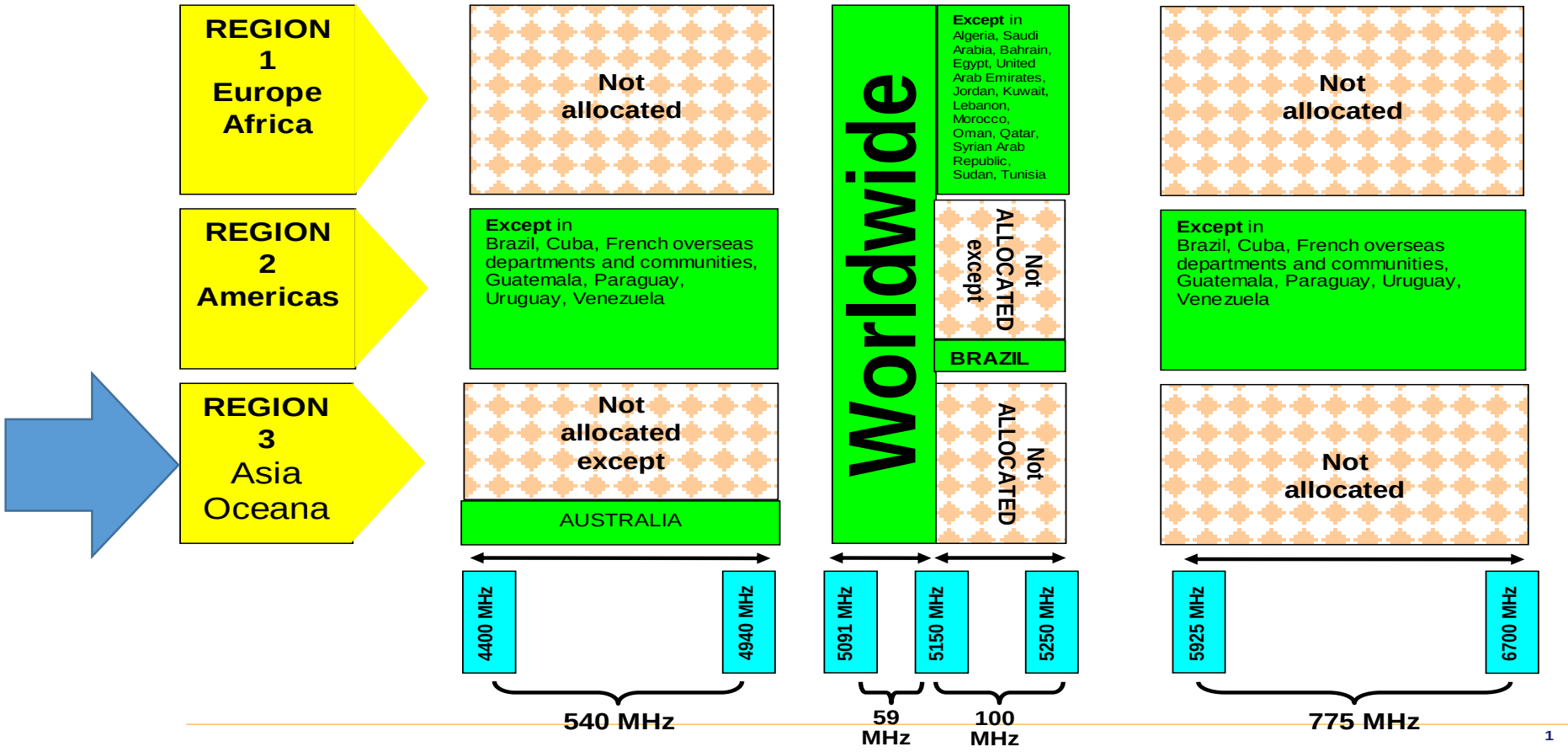
- WP2 : Broadband Applications in the Mobile Service
  - Chair; Dr. Kyung-Mee Kim kmkim@korea.kr
- WP2 Agenda item 1.16 Drafting Group
  - Chair; Dr. Fang Ji Cheng jchfang@163.com
- ICTS; Int'l Consortium for Telemetry Spectrum
  - Region 3 Coordinator; tba

Backups

AMT Allocations in Region 3

2007 World Radiocommunication Conference

WRC-07 AI 1.5 Outcome*



1

* Prepared by MITRE from a slide prepared by Didier Petit, French Delegate, WRC-2007

References

5.444B

- The use of the frequency band 5 091-5 150 MHz by the aeronautical mobile service is limited to:
  - …
  - aeronautical telemetry transmissions from aircraft stations (see No. 1.83) in accordance with Resolution 418 (Rev.WRC 15). (WRC 15)

1.83

aircraft station: A mobile station in the aeronautical mobile service, other than a survival craft station, located on board an aircraft.

Res 418 (excerpts)

Considering

…that there is a need to provide global spectrum to the mobile service for wideband aeronautical telemetry systems;

- b) that the operation of aircraft stations is subject to national and international rules and regulations;
- f) that WRC 07 allocated the frequency band 5 091-5 150 MHz to the aeronautical mobile service on a primary basis subject to No. 5.444B;
- i) that aeronautical mobile telemetry (AMT) in the aeronautical mobile service is not considered an application of a safety service as defined in No. 1.59,

noting

- a) that results of studies show the feasibility of using the frequency band 5 091-5 250 MHz for the aeronautical mobile service on a primary basis, limited to transmissions of telemetry for flight testing, under certain conditions and arrangements;
- b) that the identification by ITU R of technical and operational requirements for aircraft stations operating in the frequency band 5 091-5 250 MHz should prevent unacceptable interference to other services;
- h) that ITU R compatibility studies have been performed for AMT, limited to flight testing; such application is for the testing of aircraft during non-commercial flights for the purpose of development, evaluation and/or certification of aircraft in airspace designated by administrations for this purpose,

recognizing

- b) that studies have been performed within ITU R concerning the sharing and compatibility of AMT for flight testing with other services in the frequency band 5 091-5 250 MHz;

resolves

- 1 that administrations choosing to implement AMT shall limit AMT applications to those identified in noting h) in the frequency band 5 091-5 250 MHz, and shall utilize the criteria set forth in Annex 1 to this Resolution;