



Results of Cambodia's participation in the Radio Assembly 2015 (RA-15) and World Radiocommunication Conference 2015 (WRC- 15), November 2-27, 2015

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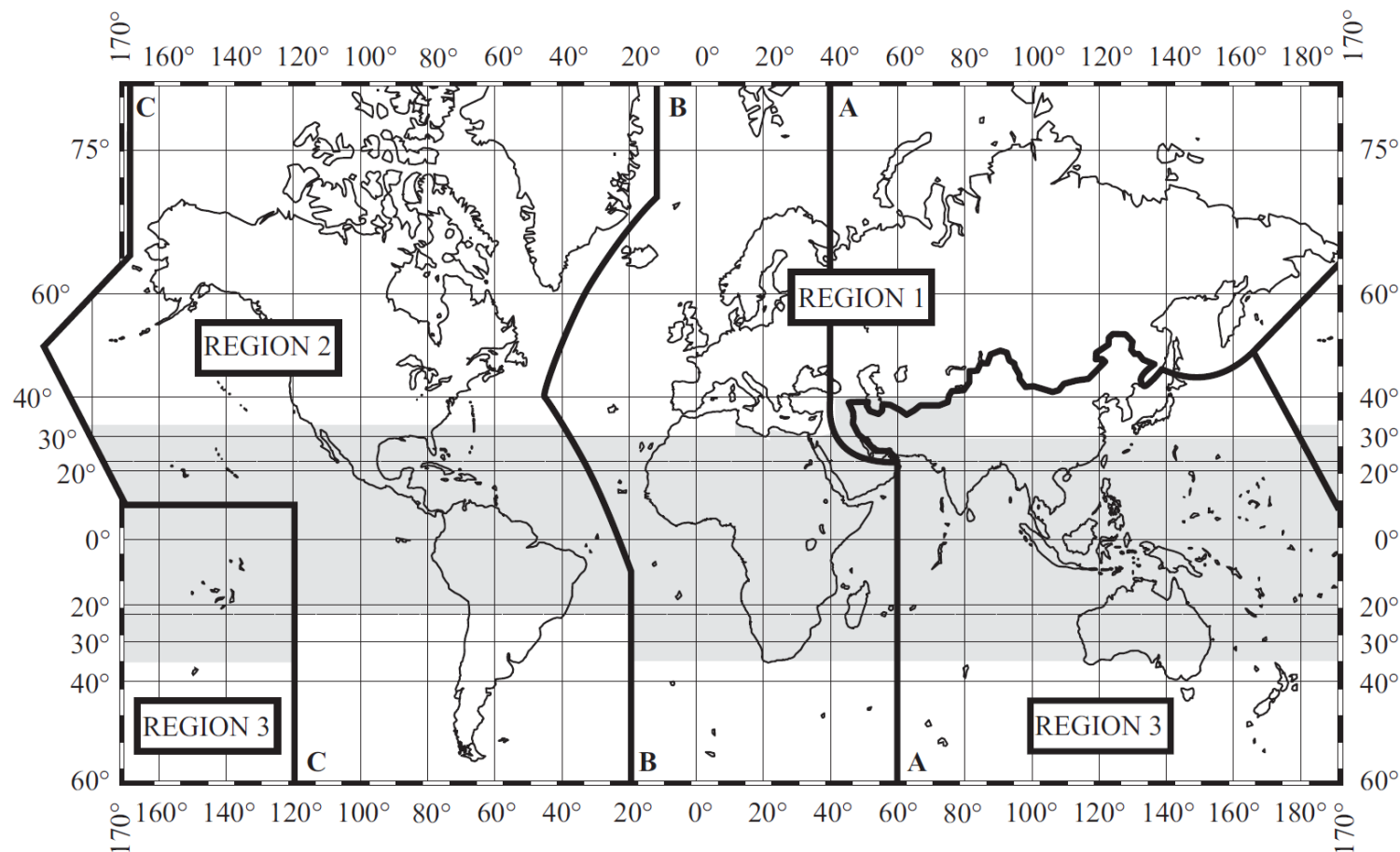
1. Introduction

- Radio Assembly and World Radiocommunication Conference, held every 3 or 4 year, is one of the most important events in telecommunication sector:
 - Review the **Radio Regulation**, the international legal framework concerning the frequency spectrum usage
 - Set roadmap for the future utilization and development of the wireless communication
- This year RA and WRC had been held from 26 October to 27 November, 2015 at Geneva, Switzerland in the time, which:
 - **Future transaction of wireless technology:** 4G to 5G
 - The intense competition between **Satellite and Terrestrial communication industry**, in particular, Satellite vs International Mobile Telecommunication (IMT)
 - **The emerging of new services:** Unmanned Vehicle Aircraft (Drone), Nano and Pico satellites, Public Protection and Disaster Relief (PPDR), IMT at above 6GHz



1. Introduction (Con't)

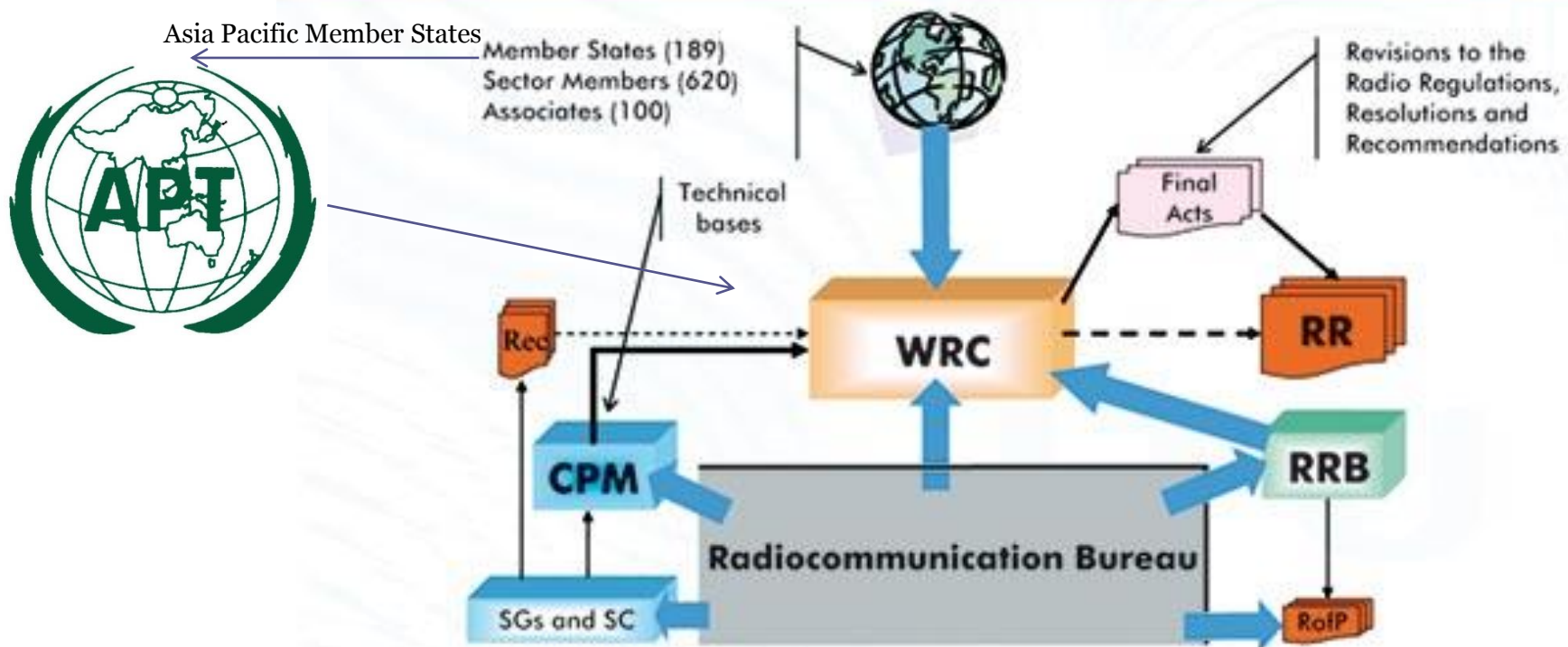
- Radio Regulation and Regional Separation





1: Introduction (Cont')

WRC process



CPM Conference Preparatory Meeting
Rec ITU-R Recommendation
RofP Rules of Procedure
RR Radio Regulations (treaty status)

RRB Radio Regulations Board
SGs Radiocommunication Study Groups
WRC World Radiocommunication Conference



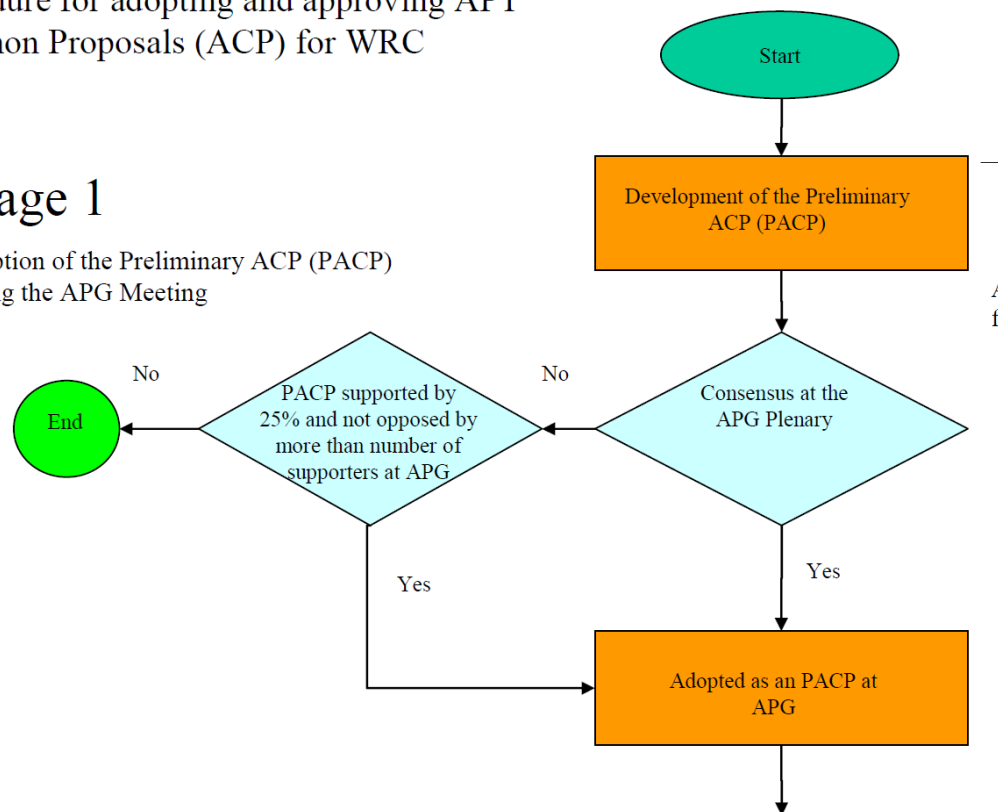
2: Cambodia's Preparation

- Cambodia was able to submit the proposal, firstly, to the 5th Asia Pacific Preparatory Conference for WRC-15 in Seoul, South Korea.

Procedure for adopting and approving APT
Common Proposals (ACP) for WRC

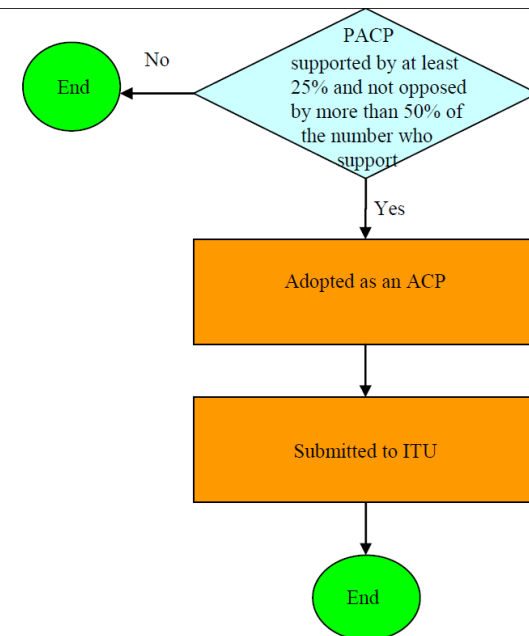
Stage 1

Adoption of the Preliminary ACP (PACP)
during the APG Meeting



Stage 2

Adoption of the ACP by correspondence
following the APG Meeting





2: Cambodia's Preparation

- Cambodia was able to submit the proposal, firstly, to the 5th Asia Pacific Preparatory Conference for WRC-15 in Seoul, South Korea.
- We set up the internal meeting between MPTC and TRC to set out the following strategy for the WRC-15 :
 - Balancing the use of frequency spectrum for IMT and other services
 - Coordinating with neighboring countries concerning any proposals seeking our support at the conference
 - Proposals are aligned with the planned Frequency Spectrum Policy
 - Proposal must not be automatically create the priority in our national allocation table.
 - *It simply provide us the flexibility in managing the use of national frequency spectrum*



2. Cambodia's Preparation(Cont')

- This is 1st Cambodia's participation in the RA and 2nd Cambodia's participation in the WRC.
 - 2 Cambodian delegates participated in the RA led by H.E Director General of Posts and Telecommunications
 - 8 Cambodian delegates participated in the WRC led by H.E Secretary of States of MPTC
- It is the first time that we submit contributions (proposal) to the conference



3. Cambodia's Proposal

- **1. Propose No Change to the Band 470-698 MHz :**
 - This band is allocated to Fixed, Mobile and Broadcasting on primary basis.
 - In Cambodia, band is used for Broadcasting. It is the most important band for Digital Switch Over process because we want to clean up 700 MHz band for IMT.
 - We propose No Change on this band along with other member states of APT, because in Region 3 this band is all used for broadcasting.
 - Some countries in America (USA in particular) proposed this band for IMT
- **2. Add Cambodia to existing Footnote 5.313A to the Mobile Service in Band 698-790 MHz (700 MHz band) for IMT**
 - This band is adopted since WRC-12 for some countries for the identification for IMT due to the great propagation nature of the band for rural area wireless broadband.
 - Cambodia has no name in the footnote.
 - To avoid the future coordination and to show our commitment with neighboring countries as well as the APT, we submitted the proposal together with several countries to add country to the footnote.



3. Cambodia's Proposal (Con't)

- 3. Propose the Identification of **Band 1427-1452 MHz, 1452-1492 MHz, 1492-1518 MHz for IMT**
 - Major Proponent: Japan, because Japan has been using some of the band for IMT already.
 - **Band 1427-1452MHz and 1492-1518 MHz** is APT Common Proposal for IMT, because it is already allocated to Mobile Service on primary basis in the RR.
 - **Band 1452-1492 MHz** was not endorsed at the APG 15-5 (APT Conference Preparatory Group for World Radiocommunication Conference, 2015), because it is shared with Broadcasting-Satellite.
 - But since APG 15-5 did not oppose it, Japan wants to propose this Band to WRC-15 so that another 40 MHz can be allocated to make it more usable for IMT.
 - Cambodia does not use this band at all and we support this for IMT.



3. Cambodia's Proposal (Con't)

- 4. Propose the identification of Band 3 300- 3 400 MHz for IMT
 - This band was proposed by China to identify for IMT. This band was neither compromised nor opposed by the APG-15-5.
 - This band is used for Fixed Wireless Broadband in Cambodia.
 - Our primary intention was **only to add a country name to footnote for using for fixed and mobile service, so that we can protect the fixed wireless broadband service.**
- 5. Propose Band 4 400- 4 500 MHz and 4 800- 4990 MHz for IMT
 - This band was proposed by Japan to identify for IMT. This band was neither accepted nor opposed by the APG-15-5.
 - This band was already allocated for Fixed and Mobile service on Primary Basis in RR.



4. Results

- Band **470-698 MHz** is protected for Broadcasting in Region 3: Except these countries:
 - Bahamas, Barbados, Canada, the United States and Mexico: the frequency band **470-608 MHz**
 - Bahamas, Barbados, Belize, Canada, Colombia, the United States and Mexico, the frequency band **614-698 MHz**
 - **Restriction:** Mobile service stations of the IMT system within the frequency band are subject to agreement obtained under No. 9.21 and shall not cause harmful interference to or claim protection from the broadcasting service of neighbouring countries....
- Proposal to add Cambodia into the footnote of country using **700 MHz** for IMT is accepted
 - The frequency band, or portions of the frequency **band 698-790 MHz**, in Australia, Bangladesh, Brunei Darussalam, **Cambodia**, China, Korea (Rep. of), Fiji, India, Indonesia, Japan, Kiribati, Lao P.D.R., Malaysia, Myanmar (Union of), New Zealand, Pakistan, Papua New Guinea, Philippines, Solomon Islands, Samoa, Singapore, Thailand, Tonga, Tuvalu, Vanuatu and Viet Nam, are identified for use by these administrations wishing to implement International Mobile Telecommunications (IMT).



4. Results

- Proposal to identify **1427-1518 MHz** for IMT is adopted with some restrictions:
 - The frequency bands **1 427-1 452 MHz** and **1 492-1 518 MHz** are identified for use by administrations in Region 3 wishing to implement International Mobile Telecommunications (IMT) in accordance with The use of these frequency bands by the above administrations for the implementation of IMT in the frequency bands **1 429-1 452 MHz** and **1 492-1 518 MHz** is subject to agreement obtainedfrom countries using stations of the aeronautical mobile service.



4. Results

- Band 3 300-3 400 MHz is accepted for Fixed and Mobile service.
 - Additional allocation: in Saudi Arabia, Bahrain, Bangladesh, Benin, Brunei Darussalam, **Cambodia**, Cameroon, China, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, Egypt, the United Arab Emirates, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kenya, Kuwait, Lebanon, Libya, Malaysia, Oman, Uganda, Pakistan, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, the Dem. People's Rep. of Korea, Sudan and Yemen, **the frequency band 3 300-3 400 MHz is also allocated to the fixed and mobile services on a primary basis.** The countries bordering the Mediterranean shall not claim protection for their fixed and mobile services from the radiolocation service.
- Band 3 300-3 400 MHz is accepted for IMT:
 - In the following countries in Region 3: **Cambodia**, India, Lao P.D.R., Pakistan, Philippines and Viet Nam, the use of the frequency band 3 300-3 400 MHz is identified for the implementation of International Mobile Telecommunications (IMT). Such use shall be in accordance with Resolution 223 (Rev.WRC-15). The use of the frequency band 3 300-3 400 MHz by IMT stations in the mobile service shall not cause harmful interference to, or claim protection from, systems in the radiolocation service.



4. Results

- Band **4 400-4 500 MHz** is rejected by the conference for IMT:
 - This band is allocated to Fixed and Mobile service on primary basis.
 - So the fixed wireless broadband service can be able to use it.
- Band **4 800-4 990 MHz** is accepted by the conference for IMT with some restriction:
 - In **Cambodia**, Lao P.D.R. and Viet Nam, **the frequency band 4 800-4 990 MHz**, or portions thereof, is identified for use by administrations wishing to **implement International Mobile Telecommunications (IMT)**. This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of this frequency band for the implementation of IMT is subject to agreement obtained under No. 9.21 with concerned administrations, and IMT stations shall not claim protection from stations of other applications of the mobile service.



5. Conclusion

- It is the first time that we use our right as a member state and our voice is heard at the conference in protecting our national interest.
- The result provide a background and also direction for what our national frequency spectrum policy should move.
- It also provides experiences for our delegates in the international stages as some experts called this event as “**Olympic of Telecommunications**”.