



# **WRC-15**

## **PACIFIC ISLANDS DEBRIEF**

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### **ITU/PITA Regional Seminar 2016 for Asia Pacific**

**Presenter: Panny Yokope, NICTA**

# TOPICS

- **WRC-15 Outcomes (Debrief)**
  - **PI's Views & Proposals**
  - **APT Common Position (PACP)**
  - **Issues & Outcomes**
- **WRC-19**

## Summary - Agenda Items

Agenda Item	Relevance
<b>1.1</b>	<b>Mobile (IMT)</b>
<b>1.3</b>	<b>Public Protection &amp; Disaster Relief (PPDR)</b>

## Agenda item 1.1 – Mobile Allocations

*“to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution 233 (WRC-12) proposed as candidate bands for IMT.”*

## Background On Agenda Item 1.1

- Since WRC-07, the demand for mobile broadband applications has been growing rapidly.
- Adequate and timely availability of spectrum requirements [*Resolution 233 (WRC-12)*].
- Need for developing countries Vs Demands of Technology
- Compatibility of IMT with other existing and planned services
- Investment on infrastructure
- Difficult to adequately address each candidate bands
- Issues varied in complexity

## Estimated additional spectrum requirements for IMT by the year 2020

User Density Settings	Total Spectrum Requirements (MHz)	Region 1		Region 2		Region 3	
		Already Identified (MHz)	Additional Spectrum Requirements (MHz)	Already Identified (MHz)	Additional Spectrum Requirements (MHz)	Already Identified (MHz)	Additional Spectrum Requirements (MHz)
Low	<b>1 340</b>	198 - 1 181	159 - 359	951	389	885 – 1 177	163 – 455
High	<b>1 960</b>	198 - 1 181	779 - 979	951	1 009	885 – 1 177	783 – 1 075

Source : Report ITU-R M.2290

## PI's overall views

- Support IMT to contribute positively to the economic and social developments of both developed and developing countries.
- Regional harmonization on potential IMT bands.
- Protect current incumbent services and infrastructure.
- Support NOC, with the exclusion of bands 3.4-4.2 GHz (C-band) as candidate bands.
- PI countries positions established through coordination under APT process.

## PI's Position on specific Bands

Band/Segment )	Position	Reason
<b>470-694/698 MHz (UHF band)</b>	Yes/No	spare spectrum available and can be identified and allocated for wider coverage (rural) with less network infrastructure cost.
<b>698-960 MHz (APT 700 PLAN)</b>	Yes	regional harmonized band plan and countries intend to identify the band 698-790 MHz for IMT by adding their country names to footnote No. <b>5.313A</b> of the <b>RR Article 5</b> Table of Frequency Allocations.
<b>3300-3400 MHz</b>	Yes	This band is already allocated to the mobile service on a primary basis in several countries as listed in RR Nos. 5.429
<b>3400-3600 MHz (Extended C-band)</b>	No	Band is identified for IMT by some countries in Region 3 as listed in RR Nos 5.432B & 5.433A. Some allocations done on WiMax applications.
<b>3600-4200 MHz (C-band)</b>	No	Most critical services and backhaul connectivity in PNG use C-band.



## **APT Views on specific Candidate Bands (2/2)**

- APT does not provide common proposals for the following frequency bands under this agenda item:

1 452-1 492 MHz, 3 300-3 400 MHz, 4 400-4 500 MHz, and 4 800-4 990 MHz.

## Issues And Considerations

- Determine technical characteristics and protection requirements for IMT.
- Compatibility with and protection of existing radiocommunication services.
- Determine spectrum requirements and possible regulatory actions for IMT.
- Identify current suitable frequency allocations that could accommodate IMT.
- Identify if additional frequency allocations are required in the future (above 6 GHz).
- Harmonize potential IMT bands globally to maximize economies of scale.

## Key Outcomes

- No major differences in the views proposed by PNG/APT proposal.
- UHF band (470-960 MHz) to be considered as a future conference agenda item for WRC-23.
- Future identification of IMT candidate bands above 6 GHz to be done more efficiently.
- Inclusion of PI countries in footnote (**5.313A & 5.296A**)

## Footnotes

- **5.296A** In **Micronesia**, the **Solomon Islands**, **Tuvalu** and **Vanuatu**, the frequency band **470-698 MHz**, or portions thereof, and in Bangladesh, Maldives and New Zealand, the frequency band 610-698 MHz, or portions thereof, are identified for use by these administrations wishing to implement International Mobile Telecommunications (IMT) – see Resolution **224 (Rev.WRC-15)**. This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. The mobile allocation in this frequency band shall not be used for IMT systems unless 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. Nos. **5.43** and **5.43A** apply. (WRC-15)
- **5.313A** 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, the 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). This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. In China, the use of IMT in this frequency band will not start until 2015. (WRC-15)

## Follow-up Action

- conduct and participate, in time for WRC-23, the technical studies, regulatory and operational recommendations for the identification of IMT on the bands above 6 GHz;
- to consider outcomes, based on the results of studies the possible regulatory actions in the UHF frequency as appropriately;
- to assess the sharing and compatibility studies with services already having allocations in those bands and;
- review the Table of Allocation to reflect these changes appropriately.

## **Agenda item 1.3 – Mobile Allocations**

*“to review and revise Resolution **646 (Rev.WRC-12)** for broadband public protection and disaster relief (PPDR), in accordance with Resolution **648 (WRC-12)**.*

*Resolution **648 (WRC-12)** – Studies to support broadband public protection and disaster relief (PPDR).”*

## Background on Agenda Item 1.3

- Resolution **646 (Rev.WRC-12)**, encourages administrations to consider certain identified frequency bands/ranges or parts thereof for PPDR.
- New broadband mobile technologies, such as 3GPP's Long-Term Evolution (LTE), have emerged, which there are already practical applications to deliver PPDR effectively.
- In various parts of the world, governments and PPDR institutions are using high-speed wireless video networks to enhance the safety of officers and increase their effectiveness in saving lives. In this context, new scenarios of applications and demand for public safety communications have emerged.



## PI's overall views

- recognizes the demands for PPDR which is important in safeguarding the public within the Pacific region.
- appropriate measures are taken so that such service is rendered with best available technologies more efficiently which can enhance and protect the public from tragedies.
- **Resolution 646** be revised to cater for advanced systems to provide PPDR.
- harmonize the PPDR bands while revising **Recommendation 646** so that such systems are standardized and does not put any constraints in the future deployment PPDR.
- Support any proposal that increases the benefit of PPDR for developing countries.



## APT Views

- Support regional harmonisation of frequency bands/ranges for future deployment of broadband PPDR.
- review and revise Resolution **646 (Rev.WRC-12)** to enhance PPDR deployment.
- different amounts of available spectrum may be used within bands included in revised Resolution **646** by APT Members depending on their national circumstances.
- provide flexibility to decide the amount of spectrum and the frequency arrangement that best meets their overall national broadband PPDR requirements

## Key Outcomes

- Suppression of Resolution **648 (WRC-12)**
- review and revise Resolution **646 (Rev.WRC-12)** to enhance PPDR deployment.

## Follow-up Action

- participate in WRC-19 agenda item to facilitate spectrum requirements for PPDR;
- PI administrations to further consider parts of the following regionally harmonized frequency ranges for their PPDR applications.
- encourage PI administrations to use harmonized frequency ranges for PPDR to the maximum extent possible,

## WHAT NEXT



# **WRC-19 – the cycle has started !**

**PI Administrations are encouraged to:**

- consider the relevant agenda items of importance
- to be involved in the preparatory process where necessary
- start collaborative efforts among administration in the Pacific
- secure and assign specific contact points of administrations

