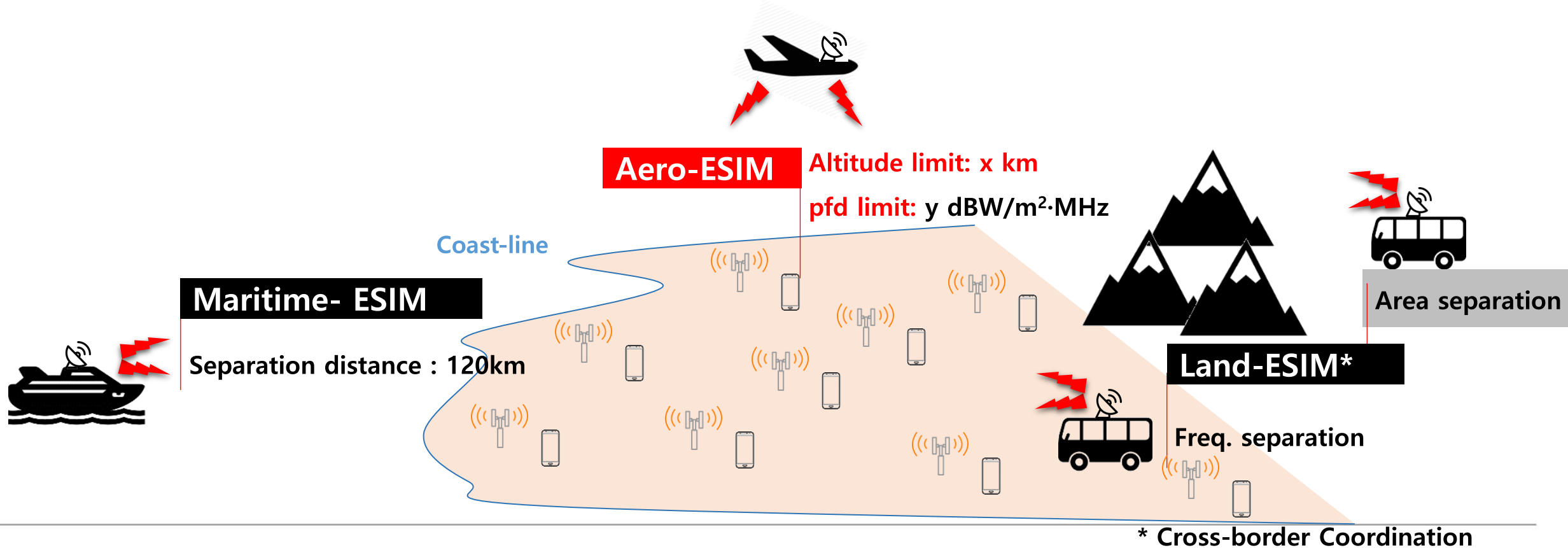


CPM-2 A.1.5

ITU-APT FOUNDATION OF INDIA

CPM-19 – A.1.5 (ESIM) – India (as per APG-19/4)

- Aero-ESIM : “x” km altitude limit and “y” dBW/m²·MHz pfd limits
- Maritime-ESIM: at least 120 km separation distance as per (APG-19/4)
- Land-ESIM: Cross-border / domestic coordination issue



CPM-19– A.1.5 (ESIM) – Outcome

- Unified single option to protect 5G from A-ESIM
 - pfd limit (2 Options),
 - Altitude limit is TBD

pfd limit for A-ESIM dBW/m²·MHz

Opt 1: -108 → FS (CEPT)

Opt 2: -113.9 → (US, KR)

Altitude limit for A-ESIM

No reference in RR but increasing interest/needs
Japan, Singapore, [Vietnam], Zimbabwe (5km),
India (X km) ...

Result of CPM19-2 meeting (Issues)

◆ Deletion of “shall not affect the future development of these services”

1.2.1 *the receiving ESIM in the 17.7-19.7 GHz frequency band shall not claim protection from terrestrial services (...) and shall not affect the future development of these services;*

1.2.2 *the transmitting aeronautical and maritime ESIM in the 27.5-29.5 GHz frequency band shall not cause unacceptable interference (...) and shall not affect the future development of these services and Annex 2 applies;*

1.2.3 *the transmitting land ESIM in the 27.5-29.5 GHz frequency band shall not cause unacceptable interference (...) and shall not affect the future development of these services and Annex 3 with appropriate title applies;*

FRA/AUS view: the part of the sentence “and shall not affect the future development of these services” shall be removed, because the protection of the future development of terrestrial services in the band 27.5-29.5 is already fully ensured by the pfd mask indicated in Annex 2 and because retaining that sentence creates a provision under which the pfd mask in Annex 2 could be periodically reviewed, thus creating a detrimental uncertainty on the technical conditions to be met by ESIM.

KOR/IRAN/UK view: in accordance with Resolution 158, ESIM need to protect current and planned station of terrestrial service. Therefore, View 1 above is not within the scope of Agenda item 1.5. Moreover, if the pfd masks indicated in Annex 2 ensure the protection of the future development of terrestrial service as described in View 1 above, there is no reason to delete the words of “and shall not affect the future development of these services” in resolves 1.2.2 and 1.2.3.

In addition the obligations of the notifying administration of ESIM to protect terrestrial services is not limited to only comply with the pfd as contained in annex 2 of this Resolution due to the fact that the validity and accuracy of pfd is yet to be verified and examined.

Result of CPM19-2 meeting (Issues)

- ◆ 5G Protection from L-ESIM (Different views among admins, Esp. USA vs. IRN)
Cross-border coordination issue vs. Guideline due to complex roles among admin

1.2.3 the transmitting land ESIM in the 27.5-29.5 GHz frequency band shall not cause unacceptable interference to terrestrial services in neighbouring countries in the above-mentioned frequency band operating in accordance with the Radio Regulations and shall not affect the future development of these services and ~~Annex 3 with appropriate title applies;~~

**Land ESIM and overall responsibilities for the operation of all three ESIM types *or*
Guidelines to assist administrations to authorize ESIM in the frequency band 27.5-29.5 GHz**

Result of CPM19-2 meeting (Issues)

- ◆ How to describe the frequency range for ESIM
- ◆ Only full range vs. full range or portions thereof (Different interpretation)

Option 1:

5.A15 The operation of earth stations in motion communicating with geostationary FSS space stations in the frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz shall be subject to draft new Resolution [A15] (WRC-19). (WRC-19)

⇒ need to assign whole frequency range to ESIM, can not assign only part of frequency

Option 2: (USA)

5.A15 The operation of earth stations in motion communicating with geostationary FSS space stations in the frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz, **or portions thereof**, shall be subject to draft new Resolution [A15] (WRC-19). (WRC-19)

⇒ need to assign whole or part of frequency range to ESIM

Others – Options

Resolves:

Option 1

1.2.5 that for the protection of terrestrial services operating in the frequency band 27.5- 29.5 GHz, the aeronautical and maritime ESIM shall comply with the provisions contained in Annex 2 of this Resolution;

Option 2

1.2.5 any transmitting aeronautical or maritime ESIM that conforms to the requirements in Annex 2 to this Resolution are considered to not cause unacceptable interference to terrestrial stations under resolves 1.2.2 above;

Option 3

1.2.5 for the implementation of resolves 1.2.2 above, any transmitting aeronautical or maritime ESIM that conforms to the requirements in Annex 2 to this Resolution shall be deemed to have met its obligation to terrestrial stations;

Option 4

1.2.5 is not needed due to the fact that compliance with the requirements in Annex 2 would not release the notifying administration from its obligation not to cause unacceptable interference to any stations in the terrestrial service in accordance with the Radio Regulations. Moreover, the concept of pfd used in Article 21 of the Radio Regulations is part of the Radio Regulations to protect the area in which the terrestrial services are deployed. However, it does not protect the assignment of the terrestrial services due to the fact that there are two provisions of Article 9 (i.e. Nos. 9.17 and 9.18) to this effect;