



IAFI WRC-27 workshop

7th April 2025

## AI 1.2 – Smaller FSS earth stations in 13.75-14.0 GHz

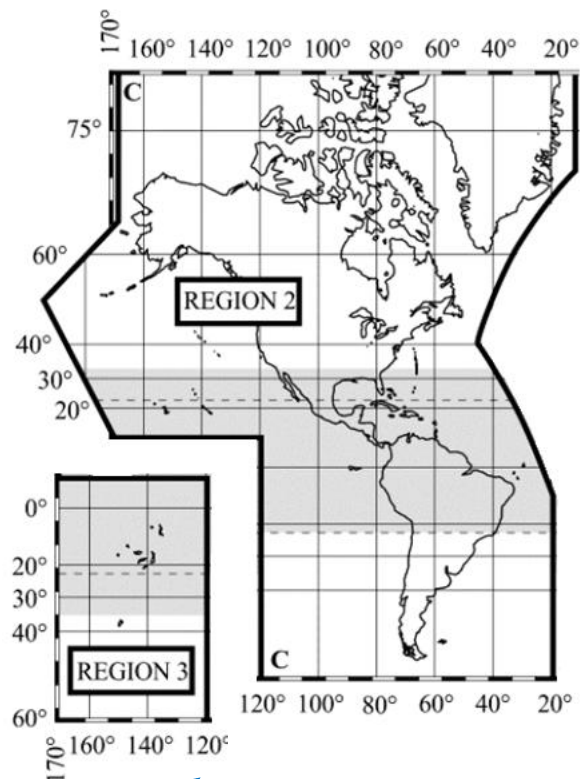
- > Radiolocation services are currently used worldwide by shipborne, airborne and ground-based radars in these bands
- > To constrain interference towards radiolocation service, current minimum FSS earth station size (diameter) allowed by Radio Regulations:
  - GSO networks – 1.2 m with a PFD limit for earth stations between 1.2 m - 4.5 m
  - NGSO systems – 4.5 m
- > Studies to be conducted on reducing the earth station size:
  - **Impact on radiolocation service of smaller FSS terminals**
    - › Higher deployments of FSS earth stations
    - › Aggregate interference from both GSO networks and NGSO systems
  - **Impact on NGSO-NGSO sharing environment**
    - Smaller terminals with wide beamwidth can constrain look angles for NGSO systems, particularly when very large NGSO systems are involved

## AI 1.4 – New FSS allocation in R3 in 17.3-17.7 GHz and application of EPFD limits

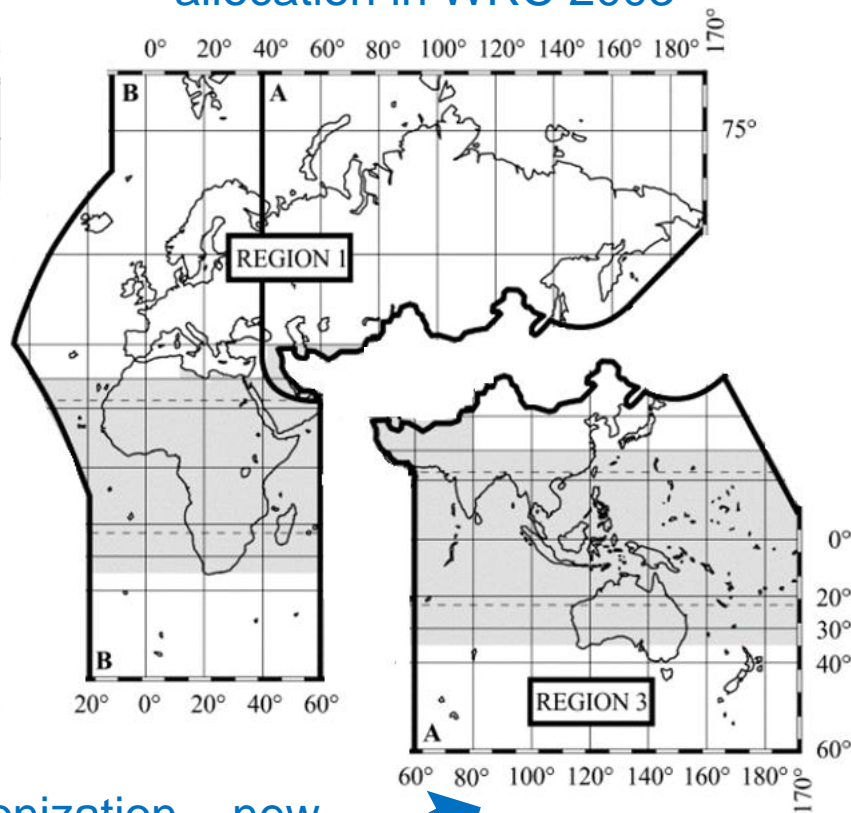
- There is growing demand for broadband satellite services throughout Asia Pacific
- Existing global FSS allocation in 17.7-20.2 GHz band already being used widely for many kind of services, including satellite internet
- Expanding this FSS allocation by 400 MHz would add contiguous spectrum in Region 3 for gateways and user terminals and immediately produce a positive service offering to users in the Region

# AI 1.4 – New FSS allocation in R3 in 17.3-17.7 GHz and application of EPFD limits

FSS space-Earth  
allocation in WRC 2023



FSS space-Earth  
allocation in WRC 2003

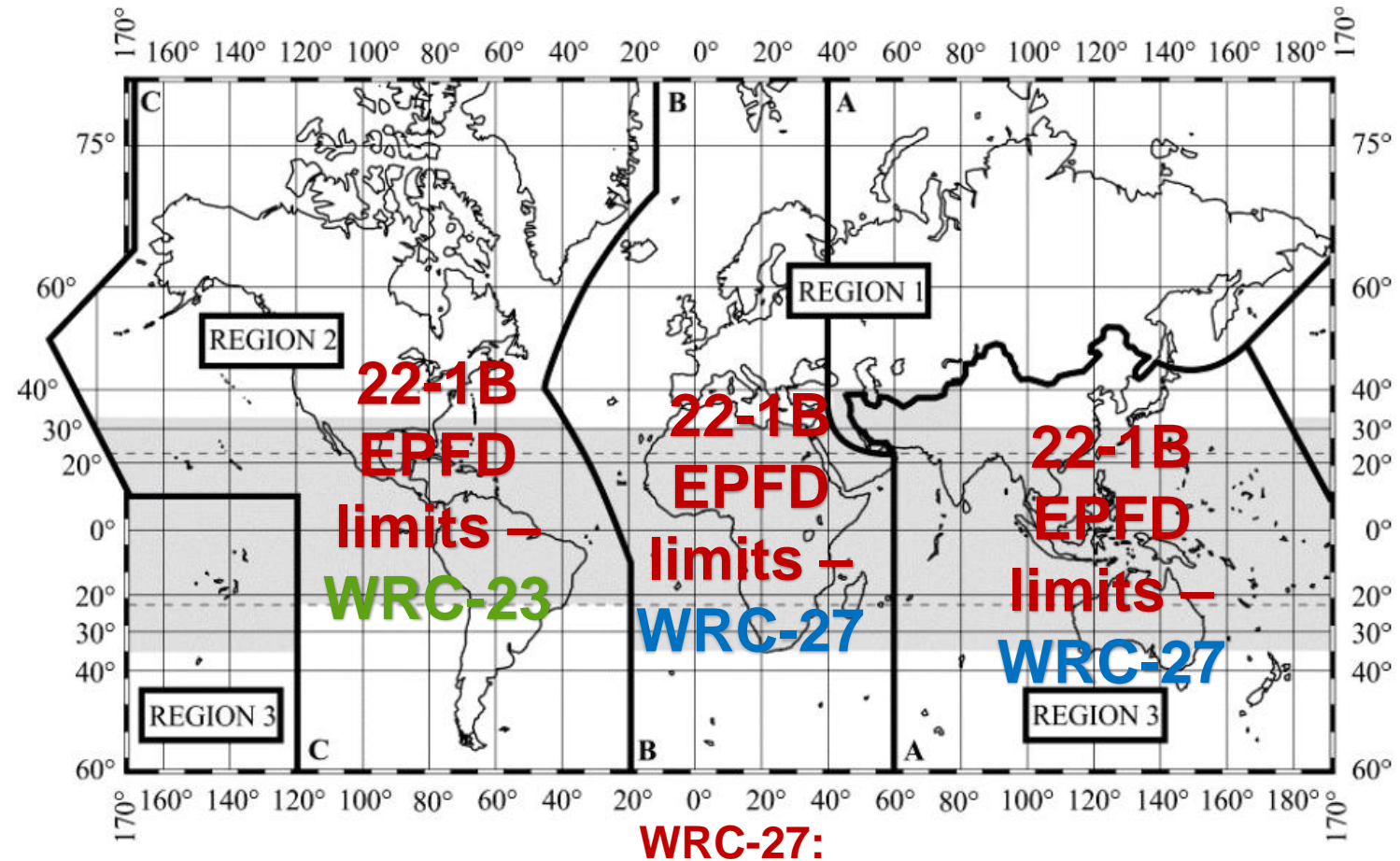


AI 1.4 harmonization – new  
FSS space-Earth allocation  
in Region 3

This Agenda item is all about **harmonization** of FSS allocations and the associated technical and regulatory framework across three regions

# Harmonisation of technical conditions

- Allocation in Region 1 was made on the basis of No. 22.2 (NGSO systems shall not cause unacceptable interference to GSO networks)
- Allocation to Region 2 included EPFD limits from Table 22-1B (single-entry)
- Common technical conditions needed across all three region for efficient operation of both global GSO networks and NGSO systems
  - 17.8-18.6 GHz single-entry EPFD limits should be extended to 17.3-17.7 GHz in both region 1 and region 3
  - Aggregate EPFD limits from Resolution 76 should be applied in all three regions



Aggregate EPFD limits in  
17.8-18.6 GHz in Resolution  
76 should be extended to  
17.3-17.7 GHz





The background of the slide is a photograph of the Earth's horizon from space, showing the blue of the oceans and the white of the clouds. A large, semi-transparent green cone, representing a satellite's field of view or coverage area, originates from the right side of the frame and points towards the center. The cone has a radial line pattern. Overlaid on this is a solid blue geometric shape, possibly representing a specific orbital path or a region of interest. The text "Thank You" is centered in the middle of the image.

# Thank You