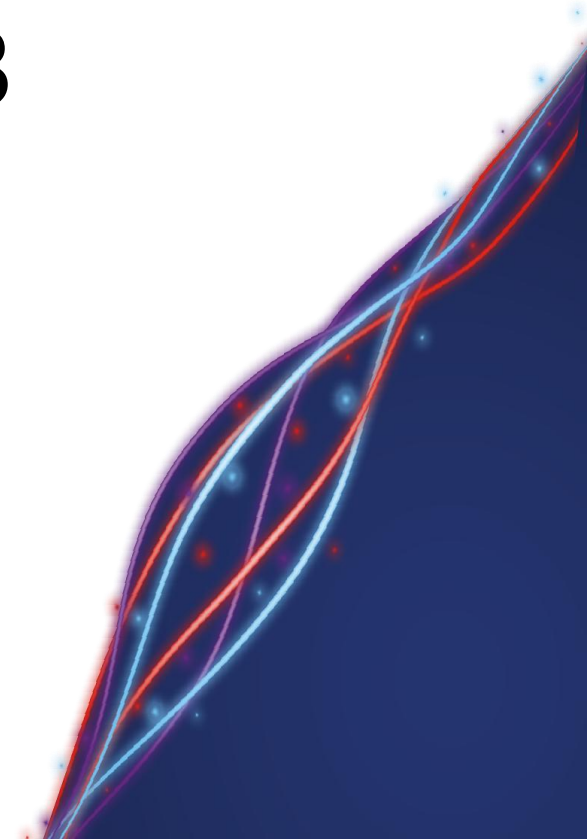


WRC-27 Agenda Items 1.1 and 1.3

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WRC27: Agenda Item 1.1

Background of the agenda:

Needs of ESIMs for in V band (47.2-50.2 GHz and 50.4-51.4 GHz):

- ESIMs, in V band for both GSO and N-GSO (~4 GHz).
- Previous WRC's identified ESIMs for GSO's and N-GSO's in Ka band.
- Aeronautical and Maritime ESIMS , Land ESIMS subject to national prerogative.
- Not to be used for Safety of life applications
- Globally this band is being used mainly for satellite feeder links,
- In India the Frequency band is used on GSAT-29 satellite .

Types of Earth stations in motion (ESIMs):

- ✓ *Aeronautical ESIMs: These systems are used for communication between aircraft and satellites, providing connectivity for passengers and crew.*
- ✓ *Maritime ESIMs: Used for communication between ships and satellites, supporting navigation, communication, and data transmission.*
- ✓ *Land Esim: High-speed internet services for communications in trains and vehicles can be provided using V band frequencies.*



WRC27: Agenda Item 1.1- Continued

The V band is allocated to fixed-satellite service (FSS) and other services. Proper sharing studies are essential to avoid interference between different services operating in this band.

Technical characteristics and Applications of V Band

- ✓ *High Data Rate Communication: The V band provides a wide frequency range, making it suitable for high data rate communication. This is particularly important for applications requiring large bandwidth, such as broadband internet services.*
- ✓ *Satellite Communication: ESIMs in the V band are used for communication with both geostationary (GSO) and non-geostationary (NGSO) satellite systems. This includes applications in aeronautical and maritime environments.*
- ✓ *Global Connectivity: The use of V band for ESIMs enables global connectivity, supporting services such as in-flight internet and maritime communication.*

Studies required:

- ✓ **Protection of existing services**
 - ✓ Already existing FSS.
 - ✓ Feeder links to BSS.
 - ✓ EESS(passive) and SRS(passive)
 - ✓ Radio astronomy
- ✓ **Regulatory provisions and administration responsibility for operation of ESIMS**

Agenda Item 1.3: Use of 51.4-52.4 GHz by gateway earth stations of N-GSO systems

Background:

- Band identified for GSO networks.
- Spectrum requirement exists for N-GSO feeder link

Studies required:

- Protection of existing services:
 - ✓ FSS.
 - ✓ EESS (Passive).
 - ✓ Radio astronomy

Possible India View:

- ***Subject to protection of in band and adjacent services, India could support this additional allocation.***