

ITU-SADC Webinar Series on Frequency Registration and Coordination of Satellite Network and Systems

Pre-recorded video message

Opening Remarks

30 September 2024

**Mario Maniewicz,
Director, Radiocommunication Bureau**

Dear Participants to the ITU-SADC webinar series on Frequency Registration and Coordination of Satellite Networks and Systems,

I wish you a warm welcome!

Today, satellite communications play a crucial role in ensuring global connectivity, both globally and within your region, particularly in rural and remote areas where infrastructure is limited or non-existent. By connecting underserved populations, they ensure access to essential communication services, contributing to bridge the digital divide.

In addition to communication satellites, satellite broadcasting enhances the viewer and listener experience by delivering high-quality television and radio signals across vast distances.

In times of disaster, satellite communications become indispensable. When terrestrial infrastructure is affected, satellites enable emergency and relief services to operate efficiently, providing critical support in the aftermath of natural disasters.

Mobile connectivity is another significant benefit, allowing users on the move to access information and communicate from anywhere in the world, including oceans and areas without cellular networks.

Recent technological advancements, such as low Earth orbit satellite constellations, offer low latency and improved services, further enhancing your capabilities. High-speed internet access provided by satellites facilitates education, telemedicine and business operations, particularly in areas without terrestrial mobile networks.

SADC have achieved significant results in the recent years: your keen and active participation in the work related to Resolution 559 at WRC-19 and WRC-23 as well as between these conferences has resulted in the successful restoration of guaranteed national resources for the broadcasting satellite service in many SADC countries.

The significance of frequency registration and coordination cannot be overstated. Coordination is essential to prevent interference between signals, ensuring that different satellite systems can operate without disrupting each other, maintaining the integrity of communications. Effective management of the radio frequency spectrum allows for optimal use of limited resources, ensuring that satellites can communicate without interference, which is vital for reliable service provision.

Proper registration processes ensure equitable access to frequency bands, while coordination efforts encourage the sharing of information regarding satellite operations, enhancing transparency and trust among nations engaged in space activities. Coordinated frequency use ensures reliable satellite communications during emergencies, enabling timely disaster response and management.

In terms of space sustainability, effective frequency coordination helps in planning satellite orbits and frequencies, reducing the risk of collisions and minimizing space debris. Properly coordinated satellites can operate in designated orbits, lowering the chances of creating additional debris.

Sustainable use of the radio frequency spectrum ensures that future satellite operators can access necessary frequencies without encountering barriers due to congestion. This is vital for the continued growth of satellite services, including telecommunications, Earth observation, and scientific research.

By prioritizing these processes, we enhance the long-term viability of satellite systems, protect the space environment, and ensure that space remains a resource for all humanity.

This webinar aligns with the WRC-23 request, which instructed the Bureau to assist notifying administrations of national or regional systems in relation to frequency coordination with affected administrations.

The goals and objectives of this webinar are clear: ITU has supported SADC Member States in developing the SADC Shared Satellite Network, which will help your region to bridge the digital divide. This series of training sessions is the first of its kind, designed to assist SADC Member States in enhancing the SADC Shared Satellite Network with non-planned band operations. Additionally, it aims to equip SADC Satellite Experts with practical technical and regulatory knowledge on satellite frequency registration and coordination.

The format of the Webinar Series will consist of six sessions, each lasting 1.5 hours, complete with presentations, hands-on exercises, and take-home assignments, spread between now to early February 2025.

The subjects covered include:

- Session 1: Link Budget and Design of a GSO Satellite Network
- Session 2: Preparing a Non-Planned Band Satellite Notice – API
- Session 3: Preparing a Non-Planned Band Satellite Notice – CRC
- Session 4: Coordination Between GSO Satellite Networks – Technical Aspects
- Session 5: Coordination Between GSO Satellite Networks – Regulatory Aspects
- Session 6: Conversion of a National Allotment into Assignments in Appendix 30B

Now, it is my pleasure to declare the official launch of the ITU-SADC Webinar Series on Frequency Registration and Coordination of Satellite Networks and Systems.

Immediately after my speech, Mr. Danny Tham, Senior Radiocommunication Engineer and focal point of ITU in this webinar series, will guide you through the first session titled “Link Budget and Design of a GSO Satellite Network.”

I wish you all a productive and insightful webinar series.