GSOA

Agenda Item
1.19

# WRC-27 Agenda Item 1.19

## To consider possible primary allocations in all Regions to the Earth exploration-satellite service (passive) in the frequency bands 4 200-4 400 MHz and 8 400-8 500 MHz, in accordance with Resolution 674 (WRC-23).

## Overview

This agenda item explores the need for additional spectrum to support Earth exploration-satellite service (EESS) (passive) systems used for measuring sea surface temperature (SST). WRC-27 will consider the results of sharing and compatibility studies in the 4 200–4 400 MHz and 8 400–8 500 MHz bands, with a view to possibly introducing a new primary allocation to EESS in all three ITU Regions.

## Background

WRC-23 adopted Agenda Item 1.19 to study the potential for a new primary allocation to the EESS (passive) in the 4 200–4 400 MHz and 8 400–8 500 MHz frequency bands. Aimed to support continuity of Sea Surface Temperature (SST) measurements, used for climate monitoring, weather forecasting, and disaster preparedness. The Resolution stems from concerns about 6 425–7 250 MHz band, traditionally used by EESS, becoming increasingly constrained due to growing demands from active services. As a result, **Res 674** is exploring frequency bands for SST sensing, within the 4–9 GHz range.

## Key Points

- The key point of Agenda Item 1.19 is to conduct sharing and compatibility studies to assess the feasibility of a new primary EESS (passive) allocation in the 4 200–4 400 MHz and 8 400–8 500 MHz bands but without protection from existing services in these frequencies and in adjacent band.
- The FSS community has some concerns regarding Agenda Item 1.19. The potential interference from Out-of-Band Emissions (OOBE) or reflections, such as downlink signals scattering off the sea surface, could affect passive EESS operations, despite FSS compliance with ITU emission masks. The scope of the AI 1.19 is clear that any new EESS (passive) allocation shall not claim protection from existing services in the bands considered or in adjacent bands. This scope should not be changed and it should be made clear that any new EESS (passive) should not seek further protection in the future from these incumbent services.

## GSOA Position

- Following Resolution 674, GSOA supports that any new potential EESS (passive) allocation under AI 1.19 shall not claim protection from current and future FSS systems operating in adjacent frequency bands.
- Compatibility studies must fully account for real-world FSS operational characteristics, including satellite geometry and use of geographic separation (e.g., sea vs land).
- GSOA encourages close coordination between WP4A and WP7C, ensuring any liaison statement accurately reflects the diversity of GSO/NGSO FSS systems and avoids prescriptive constraints.
- GSOA recommends a consolidated industry response, particularly in regional preparatory groups (CEPT, CITEL, etc.), to guard against unintended encroachments.

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Agenda Item 1.19