

## UNITED STATES OF AMERICA

### DRAFT PRELIMINARY VIEWS FOR WRC-19

**AGENDA ITEM 1.2:** to consider in-band power limits for earth stations operating in the mobile-satellite service, meteorological-satellite service and Earth exploration-satellite service in the frequency bands 401-403 MHz and 399.9-400.05 MHz, in accordance with **Resolution 765 (WRC-15)**.

**ISSUE: Resolution 765 (WRC-15 - Establishment of in-band power limits for earth stations operating in mobile-satellite service, the meteorological-satellite service and the Earth exploration-satellite service in the frequency bands 401-403 MHz and 399.9-400.05 MHz,** calls for the necessary technical, operational and regulatory consideration of the possibility of establishing in-band power limits for earth stations in the EESS and MetSat in the frequency bands 401-403 MHz and in the MSS frequency band 399.9-400.05 MHz.

It is necessary to have stable regulatory certainty in order to be able to provide long-term continuity for the operation of DCS. DCS represents long-term efforts and significant investments. The establishment of in-band power limits for earth stations operating in the EESS, MetSat and MSS will bring confidence for DCS operators using the frequency bands 399.9-400.05 MHz and 401-403 MHz.

**BACKGROUND:** The Earth exploration-satellite service (EESS) (Earth-to-space) and meteorological-satellite service (MetSat) (Earth-to-space) systems deployed in the frequency band 401-403 MHz and mobile-satellite service (MSS) (Earth-to-space) systems in the frequency band 399.9-400.05 MHz are currently used for data collection systems. These systems usually operate most efficiently together by using moderate to low e.i.r.p. levels, resulting in small link margins.

Recommendation ITU-R SA.2045 provides information on the performance and interference criteria for relevant geostationary-satellite orbit (GSO) and non-geostationary satellite (non-GSO) data collection systems (DCS) in the frequency band 401-403 MHz. Recommendation ITU-R SA.2044 provides information on the current and future usage of non-GSO DCS in the frequency band 401-403 MHz, and the portioning of the frequency band to allow all DCS equal access to the spectrum, and Recommendation ITU-R M.2046 provides a description, and the corresponding protection criteria for broadband noise and narrowband interference, of one MSS system that uses the frequency band 399.9-400.05 MHz (Earth-to-space).

EESS, MetSat and MSS systems are indispensable for monitoring and predicting climate change, monitoring oceans, weather and water resources, weather forecasting and assisting in protecting biodiversity, improving maritime safety and security. There are a growing number of satellite operators planning to use these frequency bands for telecommand purposes under the EESS, MetSat or MSS allocations.

The output power levels of the earth stations, at the antenna port of these telecommand links (Earth-to-space), can be much higher than the moderate to low power levels traditionally used for the operation of EESS, MetSat or MSS system, service links in the frequency bands 401-403 MHz and 399.9-400.05 MHz.

**U.S. VIEW:** The United States supports conducting and completing the necessary technical, operational and regulatory studies on the possibility of establishing in-band power limits for earth stations in the EESS and MetSat in the frequency band 401-403 MHz and the MSS in the frequency band 399.9-400.05 MHz.

---