

## RESOLUTION 140 (REV.WRC-23)

**Measures and studies associated with the equivalent power flux-density (epfd) limits in the frequency band 19.7-20.2 GHz**

The World Radiocommunication Conference (Dubai, 2023),

*considering*

- a) that, after several years of study, WRC-2000 adopted epfd limits in a number of frequency bands to give practical effect to No. **22.2**, in order to facilitate non-geostationary-orbit (non-GSO) systems in the fixed-satellite service (FSS) to operate while still ensuring protection of GSO FSS networks from unacceptable interference;
- b) that in Resolution **76 (WRC-2000)\***, WRC-2000 also adopted aggregate epfd↓ limits in the same frequency bands for the protection of GSO FSS systems;
- c) that a small number of systems based on constellations of satellites in highly elliptical orbits (HEOs), in certain FSS bands, have been operating for many years;
- d) that since the late 1990s, especially after WRC-2000, there has been a growing interest in HEOs in a number of frequency bands and for several space services, predominantly in the FSS allocations below 30 GHz;
- e) that ITU-R studies reported to WRC-03 considered HEO systems to be a sub-category of non-GSO systems and characterized their operational features;
- f) that in the period between WRC-2000 and WRC-03, ITU-R developed Recommendations concerning frequency sharing between HEO FSS systems and other systems, including GSO, low Earth orbit (LEO), medium Earth orbit (MEO) and HEO systems;
- g) that certain types of HEO system would have difficulty in meeting the long-term portion of epfd↓ limits in force in the frequency band 19.7-20.2 GHz,

*noting*

- a) that, in the long-term portion, the epfd↓ limits in the frequency band 19.7-20.2 GHz are considerably more stringent than those in the 17.8-18.6 GHz frequency band;
- b) that Nos. **9.7A** and **9.7B** apply in this frequency band;

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\* *Note by the Secretariat:* This Resolution was revised by WRC-15 and WRC-23.

- c) that the frequency band 19.7-20.2 GHz is one of the few bands identified by WRC-03 on a global basis for high-density applications in the fixed-satellite service;
- d) that Recommendation ITU-R S.1715 provides guidelines to protect GSO FSS networks in the frequency band 19.7-20.2 GHz,

*resolves to invite administrations*

to consider using the relevant ITU-R Recommendations regarding the protection of GSO FSS satellite networks from interference by non-GSO FSS systems as a guideline for consultation between administrations, to fulfil their obligations under No. **22.2** in the frequency band 19.7-20.2 GHz, and in the case where an administration responsible for a non-GSO FSS system requests the application of No. **22.5CA**,

*instructs the Radiocommunication Bureau*

in cases where an administration responsible for a non-GSO FSS system indicates in its coordination request its wish to apply No. **22.5CA** with respect to the  $\text{epfd}_{\downarrow}$  limits in Table **22-1C** in the frequency band 19.7-20.2 GHz but has not yet reached the necessary agreements, to make a qualified favourable finding with respect to this provision. This provisional finding regarding compliance with  $\text{epfd}_{\downarrow}$  limits shall be changed to a definitive favourable finding at the notification stage, only if all explicit agreements from administrations for which  $\text{epfd}$  limits are exceeded are obtained and an indication thereof is provided to the Bureau within two years from the date of receipt of the coordination request. Otherwise, this provisional finding shall be changed to a definitive unfavourable finding.