

## RECOMMENDATION ITU-R BO.1773\*

**Criterion to assess the impact of interference to the broadcasting-satellite service from emissions of devices without a corresponding frequency allocation in the Radio Regulations, that produce fundamental emissions in the frequency bands allocated to the broadcasting satellite service**

(2006)

**Scope**

There are well-established criteria in the Radio Regulations that address the amount of interference allowed between the broadcasting-satellite service and other services with an allocation in the Radio Regulations. However, there exist no criteria to assess the impact of interference from fundamental emissions of devices that have no corresponding frequency allocation in the Radio Regulations but operate in frequency bands allocated to the broadcasting-satellite service. This Recommendation presents the necessary criterion for assessing the impact on the BSS from devices without a corresponding frequency allocation.

The ITU Radiocommunication Assembly,

*considering*

- a) that well-established criteria exist in the Radio Regulations (RR) with regard to the amount of interference allowed between the broadcasting-satellite service (BSS) and other services with an allocation in the RR;
- b) that radio devices exist and are also being developed that are intended to be operated with no corresponding frequency allocation in the RR;
- c) that the fundamental emissions of such devices may occur in frequency bands allocated to the BSS;
- d) that there is no established criterion to assess the impact on BSS from emissions of these devices;
- e) that several applications are envisioned for these devices, for example short-range communications, surveillance systems, imaging systems, vehicle radar collision avoidance systems and others, many of which are intended for mass-marketing deployments;
- f) that high-density clusters of these devices are expected in certain environments such as homes, office buildings, highways and business cores, where BSS receivers are also deployed or expected to be deployed;
- g) that there are many broadcasting-satellite systems in service or under development, with tens of millions of subscribers, characterized by high-density ubiquitous deployments;
- h) that it is necessary to define a criterion to assess impact on BSS receivers from these device emissions in order to design satellite links to take into account the interference,

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\* This Recommendation should be brought to the attention of Radiocommunication Study Group 1.

*recommends*

1 that the total interference to systems operating in the BSS, from devices with no corresponding frequency allocation in the RR, should at no time exceed 1% of the total receiving system noise under clear sky conditions (i.e.  $\Delta T/T \leq 1\%$ ).

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