

## RESOLUTION 162 (WRC-15)

### **Studies relating to spectrum needs and possible allocation of the frequency band 51.4-52.4 GHz to the fixed-satellite service (Earth-to-space)**

The World Radiocommunication Conference (Geneva, 2015),

*considering*

- a) that satellite systems are increasingly being used to deliver broadband services and can help enable universal broadband access;
- b) that next-generation fixed-satellite service technologies for broadband will increase speeds (45 Mbps is already available), with faster rates expected in the near future;
- c) that technological developments such as advances in spot-beam technologies and frequency reuse are used by the fixed-satellite service in spectrum above 30 GHz to increase the efficient use of spectrum;
- d) that fixed-satellite applications in spectrum above 30 GHz, such as feeder links, should be easier to share with other radiocommunication services than high-density fixed-satellite service (HDFSS) applications,

*recognizing*

- a) the need to protect existing services when considering frequency bands for possible additional allocations to any service;
- b) that the frequency band 51.4-52.4 GHz is allocated to fixed and mobile services, which will need to be protected, and is available for high-density applications in the fixed service as indicated in No. **5.547**;
- c) that No. **5.556** indicates that radio astronomy observations are carried out in the frequency band 51.4-54.25 GHz and that appropriate measures may have to be defined to protect radio astronomy service,

*resolves to invite ITU-R*

to conduct, and complete in time for WRC-19:

1 studies considering additional spectrum needs for development of the fixed-satellite service, taking into account the frequency bands currently allocated to the fixed-satellite service, the technical conditions of their use, and the possibility of optimizing the use of these frequency bands with a view to increasing spectrum efficiency;

2 subject to justification resulting from studies conducted under *resolves to invite ITU-R* 1, sharing and compatibility studies with existing services, on a primary and secondary basis, including in adjacent bands as appropriate, to determine the suitability, including protection of fixed and mobile services, of new primary allocations to the FSS in the frequency band 51.4-52.4 GHz (Earth-to-space) limited to FSS feeder links for geostationary orbit use, and the possible associated regulatory actions;

3 studies towards possible revision of Resolution **750 (Rev.WRC-15)** so that systems operating in the passive frequency band 52.6-54.25 GHz are protected;

4 studies regarding the protection of radio astronomy, as described in *recognizing c*), including regulatory measures, as appropriate,

*instructs the Director of the Radiocommunication Bureau*

to report on the results of the ITU-R studies to WRC-19,

*invites administrations*

to participate actively in these studies by submitting contributions to ITU-R.