RESOLUTION 151 (WRC-12)

Additional primary allocations to the fixed-satellite service in frequency bands between 10 and 17 GHz in Region 1

The World Radiocommunication Conference (Geneva, 2012),

considering

a) that the existing unplanned bands for the fixed-satellite service (FSS) in the 10-15 GHz range are extensively used for a large variety of applications, and these applications have triggered a rapid rise in the demand for this frequency range;

b) that, in ITU Region 3, the spectrum allocated to the unplanned FSS in the Earth-to-space and space-to-Earth directions in the 10-15 GHz band is 750 MHz and 1.05 GHz, respectively;

c) that, in ITU Region 2, the spectrum allocated to the unplanned FSS in the Earth-to-space and space-to-Earth directions in the 10-15 GHz band is 750 MHz and 1.0 GHz, respectively;

d) that WRC-12 adopted Resolution **152 (WRC-12)** to consider possible additional primary allocations to the fixed-satellite service (Earth-to-space) of 250 MHz in Region 2 and 300 MHz in Region 3;

e) that, in ITU Region 1, the spectrum allocated to the unplanned FSS in the Earth-to-space and space-to-Earth directions in the 10-15 GHz band is 750 MHz and 750 MHz, respectively;

f) that the existing difference of capacity in ITU Regions 2 and 3 and in ITU Region 1 will increase after implementation of *considering d)* and create an imbalance among these Regions, thus restricting satellite operators in different ITU Regions from fully and effectively utilizing the limited frequency resource to cope with the increasing spectrum demand in *considering a)*;

g) that there is a need to resolve the shortage of spectrum in Region 1 and Regions 2 and 3 in *considering b)* to *e)*, such that the rapid growth of spectrum demand in *considering a)* could be met and the limited spectrum resources could be used in an efficient and economical way in accordance with the principle of Article 44 of the ITU Constitution;

h) that frequency allocation should, wherever possible, allocate frequency bands on a worldwide basis (aligned services, categories of service and frequency band limits), taking into account safety, technical, operational, economic and other relevant factors,

recognizing

a) that studies will be required in order to develop regulatory changes, including additional allocations to the fixed-satellite service, to meet the growing spectrum requirements;

b) that it is important to ensure the FSS systems do not cause undue constraints to existing primary services having allocations in the band 10-17 GHz;

c) that there are assignments in the 14.5-14.8 GHz band in the Regions 1 and 3 BSS feeder-link Plan, contained in Appendix **30A**, for 22 countries in Africa, Middle East and Asia-Pacific;

d) that new assignments could be added to the Appendix **30A** List of assignments for Regions 1 and 3 following the successful application of Article 4 of Appendix **30A**;

e) that there are FSS (Earth-to-space) allotments and assignments in the Appendix **30B** Plan and List in the frequency band 12.75-13.25 GHz;

f) that the above-mentioned Appendix **30B** List in the Earth-to-space direction could be further developed using the procedures of Articles 6 and 7 of Appendix **30B**;

g) that there are assignments in the 11.7-12.5 GHz band in the Regions 1 and 3 BSS Plan, contained in Appendix **30**;

h) that transmitting or receiving earth stations, as the case may be, of these above-mentioned allotments or assignments in the Plans or the Lists could be located at any point within the service area of their associated satellite network,

further recognizing

a) that the 13.25-13.75 GHz band is allocated to the Earth exploration-satellite service (active) on a primary basis;

b) that EESS (active) satellites with three types of active sensor in 13.25-13.75 GHz – scatterometers, altimeters and precipitation radars – have been operating in this band for many years. The remote sensing systems of EESS (active) are used in backscatter echo mode to monitor weather, water and climate change and similar emergencies, with the aim of preventing natural disasters, which could suffer from interference resulting from FSS (uplink);

c) that, although EESS (active) satellites are currently operated by only a limited number of countries, measurements are performed worldwide and the remote sensing data and related analyses are distributed and used globally, and are performed for the benefit of the whole international community;

d) that the EESS (active) systems are crucial for the protection of human life and natural resources. It is necessary to ensure that the EESS (active) systems shall be protected without any undue constraints to their operations in the 13.25-13.75 GHz band;

e) that the 15.35-15.4 GHz band, in which No. **5.340** applies, is allocated to Earth exploration-satellite (passive), space research (passive) and radio astronomy services;

f) that the 13.75-14 GHz band is allocated to the fixed-satellite service and the radiolocation service on a primary basis, that the Earth exploration-satellite (passive), space research (passive) and standard frequency and time signal-satellite (Earth-to-space) services are allocated on a secondary basis, and that Nos. **5.502** and **5.503** and Resolution **144 (Rev.WRC-07)** apply in this band,

resolves

1 to complete, for WRC-15:

i) studies of possible bands for a new primary allocation to the fixed-satellite service of 250 MHz in both directions in Region 1 within the bands 10-17 GHz, with particular focus on the frequency range that is contiguous (or near contiguous) to the existing fixed-satellite service allocations, taking into account sharing and compatibility studies, while protecting the existing primary services in the band(s);

ii) studies that include consideration of utilizing existing allocations to the fixed-satellite service in both directions through a review of regulatory provisions, except for Nos. **5.502** and **5.503** and Resolution **144 (Rev.WRC-07)**, taking into account sharing and compatibility studies, while protecting the existing primary services in the band 10-17 GHz;

2 that if consideration is given to use of the 14.5-14.8 GHz band, appropriate measures need to be taken with regard to the Appendix **30A** Plan and List, as the case may be, to ensure the integrity and adequate protection of these bands, specifically taking into account:

i) required coordination procedures between Appendix **30A** networks, as the case may be, and the new fixed-satellite service utilization of the bands;

ii) the need for transmitting earth stations in the Appendix **30A** Plan and List to be able to be located anywhere within their respective service areas;

iii) the need to appropriately protect assignments in the Appendix **30A** Plan and List, as the case may be, from any new fixed-satellite service utilization of the bands;

3 that the 11.7-12.5 GHz band should be excluded from consideration; however, if consideration is given to use of the 11.7-12.5 GHz band in Region 1, appropriate measures need to be taken with regard to the Appendix **30** Plans and List, according to the case, to ensure the integrity and full protection of these bands, specifically taking into account:

i) required coordination procedures between Appendix **30** networks, as the case may be, and the new fixed-satellite service utilization of the bands;

ii) the need for receiving earth stations in the Appendix **30** Plans and List to be able to be located anywhere within their respective service areas;

iii) the need to appropriately protect assignments in the Appendix **30** Plans and List, as the case may be, from any new fixed-satellite service utilization of the bands;

4 that the 12.75-13.25 GHz band shall be excluded from the studies referred to in this Resolution;

5 that WRC-15 consider the results of the above studies and take appropriate action,

invites ITU-R

to conduct studies, as a matter of urgency, on technical (including necessary calculations and criteria), operational and regulatory issues on this topic, taking into account *resolves* 1, 2, 3 and 4, in time for WRC-15 to consider the results of these studies and take appropriate action,

invites administrations

to participate in the ITU-R studies through the submission of contributions.