RESOLUTION 734 (Rev.WRC-07)

Studies for spectrum identification for gateway links for high-altitude platform stations in the range from 5 850 to 7 075 MHz

The World Radiocommunication Conference (Geneva, 2007),

considering

a) that ITU has among its purposes "to promote the extension of the benefit of the new telecommunication technologies to all the world's inhabitants" (No. 6 of the Constitution);

b) that systems based on new technologies using high altitude platform stations (HAPS) can potentially be used for various applications such as the provision of high-capacity services to urban and rural areas;

c) that provision has been made in the Radio Regulations for the deployment of HAPS in specific bands, including as base stations to serve IMT-2000 networks (Article **11**);

d) that it is desirable to have adequate provision for gateway links to serve HAPS operations;

e) that ITU-R has studied spectrum sharing between HAPS as a fixed service with other fixed services and with fixed-satellite services in much higher bands, as well as the regulatory considerations to avoid interference to services in neighbouring countries,

recognizing

a) that ITU-R has studied the sharing of HAPS with fixed services in part of the 6 GHz band resulting in Recommendation ITU-R F.1764, which provides a methodology for interference evaluation that could be used for sharing studies between fixed services systems and HAPS;

b) that as in some areas the bands may be saturated with other fixed service use and it would be desirable to have greater flexibility in the choice of spectrum for gateway operations in support of HAPS networks;

c) that the World Summit on the Information Society has encouraged the development and application of emerging technologies to facilitate infrastructure and network development worldwide with special focus on underserved regions and areas;

d) that the allocations to the fixed-satellite service in the band 5 925-6 425 MHz are heavily used for Earth-to-space links providing telecommunication services, and that are particularly important for the development of infrastructure in developing countries through the deployment of VSAT capabilities;

e) that more than 160 geostationary satellites currently in operation use frequencies in the range 5 850-6 725 MHz and such use will continue to grow in the future;

f) that the band 6 725-7 025 MHz is used by uplinks in the FSS Plan of Appendix **30B** of the Radio Regulations (see No. **5.441**), while the band 5 150-5 250 MHz is used by uplinks on non-geostationary-satellite systems (see No. **5.447A**);

g) that the Earth-to-space transmissions in the FSS described in "*recognizing*" *d)*, *e)* and *f)* above will have levels much higher than those in HAPS systems and have therefore the potential for causing interference to HAPS receivers either on the ground or on the platform;

h) that in view of *recognizing g)*, HAPS use of frequencies around 6 GHz may be limited by current FSS transmit earth stations while protection of HAPS receivers may limit future deployment of these FSS earth stations,

resolves

1 to invite ITU-R to extend the sharing studies, with a view to identifying two channels of 80 MHz each for gateway links for HAPS in the range from 5 850 to 7 075 MHz, in bands already allocated to the fixed service, while ensuring the protection of existing services;

2 to recommend to WRC-11 to review the results of these studies, with a view to taking an appropriate decision for the deployment of HAPS gateway links to service the relevant stratospheric base station operations and support for these networks,

encourages administrations

to contribute actively to the sharing studies in accordance with this Resolution.