QUESTION ITU-R 215-4/5[[1]](#footnote-1)\*

Frequency bands, technical characteristics, and operational requirements for fixed wireless access [[2]](#footnote-2)\*\*systems in the fixed and/or land mobile services

(1997-2000-2007-2009-2012)

The ITU Radiocommunication Assembly,

considering

*a)* the potential of wireless access to enhance the availability of basic communication services in many countries, particularly developing countries;

*b)* that there is a need for efficient use of the radio-frequency spectrum;

*c)* that wireless access has potential for greater economic and socio-economic benefits than other access media to telecommunication networks (e.g., PSTN);

*d)* that wireless access technologies allow fast and economic deployment of telecommunication facilities;

*e)* that enhanced competition in the provision of services is desirable;

*f)* that fixed wireless access systems may be implemented in frequency bands used by both the fixed and mobile services;

*g)* that a number of ITU-R Recommendations exist on various aspects of fixed wireless access, for example Recommendations ITU-R F.755, ITU-R F.757, ITU-R F.1399, ITU-R F.1400, ITU-R F.1401, ITU-R F.1490, ITU-R F.1499, ITU-R F.1402, ITU-R M.687, ITU-R M.819, ITU‑R M.1033, ITU-R M.1073, and ITU-R M.1801 as well as a Handbook on Land Mobile (including Wireless Access);

*h)* that different wireless access technologies are suitable for different environments;

*i)* that the ongoing studies of IMT in the ITU have highlighted fixed wireless access as an important application;

*j)* that the availability and possible adaptation of mobile technologies for fixed wireless access applications may be advantageous;

*k)* that spectrum sharing between fixed and mobile wireless access applications may improve the spectrum utilization;

*l)* that there is a need to consider:

– both fixed and mobile wireless access services in conjunction with each other; and

– the cost-benefits of integration of both types of services;

*m)* that different fixed wireless access environments may require different frequency bands;

*n)* that broadband wireless access, including wireless access to Internet Protocol (IP) core networks is a category of fixed wireless access that continues to be important,

decides that the following Questions should be studied

1 What are the frequency bands suitable for fixed wireless access systems within the terrestrial fixed and/or mobile frequency allocations?

2 What are the frequency bands that might allow compatible operation between wireless access systems and systems of existing radio services within the terrestrial fixed and/or mobile frequency allocations?

3 What are the characteristics and operational requirements of fixed wireless access systems?

4 What are the overall RF and IF bandwidth requirements for fixed wireless access systems within the terrestrial fixed and/or mobile frequency allocations?

5 What are the spectrum sharing criteria for:

– wireless access systems and systems supporting other radio services?

– wireless access systems using different technologies?

6 What are the technologies suitable for wireless access?

7 What techniques need to be considered for fixed wireless access operation to enhance spectrum sharing?

8 What are the interface requirements between wireless access systems and the switched network (e.g., PSTN)?

9 What additional vocabulary should be used with fixed wireless access systems?

further decides

1 that the results of the above studies should be included in one or more Recommendations, Reports or Handbooks;

2 that the above studies should be completed by 2027.

Category: S2

1. \* In the year 2019, Radiocommunication Study Group 5 extended the completion date of studies for this Question. [↑](#footnote-ref-1)
2. \*\* “Fixed wireless access” is defined in Recommendation ITU-R F.1399. [↑](#footnote-ref-2)