Question ITU-R 231/7

Earth exploration-satellite service (active) and space research service (active) operating above 100 GHz

(2000)

The ITU Radiocommunication Assembly,

considering

*a)* that the need has been identified to operate active spaceborne sensors of the Earth exploration-satellite service (EESS) and space research service (SRS) in frequency bands above 100 GHz;

*b)* that these instruments would enable:

– dual frequency cloud profiling with high accuracy and sensitivity for meteorological and climatological purposes; and

– radar altimetry measurements with high horizontal resolution for several applications: cartography, geology, oceanography, etc.

*c)* that new technological advancements will enable the implementation of active measurements above 100 GHz and therefore the related instruments are expected to be developed in the near future;

*d)* that EESS (active) and SRS (active) currently do not have any allocations above 100 GHz, despite the fact that these services are likely to be among the first active services that will be ready to operate at these high frequencies,

decides that the following Questions should be studied

1What are the technical and operational characteristics and the performance requirements of these spaceborne active sensors?

2What are the frequency bands most suitable for the operation of these instruments, taking into account also the possible sharing scenarios?

further decides

1that the results of the above studies should be included in (a) Recommendation(s);

2that the above studies should be completed by 2027.

Category: S2