QUESTION ITU-R 270-1/4[[1]](#footnote-1)\*,[[2]](#footnote-2)

Fixed-satellite service systems using very wideband spreading signals

(2003-2005)

The ITU Radiocommunication Assembly,

considering

*a)* that new transmission techniques using very wide spectrum may be used in fixed-satellite service (FSS) uplinks and/or downlinks;

*b)* that the above transmission techniques include impulse-radio which is characterized by repetition of very short pulse transmissions;

*c)* that the signals of the FSS systems using short pulse transmission mentioned in *considering* b) may be spread to very large bandwidth within the FSS allocations;

*d)* that although some FSS systems using wideband spreading signals emit very low average power, some systems may emit relatively high peak power levels;

*e)* that the applications of the FSS systems using wideband spreading signals have different features from the other FSS systems;

*f)* that the characteristics of the FSS systems using wideband spreading signals are different from currently deployed FSS systems;

*g)* that the space segments of the FSS systems using wideband spreading signals radiate signal to a very wide area;

*h)* that the interference effect of the emissions from an FSS system using wideband spreading signals needs to be defined;

*i)* that the FSS systems using wideband spreading signals may address new applications and new uses;

*j)* that the scope of this Question in studying transmission techniques using very wide spreading signals should be limited to those signals of FSS systems within the bandwidths of FSS allocations,

decides that the following Questions should be studied

1 What are the appropriate characteristics of FSS systems using wideband spreading signals,that are within the bandwidths of FSS allocations?

2 What requirements are necessary to ensure that satellite devices radiating wideband spreading signals will not cause harmful interference to other FSS systems?

further decides

1 that in order to perform the necessary studies, key technical data and characteristics of satellite systems using wideband spreading signals should be defined and documented;

2 that the results of the above studies should be included in appropriate Recommendations and/or Reports;

3 that the above studies should be completed by 2027.

Category: S2

1. \* This Question should be brought to the attention of Radiocommunication Study Groups 1, 5 and 7 for information. [↑](#footnote-ref-1)
2. Radiocommunication Study Group 4 made editorial amendments to this Question in the year 2023 in accordance with Resolution ITU-R 1. [↑](#footnote-ref-2)