QUESTION ITU-R 203-1/4[[1]](#footnote-1)\*

The impact of using small antennas on the efficient  
use of the geostationary-satellite orbit

(1993)

The ITU Radiocommunication Assembly,

considering

*a)* that in recent years a growing number of direct-to-home (DTH) satellite TV services have developed in the fixed-satellite service (FSS) bands;

*b)* that for cost and environmental reasons the DTH system providers wish to implement small antennas for home reception;

*c)* that the ability to operate satellites at small angular separations may be limited by the main beam characteristics of small antennas;

*d)* that the density of satellites using the FSS bands in critical parts of the geostationary-satellite orbit (GSO) is already high and is increasing;

*e)* that FSS satellite separation in the geostationary orbit is typically 3° but in parts of Region 2, 2° spacing is extensively used,

decides that the following Questions should be studied as a matter of urgency

1 What are the potential levels of interference between services using small antennas and other telecommunications services in the FSS bands?

2 What is the impact on the efficient use of the GSO in the FSS bands from the proliferation of small antennas?

3 What steps might be taken to meet the needs of the services using small antennas in FSS bands with minimum impact on the efficiency of use of the GSO by all other fixed-satellite services?

Further decides

1that the results of the above studies should be included in appropriate Recommendations and/or Reports;

2 that the above studies should be completed by 2027.

Category: S2

1. \* Radiocommunication Study Group 4 made editorial amendments to this Question in the year 2023 in accordance with Resolution ITU-R 1. [↑](#footnote-ref-1)