Question ITU-R 281/4[[1]](#footnote-1)\*

Digital techniques in the broadcasting-satellite service  
(sound and television)

(2009)

The ITU Radiocommunication Assembly,

considering

*a)* that certain frequency bands are allocated to be shared equally by the broadcasting‑satellite service (BSS) and other space and terrestrial services;

*b)* that such sharing can lead to mutual interference among services, and can affect the efficiency with which the geostationary‑satellite orbit is utilized;

*c)* that, when planning a service which is shared with other services, it is necessary to specify, for each of the services involved, both the level of wanted signal (field strength or power‑flux density) necessary for satisfactory reception, and the level of unwanted signal for interference that may be considered acceptable;

*d)* that rapid advances in digital techniques for compressed video and audio, and for digital modulation, can allow reductions in the radiated power and/or bandwidth;

*e)* that the implementation of error‑correction coding and/or error‑concealment processes can affect the overall bandwidth requirements and cost,

decides that the following Questions should be studied

1 What are appropriate error‑correction coding and/or error‑concealment processes, based on an evaluation intended to deduce the optimum parameters from bandwidth and cost considerations?

2 What are suitable channel codingand carrier modulation systems for the digital signal, and the bandwidths in which the signal may be efficiently transmitted?

3 What protection ratios are required between two digital signals, and between a digital signal and other types of signals likely to be transmitted in the bands allocated to the BSS (see Question ITU-R 283/4)?

NOTE – See Recommendations ITU-R BO.651, ITU-R BO.712 and Reports ITU-R BO.632, ITU‑R BO.634, ITU-R BO.954,

further decides

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

2that the above studies should be completed by 2025.

Category: S1

1. \* This Question may be associated with the studies carried out under Question ITU-R 285/4. [↑](#footnote-ref-1)