QUESTION ITU-R 75-3/4

Performance objectives of international digital transmission links  
in the fixed-satellite service

(1992-1993-1994-1995)

The ITU Radiocommunication Assembly,

considering

*a)* that availability and performance criteria are required for each particular network architecture selected for providing specific services via international digital links in the fixed-satellite service;

*b)* that service requirements are constantly evolving and new services are rapidly emerging which may have an impact on satellite-link performance;

*c)* that Recommendation ITU-R S.1062 has been established to specify the performance of satellite systems at or above the primary rate up to and including 155 Mbit/s;

*d)* that the ITU-T has adopted Question ITU-T 16/13 deciding to identify the criteria mentioned in a) and to propose appropriate impairment allocations for different satellite reference digital paths;

*e)* that the ITU-T will need assistance from appropriate experts within ITU-R Study Groups in carrying out this study;

*f)* that satellite systems providing synchronous digital hierarchy (SDH) transmission may require performance objectives different from those contained in Recommendation ITU-R S.1062;

*g)* that satellite systems supporting asynchronous transfer mode (ATM) transmission may require performance objectives different from those contained in Recommendation ITU-R S.1062,

decides that the following Questions should be studied

1 What encoding/decoding techniques for error correction, if any, may be needed to meet the performance criteria identified by the ITU-T?

2 What are the resultant performance objectives expressed in terms of BER versus percentage of time which arise from service specific performance requirements (e.g., ATM cell loss ratio and facsimile error free page objectives)?

3 What are the methods available to the satellite system designer to accommodate service requirements with regard to satellite system attributes such as propagation impairments, burst-error characteristics and delay?

4What arrangements should be made by the ITU-R to offer the most appropriate liaison with the ITU-T to provide the assistance indicated in § e)?

further decides

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

2 that the above studies should be completed by 2013.

Category: S1