QUESTION ITU-R 75-4/4

Performance objectives of international digital transmission links  
in the fixed-satellite and mobile-satellite services

(1992-1993-1994-1995-2013)

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 and mobile-satellite services;

*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 Recommendation ITU-T G.826 has been established to specify end-to-end error performance parameters and objectives for international, constant bit-rate digital paths and connections;

*e)* that Recommendation ITU-T G.828 has been established to specify error performance parameters and objectives for international, constant bit rate synchronous digital paths;

*f)* that Recommendation ITU-T Y.1541 has been established to specify network performance objectives for IP-based services, in which geostationary satellites within hypothetical reference paths for validating the IP performance objectives were included as an example;

*g)* that satellite systems supporting IP-based services may require performance objectives different from those contained in Recommendation ITU-R S.1062;

*h)* that satellite systems supporting time-varying channel conditions using adaptive transmission techniques 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?

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?

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 2015.

Category: S2