

INTERNATIONAL TELECOMMUNICATION UNION



Radiocommunication Bureau
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Administrative Circular
CACE/607

22 February 2013

**To Administrations of Member States of the ITU, Radiocommunication Sector Members,
ITU-R Associates participating in the work of the Radiocommunication
Study Group 4 and ITU-R Academia**

Subject: Radiocommunication Study Group 4 (Satellite services)
– **Approval of 1 revised ITU-R Question**

By Administrative Circular CACE/597 of 20 December 2012, 1 draft revised ITU-R Question was submitted for approval by correspondence in accordance with Resolution ITU-R 1-6 (§ 3.1.2).

The conditions governing this procedure were met on 20 February 2013.

The text of the approved Question is attached for your reference in the Annex and will be published in Revision 1 to [Document 4/1](#) which contains the ITU-R Questions approved by the 2012 Radiocommunication Assembly and assigned to Radiocommunication Study Group 4.

François Rancy
Director, Radiocommunication Bureau

Annex: 1

Distribution:

- Administrations of Member States and Radiocommunication Sector Members participating in the work of Radiocommunication Study Group 4
- ITU-R Associates participating in the work of Radiocommunication Study Group 4
- ITU-R Academia
- Chairmen and Vice-Chairmen of Radiocommunication Study Groups and Special Committee on Regulatory/Procedural Matters
- Chairman and Vice-Chairmen of the Conference Preparatory Meeting
- Members of the Radio Regulations Board
- Secretary-General of the ITU, Director of the Telecommunication Standardization Bureau, Director of the Telecommunication Development Bureau

Annex

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
