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R.79

TELEGRAPHY

TELEGRAPH TRANSMISSION

AUTOMATIC TESTS OF TRANSMISSION QUALITY ON TELEGRAPH CIRCUITS BETWEEN SWITCHING CENTRES

ITU-T Recommendation R.79

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation R.79 was published in Fascicle VII.1 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

2 In this Recommendation, the expression “Administration” is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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Recommendation R.79

AUTOMATIC TESTS OF TRANSMISSION QUALITY ON TELEGRAPH CIRCUITS BETWEEN SWITCHING CENTRES

(Previous Recommendation R.79 – Mar del Plata, 1968: amended at Geneva, 1972, 1976, 1980 and Malaga-Torremolinos, 1984 and R.79 bis, Geneva, 1976; amended at Geneva, 1980 and Melbourne, 1988)

The CCITT,

considering

(a) that maintenance measurement on a telegraph circuit made in the course of routine maintenance measurements takes a relatively long time to carry out and occupies staff at both ends of the circuit. This applies as much to circuits in a satisfactory condition (the majority of cases) as to faulty circuit;

(b) that automatic tests of the transmission quality on telegraph circuits between switching centres can be organized without intervention of personal;

(c) that transmission characteristics for international links are contained in Recommendation R.58;

(d) that the specification of muldexes is given for MCVFT equipment in the R.30-Series of Recommendations and for TDM equipment in the R.100-Series of Recommendations;

(e) that tests of TDM telegraph channels are possible using maintenance loops according to Recommendation R.115;

(f) that standardized texts for distortion testing are given in Recommendations R.51 and R.51 bis; and

(g) that the signalling aspects are contained in the U-Series of Recommendations,

unanimously declares the view

(1) that Administrations (or recognized private operating agencies) may organize between international switching and testing centres (ISTCs) an automatic maintenance test service for testing the international trunk circuits of telex and Gentex networks with automatic switching consisting of one or two multi-channel code independent transmission links connected in tandem;

(2) that automatic maintenance tests of telegraph circuits should be based on the following principles:

1 Purpose of automatic tests

1.1 The purpose of automatic testing is to make it possible to perform rapid tests; circuits found to be “satisfactory” in the course of these will not be subjected to full maintenance tests and the maintenance staff can thus concentrate on making full tests of circuits identified as “doubtful” during the rapid tests.

1.2 Automatic tests should be organized in such a way that at least at one end of the group of circuits under test, no staff is required. This end of the circuit will then be said to be “in the passive position”, while the end initiating the tests will be said to be “in the active position”.

For these tests it is necessary to distinguish between trunks including regenerative equipment and those without. Tests on trunks where no regeneration is involved are dealt with in § 2. Tests on trunks where regeneration is involved are dealt with in § 3.

Note 1 – Unless stated otherwise, the end of the circuit in the active position will be denoted by the letter A and the end of the circuit in the passive position by the letter B throughout this Recommendation.

Note 2 – Where regenerative and non-regenerative sections of the telegraph circuits are connected in tandem (e.g. national extension DT in Figure 3/R.79) the tests to be conducted shall be defined in the framework of bilateral agreements.