



INTERNATIONAL TELECOMMUNICATION UNION

**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**R.75**

**TELEGRAPHY**

**TELEGRAPH TRANSMISSION**

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**MAINTENANCE MEASUREMENTS  
ON CODE - INDEPENDENT INTERNATIONAL  
SECTIONS OF INTERNATIONAL TELEGRAPH  
CIRCUITS**

**ITU-T Recommendation R.75**

(Extract from the *Blue Book*)

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## NOTES

1 ITU-T Recommendation R.75 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.

## Recommendation R.75

### MAINTENANCE MEASUREMENTS ON CODE-INDEPENDENT INTERNATIONAL SECTIONS OF INTERNATIONAL TELEGRAPH CIRCUITS

(former CCITT Recommendation B.44, Arnhem, 1953;  
amended at New Delhi, 1960, and at Geneva, 1980  
and Malaga-Torremolinos, 1984)

The CCITT,

*in view of*

Recommendations R.50, R.57 and R.90,

*considering*

(a) that, for the technical supervision of international telegraph circuits, it is necessary to make periodic measurements of distortion on their international sections when they are made up of two or more channels;

(b) that certain Administrations consider it desirable to have available apparatus for making simple measurements automatically and periodically, giving an indication of the performance rating and transmitting an alarm when this rating exceeds the limits permitted for automatic switched channels,

*unanimously declares the view*

(1) that it is desirable to make distortion measurements every three months on the international sections of international telegraph circuits made up of at least two channels;

(2) that these measurements should be made at a modulation rate of 50 bauds;

a) with sequences of significant intervals each having a duration of one or two unit intervals,

b) preferably with the standardized text specified in Recommendation R.51 *bis*;

(3) that the values shown in Table 1/R.75 for the inherent distortion in service (extracted from Recommendation R.57) must not be exceeded on the international section of a telegraph circuit;

TABLE 1/R.75

Number of channels in tandem within international section	The limit of bias distortion on sequences of significant intervals each having a duration of one or two unit intervals at the modulation rate employed for adjustment shall be equivalent to the following values at 50 bauds	Isochronous distortion with standardized text	Inherent start-stop distortion with standardized text
2	7%	18%	13%
3	10%	24%	17%
4	12%	28%	21%
5	—	—	25%

*Note 1* – The above values are valid whether the channels are amplitude-modulated or frequency-modulated.

*Note 2* – The columns giving the limits for degrees of isochronous distortion and start-stop distortion on the text are not intended to establish a law relating the degree of start-stop distortion to the degree of isochronous distortion; this law of relationship depends on the constitution of the distortion (relative magnitudes of characteristics and fortuitous distortion).

(4) that these values do not take into account the possibility of regenerative repeaters or other code-dependent systems in the international section;

(5) that, in future, measurements made with the apparatus mentioned in (b) above will no doubt make it possible to eliminate the maintenance measurements referred to above.