INTERNATIONAL TELECOMMUNICATION UNION

ITU-T R.51

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

TELEGRAPHY

TELEGRAPH TRANSMISSION

STANDARDIZED TEXT FOR DISTORTION TESTING OF THE CODE-INDEPENDENT ELEMENTS OF A COMPLETE CIRCUIT

ITU-T Recommendation R.51

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation R.51 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.51

STANDARDIZED TEXT FOR DISTORTION TESTING OF THE CODE-INDEPENDENT ELEMENTS OF A COMPLETE CIRCUIT

(former CCIT Recommendation B.32, Warsaw, 1936;
amended at Geneva, 1956, 1980, Malaga-Torremolinos, 1984 and Melbourne, 1988)

The CCITT,

considering

(a) that, for a precise definition of the degree of distortion in service permitting the comparison of results of measurements obtained under similar conditions in different places, it is advisable to standardize the wording of the text that should be transmitted for the test;

(b) that it is best to choose a text that can be received directly by start-stop equipment and that also presents a sequence of the combinations recognized as those that generally cause the maximum distortion,

unanimously declares the view

(1) that the text to transmit in the course of measurements of the degree of distortion in service should be as shown in Figure 1/R.51;

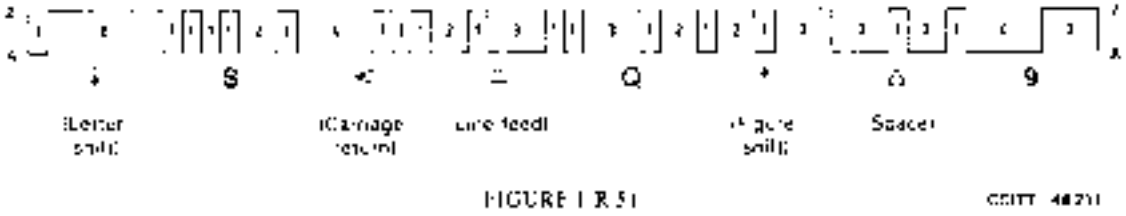

FIGURE 1/R.51

this text corresponds to the following sequence of signals emitted by start-stop equipment:

letter-shift **S** carriage-return line-feed **Q** figure-shift space **9**,

and considering, on the other hand,

(c) that, in maintenance adjustments and in the various distortion measurements that may arise in the study of lines and equipment, it would be necessary to make use of a single apparatus offering the possibility of transmitting the different combinations of signals recognized as the most practical for this purpose;

(d) that the unification of the list of these combinations would permit comparison of results obtained in various places,

unanimously declares the view

(2) that it is appropriate to recommend the construction of special transmitters for distortion measurements, which could transmit:

i) the text specified in Figure 1/R.51 for measuring the degree of distortion,

ii) a periodical sequence of significant intervals, each of which has a duration of one unit interval,

iii) a periodical sequence of significant intervals, each of which has a duration of two unit intervals,

iv) a periodical sequence of significant intervals; a period consists of two significant intervals: an interval of condition Z whose duration is equal to one unit interval and an interval of condition A whose duration is equal to six unit intervals,

v) a periodical sequence of significant intervals; a period consists of two significant intervals: an interval of condition A whose duration is equal to one unit interval and an interval of condition Z whose duration is equal to six unit intervals;

(3) that for all new test equipment, the text specified in Recommendation R.51 *bis* (**QKS**) is preferred. In the interim, either text may be used for testing code-independent systems. For testing routes where code-dependent systems may be included, a text having characters with a mean length of at least 7.4 units must be used.