



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

R.82

TELEGRAPHY

TELEGRAPH TRANSMISSION

**APPEARANCE OF FALSE CALLING
AND CLEARING SIGNALS IN CIRCUITS
OPERATED BY SWITCHED TELEPRINTER
SERVICES**

ITU-T Recommendation R.82

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation R.82 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.82

APPEARANCE OF FALSE CALLING AND CLEARING SIGNALS IN CIRCUITS OPERATED BY SWITCHED TELEPRINTER SERVICES

*(former CCIT Recommendation B.42, 1951;
amended at Arnhem, 1953 and Geneva, 1964)*

The CCITT,

in view of

Recommendation R.80, on the causes of disturbances affecting signals in telegraph channels, and their effect on the distortion of telegraph signals,

considering

(a) that precautions should be taken with circuits used in switched teleprinter services to prevent the appearance of parasitic signals that would give rise to false calling and clearing signals;

(b) that special monitoring or indicating devices should be provided on voice-frequency telegraph (VFT) systems, the channels of which are used for international switched circuits;

(c) that special steps might well be taken to discover the causes of false signals due to transient changes in transmission level or momentary increases in noise level, on VFT circuits;

(d) that it would be desirable to draw up operating standards in this connection,

unanimously declares the view

(1) that the following precautions should be taken to avoid false calling and clearing signals:

- the security and stability of power supplies and of sources of carrier frequencies, both telegraph and telephone, should be ensured;
- a characteristic marking should be used to denote telegraph and telephone-type circuits used for the operation of switched teleprinter circuits, both in terminal and intermediate stations;
- precise instructions should be given to staff in order that false entry into the above-mentioned circuits may be avoided;
- the number of non-soldered connections should be reduced as much as possible, together with the number of break points; unsoldered connections, e.g. U-links and screw terminals, etc., should be checked with particular care. In this connection, attention is drawn to the methods of inspection by vibration tests;
- the amplitude of level variations in VFT bearers should be limited, and abrupt variations in the level should be particularly avoided;
- limit the crosstalk mentioned in Recommendation R.80;
- limit induced voltage caused by electric power and traction systems;
- limit the microphonics of valves in repeaters and of valves in VFT;
- reduce the sensitivity of voice-frequency modulators to disturbing signals;
- avoid, in switched teleprinter services, the use of supervision signals having a short duration in relation to the transitory phenomena due to filters and time-constants in the level-regulators of VFT systems.

(2) These precautions, inasmuch as they concern telephone-type circuits used for voice-frequency telegraphy, must be taken simultaneously on normal and reserve circuits.

(3) For the permanent monitoring of VFT systems the channels of which are used for international switched circuits, it is advisable to use a pilot channel. An alarm should be given to indicate when either the system or the pilot channel is out of order (see Recommendation R.78).

(4) It would be advisable to record the transmission level, in order to discover and localize the causes of the false signals on circuits behaving particularly badly.

(5) It is not yet possible to lay down operating standards in this connection.