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**MAINTENANCE : INTRODUCTION
AND GENERAL PRINCIPLES**

CONTROL STATIONS

ITU-T Recommendation M.80

(Extract from the *Blue Book*)

NOTES

- 1 ITU-T Recommendation M.80 was published in Fascicle IV.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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CONTROL STATIONS

1 Definition of control station

A control station is that point within the general maintenance organization which fulfils the control responsibilities for the circuit, group, supergroup, digital section, etc., assigned to it.

2 Appointment of control stations

The following principles for control stations apply to:

- every international circuit (circuit control station),
- every international group, supergroup, digital block, digital path, etc. (group control station, supergroup control station, digital block control station, digital path control station, etc.),
- every line link, every regulated line section and every digital section (line link control station, regulated line section control station, digital section control station) using a symmetric pair line, a coaxial line, an optical fibre or a radio-relay link.

2.1 Circuit control station

A circuit control station is nominated for each international circuit used for public telephony or for leased or special purposes in accordance with Recommendations M.723 and M.1012 [1] as appropriate. In the case of sound-programme or television circuits, the terminal ISPC (International Sound-Programme Centre) or ITC (International Television Centre) at the receiving end should be nominated as the control station. (See Recommendations N.1 [2], N.5 [3] and N.55 [4].)

2.2 Group, supergroup, digital block, etc. control stations

For each international group, supergroup, digital block, etc., the terminal repeater station is a control station for its incoming direction of transmission. There are thus two control stations, one for each direction of transmission.

2.3 Regulated line section control station

The procedure is the same as for groups, supergroups, digital blocks, etc., that is to say, each of the terminal repeater stations is a control station for the incoming direction of transmission.

2.4 Digital path control station

For each digital path, each terminal station is a control station for its incoming direction of transmission. There are thus two control stations, one for each direction of transmission.

3 Responsibilities of circuit control stations

See Recommendations M.723 and M.1012 [1] concerning public automatic telephone circuits, leased circuits and special circuits, respectively. See Recommendations N.5 [3] and N.55 [4] in connection with sound-programme and television circuits.

4 Responsibilities of control stations for groups, supergroups, digital paths, etc.

4.1 Group, supergroup, digital block, digital path, regulated line section, line link, etc. control stations are responsible for the incoming direction of transmission only.

4.2 Each control station is responsible for ensuring that the group, supergroup, digital block, digital path, link, line, etc. with which it is concerned is set up and maintained to the required standards. In particular, it is responsible for:

- a) controlling lining-up measurements to within the recommended limits and keeping records of reference measurements (initial measurements) for *analogue transmission systems*;
- b) ensuring that the performance of digital transmission systems is kept within recommended limits and keeping records of initial measurements;

- c) ensuring that routine maintenance measurements are carried out on the due dates, using the specified methods and in such a way that interruptions to service are limited to the shortest possible duration;
- d) ensuring that the stations concerned take action when a fault occurs, and controlling the various tests or investigations necessary in clearing the fault. It must be possible to report faults discovered at any time of the day or night;
- e) informing the circuit control station of any condition which might affect the operation of the circuits under its control;
- f) seeking the authority of the circuit control station for any action which will take a circuit, or circuits, out of service;
- g) knowing what are the possibilities of rerouting any faulty groups, supergroups, etc.;
- h) recording, on forms provided for the purpose, all incidents which arise, giving the time of occurrence of the incident, the exact location if known, the action taken if any, and the time of restoration to service.

4.3 Thus, for technical purposes (maintenance, lining-up) the control function for digital paths, groups, supergroups, mastergroups, supermastergroups and regulated line sections are divided between the two directions of transmission, the station at the incoming end being the control station in each case. However, it is considered desirable to have a single routing form for each, giving information about both directions of transmission, and in order that this and similar documentation may be prepared and distributed on a methodical basis, these documentary functions shall be added to the responsibilities of one of the control stations, this *control station for documentary purposes* being chosen by agreement between the Administrations concerned.

References

- [1] CCITT Recommendation *Circuit control station for leased and special circuits*, Vol. IV, Rec. M.1012.
- [2] CCITT Recommendation *Definitions for application to international sound-programme transmissions*, Vol. IV, Rec. N.1.
- [3] CCITT Recommendation *Control and subcontrol stations for sound-programme circuits, connections, etc.*, Vol. IV, Rec. N.5.
- [4] CCITT Recommendation *Organization, responsibilities and functions of control and sub-control ITCs and control and sub-control stations for international television connections, links, circuits and circuit sections*, Vol. IV, Rec. N.55.