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THE INTERNATIONAL
TELEGRAPH AND TELEPHONE
CONSULTATIVE COMMITTEE

SERIES M: MAINTENANCE OF INTERNATIONAL TELEGRAPH, PHOTOTELEGRAPH AND LEASED CIRCUITS

MAINTENANCE OF THE INTERNATIONAL PUBLIC TELEPHONE NETWORK

MAINTENANCE OF MARITIME SATELLITE AND DATA TRANSMISSION SYSTEMS

Maritime systems

FUNCTIONS, MAINTENANCE RESPONSIBILITIES AND MAINTENANCE FACILITIES OF A COAST EARTH STATION FOR TELEPHONY SERVICES

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NOTES

1 CCITT Recommendation M.1120 was published in Fascicle IV.2 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 M.1120

FUNCTIONS, MAINTENANCE RESPONSIBILITIES AND MAINTENANCE FACILITIES OF A COAST EARTH STATION FOR TELEPHONY SERVICES

1 General functions

A coast earth station will include the following basic functions:

- the provision of reliable communications with ship earth stations in the basic telephony modes (other services provided by maritime satellite networks are not addressed in this Recommendation);
- the provision of an interworking point between the international public switched telephone network signalling systems and the maritime satellite signalling system;
- the commissioning and testing of ship earth stations within the maritime satellite system as requested by the operations control centre (OCC). (See Recommendation M.1110.);
- the handling of safety and distress services;
- the maintenance of a list of ship earth stations authorized to have access to the system;
- the collection of data to assist managerial functions, e.g. accounting, traffic records.

2 Maintenance responsibilities

The general maintenance aspects of maritime satellite systems are contained in Recommendation M.1100.

2.1 *Coast earth station*

A coast earth station is responsible for the following functions defined in the Series M Recommendations:

- fault report point (circuit) (see Recommendation M.715 [1]);
- testing point (transmission) (see Recommendation M.717 [2]);
- testing point (line signalling) (see Recommendation M.718 [3]);
- testing point (switching and inter-register signalling) if applicable (see Recommendation M.719 [4]).

These responsibilities apply to both the maritime satellite system and the public switched telephone network.

2.2 *Circuit control and sub-control stations*

In all cases the control station responsibilities given in Recommendation M.723 [5] shall be assigned to a coast earth station for maritime satellite circuits. Although the ship earth station is a customer's installation, it may act as a sub-control station with responsibilities to the coast earth station (see Recommendation M.1100 § 6.1).

2.3 *Advice of ship earth station fault conditions*

A coast earth station shall be responsible for advising the appropriate maintenance point within the maritime satellite network of fault conditions suspected to be located at a ship earth station and which affect the Maritime Satellite Service.

3 Test facilities

3.1 *Access points*

Test access points shall be provided at a coast earth station, and should desirably include all those described in Recommendation M.1100, i.e. points C, D, E and G in Figure 1/M.1100.

3.2 *Test facilities for the maritime satellite circuit*

3.2.1 *Test equipment requirements*

Test equipment is required at a coast earth station to permit:

– tracing of faults in the coast earth station equipment;

– checking of transmission characteristics of maritime satellite circuits;

– testing of maritime signalling procedures;

– testing of channel assignment procedures.

In many cases the test equipment may be manually connected.

3.2.2 *Coast earth station test position* (see Figure 1/M.1100)

Each coast earth station shall contain a test position that can be used to originate test calls over the maritime satellite system to the maritime test terminal and to receive calls from the maritime test terminal. It should be equipped to perform the tests listed in § 3.2.1.

3.2.3 *Maritime test terminal (MTT)* (see Figure 1/M.1100)

It is a requirement that each coast earth station shall be provided with a maritime test terminal which includes similar facilities to a normal ship earth station. It may be used to originate test calls to, and to receive test calls from, the coast earth station test position via a maritime satellite circuit, as well as originating test calls into the terrestrial network. It should also be equipped to perform the tests listed in § 3.2.1.

3.2.4 *Automatic test facilities*

a) When a switch is included at the coast earth station, test lines as defined in Recommendation O.11[1)] [6] should be provided at the coast earth station for access by ship earth station via maritime satellite circuits.

b) When a switch is not included at the coast earth station, test lines as defined in Recommendation O.11 [6] are desirable at the international switching centre to which a ship earth station may gain access.

3.3 *Test facilities for circuits to the international switching centre*

The test facilities should be provided in accordance with Series M and O Recommendations, and may be accessible from the international switching centre through the coast earth station test position.

4 Telecommunication facilities for maintenance purposes

For further study.

References

[1] CCITT Recommendation *Fault report point (circuit)*, Vol. IV, Rec. M.715.

[2] CCITT Recommendation *Testing point (transmission)*, Vol. IV, Rec. M.717.

[3] CCITT Recommendation *Testing point (line signalling)*, Vol. IV, Rec. M.718.

[4] CCITT Recommendation *Testing point (switching and interregister signalling)*, Vol. IV, Rec. M.719.

[5] CCITT Recommendation *Circuit control station*, Vol. IV, Rec. M.723.

[6] CCITT Recommendation *Maintenance access lines*, Vol. IV, Rec. O.11.

1) Test lines as defined in Recommendation O.11 [6] may be limited to the quiet termination test line and the loop-around test line.

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