

SHORT-HAUL RADIO FACILITIES CONTROL OFFICE RESPONSIBILITIES

1. GENERAL

1.01 This section specifies the operating and maintenance responsibilities of offices associated with the control of short-haul radio facilities. It conforms to the concept of receive end controls.

1.02 Long-haul microwave radio control office responsibilities are covered in Section 660-095-915PT.

1.03 A short-haul radio facility is generally defined as a base-band system consisting of one or more radio links with the repeaters, which are composed of terminals, connected through back-to-back at base-band frequency.

1.04 Control offices are selected as outlined in Section 660-095-918PT. Control office responsibilities covered here involve the following type of offices:

- Radio section control office
- Switching section control office
- Maintenance center office
- Alarm center office

2. BASIC REQUIREMENTS FOR CONTROL OFFICES

2.01 Radio control office assignments are based on the ability of an office to fulfill maintenance control functions. The responsibilities of maintenance control cannot be relinquished by the control office regardless of its hours of coverage. Partially attended control offices may delegate to the alarm center those operations which it cannot perform during certain specific hours. These generally will consist of items such as switching operations, giving releases, etc.

3. RESPONSIBILITIES

3.01 Each control office must assume full responsibility for the proper operation and performance of its assigned section or sections, within BSP requirements. This includes the proper operation and performance of the associated protection switching system. A method for keeping fully informed of the section performance must be available and appropriate action must be taken whenever indicators demonstrate sub-standard performance.

3.02 The control office sectionalizes and directs the clearance of trouble which impairs proper operation of the controlled facility.

Radio Section Control Office

3.03 The radio section control office:

- (a) Maintains continuity and corrects transmission levels.
- (b) Schedules and performs prescribed periodic overall tests. On video facilities the radio section control office is responsible for scheduling and performing these transmission tests on all facilities connecting within the controlled radio section.
- (c) Localizes troubles and refers to the switching section control office. Follows progress closely for prompt clearance.
- (d) Obtains releases from the message and television control groups, as required, for overall tests. On television channels, when possible, blanket releases should be granted to switching section control offices for routine maintenance.
- (e) Performs initial overall tests on new facilities. Coordinates these tests with the switching section control offices in the controlled radio section. Also advises them of the service assigned and the effective service date.

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(f) Maintains appropriate records of troubles and conditions which might affect operation of the radio facility.

(g) Analyzes reports from service control groups to determine if unsatisfactory radio conditions are causing service difficulties and initiate corrective action.

3.04 Radio Relay Station Information, Form P 2721 (Exhibit 1), is for the specific purpose of listing the switching section control offices along the controlled facility. The form serves as a reference on contacts, telephone numbers, coverage, etc.

Switching Section Control Office

3.05 The switching section control office:

- (a) Maintains continuity and corrects transmission levels.
- (b) Maintains continuity of the protection system. This includes controlling use of the protection channels to assure the continuity of service.
- (c) Schedules and executes prescribed periodic overall tests in the controlled section.
- (d) Cooperates with maintenance centers to establish uniform release periods for routine maintenance.
- (e) Performs initial overall switching section tests on new radio channels.
- (f) Maintains appropriate records of troubles and conditions which might affect operation of the radio facilities.
- (g) Localizes troubles and closely follows progress for prompt clearance on all channels.
- (h) Notifies maintenance centers of the effective service date of new facilities.
- (i) Provides releases on channels for trouble clearance and routine maintenance. Routine releases on channels should not be granted if, in the opinion of the control office, threatening conditions might preclude the use of the protection channels.

3.06 Record of Radio Relay Releases, Form P 2722 (Exhibit 2), is used to record the releases of a facility. Trouble conditions and the action which has been taken can also be recorded on this form.

3.07 Radio Relay Station Information, Form P 2721 (Exhibit 1), is for the specific purpose of listing the radio stations along the controlled facility. The form serves as a reference on contacts, telephone numbers, coverage, etc.

3.08 Releases shall be given on facilities which carry VF lines, automatic switching, alarm circuits, order wires, etc., used for the operation of microwave radio channels only when the continuity of service of the microwave radio channels is assured.

Maintenance Center Office

3.09 The maintenance center office:

- (a) Performs preventive maintenance routines and clears troubles.
- (b) Receives reports on conditions concerning or relating to stations in the maintenance territory.
- (c) Keeps the switching section control and alarm center offices advised of any conditions which might affect the operation of a radio facility.
- (d) Must be capable of assisting in locating any system troubles that may exist, in addition to maintaining the assigned radio equipment in the section. Personnel, therefore, should have a full understanding of overall system operation and be aware of those conditions which can contribute to service impairments.
- (e) Must act promptly to clear any reported trouble or to take precautionary measures whenever there is an indication of a threatening condition. Any switching section control or alarm center office reporting a faulty condition must be informed at reasonable intervals about the progress being made to clear the trouble. Some maintenance jobs, that are the basic responsibility of the maintenance center, may be performed by the alarm center when they can best be done by that office, e.g., initiating engine runs.

3.10 When transmitting orders to any station to execute an operation, such as channel lock-out, switching, etc., proper timing of the order to be sent is essential so that a false or incomplete condition is not created.

3.11 Radio Relay Station Information, Form P 2721 (Exhibit 1), can be used for listing the radio section control and the switching section control offices for the maintained territory. This form serves as a reference on contacts, telephone numbers, coverage, etc.

3.12 Work on radio repeater equipment should be planned so that emergency restoration can be accomplished as soon as possible. Radio stations should not be left unattended while channels are not available for service. If this cannot be avoided, the alarm center must be notified before leaving and immediately upon return.

3.13 Loudspeakers should be in operation on radio order circuits (ROC) at auxiliary stations while channels are released for maintenance, to provide means of fast communications in case of failures.

3.14 Requests for channel releases shall only be referred to by "R Unit" numbers. The R Unit is the only authorized designation of radio channel equipment in a repeater station.

Alarm Center Office

3.15 Alarm center personnel should have a comprehensive understanding of the alarm system. They should understand the various alarm conditions that can occur at a radio station as well as the result and action required.

3.16 The alarm center office:

- (a) Responds to all alarms promptly. Analyzes these to the limit of the facilities provided, and restores continuity when possible.
- (b) Refers all available details on alarms or corrective action to the maintenance center office and the appropriate switching section control office. Alarm conditions which are not associated with the radio relay facilities need only be referred to the maintenance center.
- (c) Assists the radio section control and the maintenance center offices, as requested.
- (d) Obtains releases for routine or trouble work, as required, and as authorized by the appropriate switching section control office.
- (e) Maintains a record of all alarms, conditions indicated, and the action taken. Periodically checks alarms and follows through to clearance.

3.17 Radio Relay Station Information, Form P 2721 (Exhibit 1), can be used for listing the maintenance center offices along the alarm route. The form serves as a reference on contacts, telephone numbers, coverage, etc.

4. RADIO CHANNEL RELEASE PROCEDURES

4.01 Local instructions should be developed to provide the proper radio channel release procedures which will protect service at all times.

