

TERMINATING MARKER ALARM ROUTINE NO. 1 CROSSBAR OFFICES

1. GENERAL

- 1.01 This section covers the procedure to be followed in response to terminating marker alarms.
- 1.02 When a terminating marker fails to perform its functions within its time allowance it times out and summons the terminating trouble indicator in order that a record of the trouble may be obtained.
- 1.03 After this the sender is given a trouble release signal through the marker connector. The sender releases the marker connector after which the marker is returned to normal.
- 1.04 When the marker has timed out and failed in any of the following functions: (1) to summon the trouble indicator, (2) to send a trouble release signal to the sender after successfully summoning the trouble indicator, (3) to restore to normal after sending the trouble release signal to the sender, or (4) if (X) relay is permanently operated, then after an interval of approximately 1.3 seconds the marker time alarm operates giving the following indications of the condition:
- (a) The TA lamp lights on the marker frame.
 - (b) The DT lamp lights on the trouble indicator frame.
 - (c) The aisle pilot green lamp lights to indicate the aisle in which the trouble indicator giving the alarm is located.
 - (d) The major alarm is started.
- 1.05 The operation of the marker time alarm places a ground on the trouble release lead to effect the release of the marker in case the failure to release was due to a trouble in the marker which prevented the grounding of this lead.
- 1.06 The marker has numerous (X) relays for detecting false grounds or crosses on many of the leads over which connections are made to associated circuits. These relays operate the (X) relay which grounds the "TM" and "DB" leads after a time interval summoning the trouble indicator and making the marker test busy to all marker connector circuits.
- 1.07 The normal time out interval from the time the marker is seized until the

time alarm is operated is approximately 11.4 seconds. If the normal time out feature fails to function or the "DB" lead becomes grounded falsely the long time out feature functions to bring in the marker alarm after a period of 28 to 58 seconds.

- 1.08 As the marker alarm indicates that the marker may be held out of service by a ground on the "DB" lead such alarms should be given prompt attention in order that traffic delay due to a lack of available markers may be avoided.

2. APPARATUS

- 2.01 One No. 275A (make busy) plug.

3. METHOD

- 3.01 If, in response to a major alarm, a lighted DT lamp on the terminating trouble indicator frame is found then a TA lamp on a marker frame will be lighted. Go to the marker frame having the lighted TA lamp.

- 3.02 Observe which of the (TM1) to (TM9) relays are operated. If only the (TM8) and (TM9) relays are operated and the "TM" lead at the No. 2 lower spring of the (TMS1) relay is not grounded, it is an indication that the "DB" lead is falsely grounded. This ground must be removed to restore the marker to service.

- 3.03 If there is a ground on the "TM" lead and any of the (TM1) to (TM7) relays are unoperated, the operating paths for these relays are probably in trouble and should be cleared.

- 3.04 If any of the following combinations of relays - (TM1) to (TM7), (TM1) to (TM9), (TM4) to (TM7), or (TM4) to (TM9) are operated, it may be an indication that some of the following conditions are the cause of the trouble:

- (1) Open "TRL" lead through the marker connector to the sender.
- (2) False ground on the "CKG" lead through the marker connector.
- (3) False ground on the "TM" lead in the marker.

- 3.05 If the trouble is due to an open "TRL" lead or a grounded "CKG" lead the marker connector will remain associated with the marker involved and will usually give a marker connector alarm. The marker connector

may be identified by the marker connector alarm and CT lamp or by the trouble indicator lamps if that frame had been seized by the marker.

3.06 If the trouble is in the marker connector or sender, make the circuit busy in the approved manner and release the other equipment as soon as possible.

3.07 If the trouble is located in the terminating marker and if it is of such a nature that it cannot be cleared immediately and without causing interference make the marker busy by placing a No. 275A plug in the associated (DB) jack located on terminating trouble indicator frame.

4. REPORTS

4.01 The required record of these alarms should be entered on the proper form.