OUTGOING TRUNKS TO STEP-BY-STEP "A" SWITCHBOARDS

1. GENERAL

1.01 This section covers the detailed methods to be followed in making transmission tests on outgoing trunks from a step-by-step office to step-by-step "A" switchboards.

1.02 Information covered in this section of practices is outlined in the following table.

1.03 Reference should be made to Section K20.01 for general testing methods and to Section K20.11 for general testing apparatus requirements.

2. SPECIAL SERVICE TRUNKS

(a) To Centralized "A" Switchboards

2.01 These circuits are tested at the outgoing step-by-step office by the loop method during a period of light traffic load and the loops are established at the centralized "A" switchboard by means of a special service operator's cord circuit.

2.02 At the outgoing office the circuits are completed to the transmission measuring set from the test jacks of the associated trunk repeaters.

2.03 Figure 1 shows schematically the connections for the test.

Preliminary Connections

2.04 Provide three regular double ended patching cords equipped with 110 type plugs and two No. P3C cords each equipped with a No. 110 plug and a No. 240-A plug (No. 4 terminal open).

2.05 Connect the TMS and TMR jacks of the auxiliary test unit respectively to the sending and receiving jacks of the transmission measuring set using two regular patching cords.

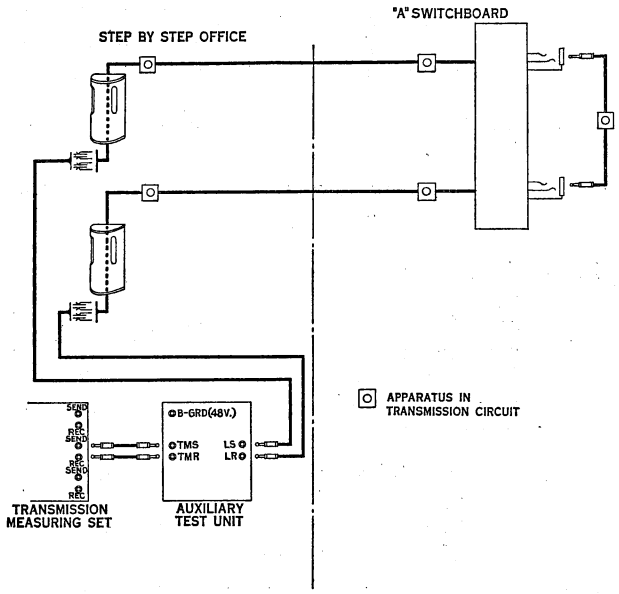

Figure 1

2.06 Connect the B-GRD (48V) jack of the auxiliary test unit to 48 volt battery and ground (battery on tip and ground on sleeve) using a regular patching cord.

Note: This battery and ground may be obtained from any source convenient to the location of the testing apparatus, preferably a nearby BATT jack.

2.07 Insert the No. 110 plugs of the two No. P3C cords in the LS and LR jacks of the auxiliary test unit.

2.08 Establish a talking circuit with an assistant tester at the "A" switchboard.

Testing Procedure

2.09 Operate the following keys of the auxiliary test unit to the positions specified. Keys not mentioned should remain in the normal position.

Key 1 to OPEN	Key 5 to BATT
Key 2 to OPEN	Key 6 to BATT
Key 3 to MET	Key 12 to SL
Key 4 to MET	

2.10 Insert the No. 240-A plug of the No. P3C cord connected to the LS jack of the auxiliary test unit into the test jack of a repeater associated with a trunk to be tested.

2.11 If the sleeve lamp of the auxiliary test unit associated with the LS jack does not light

(indicating that the trunk is idle) advise the assistant tester of the trunk number so that he may be prepared to receive the trunk signal at the "A" switchboard.

Note: If the lamp lights (indicating that the trunk is busy) remove the plug and repeat until an idle trunk is found.

2.12 Operate key 1 of the auxiliary test unit to HOLD.

Note: This will bring in the trunk signal at the "A" switchboard.

2.13 As soon as the signal appears at the "A" switchboard, the assistant tester should insert the plug (answering cord) of a special service operator's cord circuit in the trunk jack and operate the associated listening key to the talking position to stop the flashing recall signal.

Note: The assistant tester will have to use some discretion before connecting to the trunk as the signal may be that of a regular call.

2.14 Insert the No. 240-A plug of the No. P3C cord connected to the LR jack of the auxiliary test unit into the test jack of a repeater associated with another trunk to be tested.

2.15 If the sleeve lamp of the auxiliary test unit associated with the LR jack does not light (indicating that the trunk is idle) advise the assistant tester of the trunk number so that he may be prepared to receive the trunk signal at the "A" switchboard.

Note: If the lamp lights (indicating that the trunk is busy) remove the plug and repeat until an idle trunk is found.

2.16 Operate key 2 of the auxiliary test unit to HOLD.

Note: This will bring in the trunk signal at the "A" switchboard.

2.17 As soon as the signal appears at the "A" switchboard, the assistant tester should insert the calling cord of the special operator's cord circuit (the answering cord of which was inserted in the trunk chosen in paragraph 2.13 above) in the trunk jack.

Note: The assistant tester will have to use some discretion before connecting to the trunk as the signal may be that of a regular call.

2.18 Measure the transmission loss.

Note: This will be the loss of two trunk circuits and the looping cord circuit.

2.19 Measure the current supply from the repeater associated with the trunk connected to the LR jack of the auxiliary test unit while depressing key 10 to remove the holding bridge from the circuit.

2.20 Measure the current supply from the repeater associated with the trunk connected to the LS jack of the auxiliary test unit while depressing key 9 to remove the holding bridge from the circuit.

2.21 Disconnect one trunk by operating key 1 or key 2 (as the case may be) of the auxiliary test unit to OPEN and have the plug of the looping cord circuit removed from the trunk jack at the "A" switchboard.

Note: Upon the operation of key 1 or key 2 to OPEN, the assistant tester will receive a disconnect signal.

2.22 Repeat the above testing procedure to determine the transmission loss of a trunk to be used as a standard or test trunk and set it up as outlined in paragraphs 2.09 to 2.13 inclusive.

2.23 Proceed with the tests as outlined in paragraphs 2.14 to 2.22 inclusive, omitting paragraph 2.20, for the remaining trunks of the group.

2.24 When all of the trunks in the group have been tested, disconnect the standard trunk by operating key 1 of the auxiliary test unit to OPEN and have the cord removed at the "A" switchboard.

Note: Upon the operation of the auxiliary test unit key, the assistant tester will receive a disconnect signal.

(b) To Non-centralized "A" Switchboards

2.25 These circuits have no equipment in the transmission circuit and do not require transmission tests.

3. TO RURAL OPERATORS AT "A" SWITCHBOARDS

3.01 These circuits are tested in the same manner as "Special Service Trunks to Centralized "A" Switchboards" the method for which is covered in paragraphs 2.01 to 2.24 inclusive.