HANDLING CUSTOMER TROUBLE REPORTS
ON DATA-PHONE SERVICES

1. GENERAL

1.01 This section covers the handling of trouble reports on DATA-PHONE Service. It includes detailed information about the testing and disposition of DATA-PHONE Service trouble reports requiring assistance from 904-type Data Test Centers (DTC). It also includes a description of DATA-PHONE Service.

1.02 Section 660-002-010 contains a list of Data Test Centers. Data Test Centers are listed by Company and location. Coverage and access telephone numbers are shown for each location.

2. DATA-PHONE SERVICE — DESCRIPTION

2.01 DATA-PHONE Service provides a means of transmitting data using local and DDD switching facilities. Calls are completed in the same manner as regular telephone calls. DATA-PHONE Service permits the customer to dial the desired number; the called party answers and the calling party states he is ready to send or receive data. Both parties can change mode of operation from voice to data by operating push-buttons or keys, built into or associated with the data set. Upon completion of transmission, both parties may either hang up or return to voice mode.

2.02 An unattended operation feature is available which permits the calling party to receive a tone over the circuit indicating that the distant end data set is in unattended mode and ready to receive or transmit data. At the end of the transmission, the distant end data set is automatically disconnected.

2.03 DATA-PHONE data sets may be used with customer or Company-owned business machines, including teletypewriters.

2.04 Except for sets of early manufacture, data sets are equipped with a loop-back test feature which permits a test, with the assistance of the customer to the interface (demarcation) between the Company data set and the customer's business machine. This provides a means for remote testing by the DTC to sectionalize trouble between the data sets and the business machine. No means are provided for the testing of the customer-owned equipment. However, Company-owned terminal equipment such as Data-Speed or teletypewriter can be tested.

3. SERVING PLANT SERVICE CENTER

3.01 For the purpose of this section, the Plant Service Center (PSC) for the DATA-PHONE data set is the one responsible for the originating central office equipment of the number reported. This shall be designated as the Serving Plant Service Center (SPSC). *It shall assume full responsibility for the customer's service.* If a centralized PSC has been established specifically to handle customer trouble reports on data services, such a PSC (DATA) becomes the SPSC *and assumes full responsibility for the customer's service.*

4. RECORDING REPORTS AND MEASURING SERVICE

4.01 Trouble reports are classified as customer trouble reports according to the class of service with which the DATA-PHONE equipment is associated, and will be recorded on edge sort trouble tickets, Form E-4732-1 or E-4732-2.

4.02 The features of the "Customer Trouble Report Analysis Plan" as described in other Bell System Practices will apply to trouble reports on DATA-PHONE Services.

5. INVESTIGATING TROUBLE REPORTS

5.01 *It is of utmost importance that all trouble reports on DATA-PHONE Services be given special handling in order to effect prompt restoration of service.*

5.02 The DATA-PHONE Service customer has been instructed to call the local telephone repair service for assistance whenever he en-

counters data transmission trouble. In no case should the customer report troubles directly to the DTC. If regular tests show the line and telephone to be clear, and trouble is indicated in the station data equipment, the report should be referred to the DTC. Each referred report must include the customer's telephone number and any pertinent information which will enable the DTC to test and analyze the report. The DTC will make further tests to determine whether a station visit is warranted. If it is necessary to dispatch a craftsman, the DTC will request the SPSC to do so. The craftsman will then work with the DTC to clear equipment trouble at the station, or assist in making additional tests as required. He may request his SPSC to initiate operational tests requiring the assistance of the DDD Service Bureau, Switching Offices, and Toll Testboards in clearing network data transmission troubles.

5.03 After the service is restored to the customer, and the craftsman is released by the DTC, the craftsman will report to the SPSC and give the information necessary to close out the report.

5.04 Where a centralized PSC (DATA) has been established to handle customer reports on DATA-PHONE Service, local instructions will govern the procedure used to investigate such reports.

5.05 DATA-PHONE Service trouble reports referred to other local offices, the "back-up" test center, or the DTC will be held open at the SPSC until the trouble has been cleared, or until it is decided the trouble has disappeared and no further investigation is warranted.

5.06 If analysis of the trouble indicates that the trouble is in the DDD network beyond the local switching equipment, the report will be referred to the DDD Service Bureau for starting hold and trace procedures. After the required action has been taken, the SPSC will close out the report as Referred Out (Disposition Code 0).

5.07 If analysis of the report indicates that the trouble is in far-end plant, the trouble will be referred via the (near end) DTC to the far end DTC. The SPSC will close the report as Referred Out (Disposition Code 0).

5.08 In some cases, the ability to reach another DATA-PHONE Service customer will be of utmost importance to the reporting customer. He may want to know when the trouble will be cleared on the called party. In these cases, arrangements should be made to furnish disposition information to the reporting customer as quickly as possible.

6. DATA TROUBLE REPORT PROCEDURES

6.01 Attachment 1 with its accompanying notes shows the manner in which typical near-end and far-end trouble can be handled. Attachment 2 shows the handling of typical network troubles.

Attached:

Attachment 1
Attachment 2

NOTES ON ATTACHMENT 1

NEAR-END TROUBLE

1. The customer reports data transmission trouble to the SPSC.
2. The SPSC tests the loop OK and refers the trouble report to the DTC.
3. The DTC tests indicate the data set is defective.
4. The trouble is referred back to the SPSC with a request to have a craftsman dispatched.
5. The craftsman replaces the data set and tests the new set with the DTC.
6. After observing that the customer is able to resume saisfactory service, the craftsman closes out the trouble report with the SPSC.
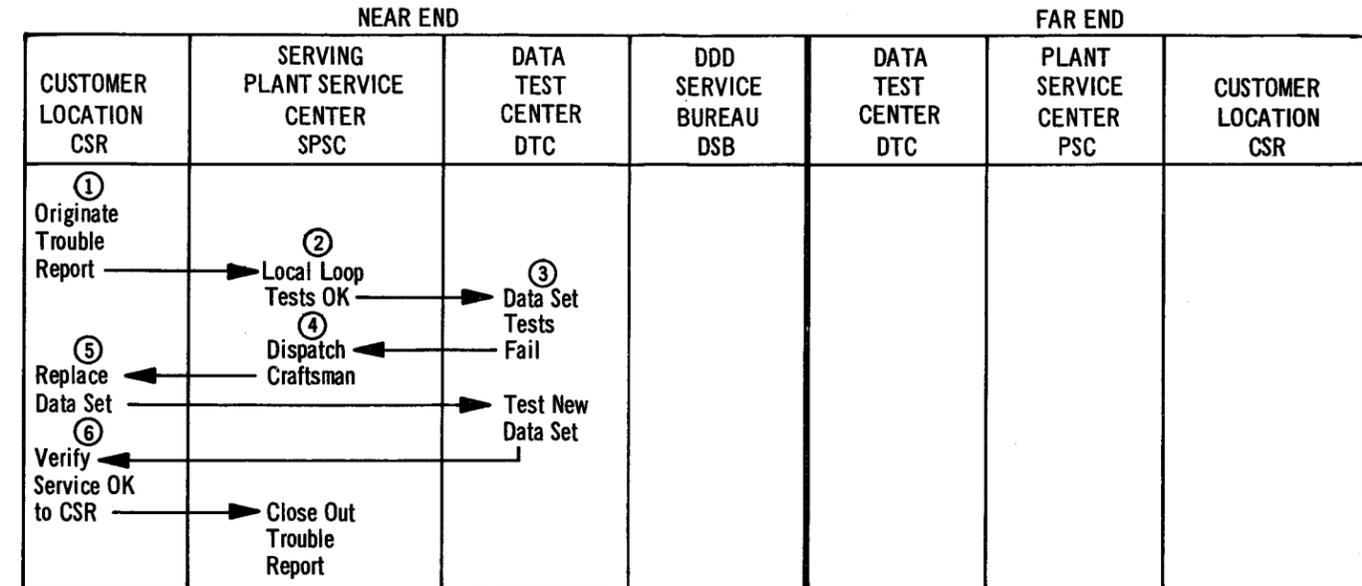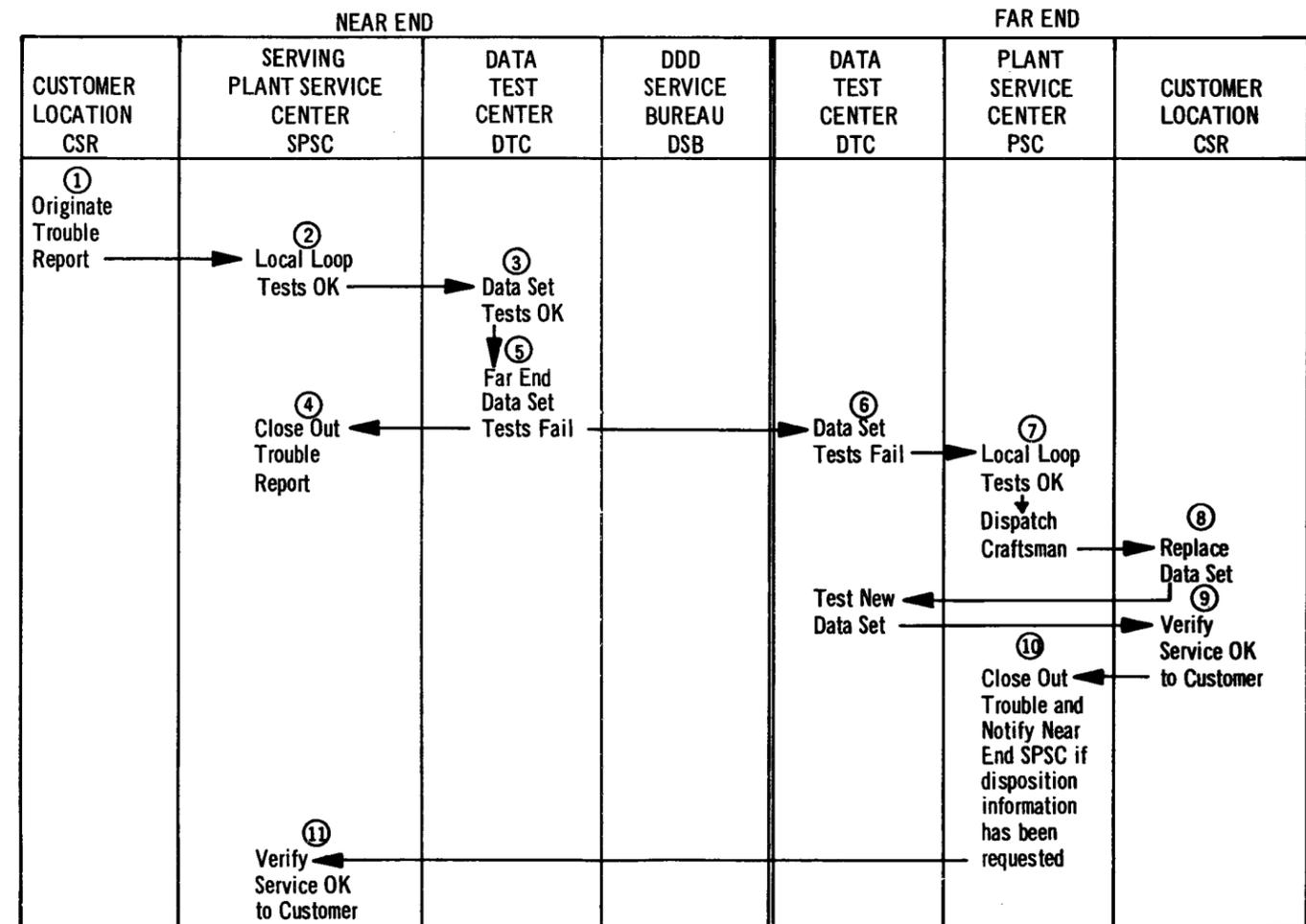
FAR-END TROUBLE

1. The near-end customer reports data transmission trouble to the SPSC.
2. The SPSC tests the loop OK and refers the trouble report to the DTC.
3. The DTC tests the near-end data set OK, but tests of the far-end data set fail.
4. The DTC notifies the SPSC that the trouble is far end. The SPSC closes the trouble report as Referred Out (Disposition Code 0). The original trouble report must be held in a pending file if the customer has requested that he be notified when the trouble has been cleared.
5. The near-end DTC refers the trouble report to the far-end DTC. When required, furnish the near-end SPSC telephone number to the far-end DTC in order that disposition information can be given to the near-end customer.
6. The far-end DTC data set test fails.
7. Far-end DTC refers the trouble to his PSC for loop test and dispatch of a craftsman.
8. The craftsman replaces the data set and tests it with the far-end DTC.
9. After observing that the customer is able to resume satisfactory service the craftsman closes out the trouble report with his (far-end) PSC.
10. If disposition information has been requested, near-end SPSC is notified by the far-end PSC that trouble has been cleared.
11. Near-end SPSC verifies that service is satisfactory to customer.

PROCEDURE FOR HANDLING TROUBLE REPORTS ON DATA-PHONE SERVICES
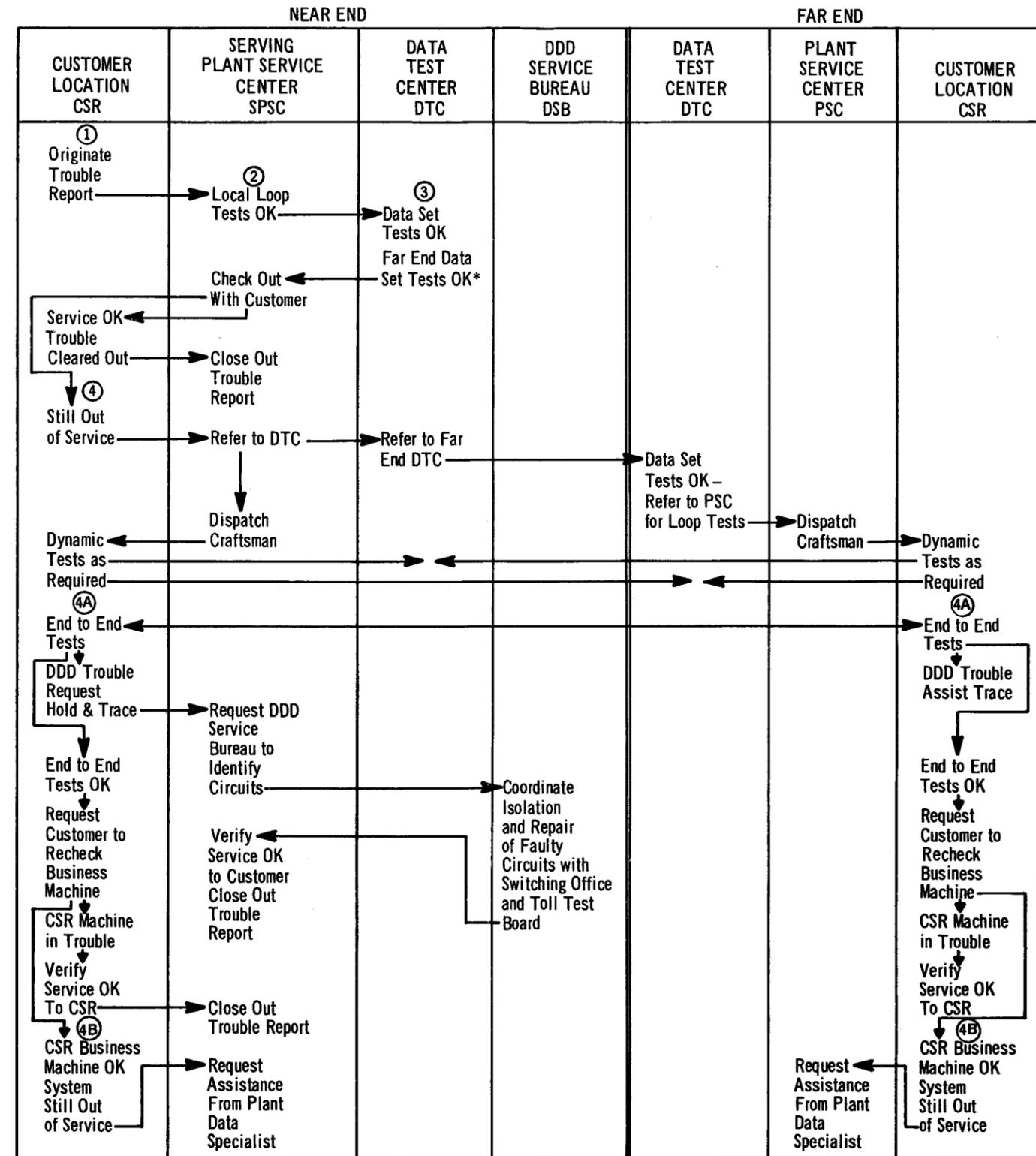
NEAR END TROUBLE

FAR END TROUBLE

NOTES ON ATTACHMENT 2
DDD NETWORK TROUBLE

1. The customer reports data transmission trouble to the SPSC.

2. The SPSC tests the loop OK and refers the trouble report to the DTC.

3. The DTC tests the near-end and far-end data sets OK and refers this information back to the SPSC.

4. If further check with the customer reveals that the trouble condition still persists, the near-end SPSC dispatches a craftsman to make end-to-end tests. At the same time he arranges with the (near-end) DTC to have a craftsman dispatched at the far-end.

   (a) If end-to-end tests indicate trouble exists in the transmission facilities, and near-end and far-end local facilities and switching equipment check OK, near-end SPSC requests the DDD Service Bureau to institute hold and trace procedures to identify the circuits or circuit groups involved. Hold trouble report open until disposition is available.

   (b) If end-to-end tests are OK and a recheck of the customer's business machines indicates they are OK, but the system is still out of service, request assistance of the Plant Data Specialist via lines of organization. Hold trouble report open until disposition is available.

PROCEDURE FOR HANDLING TROUBLE REPORTS ON DATA-PHONE SERVICES
DDD NETWORK TROUBLE

	NEAR END				FAR END	
CUSTOMER LOCATION CSR	SERVING PLANT SERVICE CENTER SPSC	DATA TEST CENTER DTC	DDD SERVICE BUREAU DSB	DATA TEST CENTER DTC	PLANT SERVICE CENTER PSC	CUSTOMER LOCATION CSR
① Originate Trouble Report	② Local Loop Tests OK	③ Data Set Tests OK / Far End Data Set Tests OK*				
	Check Out With Customer					
Service OK Trouble Cleared Out	Close Out Trouble Report					
④ Still Out of Service	Refer to DTC	Refer to Far End DTC		Data Set Tests OK – Refer to PSC for Loop Tests	Dispatch Craftsman	
	Dispatch Craftsman					
Dynamic Tests as Required						Dynamic Tests as Required
④A End to End Tests						④A End to End Tests
DDD Trouble Request Hold & Trace	Request DDD Service Bureau to Identify Circuits		Coordinate Isolation and Repair of Faulty Circuits with Switching Office and Toll Test Board			DDD Trouble Assist Trace
End to End Tests OK						End to End Tests OK
Request Customer to Recheck Business Machine	Verify Service OK to Customer Close Out Trouble Report					Request Customer to Recheck Business Machine
CSR Machine in Trouble						CSR Machine in Trouble
Verify Service OK To CSR	Close Out Trouble Report					Verify Service OK To CSR
④B CSR Business Machine OK System Still Out of Service	Request Assistance From Plant Data Specialist				Request Assistance From Plant Data Specialist	④B CSR Business Machine OK System Still Out of Service

*May require test by Far End DTC