

RADIO EQUIPMENT
ACCEPTANCE TEST PLAN

1. GENERAL

1.01 This section lists the acceptance procedures and methods for making acceptance tests in connection with the installation, rearrangement, or modification of all radio equipment.

1.02 The general philosophy of acceptance test planning for central office and PBX equipment as detailed in Section 200-002-010 should be understood before proceeding with this instruction.

1.03 The acceptance test plan for the power complex is found in Section 200-002-711. The power complex must be tested prior to performing acceptance tests for radio equipment.

2. FORMS FOR RADIO EQUIPMENT ACCEPTANCE

2.01 The various forms necessary to control and document the acceptance testing of radio equipment are listed in this part. Reference should be made to Section 200-002-700 for details on completion of the designated forms.

2.02 The following forms will be used when acceptance testing radio equipment:

- (a) S 6140 Equipment Summary
- (b) S 6141 Plant Inspection - Superstructure (If required)
- (c) S 6147 Plant Inspection - Cabling and Signal Wire (If required)
- (d)" S 6154 Plant Inspection Radio Equipment
- (e)" B-763 (Lenkurt) Microwave Radio Test Record
- (f)" Typical Radio Station Technical Log
- (g) S 6150 Formal Acceptance Summary
- (h) Special forms as may be required and supplied by the manufacturer, S 6151

2.03 Form B-763 should be ordered from GTE Lenkurt Incorporated (Exhibit 1).

3. ADMINISTRATIVE PROCEDURES

3.01 Physical inspection and functional testing may be started at any time during the installation provided that subsequent installation or line-up work will not change the test results.

3.02 An equipment summary, Form S 6140, will be prepared for each work order using the information provided by the Acceptance Test Coordinator/Project Engineer to complete the summary.

3.03 Any work performed on a radio transmitter must be logged in a Radio Station Technical Log (Exhibit 2) as required by the Federal Communications Commission (FCC) and covered in Section 640-800-015.

4. REFERENCE MATERIAL

4.01 Refer to Table 1 for routines that must be performed during acceptance testing of radio equipment. Acceptance test routines for the equipment being installed, modified, or rearranged will be performed as part of the acceptance program. The table headings and subordinate information for each routine is contained in the Equipment and Test Routine Title Column. The titles are arranged in alphabetical sequence for each type of test category. The Section Number column identifies the GTE Practice that includes the test procedures to be performed. The Unit column identifies a unit of equipment that must be tested. For example, terminal equipment must be tested per Section 394-572-510, the Unit column abbreviation being 1 /SYS or one routine per system.

4.02 Unless otherwise specified, all equipment should meet the requirements of Section 200-025-100, System and Equipment, General Performance Requirements and Definitions, insofar as those requirements apply.

4.03 The detailed technical information required for performance of the acceptance tests will be found in the GTE Practices section assigned to the system being installed. On equipment types not covered by a GTE Practice, refer to the Instruction manual provided with the apparatus.

4.04 Technical documentation for radio and microwave systems is found in the following

- (a) Mobile Radio Systems
Division 391 of GTE Practices
- (b) GTE Lenkurt Radio and Microwave Systems
Division 394 of GTE Practices
- (c) Miscellaneous Radio Systems
Manufacturer Instruction Manual

4.05 Persons inspecting and accepting the radio equipment should refer to examples of the system-peculiar forms and completion instructions in Exhibits 1 through 3.

* These forms are peculiar only to radio systems; they are exhibited and explained in this section.

4.06 Following are completion instructions for Form B-763, Microwave Radio Test Record. Circled numbers on the exhibit correspond to numbers below.

1. Enter date tests are completed.
2. Enter project number.
3. Enter location of hop, i.e., from Shreveport To Panola.
4. Enter equipment list number.
5. Name of person performing tests.
6. Customer's name, i.e., GTSW.
7. Lenkurt equipment type designation, i.e., 70F1, 78A2.
8. Enter class of service, i.e., Industrial, Commercial, etc. . .
9. Enter mode of operation, i.e., SSBSC (message), Video, etc. . .
10. Hop Radio pilot frequency listed here, i.e., 1.499 MHz, 3.2 MHz, etc. . .
11. Enter power supply input voltage, i.e., 24VDC, 48 VDC, etc. . .
12. Check application of radio. If message, enter number of channels.
13. Enter white noise level, i.e., +9.8 dbm 0, +12.8 dbm 0 etc. . .
14. Check if radio is emphasized or not.
15. Enter frequency of program channel if video application.
16. Enter (1) Assigned frequency of transmitter, (2) Measured frequency of transmitter (AFC ON), and (3) Measured output power at transmitter.
17. Enter (1) Computed receive RF signal level, (2) Measured receive RF signal level, and (3) Threshold - point at which receiver mutes.
18. Enter transmit and receive impedance (75 ohms, 124 ohms) and transmit and receive level, i.e., -32 dbm xmit -12 dbm receive.
19. Enter HF and LF reference frequency, frequencies checked, and deviation from reference frequency.
20. Draw AGC curve here. Use solid line for A receiver and dashed line for B receiver.
21. Enter frequency of slots checked and idle and loaded noise measured message application only.
22. Enter video noise checks here.

MICROWAVE RADIO TEST RECORD

Date ①		Proj. No. ②		Location From: ③		to:			
E.L. No. ④		Tester ⑤		Customer ⑥					
Radio Type ⑦		Station Type ⑧		Mode of Operation ⑨		System Pilot ⑩	P. S. Input Voltage ⑪		
Application () Video ⑫ () Message () Ch		Noise Load + ⑬ dBm0		Emphasized (√) () Yes ⑭ () No		Program Channel Chan Freq ⑮ MHz			
⑯ TRANSMITTER DATA Frequency - MHz Power Ch Assigned Measured Output-dBm			⑰ RECEIVER DATA Receive RF Sig-dBm Threshold Ch Computed Actual dBm			⑱ BASEBAND DATA Impedance Level HF Ω LF HF LF			
A			A			Xmt			
B			B			Rec			
⑲ FREQUENCY RESPONSE (Deviation from reference frequency-dB) L. F. H. F. Ref Freq= Reference Frequency= kHz						⑳ "A" "B" AGC Meter Readings			
X	R								
M	E								
T	C								
A	A								
B	B								
COMB									
⑳ NOISE* H. F. L. F. () () () () () () () () () () () ()						Receiver Input Level-dB			
X	R								
M	E								
T	C								
A	A								
B	B								
COMB									
㉑ VIDEO S/N Ratio** Multiburst (Deviation from Reference -%) Video Differential White Sync Set Burst - MHz Window Ch Hum Weighted Phase Gain% Flag Pulse Up .5 1.5 2.0 3.0 3.6 4.2 %									
A									
B									
Miscellaneous Checks (√): Video Monitor () Program Channel () Clamper ()									

* Unit of Measure _____ . Fill in slot frequency (kHz).

I = Idle Noise, I+M = Idle Noise t Intermodulation Distortion.

** Unit of Measure _____

Installation Department

GTE Lenkurt Incorporated

6 763

RADIO STATION TECHNICAL LOG

TRANSMITTER:		ANTENNA:				
Location <u>JACKSON</u>		Control Office <u>JACKSON</u>				
Station Call Letters <u>KSN44</u>		Other Antennas <u>ALTA</u> <u>BASIL</u> <u>CASEY</u>				
Assigned Frequency <u>6339.2 MC</u>		Covered By This Log _____				
Date Time	Check One		Name and Address of Engineering Measurement Service	Class, Serial No., and Expiration, Date of Operator's License; and Signature	Antenna Location	Nature of Failure and/or Work Performed (See Note I for Antenna)
	TRBL.	ROUT.				
<u>6-14-74</u> <u>9:15 A.M.</u>				<u>P2-18-7000</u> <u>2-15-75</u> <u>E.R. STEVENS</u>		<u>CHECKED FREQUENCY AND MODULATOR OF "A" RADIO TRANSMITTER NO ADJUSTMENT REQUIRED</u>
<u>8-4-74</u> <u>9:32 A.M.</u>	<input checked="" type="checkbox"/>			<u>C. JONES</u>	<u>BASIL</u>	<u>FAILURE ALARM AT JACKSON OR BASIL TOWER</u>
<u>8-4-74</u> <u>9:50 A.M.</u>	<input checked="" type="checkbox"/>			<u>C. JONES</u>	<u>BASIL</u>	<u>FUSE FAILURE REPLACED FUSE</u>

NOTE 1: Routine Make entry showing date and time of inspection and the condition of all Tower Lights and associated Control Devices; Any replacements, adjustments or repairs should also be noted.

 Trouble Make entry showing time and nature of failure.
 Make entry showing time FAA was notified if not corrected within 30 minutes.
 Make entry showing time and nature of repairs or replacement.
 Make entry showing time FAA was notified that repairs were completed.

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Exhibit 2. Radio Station Technical Log, Typical.

PLANT INSPECTION RADIO EQUIPMENT

S 6154 (3/74)
GTEP ZOO-002 731

Exchange (1)	Central Office (2)
Work Order Number (3)	Installation Supervisor (4)
Accepted By (5)	Date (6)
Bay or Frame Number(s) (7)	
Remarks (Refer to Item No.)	

(8) Item No.	(9) ITEMS TO BE INSPECTED AND ACCEPTED	(10)		
		Completed	Inspected	Accepted
1	Perimeter Ground Provided			
2	Heio Ground Provided			
3	Rods Meet Bending Radius			
4	Record Ohms Ground Meggered			
5	Fence Grounded to Perimeter Ground			
6	Waveguide Grounded Properly			
7	Timing Device Functions Properly			
8	Generator Room Properly Ventilated			
9	Generator Functions Properly			
10	Availability of Test Equipment			
11	Waveguide Properly Pressurized			
12	Dehydrator & Regulator Properly Installed			
13	Waveguide Rigid			
14	Waveguide Properly Supported			
15	Flex on Output of Radio			
16	Waveguide Ports Properly Sealed			
17	Waveguide Bridge Properly Installed			
18	Spare Units Provided			
19	Construction Permits on Site			
20	Station License on Site			
21	Log Books on Site			
22	Log Books Up-to-date			
23	Proper Separation of H.F. Cables			
24	Alarm Functions Test Properly			
25	Batteries Properly Installed			
26	Battery Test Records Complete			
27	Redundant Fuse Feeders for Radios			
28	Noise Measure of Fuse Panels			
29	Drawings on Site			
30	Manuals on Site			
31	Installation Test Records on Site			
32	Maintenance Test Records Begun			
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				

FORM COMPLETION INSTRUCTIONS

CIRCLED NUMBERS ON THE EXHIBIT CORRESPOND TO THE NUMBERS BELOW.

- INDICATE THE NAME OF THE TELEPHONE EXCHANGE.
- RECORD THE LOCATION OF THE CENTRAL OFFICE.
- RECORD THE WORK ORDER NUMBER ASSIGNED BY THE LOCAL OPERATING COMPANY.
- INDICATE THE NAME OF THE INSTALLATION SUPERVISOR
- INDICATE THE NAME OF THE PERSON ACCEPTING THE EQUIPMENT.
- RECORD THE DATE THE EQUIPMENT ACCEPTANCE WAS PERFORMED.
- LIST THE BAY OR FRAME NUMBER(S).
- COLUMN LISTING FOR ITEM NUMBERS (1-45).
- COLUMN LISTING OF ITEMS TO BE INSPECTED AND ACCEPTED.
- IN THE COMPLETED COLUMN, INDICATE BY X IF THAT ITEM IS TO BE INSPECTED. IN THE "INSPECTED" COLUMN, RECORD THE INITIALS OF THE PERSON INSPECTING THE EQUIPMENT. IN THE ACCEPTED COLUMN, RECORD THE INITIALS OF THE PERSON ACCEPTING THE EQUIPMENT.
- IN THE REMARKS* COLUMN, LIST SPECIFIC ITEM NUMBERS, CORRECTIONS TO BE MADE, DATE OF CORRECTION, AND THE INITIALS OF THE PERSON INSPECTING THE CORRECTION.

Exhibit 3. Form S 6154, Typical.

Table 1. Acceptance Test Routines-Radio and Microwave Equipment (Continued).

<u>EQUIPMENT AND TEST ROUTINE TITLE</u>	<u>SECTION NUMBER</u>	<u>UNIT OF EQUIPMENT</u>
MICROWAVE EQUIPMENT		
GTE Lenkurt 57B, Broadband Channel Protection		
Alignment,		
General	394-572-500	1/SYS
Power Supply Voltages	394-572-505	1/SYS
Terminal Equipment	394-572-510	1/SYS
Receive Pilot, Noise Mute Units	394-572-515	1/SYS
Phase Comparison, Combiner Tests	394-572-520	1/SYS
Baseband Frequency Response	394-572-525	1/SYS
Supervisory Channel Tests	394-572-530	1/SYS
Orderwire Drop & Insert Tests	394-572-535	1/SYS
Video Tests	394-572-540	1/SYS
Program Channel Tests	394-572-545	1/SYS
Repeater Measurements	394-572-550	1/SYS
GTE Lenkurt 757C		
25115 Signaling Transmitter System, Alignment, Maintenance	394-573-160	1/SYS
Alignment		
Switching System, General Information	394-573-500	1/SYS
Switching System, Recommended Test Equipment	394-573-510	
Switching System, Power Supply Adjustments	394-573-520	1/SYS
Switching System, Initial Check of Logic Functions	394-573-530	1/SYS
57011 IF Switching System, I F Transmission Path Tests	394-573-540	1/SYS
57021 Switching System, IF Transmission Path Tests	394-573-541	1/SYS
Switching System, IF 57061 Pilot Noise Mute Unit	394-573-545	1/SYS
Switching System, IF 37502 Pilot & Noise Detector	394-573-546	1/SYS
57011 IF Switching System, In-Service Alignment	394-573-547	1/SYS
57021 Switching System, Pilot & Noise Detector Unit	394-573-548	1/SYS
Baseband Switching System, Level, Frequency Response Measurement	394-573-550	1/SYS
Baseband Switching System, Pilot & Noise Detector Unit	394-573-560	1/SYS
57015 Protected Modem Switching System	394-573-565	1/SYS
57016 FM Modem Switching System	394-573-567	1/SYS
57017 Protection Separate Switching System	394-573-570	1/SYS
Baseband Switching System, In-Service Alignment	394-573-575	1/SYS
GTE Lenkurt 758A		
58001 Baseband Assemblies		
Power Supply Adjustments	394-581-505	1/PW SPLY
Alignment Message Terminating Level Adjustments	394-581-510	1/LVL
Alignment Message Repeater Level Adjustments	394-581-515	1/LVL
Level Adjustments Video Terminals & Repeaters	394-581-520	1/LVL
Time Delay Equalizer Adjust, System Performance Tests	394-581-610	1/SYS

Table 1. Acceptance Test Routines-Radio and Microwave Equipment (Continued).

<u>EQUIPMENT AND TEST ROUTINE TITLE</u>	<u>SECTION NUMBER</u>	<u>UNIT OF EQUIPMENT</u>
GTE Lenkurt 758B		
Baseband Assemblies, Alignment		
Test Equipment	394-582-502	
58002 Message Terminal Arrangements	394-582-505	1/MSG TERM
58003 Message Repeater Arrangements	394-582-510	1 /MSG RPTR
58004 Video Terminal Arrangements, Assembly Level	394-582-515	1/VDO TERM
58005 Video Repeater Arrangements, Assembly Level	394-582-520	1/VDO RPTR
58006 Baseband Switching Arrangement, Terminal & Repeater Adjustments	394-582-525	1 /ASSY
GTE Lenkurt 759A		
Alignment, 59001 FM Modem Assembly	394-591-500	1/ASSY
GTE Lenkurt 75X1		
755X1 -39059 X Band Heterodyne Assembly, Transmitter Frequency, Output Power Measurement, Alignment	394-700-560	1/ASSY
GTE Lenkurt 74A		
Functional Test, Alarms	394-741-520	1/ALM
Functional Test, Alarms	394-741-530	1/ALM
Tests, Microtel System		
Tests, Baseband & Supervisory Response	394-741-530	1/SYS
Line-up	394-741-520	1/SYS
Line-up	394-741-530	1/SYS
Line-up	394-741-555	1/SYS
Transmitter Tests & Adjustments		
Deviation & Distortion	394-741-520	1/XMTR
Frequency Measurement & AFC Check	394-741-520	1/XMTR
Pilot Level & Power Output	394-741-520	1/XMTR
GTE Lenkurt 75		
Transmitter-Receiver Bays		
Maintenance,		
Routine, System Maintenance	394-750-300	1 /SYS
Checks Using TWT Load Sim 44896	394-750-301	1/SYS
Local Oscillator Frequency Measurements	394-750-310	1/OSC
Alignment,		
EEV TWT Adjustments	394-750-529	1 /SYS
NEC Varian TWT Adjustments	394-750-530	1/SYS
RCV Level Adjustment, AGC Calibration	394-750-535	1 /SYS
Transmitter Frequency Measurements	394-750-560	1 /SYS
Power Supply Checks	394-750-528	1/SYS
Transmitter Output Power	394-750-568	1/SYS
775 Assemblies		
MW Source Frequency Measurements Adj, Maint.	394-750-315	1/OSC
Manual Gain Adjustment, AGC Calibration, Alignment	394-750-532	1/SYS
Heterodyne, Power Supply Tests, Adjustments, Alignment	394-750-520	1 /SYS

Table 1. Acceptance Test Routines-Radio and Microwave Equipment (Continued).

EQUIPMENT AND TEST ROUTINE TITLE	SECTION NUMBER	UNIT OF EQUIPMENT
Radio Systems, Alignment, General Information Alignment	394-750-500	1 /SYS
44890 Auxiliary Power Supply Shelf Voltage Checks, Adjustment	394-750-527	1 /SYS
37499 dc Power Supply Voltage Checks, Adjustment	394-750-526	1 /SYS
Transmit Baseband Equipment, Message Service Levels	394-750-575	1 /SYS
Transmit Baseband Equipment, Television Service Levels	394-750-585	1 /SYS
Hot Standby/Space Diversity Selector Shelf Assembly	394-750-595	1 /SYS
Deviator Adjustments, Auxiliary Equipment, IF	394-750-600	1 /SYS
Antenna Orientation Transmission Path	394-750-615	1 /SYS
Receive Baseband Equipment, Message Service Levels	394-750-630	1 /SYS
Receive Baseband Equipment, Television Service Levels	394-750-650	1 /SYS
Message System Frequency Response, Overall System Tests	394-750-660	1 /SYS
Television Service Frequency Response, Overall System Tests	394-750-670	1 /SYS
Message System Noise Measurements, System Performance Tests	394-750-680	1 /SYS
Television System Differential Phase Gain Measurements, Overall System Tests	394-750-690	1 /SYS
Baseband Pilot & Noise Detectors	394-750-695	1 /SYS
Program Change Equipment, FM	394-750-696	1 /SYS
GTE Lenkurt 75A Alignment		
Radio System, General Information	394-75 1-500	1 /SYS
755AI-39050 Heterodyne Assembly, Transmitter Frequency Output Power Measurement	394-75 1-560	1 /SYS
GTE Lenkurt 75B Alignment		
Radio System, General Information	394-752-500	1 /SYS
GTE Lenkurt 75C Alignment		
7751 CI -39502 Heterodyne Assembly, Transmitter Frequency, Output Power Measurement	394-753-560	1 /SYS
GTE Lenkurt 75D Alignment		
75DI-39503 Heterodyne System, Transmitter Frequency, Output Power Measurement	394-754-560	1 /SYS
GTE Lenkurt 75G2 Alignment		
77562-39056 Assembly, Transmitter Frequency & Output Power Measurement	394-757-560	1 /SYS

Table 1. Acceptance Test Routines, Radio and Microwave Equipment (Continued).

<u>EQUIPMENT AND TEST ROUTINE TITLE</u>	<u>SECTION NUMBER</u>	<u>UNIT OF EQUIPMENT</u>
GTE Lenkurt 76		
Maintenance		
General Information	394-760-300	1 /SYS
Transmitter Frequency Measurement	394-760-301	1 /SYS
Transmitter AFC Discriminator	394-760-302	1 /SYS
28419 Receiver AFC Unit Balance Adjustment	394-760-323	1/SYS
Alignment		
General Information	394-760-500	1/SYS
28408 dc Power Supply Shelf	394-760-510	1 /SYS
Dc Power Supply Shelf	394-760-511	1/SYS
Transmitter Frequency, AFC Balance Check		1 /SYS
Transmitter Output Power Measurement	394-760-530	1 /SYS
Hot Standby Transmitter Switch & Spreading Oscillator Check	394-760-550	1/SYS
Transmitter Deviation Adjustment	394-760-560	1/SYS
Local Oscillator Adjustments	394-760-570	1/SYS
Receiver AGC Calibration	394-760-580	1/SYS
Transmission Path Tests	394-760-590	1/SYS
Receiver AFC Pull-In Range Adjustment	394-760-600	1/SYS
Baseband Level Adjustments, Message Service	394-760-610	1/SYS
Baseband Frequency Response, Message Service	394-760-615	1/SYS
Noise Measurements, Message Service	394-760-620	1/SYS
Supervisory Channel Checks	394-760-625	1/SYS
Baseband Level Adjustments, Television Service	394-760-630	1/SYS
Baseband Frequency Response, Television Service	394-760-635	1 /SYS
Video Transmission Tests, Television Service	394-760-640	1 /SYS
Baseband Signal-to-Noise Checks, Television Service	394-760-645	1/SYS
Baseband Pilot & Noise Detectors	394-760-650	1/SYS
FM Program Channel Equipment	394-760-690	1/SYS
GTE Lenkurt 78		
778 Assemblies		
Routine Maintenance Instructions	394-780-300	1/SYS
Power Supply Adjustments, Alignment Procedures	394-780-510	1/SYS
Alignment	394-780-520	1/SYS
Receiver Adjustments, Alignment	394-780-530	1/SYS
Standard Equipment		
General Alignment information	394-780-500	1/SYS
Baseband Pilot, Noise Detectors System Performance Tests	394-780-650	1/SYS
Antenna Orientation, System Performance Test	394-780-615	1/SYS
Baseband Frequency Response, Message		

Table 1. Acceptance Test Routines-Radio and Microwave Equipment (Continued).

<u>EQUIPMENT AND TEST ROUTINE TITLE</u>	<u>SECTION NUMBER</u>	<u>UNIT OF EQUIPMENT</u>
Service System Performance Test Baseband Frequency Response, SS-Message	394-780-660	1 /SYS
Solid State Equipment		
Service System Performance Test	394-780-661	1 /SYS
General Alignment Information	394-780-501	1 /SYS
Initial Turn-On Procedure	394-780-511	1 /SYS
Time Delay Equalization Adjustment, Messenger Service System Performance Tests	394-780-620	1 /SYS
Baseband Pilot, Noise Detectors System Performance Tests	394-781-651	1 /SYS
Baseband Level & Noise Detector, Video		
Service System Performance Tests	394-780-655	1 /SYS
Baseband Frequency Response, Video Service System Performance Test	394-780-665	1 /SYS
System Noise Measurements, Message Service	394-781-681	1 /SYS
System Noise Measurements, Video Service	394-780-685	1 /SYS
Differential Phase and Gain Measurements, Video Service	394-780-690	1 /SYS
GTE Lenkurt 78A1		
39600 Assembly, Recommended Test Equipment, Alignment	394-781-505	
GTE Lenkurt 78A2 & B2		
788A2, B2 Message Service Routine Maintenance instructions	394-781-301	1 /SYS
778A2 Video Service, Routine Maintenance Instructions	394-781-302	1 /SYS
778A2, B2 Message Service Routine Maintenance Video Service	394-781-303	1 /SYS
	394-781-304	1 /SYS
Alignment		
778A2 Transmitter, Adjustments	394-781-521	1 /SYS
778A2 Receiver, Adjustments	394-781-531	1 /SYS
778A2 & B2 Receiver, Adjustments	394-781-532	1 /SYS
Baseband Pilot, Noise Detectors, System Performance Tests	394-781-651	1 /SYS
System Noise Measurements, Message Service		
System Performance Tests	394-781-681	1 /SYS
GTE Lenkurt 78C2		
Message Service Routine Maintenance Instructions	394-783-301	1 /SYS
Video Service	394-783-302	1 /SYS
Recommended Test Equipment, Message Alignment Instructions	394-783-506	
Recommended Test Equipment, Video Alignment Instructions	394-783-508	
778C2 Solid State Assembly, Transmitter Adjustments, Alignment	394-783-521	1 /SYS

Table 1. Acceptance Test Routines-Radio and Microwave Equipment (Continued).

<u>EQUIPMENT AND TEST ROUTINE TITLE</u>	<u>SECTION NUMBER</u>	<u>UNIT OF EQUIPMENT</u>
778C2 Receiver, Adjustments, Alignment	394-783-531	1/SYS
Baseband Level, Noise Detectors, System		
Performance Tests	394-783-651	1/SYS
Noise Measurements, Message Service		
System Performance Tests	394-783-681	1/SYS
GTE Lenkurt 78D2 & E2		
778D2, E2 Assemblies, Message Service		
Routine Maintenance Instructions	394-784-301	1/SYS
778D2, E2 Assemblies, Video Service Routine		
Maintenance Instructions	394-784-302	1/SYS
Recommended Test Equipment, Video Service		
Alignment	394-784-508	
778D2 Transmitter, Adjustments, Alignment	394-784-521	1/SYS
778D2 Receiver, Adjustments, Alignment	394-784-531	1/SYS
Baseband Pilot Level, Noise Detectors,		
System Performance Tests	394-784-651	1/SYS
Noise Measurements, Message Service System		
Performance Tests	394-784-681	1/SYS
GTE Lenkurt 78F2		
778F2 Assemblies, Routine & Corrective		
Maintenance Instruction	394-786-301	1/SYS
778F2 MW Transceiver, Messenger Service		
Transmitter Adjustments, Alignment	394-786-521	1/SYS
778F2 MW Transceiver, Messenger Service		
Receiver Adjustments, Alignment	394-786-531	1/SYS
Pilot & Noise Alarm Functions, System		
Performance Test, Solid State Equipment	394-786-651	1/SYS
Messenger Service Noise Measurements,		
System Performance Tests	394-786-681	1/SYS
Video System Performance Test	394-786-685	1/SYS
MODULATOR, WIDE BAND		
GTE Lenkurt 970A, Alignment	342-971-500	1/EQUIP
41016, 40.8 kb/s Operation	342-971-510	1/EQUIP
41017, 24.0 kb/s Operation	342-971-520	1/EQUIP
46877, Adjustable Equalizer	342-971-610	1/EQZR
MOBILE TELEPHONE SYSTEMS		
General Electric		
Installation & Test, Base Station	284-101-201	1/BSE
Installation & Test, Control Terminal	284-102-202	1/TERM
Adjustment & Test, Control Terminal	284-102-501	1/TERM
Motorola		
Installation & Test, Base Station	284-101-200	1/BSE
Pre-Operational Tests, Control Terminal	284-102-205	1/TERM
Functional Test Control Terminal	284-102-500	1/TERM

Table 1. Acceptance Test Routines-Radio and Microwave Equipment (Continued).

EQUIPMENT AND TEST ROUTINE TITLE	SECTION NUMBER	UNIT OF EQUIPMENT
ORDERWIRE SYSTEM		
GTE Lenkurt 52A1 52050 System, Alignment	394-521-500	1/SYS
GTE Lenkurt 53C1 Alignment & Maintenance, 82902 Orderwire, Modem & Signaling Assembly	342-533-501	1/SYS
GTE Lenkurt 948A 55003 Repeater & Orderwire Assemblies		
Alignment, General	342-948-500	1/SYS
Alignment	342-948-510	1/SYS
Alignment, 52036 & 37 Repeater Unit	342-948-515	1/SYS
RADIO MULTIPLEX SYSTEM		
GTE Len kurt 36A 36100 System, Alignment	None	1/SYS
REPEATERS		
GTE AE Voice Frequency		
AT-6 Line-up	354-150-501	1/RPTR
AT-6 Tests	354150-502	1/RPTR
AT-2 Pre-Cutover Inspection	354-832-502	1/RPTR
Transcom Voice Frequency		
Testing Procedures, SLR & SLR-P Fixed Gain	354-500-500	1/RPTR
Lear-Siegler Voice Frequency		
R612, R612D, Line-up Procedures	354-612-501	1/RPTR
R635, R635D, Line-up Procedures	354-635-501	1/RPTR
WEC0 Voice Frequency		
V3, Line-up Instructions When Associated With Long-Line Equipment	354-683-502	1/RPTR
V3, Line-up Instructions Using Altec-Lansing Transistor Amplifier, 447A	354-683-503	1/RPTR
V4, Line-up	354-684-501	1/RPTR
E2, Pre-cutover Inspection	354-832-501	1/RPTR
E1, Pre-cutover Inspection	354-832-503	1/RPTR
E7, Line-up Procedure	354-837-501	1/RPTR
E7, Functional Testing	354-837-502	1/RPTR
SIGNALING SYSTEM		
GTE Lenkurt, 927A In-Band Alignment		
General Information	342-927-500	1/EQUIP
Signaling Supply Equipment	342-927-510	1/EQUIP
28717 E & M Signaling Unit	342-927-520	1/EQUIP
41216 E & M Signaling Unit	342-927-521	1/EQUIP
41209 E & M Signaling Unit	342-927-522	1/EQUIP
32815 E & M Signaling Unit	342-927-523	1/EQUIP
41219 E & M Signaling Unit	342-927-524	1/EQUIP

Table 1. Acceptance Test Routines-Radio and Microwave Equipment (Continued)

<u>EQUIPMENT AND TEST ROUTINE TITLE</u>	<u>SECTION NUMBER</u>	<u>UNIT OF EQUIPMENT</u>
32816 E & M Signaling Unit	342-927-525	1/EQUIP
41205, 41206 Loop Dial Signaling Unit	342-927-540	1/EQUIP
41207, 41208 Foreign Exchange Signaling Unit	342-927-560	1/EQUIP
41217, 41218 Foreign Exchange Signaling Unit	342-927-561	1/EQUIP
TRUNKS		
Message Noise Measurements		
Form S-4203, Preparation & Use	331-010-003	1/FORM
Battery Supply Circuit	331-310-510	1/TRK
Loop Customer	331-325-510	1/TRK
Private Line Service Switched	331-330-510	1/TRK
Direct Trunks	331-335-510	1/TRK
Impulse Noise Measurements		
Form S-4204, Preparation & Use	331-010-004	1/FORM
Loop Customer	331-355-510	1/TRK
Private Line Service	331-360-510	1/TRK
Direct Trunks, Transmission Testing	331-365-510	1/TRK
1 KHz & Multifrequency Tests		
Private Line Service	331-215-510	1/TRK
Direct Trunks, Tandem, Toll-Connection & Intertoli	331-220-510	1/TRK
Singing Point Measurements, Toll-Connecting Trunks	331-405-510	1/TRK
Echo Return Loss Measurements, Toll-Connecting Trunks	331-435-510	1/TRK
Echo Return Loss Measurements, Intertoll Trunks	331-440-510	1/TRK