

TECHNICAL MANUAL

DIRECT SUPPORT AND GENERAL SUPPORT

MAINTENANCE MANUAL

RADAR SET AN APN-158A

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TECHNICAL MANUAL)

HEADQUARTERS

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RADAR SET AN/APN-158A

	Paragraph	Page
CHAPTER 1. RADAR SET AN/APN-158A SYSTEM		
Section I. Introduction		
Scope.	1-1	1-1
Index of Publications.....	1-2	1-1
A. DA PAM 310-4.....		1-1
B. DA PAM 310-7.....		1-1
Reporting of Equipment Manual Improvements.....	1-3	1-1
List of Components	1-4	1-1
Maintenance Concept	1-5	1-1
A. General		1-1
B. Direct Support Maintenance		1-3
C. General Support Maintenance.....		1-3
D. Depot Level Maintenance		1-3
Section II. System Description and Operation		
General	1-6	1-5
Purpose of Equipment	1-7	1-5
Section III. Theory		
Theory of Operation	1-8	1-7
A. General		1-7
B. Simplified Block Diagram Theory.....		1-7
C. Detailed Functional Block Diagram Theory		1-7
D. Vertical Reference Gyro (Associated Equipment)		1-22
Section IV. System Adjustment and Test		
Preinstallation	1-9	1-23
A. General		1-23
B. Test Equipment Required		1-23
C. Preinstallation Test/Troubleshooting Procedures.....		1-28
Section V. Components Location		1-45

Change 1

		Paragraph	Page
CHAPTER 2.	RECEIVER-TRANSMITTER RT-711A/APN-158 AND MOUNT, RECEIVER-TRANSMITTER MT-3068/APN-158		
Section I.	Description and Operation		
	General	2-1	2-3
	Purpose of Equipment	2-2	2-3
	Equipment Specifications.....	2-3	2-3
	Equipment Description	2-4	2-6
	A. General		2-6
	B. Mechanical Description.....		2-6
	C. Electrical Description		2-7
	Theory of Operation	2-5	2-7
	A. General		2-7
	B. Simplified Block Diagram Theory.....		2-7
	C. Functional Block Diagram Theory.....		2-9
	D. Detailed Theory of Operation.....		2-15
Section II.	Disassembly		
	General	2-6	2-37
	Precautions and General Techniques.....	2-7	2-37
	Disassembly Procedure	2-8	2-38
	A. Remove Air Filter		2-38
	B. Remove Front Housing		2-38
	C. Remove +27.5-V Regulator Module TB5		2-38
	D. Remove -27.5-V Regulator Module TB6..		2-38
	E. Remove Meter Circuit Module TB4		2-39
	F. Remove Meter M1		2-39
	G. Remove Meter Function Switch S5		2-39
	H. Remove RF ON/OFF Switch S4		2-39
	I. Remove Tubeaxial Fan B1		2-40
	J. Disassemble and Remove Front Plate.....		2-40
	K. Remove Outer Dust Covers.....		2-41
	L. Remove Trigger Generator Module		2-41
	M. Remove Magnetron		2-41

	Paragraph	Page
N. Remove Mixer-Duplexer Module		2-42
O. Remove Keep-Alive Supply Module TB2		2-43
P. Remove Fault Sensing Module TB3		2-43
Q. Remove +260-V Supply Module TB1		2-43
R. Remove Modulator		2-45
S. Disassemble MT-3068 Shockmount.....		2-45
Section III. Cleaning		
General	2-9	2-47
Cleaning Procedure	2-10	2-47
A. Air Filters.....		2-47
B. Castings.....		2-49
C. Connectors		2-49
D. Covered Cables		2-49
E. Covers and Shields.....		2-50
F. Electron Tubes.....		2-50
G. Gaskets and Washers (Paper, Fiber, Cork, and Rubber)		2-50
H. Insulators (Ceramic, Mycalex, and Plastic)		2-50
I. Jacks.....		2-50
J. Knobs and Panels.....		2-51
K. Machined Metal Parts		2-51
L. Mechanical Metal Parts		2-51
M. Molded Plastic Parts		2-51
N. Printed Circuit Boards.....		2-51
O. Receptacles		2-52
P. Relays.....		2-52
Q. Switches.....		2-52
R. Transformers and Inductors		2-52
S. Vibration Isolators		2-52
T. Waveguide Assemblies		2-53
U. Wired Chassis		2-53

		Paragraph	Page
Section	IV.	Inspection/Check	
		General.	2-11 2-55
		Inspection Procedures	2-12 2-55
	A.	Air Filters.....	2-56
	B.	Capacitors.....	2-56
	C.	Chassis	2-56
	D.	Chassis	2-57
	E.	Connectors	2-57
	F.	Covers and Shields.....	2-57
	G.	Electron Tubes.....	2-57
	H.	Gaskets and Washers (Paper, Fiber, Cork, and Rubber)	2-58
	I.	High-Voltage Wiring	2-58
	J.	Insulators (Ceramic, Mycalex, and Plastic)	2-58
	K.	Jacks.....	2-58
	L.	Knobs and Panels.....	2-58
	M.	Machined Metal Parts	2-58
	N.	Mechanical Metal Parts	2-58
	O.	Molded Plastic Parts	2-58
	P.	Printed Circuit Boards	2-59
	Q.	Receptacles.	2-59
	R.	Relays.....	2-59
	S.	Resistors.....	2-59
	T.	Semiconductors	2-59
	U.	Soldered Terminal Connections	2-59
	V.	Switches.....	2-59
	W.	Transformers and Inductors.. ..	2-60
	X.	Vibration Isolators.	2-60
	Y.	Waveguide Assemblies.. ..	2-60
	Z.	Wiring.....	2-60
Section	V.	Repair	
		General	2-13 2-61
		Repair Procedures	2-14 2-61
	A.	Air Filters.....	2-62
	B.	Capacitors.....	2-62
	C.	castings.....	2-63
	D.	Connectors	2-63
	E.	Covers and Shields.....	2-63
	F.	Electron Tubes	2-63
	G.	Finished Surfaces.	2-63
	H.	Frames.....	2-63
	I.	Gaskets and Washers (Paper, Fiber, Cork, and Rubber)	2-63

	Paragraph	Page
J. High-Voltage Wiring		2-63
K. Insulators (Ceramic, Mycalex, and Plastic)		2-63
L. Jacks.....		2-64
M. Knobs and Panels		2-64
N. Machined Metal Part.....		2-64
O. Mechanical Metal Parts		2-64
P. Modulator.....		2-64
Q. Molded Plastic Parts.....		2-64
R. Printed Circuit Boards.....		2-64
S. Receptacles		2-64
T. Relays		2-64
U. Resistor.....		2-65
V. Semiconductors		2-65
W. Soldered Terminal Connections		2-65
X. Switches.....		2-65
Y. Transformers and Inductors		2-65
Z. Vibration Isolators.....		2-65
AA. Waveguide Assemblies		2-65
AB. Wiring.....		2-65
 Section VI. Assembly		
General..	2-15	2-67
Precautions and General Techniques	2-16	2-67
Assembly Procedure.....	2-17	2-68
A. Assemble MT-3068 Shockmount		2-68
B. Replace Modulator.....		2-69
C. Replace +260-V Supply Module TB1		2-69
D. Replace Fault Sensing Module TB3		2-70
E. Replace Keep-Alive supply Module TB2		2-70
F. Replace Mixer-Duplexer Module..		2-70
G. Replace Magnetron		2-71
H. Replace Trigger Generator Module		2-72
I. Replace Outer Dust Covers.....		2-72
J. Replace and Assemble Front Plate.....		2-72
K. Replace Tubeaxial Fan.....		2-73
L. Replace RF On/OFF Switch S4.....		2-73
M. Replace Meter Function Switch S5.....		2-73
N. Replace Meter Circuit Module TB4		2-73

		Paragraph	Page
	O.	Replace -27.5-V Regulator Module TB6	2-74
	P.	Replace +27.5-V Regulator Module TB5	2-74
	Q.	Replace Meter M1	2-74
	R.	Assemble and Replace Front Housing	2-74
	S.	Replace Air Filter and Brackets.....	2-74
Section	VII.	Testing	
		General	2-18 2-75
		Equipment Required.	2-19 2-75
		Preliminary Procedures.....	2-20 2-75
		Test Procedures.....	2-21 2-75
		A. Functional Test	2-75
		B. Performance Testing with the AN/APM-247 Radar Test Set	2-80
Section	VIII.	Storage Instructions	
		General	2-22 2-95
Section	IX.	Special Tools, Fixtures, and Test Equipment	
		General	2-23 2-97
		Test Equipment Required	2-24 2-97
Section	X.	Components Location	2-101
CHAPTER	3.	SYNCHRONIZER, ELECTRICAL SN-358A/APN-158 (776C-4) AND MOUNT, SYNCHRONIZER MT-3069/APN-158 (349B-4)	
Section	I.	Description and Operation	
		General	3-1 3-3
		Purpose of Equipment	3-2 3-3
		Equipment Specifications	3-3 3-3
		Equipment Description	3-4 3-3
		A. Mechanical Description.....	3-3
		B. Electrical Description	3-5
		Theory of Operation	3-5 3-8
		A. General	3-8
		B. Overall Block Diagram Theory.....	3-8

		Paragraph	Page
	C. Detailed Block Diagram Theory.....		3-10
	D. Detailed Theory of Operation.....		3-15
Section	II. Disassembly		
	General	3-6	3-27
	Precautions and General Techniques.....	3-7	3-27
	Disassembly Procedure	3-8	3-27
	A. Remove Outer Dust Cover		3-27
	B. Remove Plug-in Modules.....		3-29
	C. Remove Wired Heat Sink.		3-29
	D. Remove Front Panel.....		3-29
	E. Remove Transformer Plate.		3-29
	F. Remove Detector Board Assembly.....		3-29
	G. Disassemble MT-3069 Shockmount.....		3-30
Section	III. Cleaning		
	General	3-9	3-33
	Cleaning Procedures.....	3-10	3-33
	A. Connectors.		3-33
	B. Covered Cables		3-34
	C. Covers and Shields.....		3-35
	D. Insulators: Ceramic, Mycalex, and Plastic		3-35
	E. Jacks.....		3-35
	F. Machined Metal Parts.		3-35
	G. Mechanical Metal Parts		3-36
	H. Panels.....		3-36
	I. Printed Circuit Boards.....		3-36
	J. Vibration Isolators.....		3-36
	K. Wired Chassis		3-37
Section	IV. Inspection/Check		
	General	3-11	3-39
	Inspection Procedures ..	3-12	3-39
	A. Capacitors.....		3-40
	B. Chassis.		3-41
	C. Connectors..		3-41
	D. Covers and Shields.....		3-41
	E. Insulators: Ceramic, Mycalex, and Plastic.		3-41
	F. Jacks.....		3-41
	G. Machined Metal Parts		3-41
	H. Mechanical Metal Parts..		3-41

		Paragraph	Page
	I. Panels		3-41
	J. Printed Circuit Boards		3-42
	K. RF Coils		3-42
	L. Receptacles.		3-42
	M. Relays.....		3-42
	N. Resistors.		3-42
	O. Semiconductors.		3-42
	P. Soldered Terminal Connections		3-42
	Q. Transformers and Inductors.		3-43
	R. Vibration Isolators.....		3-43
	S. Wiring.....		3-43
Section	V. Repair		
	General	3-13	3-45
	Repair Procedures.	3-14	3-45
	A. Capacitors.....		3-46
	B. Connectors.		3-46
	C. Covers and Shields.....		3-46
	D. Finished Surfaces ..		3-46
	E. Frames.....		3-46
	F. Insulators.....		3-47
	G. Jacks.....		3-47
	H. Machined Metal Parts		3-47
	I. Mechanical Metal Parts		3-47
	J. Panels.....		3-47
	K. Printed Circuit Boards.....		3-47
	L. RF Coils		3-47
	M. Relays.....		3-47
	N. Resistors.....		3-47
	O. Semiconductors.		3-48
	P. Soldered Terminal Connections.		3-48
	Q. Transformers and Inductors		3-48
	R. Vibration Isolators		3-48
	S. Wiring.....		3-48
Section	VI. Assembly		
	General.	3-15	3-49
	Precautions and General Techniques.....	3-16	3-49
	Assembly Procedure.....	3-17	3-49
	A. Assemble MT-3069 Shockmount.		3-49
	B. Replace Synchronizer Detector Board Assembly.....		3-50
	C. Replace Synchronizer Transformer Plate.....		3-50

		Paragraph	Page
	D. Replace Front Panel		3-51
	E. Replace Wired Heat Sink		3-51
	F. Replace Plug-in Modules		3-51
	G. Replace Outer Dust Cover		3-51
Section	VII. Testing		
	General	3-18	3-53
	Test Equipment Required	3-19	3-53
	Test Procedures.....	3-20	3-53
	A. Use of Test Procedures..		3-53
Section	VIII. Troubleshooting		
	General	3-21	3-107
	Test Equipment..	3-22	3-107
	Troubleshooting Procedures.....	3-23	3-107
Section	IX. Storage Instructions		
	General..	3-24	3-111
Section	X. Special Tools and Test Equipment		
	General.	3-25	3-113
	Test Equipment Required..	3-26	3-113
Section	XI. Components Location		3-117

		Paragraph	Page
CHAPTER 4.	INDICATOR, WEATHER RADAR 493A-4		
Section I.	Description and Operation		
	General	4-1	4-3
	Purpose of Equipment	4-2	4-3
	Equipment Specifications.....	4-3	4-3
	Equipment Description	4-4	4-4
	A. General		4-4
	B. Mechanical Description.....		4-4
	C. Electrical Description		4-5
	D. Operating Controls and Internal Adjustments		4-6
	Theory of Operation	4-5	4-7
	A. General		4-7
	B. Block Diagram Theory		4-7
	C. Detailed Theory of Operation		4-9
Section II.	Disassembly		
	General.	4-6	4-13
	Precautions and General Techniques	4-7	4-13
	Disassembly Procedure	4-8	4-14
	A. Remove Outer Dust Covers.....		4-14
	B. Remove Front Panel and Front Plate.		4-14
	C. Remove Rear Cover Plate		4-14
	D. Remove Staked Rear Plate		4-14
	E. Remove Left Frame.		4-16
	F. Remove Right Frame.....		4-16
	G. Remove Power Supply PS1.....		4-17
	H. Remove Video Amplifier TB1.....		4-17
	J. Remove Positioning Circuit TB2.		4-18
	K. Remove Cathode-Ray Tube		4-18
	L. Remove Sweep Deflection Yoke Assembly Y1		4-19
	M. Remove Off-Centering Regulator.		4-20
Section III.	Cleaning		
	General	4-9	4-21
	Cleaning Procedure ..	4-10	4-21
	A. Connectors.		4-21
	B. Covered Cables		4-22
	C. Covers and Shields.....		4-23
	D. Electron Tubes.....		4-23
	E. Knobs and Panels.....		4-24

		Paragraph	Page
	F. Machined Metal Parts.....		4-24
	G. Mechanical Metal Parts.. ..		4-24
	H. Printed Circuit Boards.....		4-24
	J. Tube Sockets.....		4-24
	K. Wired Chassis		4-25
Section	IV. Inspection/Check		
	General	4-11	4-27
	Inspection Procedure	4-12	4-27
	A. Capacitors.....		4-28
	B. Chassis.....		4-29
	C. Connectors		4-29
	D. Covers and Shields.....		4-29
	E. Electron Tubes.....		4-29
	F. Insulators: Ceramic and Mycalex.....		4-29
	G. Knobs and Panels.....		4-29
	H. Machined Metal Parts		4-29
	J. Mechanical Metal Parts.		4-30
	K. Printed Circuit Boards.....		4-30
	L. Receptacles.. ..		4-30
	M. Relays.....		4-30
	N. Resistors.....		4-30
	P. Semiconductors		4-30
	Q. Soldered Terminal Connections.. ..		4-30
	R. Switches.....		4-31
	S. Transformers, Power Supplies, and Inductors		4-31
	T. Tube Sockets.....		4-31
	U. Wiring.....		4-31
Section	V. Repair		
	General	4-13	4-33
	Repair Procedures	4-14	4-33
	A. Capacitors.....		4-34
	B. Connectors		4-34
	C. Covers and Shields.....		4-34
	D. Electron Tubes.....		4-34
	E. Finished Surfaces		4-34
	F. Frames.....		4-35
	G. Insulators: Ceramic and Mycalex.....		4-35
	H. Knobs and Panels.....		4-35
	J. Machined Metal Parts		4-35

		Paragraph	Page
	K. Mechanical Metal Parts..		4-35
	L. Printed Circuit Boards.....		4-35
	M. Receptacles		4-35
	N. Relays		4-35
	P. Resistors.....		4-35
	Q. Semiconductors		4-35
	R. Soldered Terminal Connections..		4-36
	S. Switches.....		4-36
	T. Transformers, Power Supplies, and Inductors		4-36
	U. Tube Sockets.....		4-36
	V. Wiring.....		4-36
Section	VI. Assembly		
	General	4-15	4-37
	Precautions and General Techniques	4-16	4-37
	Assembly Procedures.....	4-17	4-37
	A. Replace Off-Centering Regulator		4-37
	B. Replace Sweep Deflection Yoke Assembly Y1.....		4-38
	C. Replace Cathode-Ray Tube..		4-39
	D. Replace Positioning Circuit TB2.		4-40
	E. Replace Video Amplifier TB1.....		4-40
	F. Replace Power Supply PS1.....		4-40
	G. Replace Right Frame.....		4-41
	H. Replace Left Frame.		4-41
	J. Replace Staked Rear Plate		4-42
	K. Replace Rear Cover Plate		4-42
	L. Replace Front Panel and Front Plate		4-42
	M. Replace Outer Dust Cover.....		4-43
	Fits and Clearances.....	4-18	4-43
Section	VII. Testing		
	General..	4-19	4-45
	Test Equipment Required..	4-20	4-45
	Unit Tests	4-21	4-45
	A. Deflection Circuits.....		4-45
	B. Video and Gating Circuits		4-46
Section	VIII. Troubleshooting		
	General.	4-22	4-47
	Test Equipment.....	4-23	4-47
	Troubleshooting Procedures.....	4-24	4-47

		Paragraph	Page
Section IX.	Storage Instructions		4-49
Section X.	Special Tools, Fixtures and Test Equipment		
	General	4-25	4-50
	Test Equipment Required	4-26	4-50
Section XI.	Components Location		4-51
CHAPTER 5.	INDICATOR, AZIMUTH-RANGE IP-724A/APN-158		
Section I.	Description and Operation		
	General	5-1	5-3
	Purpose of Equipment.	5-2	5-3
	Equipment Specifications	5-3	5-3
	Equipment Description	5-4	5-4
	A. General		5-4
	B. Mechanical Description.....		5-5
	C. Electrical Description..		5-5
	D. External Operating Controls		5-7
	Theory of Operation	5-5	5-7
	Theory of Operation		5-7
	A. Storage Cathode-Ray Simplified		
	B. Block Diagram Theory		5-7
	C. Detailed Theory of Operation.....		5-10
Section II.	Disassembly		
	General	5-6	5-19
	Precautions and General Techniques.....	5-7	5-19
	Disassembly Procedure	5-8	5-20
	A. Remove Filter Assembly and Front Plate		5-20
	B. Remove and Disassemble Polarizing Filter Assembly		5-20
	C. Remove Range Lights Board TB5		5-20
	D. Remove Outer Dust Covers.....		5-21
	E. Remove Rear Cover Plate		5-21
	F. Remove High-Voltage Circuit TB2.....		5-21
	G. Separate the Cathode-Ray Tube Assembly from the Rear Chassis Assembly		5-22
	H. Remove Cathode-Ray Tube		5-23
	I. Remove Sweep Deflection Yoke L1		5-24

		Paragraph	Page
	J. Remove and Disassemble Rear Cover		
	Semiconductor Device Set		5-24
	K. Remove Sweep Positioning, Video, and Erase Circuit TB.....		5-25
	L. Remove Low-Voltage Bias Circuit TB3		5-25
	M. Remove Shading Circuit TB4		5-25
	N. Remove Transformer Plate..		5-26
	O. Remove Power Supply PS1.....		5-27
	P. Remove Power Supply PS2.....		5-27
Section	III. Cleaning		
	General	5-9	5-33
	Cleaning Procedure	5-10	5-33
	A. Connectors		5-33
	B. Covered Cables		5-34
	C. Covers and Shields.....		5-34
	D. Electron Tubes.....		5-35
	E. Knobs and Panels.....		5-35
	F. Machined Metal Parts		5-36
	G. Mechanical Metal Parts..		5-36
	H. Polarizing Filters		5-36
	I. Printed Circuit Boards.....		5-36
	J. Tube Sockets		5-36
	K. Wired Chassis.		5-37
Section	IV. Inspection/Check		
	General	5-11	5-39
	Inspection Procedure	5-12	5-39
	A. Capacitors.....		5-40
	B. Chassis		5-41
	C. Connectors		5-41
	D. Covers and Shields.....		5-41
	E. Electron Tubes.....		5-41
	F. Filter Assemblies		5-41
	Mycalex.....		5-41
	G. Insulators: Ceramic and		
	H. Knobs and Panels.....		5-41
	I. Machined Metal Parts		5-42
	J. Mechanical Metal Parts		5-42
	K. Printed Circuit Boards.....		5-42
	L. Receptacles		5-42
	M. Relays.....		5-42
	N. Resistors		5-42

		Paragraph	Page
	O. Semiconductors		5-42
	P. Soldered Terminal Connections		5-43
	Q. Switches.....		5-43
	R. Transformers, Power Supplies, and Inductors		5-43
	S. Tube Sockets		5-43
	T. Wiring.....		5-43
Section	V. Repair		
	General	5-13	5-45
	Repair Procedures	5-14	5-45
	A. Capacitors.....		5-46
	B. Connectors..		5-46
	C. Covers and Shields.....		5-46
	D. Electron Tubes.....		5-46
	E. Filter Assemblies.		5-46
	F. Finished Surfaces.....		5-46
	G. Frames.....		5-47
	Mycalex.....		5-47
	H. Insulators: Ceramic and		
	I. Knobs and Panels.....		5-47
	J. Machined Metal Parts		5-47
	K. Mechanical Metal Parts		5-47
	L. Printed Circuit Boards		5-47
	M. Receptacles		5-47
	N. Relays.....		5-47
	O. Resistors		5-47
	P. Semiconductors		5-47
	Q. Soldered Terminal Connections..		5-48
	R. Switches.....		5-48
	S. Transformers, Power Supplies, and Inductors		5-48
	T. Tube Sockets		5-48
	U. Wiring.....		5-48
Section	VI. Assembly		
	General	5-15	5-49
	Lubrication Data	5-16	5-49
	Precautions and General Techniques.....	5-17	5-49
	Assembly Procedures	5-18	5-50
	A. Replace Power Supply PS2.....		5-50
	B. Replace Power Supply PS1.....		5-50
	C. Replace Transformer Plate.....		5-51
	D. Replace Shading Circuit TB4.....		5-52

		Paragraph	Page
	E. Replace Low Voltage Bias Circuit TB3		5-52
	F. Replace Sweep Positioning and Erase Circuit TB1.....		5-52
	G. Assemble and Replace Rear Cover Semiconductor Device Set		5-53
	H. Replace Sweep Deflection Yoke L1		5-53
	I. Replace Cathode-Ray Tube		5-54
	J. Attach Cathode-Ray Tube Assembly to Rear Chassis Assembly.....		5-54
	K. Replace High Voltage Circuit TB2.		5-56
	L. Replace Rear Cover Plate		5-56
	M. Replace Outer Dust Covers.....		5-57
	N. Replace Range Lights Board TB5		5-57
	O. Assemble and Replace Polarizing Filter Assembly		5-57
	P. Replace Filter Assembly and Front Plate		5-58
	Fits and Clearance	5-19	5-59
Section	VII. Testing		
	General	5-20	5-61
	Equipment Required	5-21	5-61
	Preliminary Procedures.....	5-22	5-61
	Test Procedures Using the AN/APM-247 (978G-1)		
	Radar Test Set	5-23	5-61
	A. Use of Test Procedures		5-61
	B. Test Setup		5-62
	C. Performance Test		5-63
	Test Procedures Using the MK-774/APN-158 (979A-2) Radar Maintenance Kit.....	5-24	5-63
Section	VIII. Storage Instructions		5-75
Section	IX. Special Tools and Equipment		
	General	5-25	5-77
	Test Equipment Required	5-26	5-77
Section	X. Components Location.		5-81

CHAPTER 6 ANTENNAS AS-1520A/APN-158 AND AS- 1642A/APN- 158

Section	I.	Description and Operation		
		General	6-1	6-3
		Purpose of Equipment	6-2	6-3
		Equipment Specifications.....	6-3	6-3
		Equipment Description	6-4	6-6
		A. General		6-6
		B. Mechanical Description.....		6-6
		C. Electrical Description		6-7
		Theory of Operation	6-5	6-7
		A. Basic Theory of Operation	6-7	
		B. Detailed Theory of Operation.....	6-7	
Section	II.	Disassembly		
		General	6-6	6-9
		Precautions and General Techniques.....	6-7	6-9
		Disassembly Procedure	6-8	6-9
		A. Remove Antenna Dish.....		6-9
		B. Remove and Disassemble Azimuth Gear Train Assembly		6-9
		C. Remove and Disassemble Gimbal and Waveguide Assembly		6-11
		D. Remove and Disassemble Elevation Gear Train Assembly		6-12
Section	III.	Cleaning		
		General..	6-9	6-13
		Cleaning Procedure	6-10	6-13
		A. Bearings.....		6-13
		B. Connectors		6-13
		C. Covered Cables.....		6-14
		D. Covers and Shields.....		6-15
		Mycalex, and Plastic.....		6-15
		E. Insulators: Ceramic,		
		F. Jacks.....		6-15
		G. Knobs and Panels.....		6-16
		H. Machined Metal Parts		6-16
		I. Mechanical Metal Parts.....		6-16
		J. Nylon, Epoxy, and Plastic Parts.....		6-16
		K. Switches.....		6-16
		L. Transformers and Inductors..		6-17
		M. Waveguide Assemblies..		6-17
		N. Wired Chassis		6-17

		Paragraph	Page
Section	IV.	Inspection/Check	
		General	6-11 6-19
		Inspection Procedures.	6-12 6-19
		A. Bearings.....	6-20
		B. Capacitors.....	6-20
		C. Chassis.	6-21
		D. Connectors.	6-21
		E. Covers and Shields.....	6-21
		F. Gears	6-21
		Mycalex, and Plastic	6-21
		G. Insulators: Ceramic,	
		H. Jacks.....	6-21
		I. Knobs and Panels.....	6-21
		J. Machined Metal Parts	6-21
		K. Mechanical Metal Parts	6-22
		L. Nylon, Epoxy, and Plastic Parts.....	6-22
		M. Resistors.....	6-22
		N. Switches.....	6-22
		O. Synchros and Motors	6-22
		P. Transformers and Inductors	6-22
		Q. Waveguide Assemblies	6-22
		R. Wiring.....	6-23
Section	V.	Repair	
		General	6-13 6-25
		Repair Procedures	6-14 6-25
		A. Antenna Dish	6-26
		B. Bearings.....	6-26
		C. Capacitors.....	6-26
		D. Connectors.	6-27
		E. Covers and Shields.....	6-27
		F. Finished Surfaces..	6-27
		G. Frames.....	6-27
		H. Gears	6-27
		Mycalex, and Plastic	6-27
		I. Insulators: Ceramic,	
		J. Jacks.....	6-27
		K. Knobs and Panels.....	6-27
		L. Machined Metal Parts	6-28
		M. Mechanical Metal Parts..	6-28
		N. Nylon, Epoxy, and Plastic Parts.....	6-28
		O. Resistors.....	6-28
		P. Soldered Terminal Connections..	6-28
		Q. Switches.....	6-28

		Paragraph	Page
	R. Synchronos and Motors.....		6-28
	S. Transformers and Inductors.		6-28
	T. Waveguide Assemblies.		6-28
	U. Waveguide Feed Assembly Radome..		6-28
	V. Wiring.....		6-29
Section	VI. Assembly		
	General	6-15	6-31
	Lubrication Data	6-16	6-31
	A. Contamination and Compatibility		6-31
	Precautions and General Techniques.....	6-17	6-32
	Assembly Procedure	6-18	6-32
	A. Assemble and Replace Elevation Gear Train Assembly.....		6-32
	B. Assemble and Replace Gimbal and Waveguide Assembly.		6-33
	C. Assemble and Replace Azimuth Gear Train Assembly.....		6-34
	D. Replace Antenna Dish.....		6-37
	Fits and Clearances.....	6-19	6-38
Section	VII. Testing		
	General	6-20	6-39
	Test Equipment Required	6-21	6-39
	Test Procedures Using the AN/APM-247 (978G-1) Radar Test Set	6-22	6-39
	A. Test Setup		6-39
	B. Preliminary Settings		6-39
Section	VIII. Storage Instructions		6-61
Section	IX. Special Tools and Test Equipment		
	General	6-23	6-63
	Test Equipment Required.	6-24	6-63
Section	X. Components Location		6-69

		Paragraph	Page
CHAPTER 7.	CONTROL, RADAR SET C-4881/APN-158		
Section	I. Description and Operation		
	General	7-1	7-3
	Purpose of Equipment	7-2	7-3
	Equipment Specifications.....	7-3	7-3
	Equipment Description	7-4	7-4
	A. General		7-4
	B. Mechanical Description.....		7-4
	C. Electrical Description..		7-4
	D. Operating Controls.....		7-4
	Theory of Operation	7-5	7-4
	A. General		7-4
	B. Detailed Theory of Operation.....		7-5
Section	II. Maintenance		
	Disassembly.....	7-6	7-7
	Cleaning	7-7	7-7
	Inspection/Check	7-8	7-7
	Repair	7-9	7-7
	Assembly	7-10	7-7
Section	III. Testing		
	General	7-11	7-9
	A. Testing with the AN/APM-247 (978G-1) Radar Test Set		7-9
Section	IV. Storage Instructions.....		7-13

	Paragraph	Page
CHAPTER 8		
DEPOT OVERHAUL STANDARDS		
Applicability of Depot Overhaul		
Standards.....	8-1	8-1
Applicable References.....	8-2	8-1
A. Repair Standards		8-1
B. Technical Publications.....		8-1
Test Facilities Required.....	8-3	8-1
General Test Requirements, Radar Set		
AN/APN-158.....	8-4	8-2
Receiver-Transmitter RT-711A/APN-158 Tests.....	8-5	8-4
A. Input-Voltage and Frequency		
Check.....		8-4
B. Control Circuit Checks.....		8-4
C. Operating Voltage Checks.....		8-5
D. Fault Sensing Circuits.....		8-6
E. Gate Trigger Pulses.....		8-7
F. KA-TR Voltage Checks.....		8-8
G. Filament Voltage Check and		
Thermal Time Delay		8-8
H. Transmitter Output Power and		
Frequency.....		8-9
I. Afc Mixer Output.....		8-11
J. Crystal Current Check		8-13
K. Receiver Sensitivity and Gain.....		8-13
Synchronizer Electrical SN-358A/APN-158		
Tests	8-6	8-14
A. Gate Pulse		8-16
B. Rangemarks.....		8-16
C. Phase Detector		8-17
D. Sweep Balance.....		8-18
E. Sweep Calibration		8-18
F. Automatic Frequency Control		
(afc).....		8-21
G. Stc Pulse		8-22
H. Video Gain		8-22
I. Contour Check.....		8-23
J. Isolation Amplifier Gain and		
Phase Checks.....		8-23
K. Elevation Servo.....		8-24
Antenna AS-1642A/APN-158 or AS-1520A/		
APN-158 Tests.....	8-7	8-24
A. Antenna Rotation		8-24
B. Elevation Synchro.....		8-26

	Paragraph	Page
C. Pitch and Roll Resolver Alignment.....		8-27
D. Pitch and Roll Resolver Output.....		8-28
E. Sweep Excitation		8-29
F. Sweep Resolver Alignment.....		8-29
G. X-Sensitivity Adjustment		8-30
H. Y-Sensitivity Adjustment		8-30
I. Resolver Tune..		8-31
J. Kate Adjustment..		8-31
L. Limit Switch.....		8-31
Indicator, Azimuth-Range IP-724A/APN-158		
Tests	8-8	8-32
A. Power Supplies.....		8-32
B. Flood Gun Bias.....		8-35
C. Writing Gun Bias.....		8-35
D. Erase Pulse		8-36
E. Gate Pulse		8-36
F. Shading Pulse.....		8-36
G. Video Pulse.....		8-36
H. Sweep Deflection.....		8-37
Control, Radar Set C-4881/APN-158		
Tests	8-9	8-39
A. Function Switch.....		8-39
B. Receiver Gain.		8-39
C. Elevation Control.....		8-41
System Performance Tests.....	8-10	8-41
A. Preliminary Control Settings.		8-41
B. Collimation		8-43
C. Erasure		8-44
D. Writing Gun		8-45
E. BACKGRD Control		8-45
F. Shading.....		8-45
G. Blanking		8-46
H. Sweep		8-46
I. BACKGRD Control.		8-46
J. Indicator Trace.....		8-47
K. Video Level Adjust.		8-47
L. Rangemarks		8-47
M. Sweep Start		8-47
N. Pitch and Roll Phasing.....		8-47
O. Gate Length		8-47
P. Transmitter Output Power and Frequency		8-47

	Paragraph	Page
Q. Receiver Sensitivity and Gain.....		8-49
R. Contour		8-50
S. Rf Pulse		8-51
T. Manual Elevation Control.....		8-51
U. Video Signal.....		8-51
V. Panel Meter Indications		8-51
Appendix A.....		A-1

LIST OF ILLUSTRATIONS

Figure		Page
1-1	Radar Set AN/APN-158A..	1-0
1-2	Equipment Covered.....	1-2
1-3	Radar Set AN/APN-158A, Simplified Block Diagram	1-8
1-4	Radar Set AN/APN-158A, Detailed Block Diagram	1-9
1-5	Transmitter Section, Functional Block Diagram	1-11
1-6	Receiver Section, Functional Block Diagram.	1-11
1-7	Display System, Functional Block Diagram.	1-13
1-8	Radar Set AN/APN-158A, Synchronization/Timing.. ..	1-14
1-9	Sweep System, Functional Block Diagram	1-16
1-10	Gyro Application, Pictorial Diagram	1-16
1-11	Positive 260-Volt Power Distribution Diagram	1-18
1-12	Negative 27.5-Volt Power Distribution Diagram.. ..	1-18
1-13	Positive 27. 5-Volt Power Distribution Diagram.	1-19
1-14	AC Power Distribution Diagram.	1-20
1-15	Fault Sensing, Simplified Functional Block	
1-16	Radar Set AN/APN-158A, Operating Controls	1-21
	Depending on Aircraft Gyro.	1-22
1-17	SN-358A Synchronizer Modification	
1-18	Test Equipment Required	1-24
1-19	Generators A, B, and C, Primary Power Requirements.	1-27
1-20	Initial Control Settings.	1-28
1-21	Preinstallation Test/Troubleshooting Procedures	1-29
2-1	RT-711A/APN-158 Receiver-Transmitter and MT-3068/APN-158 Shockmount	2-2
2-2	Equipment Covered.....	2-3
2-3	Equipment Specifications	2-4
2-4	RT-711A Receiver-Transmitter, Simplified Block Diagram	2-10
2-5	Trigger Generator Module, Block Diagram.	2-15
2-6	Trigger Generator and Modulator Waveforms	2-16
2-7	Modulator, Simplified Schematic Diagram.....	2-18
2-8	Mixer-Duplexer Assembly.....	2-20
2-9	RT-711A Receiver-Transmitter, Generator A Power Distribution Diagram.....	2-26

Figure		Page
2-10	RT-711A Receiver-Transmitter. Generator B Power Distribution Diagram	2-28
2-11	RT-711A Receiver-Transmitter. Generator C Power Distribution Diagram	2-29
2-13	Fault Sensing Module, Block Diagram	2-30
2-12	Power Control Circuits, Simplified Schematic Diagram	2-32
3-14	Metering Circuits. Simplified Schematic Diagram.....	2-34
2-15	RT-711A Receiver-Transmitter, Exploded Bottom View.....	2-44
2-16	Index of Cleaning Procedures	2-49
2-17	Index of Inspection Procedures	2-55
2-18	Fixed Capacitor Inspection	2-57
2-19	Index of Repair Procedures	2-61
2-20	RT-711A Receiver-Transmitter Functional Test	2-76
2-21	RT-711A Receiver-Transmitter Test Point Waveshapes	2-79
2-22	Equipment Setup for Testing with AN/APM-247 Radar Test Set	2-92
2-23	RT-711A Receiver-Transmitter. Performance Testing with AN/APM-247 Radar Test Set ..	2-93
2-24	RT-711A Receiver-Transmitter. Performance Testing with MK-774/APN-158 Radar Maintenance Kit	2-94
2-25	Test Equipment Required	2-97
2-26	RT-711 A/APN-158 Receiver-Transmitter, Components Location	2-101
2-27	Positive 27 5-Volt Regulator Module TB5, Components Location	2-111
2-28	Negative 27.5-Volt Regulator Module TB6. Components Location	2-112
2-29	Meter Circuit Module TB4, Components Location	2-112
2-30	RT-711A Receiver-Transmitter Front Panel Assembly, Components Location	2-113
2-31	Trigger Generator Module, Components Location	2-114
2-32	Fault-Sensing Module TB3. Components Location	2-115
2-33	Mixer-Duplexer Module, Exploded View.....	2-116
2-34	IF Preamplifier, Components Location	2-117
2-35	Keep-Alive Supply Module TB2. Components Location	2-118
2-36	Positive 260-Volt Supply Module TB1, Components Location	2-119
2-37	Modulator, Components Location	2-120
2-38	MT-3068A/APN-158 Shockmount, Components Location	2-124
3-1	SN-358A/APN-158 Synchronizer	3-2
3-2	Equipment Covered.....	3-3
3-3	Equipment Specifications	3-4
3-4	SN-358A Synchronizer, Overall Block Diagram	3-9
3-5	IF. Amplifier Module Block Diagram	3-1
3-6	Video Driver Module Block Diagram.....	3-11
3-7	AFC Module Block Diagram	3-12
3-8	Range Mark Generator, Module, Block Diagram	3-13
3-9	Gate Generator Module, Block Diagram	3-14
3-10	Elevation Servo-Amplifier Module Block Diagram.	3-15
3-11	Sweep Generator and Amplifier Module, Block Diagram	3-16
3-12	Frequency Discriminator Response Curve	3-17
3-13	Sweep Generator and Amplifier Module, Simplified Schematic	3-25
3-14	SN-358A Synchronizer, Exploded View	3-28
3-15	MT-3069 Shockmount, Exploded View.....	3-31
3-16	Index of Cleaning Procedures	3-34
3-17	Index of Inspection Procedures	3-39
3-18	Fixed Capacitor Inspection	3-40
3-19	Index of Repair Procedures	3-45
3-20	Synchronizer Bench Test Setup Diagram Using the AN/APM-247 Radar Test Set	3-55
3-21	Waveforms for Testing	3-56
3-22	SN-358A Synchronizer Test Procedures Using the AN/APM-247 Radar Test Set	3-57
3-23	SN-358A Bench Test Setup Diagram Using the MK-774/APN-158 Radar Maintenance Kit	3-71
3-24	Module Test Procedures Using MK-774/APN-158 Radar Maintenance Kit	3-73
3-25	SN-358A Troubleshooting Chart for Figure 3-22	3-108
3-26	Test Equipment Required.....	3-113
3-27	SN-358A/APN-158 Synchronizer, Components Location	3-120
3-28	SN-358A Synchronizer Front Panel Assembly, Components Location	3-121
3-29	Roll and Pitch Adjust Board, Components Location	3-122
3-30	Isolation Amplifier, Components Location	3-123
3-31	Range Mark Generator, Components Location	3-124
3-32	Gate Generator, Components Location.....	3-125
3-33	Elevation Servo Amplifier, Components Location	3-126
3-34	Automatic Frequency Control (AFC), Components Location	3-127
3-35	Video Driver Board, Components Location	3-128

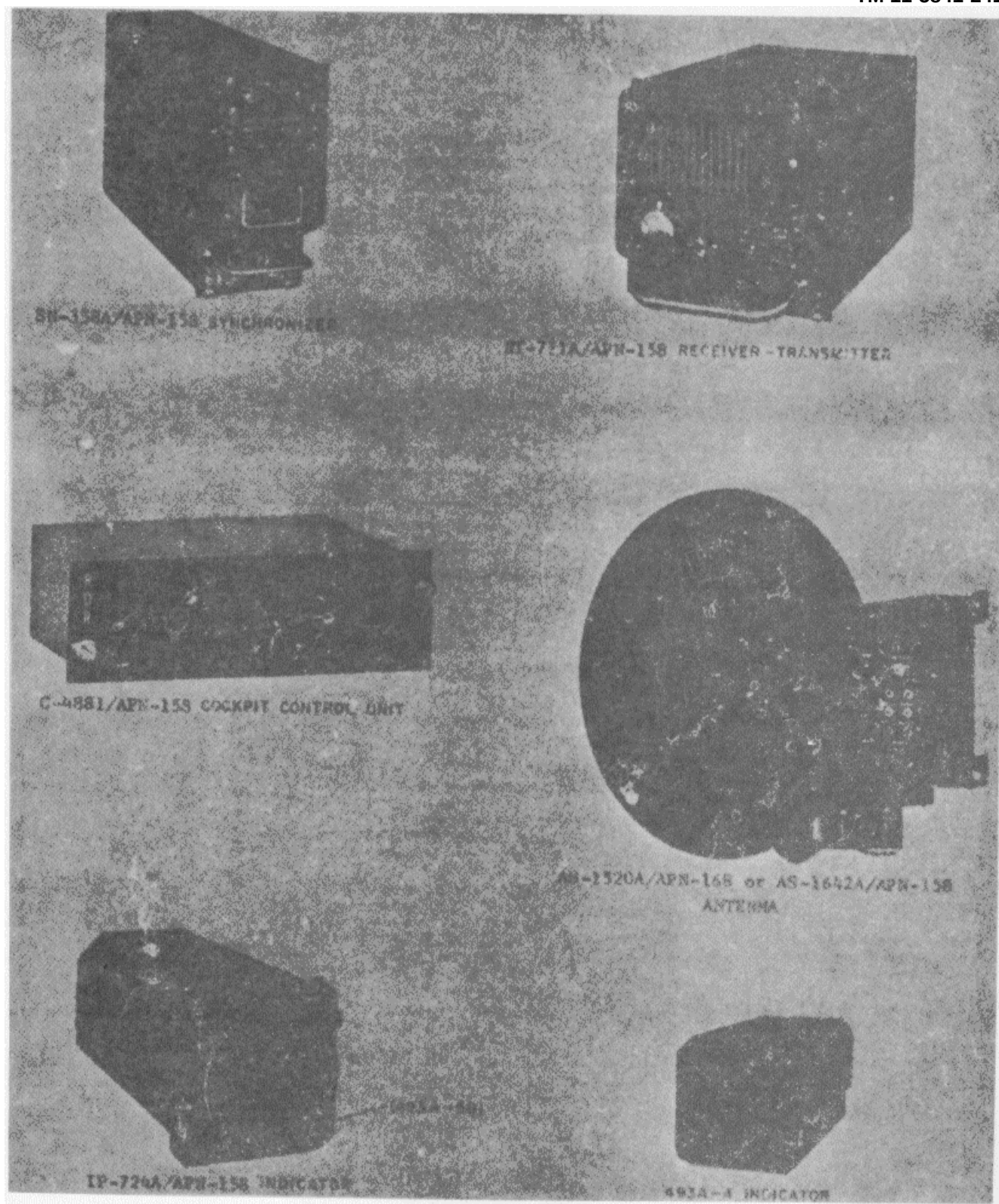
Figure

Page

3-36	IF Amplifier, Components Location	3-129
3-37	Sweep Generator and Amplifier. Components Location	3-132
3-38	Heat Sink, Components Location	3-135
3-39	Wired Board Assembly, Components Location	3-136
3-40	SN-358A Synchronizer Chassis Assembly, Components Location	3-137
4-1	493A-4 Indicator. Overall View	4-2
4-2	Table of Equipment Covered	4-3
4-3	Table of Equipment Specifications	4-3
4-4	493A-4 Indicator, Block Diagram	4-8
4-5	493A-4 Indicator Sweep Circuits, Simplified Schematic Diagram	4-11
4-6	493A-4 Indicator, Explode	4-15
4-7	Index of Cleaning Procedures	4-22
4-8	Index of Inspection Procedures	4-27
4-9	Table of Fixed Capacitor Inspection	4-28
4-10	Index of Repair Procedures	4-33
4-11	493A-4 Indicator Troubleshooting Procedures	4-47
4-12	Table of Test Equipment Required	4-50
4-13	Video Amplifier TB1, Components Location	4-51
4-14	Positioning Circuit TB2, Components Location	4-52
4-15	Off-Centering Regulator, Components Location	4-53
5-1	IP-724A/APN-158 Azimuth-Range Indicator	5-2
5-2	Equipment Covered	5-3
5-3	Equipment Specifications	5-4
5-4	Storage Cathode-Ray Tube, Simplified Diagram	5-17
5-5	IP-724A Indicator Sweep Deflection Circuit, Simplified Schematic Diagram	5-18
5-6	IP-724A Indicators Polarizing Filter Assembly, Exploded View	5-29
5-7	IP-724A Indicator, Chassis Assembly, Exploded View	5-30
5-8	IP-724A Indicator, Semiconductor Assembly. Exploded View	5-31
5-9	Index of Cleaning Procedures	5-34
5-10	Index of Inspection Procedures	5-39
5-11	Table of Fixed Capacitor Inspection	5-40
5-12	Index of Repair Procedures	5-45
5-13	IP-724A Indicator Test Procedures Using the AN/APM-247 Radar Test Set	5-64
5-14	Test Equipment Required	5-77
5-15	IP-724A Indicator Chassis Assembly. Components Location	5-82
5-16	Terminal Board Assembly TB1, Components Location	5-84
5-17	Terminal Board Assembly TB3, Components Location	5-85
5-18	High Voltage Circuit Subassembly TB2, Components Location	5-86
5-19	Terminal Board Assembly TB4. Components Location	5-87
6-1	AS-1520A (AS-1642A)/APN-158 Antenna	6-2
6-2	Equipment Covered	6-3
6-3	Associated Equipment	6-3
6-4	Equipment Specifications	6-4
6-5	Index of Cleaning Procedures	6-14
6-6	Index of Inspection Procedures	6-19
6-7	Fixed Capacitor Inspection	6-20
6-8	Index of Repair Procedures	6-25
6-9	Lubricants	6-11
6-10	Angular Position of Spring Wheel	6-33
6-11	Antenna Test Setup	6-40
6-12	AN/APM-247 (978G-1) Radar Test Set	6-41
6-13	Test Procedures Using AN/APM-247 Radar Test Set	6-42
6-14	Test Setup for AS-1520A(AS-1642A)/APN-158 Antenna Rotary Coupler Adjustments	6-59
6-15	Test Equipment Required	6-63
6-16	AS-1520A/APN-158 and AS-1642A/APN-158 Antenna	6-67
6-17	Gimbal Assembly	6-68
6-18	Geartrain Assembly AS-1520A/AS-1642A/APN-158	6-68.1
6-19	AS-1520A (AS-1642A)/AP-158 Antenna, Components Location	6-69

CHAPTER 1

RADAR SET AN/APN-158A SYSTEM



Radar Set AN/APN-158A
Figure 1-1

Section I. INTRODUCTION

1-1. SCOPE.

This manual provides the overall functioning of Radar Set AN/APN-158A and describes direct support, general support, and depot maintenance of the system. Chapter 1 contains information on the overall system functioning, troubleshooting, testing, aligning, and repair on a system level. Chapters 2 through 7 contain similar information on each of the five individual units of the system. Chapter 8 contains depot overhaul standards for the system.

1-2. INDEXES OF PUBLICATIONS.

A. DA Pam 310-4.

Refer to the latest issue of DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

B. DA Pam 310-7.

Refer to the latest issue of DA Pam 310-7 to determine whether there are modification work orders (MWO's) pertaining to the equipment.

1-3. REPORTING OF EQUIPMENT MANUAL IMPROVEMENTS.

Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publication) and forwarded direct to Commanding General, U.S. Army Electronic Command, ATTN: DAMSEL-MA-AN, Fort Monmouth, N.J. 07703

NOTE: For applicable forms and records refer to TM 11-5841-241-12.

1-4. LIST OF COMPONENTS. (Refer to figures 1-1 and 1-2.)

The components of Radar Set AN/APN-158A are shown in figure 1-1 and described in figure 1-2. The equipment (except the 495A-4) is referred to by its military nomenclature throughout this manual except in diagrams. A list of commercial-to-military nomenclature conversion is presented below.

1-5. MAINTENANCE CONCEPT.

A. General.

This manual contains maintenance instructions for use at the direct support level, general support level, and depot level. Maintenance capabilities are determined by the test equipments allocated to the different categories of maintenance as listed in the Maintenance Allocation Chart (appendix C of TM 11-5841-241-12). Maintenance personnel should refer to the MAC prior to performing any maintenance. In many instances, some of the maintenance procedures contained in this manual may be performed at the direct support

EQUIPMENT	DESCRIPTION	COLLINS PART NUMBER
RT-711A/APN-158 Receiver-Transmitter	X-band pulse transmitter and receiver.	777-1572-001
SN-358A/APN-158 Synchronizer	Generates synchronous sweep signal with antenna azimuth, provides line of sight stabilization to compensate for roll and pitch of aircraft, and provides video signal.	777-1768-001
493A-4 Indicator	Provides a visual output of the radar information including range and azimuth.	522-6104-005
IP-724A/APN-158	Has longer persistence, brighter display.	777-1770-001
AS-1520A/APN-158 Antenna	Radiates the rf energy pulses, and receives the reflected signals (12-inch reflector).	777-1771-001
AS-1642A/APN-158 Antenna	Same as AS-1520A with 18-inch reflector.	777-1772-001
C4881/APN-158 Cockpit Control Unit	Provides control functions for AN/APN-158A system (components only)	522-5883-004
MT-3069/APN-158 Shockmount	Provides mounting facilities for the 776C-4 Synchronizer.	522-6116-004 (776C-4 Synchronizer)
MT-3068/APN-158 Shockmount	Provides mounting facilities for the RT-711A/APN-158 Receiver-Transmitter.	772-5136-001
<i>Equipment Covered</i> <i>Figure 1-2</i>		