

STP 9-94D12-SM-TG

**SOLDIER'S MANUAL
and TRAINER'S GUIDE**

**AIR TRAFFIC CONTROL
EQUIPMENT REPAIRER**

MOS 94D

SKILL LEVELS 1 and 2

JUNE 2006

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

**This publication is available at Army
Knowledge Online <www.us.army.mil>
and the General Dennis J. Reimer Training and
Doctrine Digital Library at <www.train.army.mil>.**

SOLDIER'S MANUAL and TRAINER'S GUIDE

MOS 94D

Air Traffic Control Equipment Repairer

Skill Levels 1 and 2

CONTENTS

	Page
Preface	vi
Chapter 1. Introduction	1-1
1-1. General	1-1
1-2. Task Summaries	1-1
1-3. Soldier's Responsibilities	1-2
1-4. NCO Self-Development and the STP	1-2
1-5. Commander's Responsibilities	1-2
1-6. Trainer's Responsibilities	1-3
1-7. Training Support	1-3
Chapter 2. Trainer's Guide	2-1
2-1. General	2-1
2-2. Subject Area Codes	2-2
2-3. Duty Position Training Requirements	2-3
2-4. Critical Tasks List	2-3
Chapter 3. MOS/Skill Level Tasks	3-1
Skill Level 1	
Subject Area 1: Tactical Radar	
093-94D-1000 Prepare Radar Set AN/TPN-18 or AN/TPN-18A for Flight Check	3-1
093-94D-1050 Prepare Air Traffic Navigation, Integration and Coordination System, AN/TPN-31 for Flight Check	3-3
093-94D-1060 Perform Unit Preventive Checks and Services on Air Traffic Navigation, Integration and Coordination System, AN/TPN-31	3-4
093-94D-1070 Troubleshoot Air Traffic Navigation, Integration and Coordination System, AN/TPN-31	3-6
093-94D-1080 Repair Air Traffic Navigation, Integration and Coordination System, AN/TPN-31	3-7

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

***This publication supersedes STP 9-94D12-SM-TG, 2 February 2006.**

	Page
Subject Area 2: AN/TPN-18	
093-94D-1003 Perform Preliminary Checks and Alignments of Radar Set AN/TPN-18	3-8
093-94D-1006 Perform Preliminary Checks and Alignments of Control Indicator, Radar Set AN/TPN-18 or TPN-18A.....	3-10
093-94D-1013 Perform Organizational Preventive Maintenance Checks and Services on Radar Set AN/TPN-18	3-11
093-94D-1023 Troubleshoot Radar Set AN/TPN-18	3-13
093-94D-1033 Repair Radar Set AN/TPN-18.....	3-15
Subject Area 3: AN/TPN-18A	
093-94D-1016 Perform Preventive Maintenance Checks and Services on Radar Set AN/TPN-18A .	3-17
093-94D-1026 Troubleshoot Radar Set AN/TPN-18A.....	3-19
093-94D-1036 Repair Radar Set AN/TPN-18A	3-21
Subject Area 4: AN/TPX-44	
093-94D-1019 Perform Organizational Preventive Maintenance Checks and Services on Interrogator Set AN/TPX-44.....	3-23
093-94D-1029 Troubleshoot Interrogator Set AN/TPX-44.....	3-24
093-94D-1039 Repair Interrogator Set AN/TPX-44	3-26
Subject Area 5: AN/TSQ-71B	
093-94D-1010 Perform Unit Preventive Maintenance Checks and Services of Landing Control Central AN/TSQ-71B Shelter	3-28
093-94D-1020 Troubleshoot Landing Control Central AN/TSQ-71B.....	3-30
093-94D-1030 Repair Landing Control Central AN/TSQ-71B	3-32
Subject Area 6: AN/TSQ-70A	
093-94D-1110 Perform Organizational Preventive Maintenance Checks and Services on Aircraft Control Central AN/TSQ-70A	3-34
093-94D-1120 Troubleshoot Aircraft Control Central AN/TSQ-70A	3-35
093-94D-1130 Repair Aircraft Control Central AN/TSQ-70A.....	3-37
Subject Area 7: AN/TSW-7A	
093-94D-1160 Perform Organizational Preventive Maintenance Checks and Services on ATC Central AN/TSW-7A.....	3-39
093-94D-1170 Troubleshoot ATC Central AN/TSW-7A	3-40
093-94D-1180 Repair ATC Central AN/TSW-7A.....	3-42
Subject Area 8: AN/TSQ-198	
093-94D-1260 Perform Organizational Preventive Maintenance Checks and Services on Tactical Terminal Control System AN/TSQ-198	3-44
093-94D-1270 Troubleshoot Tactical Terminal Control System AN/TSQ-198	3-45
093-94D-1280 Repair Tactical Terminal Control System AN/TSQ-198	3-47
Subject Area 9: AN/TSC-61B	
093-94D-1310 Perform Organization Preventive Maintenance Checks and Services on Flight Coordination Central AN/TSC-61B	3-48
093-94D-1320 Troubleshoot Flight Coordination Central AN/TSC-61B	3-49
093-94D-1330 Repair Flight Coordination Central AN/TSC-61B.....	3-51
093-94D-1340 Perform Direct Support Testing on Flight Coordination Central AN/TSC-61B	3-53

	Page
Subject Area 10: AN/TRN-30(V)	
093-94D-1420 Troubleshoot Radio Beacon Set AN/TRN-30(V)2	3-54
093-94D-1430 Repair Radio Beacon Set AN/TRN-30(V)2.....	3-56
Subject Area 11: AN/ASM-146B or AN/USM-147B	
093-94D-1460 Perform Preventive Maintenance Checks and Services on Electronic Shop Shelter Mounted, Avionics AN/ASM-146B or AN/ASM-147B	3-58
093-94D-2450 Operate Electronic Shop, Shelter Mounted, Avionics AN/ASM-146B or AN/ASM-147B.....	3-59
Subject Area 12: AN/FSQ-84	
093-94D-1503 Prepare Radar Set AN/FPN-40 for Flight Check	3-60
093-94D-1504 Perform Preliminary Checks and Alignment on Control Indicator, Radar Set AN/FPN-40.....	3-62
093-94D-1513 Perform Organizational Preventive Maintenance Checks and Services on Radar Set AN/FPN-40	3-63
093-94D-1523 Troubleshoot Radar Set AN/FPN-40	3-64
093-94D-1533 Repair Radar Set AN/FPN-40.....	3-66
Subject Area 13: AN/FSQ-84 – MUX and DEMUX	
093-94D-1526 Troubleshoot Multiplexer TD-991/G and DeMultiplexer TD-992/G.....	3-68
093-94D-1536 Repair Multiplexer TD-991/G and DeMultiplexer TD-992/G	3-70
Subject Area 14: AN/TPX-41	
093-94D-1519 Perform Organizational Preventive Maintenance Checks and Services on Interrogator Set AN/TPX-41	3-72
093-94D-1529 Troubleshoot Interrogator Set AN/TPX-41.....	3-73
093-94D-1539 Repair Interrogator Set AN/TPX-41	3-75
Subject Area 15: Consoles	
093-94D-1600 Program SCU on ATCCSS AN/FSC-92(V).....	3-77
093-94D-1601 Program Voice Communication Switching System AN/FSC-127	3-81
093-94D-1610 Perform Organization PMCS on Air Traffic Control Switching System AN/FSC-92	3-82
093-94D-1611 Perform Organization PMCS on Voice Communication Switch (VCSS) AN/FSC-127	3-83
093-94D-1620 Troubleshoot ATCCSS AN/FSC-92(V).....	3-84
093-94D-1621 Troubleshoot VCSS AN/FSC-127.....	3-86
093-94D-1629 Troubleshoot C-10931 (CCU) Console.....	3-87
093-94D-1630 Repair ATCCSS AN/FSC-92(V).....	3-88
093-94D-1631 Repair VCSS AN/FSC-127	3-90
093-94D-1639 Repair C-10931 (CCU) Console	3-92
Subject Area 16: Nautel NDB	
093-94D-1660 Perform Operator's Preventive Maintenance Checks and Services on the Nautel Beacon System	3-94
093-94D-1670 Troubleshoot Nautel Beacon System	3-95
093-94D-1676 Troubleshoot Monitor, Radio Frequency R-2176/FRN	3-96
093-94D-1680 Repair Transmitter, Radio T-1428/FRN and Tuner, Radio R-2176-FRN	3-98
093-94D-1686 Repair Monitor, Radio Frequency R-2176/FRN.....	3-100

	Page
Subject Area 17: Receivers-Transmitters	
093-94D-1710 Perform Organization Preventive Maintenance Checks and Services on Receiver, Radio AN/GRR-23 or AN/GRR-24	3-102
093-94D-1720 Troubleshoot Receiver, Radio AN/GRR-23 or AN/GRR-24	3-104
093-94D-1730 Repair Radio Receiver AN/GRR-23 OR AN/GRR-24.....	3-106
093-94D-1760 Perform Organizational Preventive Maintenance Checks and Services on Transmitting Set, Radio AN/GRT-21or AN/GRT-22	3-108
093-94D-1770 Troubleshoot Transmitting Set, Radio AN/GRT-21 Or AN/GRT-22	3-110
093-94D-1780 Repair Transmitting Set, Radio AN/GRT-21or AN/GRT-22.....	3-112
093-94D-1820 Troubleshoot Radio Set AN/GRC-171	3-114
093-94D-1830 Repair Radio Set AN/GRC-171	3-116
Subject Area 18: Digital Voice Recorder DVRS	
093-94D-1860 Perform Organization Preventive Maintenance Checks and Services on Digital Voice Recorder System (DVRS).....	3-118
093-94D-1870 Troubleshoot Digital Voice Recorder	3-120
093-94D-1880 Repair Digital Voice Recorder System	3-121
Subject Area 19: TVOR with ATIS	
093-94D-1910 Perform Preventive Maintenance Checks and Services on Radio Transmitting Set AN/FRN-41.....	3-122
093-94D-1920 Troubleshoot Radio Transmitting Set AN/FRN-41.....	3-123
093-94D-1926 Troubleshoot ATIS Recorder/Reproducer Set AN/CS 1000.....	3-125
093-94D-1930 Repair Radio Transmitting Set AN/FRN-41	3-126
093-94D-1936 Repair ATIS Recorder/Reproducer Set AN/CS 1000	3-128
093-94D-1940 Perform Preflight and Post Flight Inspection Actions for Radio Transmitting Set AN/FRN-41.....	3-130
Subject Area 20: Tactical Airspace Integration System AN/TSQ-221	
093-94D-1360 Perform Organization Preventive Maintenance Checks and Services on Tactical Airspace Integration System (TAIS) AN/TSQ-221	3-131
093-94D-1370 Troubleshoot Tactical Airspace Integration System AN/TSQ-221.....	3-132
093-94D-1380 Repair Tactical Airspace Integration System AN/TSQ-221	3-133
Subject Area 21: AN/TPX-56	
093-94D-1069 Perform Organization Preventive Maintenance Checks and Services on Interrogator Set AN/TPX-56.....	3-134
093-94D-1079 Troubleshoot Interrogator Set AN/TPX-56.....	3-135
093-94D-1089 Repair Interrogator Set AN/TPX-56	3-136
Skill Level 2	
Subject Area 22: Tactical Radar Supervision	
093-94D-3000 Supervise Preparation of Radar Set AN/TPN-18 or AN/TPN-18A for Flight Check	3-137
093-94D-3503 Supervise Preparation of Radar Set AN/FPN-40 for Flight	3-138
093-94D-4040 Verify Preparation of Landing Control Central AN/TSQ-71B for Flight Inspection	3-139
Subject Area 23: Maintenance Operations	
093-94D-2901 Maintain Calibration Program	3-140
093-94D-3910 Determine ATC Maintenance and Operation Testing Procedures Requirements.....	3-142

	Page
Appendix A	A-1
Appendix B	B-1
Glossary	Glossary-1
References	References-1

PREFACE

This soldier training publication (STP) is intended for soldiers holding MOS 94D, Skill Levels (SLs) 1 and 2, their supervisors, trainers, and commanders. It contains an MOS Training Plan that provides information needed to plan, conduct, and evaluate unit training, one of the most important jobs of military leaders. It includes standardized training objectives in the form of task summaries that can be used to train and evaluate soldiers on critical tasks supporting unit missions during wartime.

Soldiers holding MOS 94D should have access to this publication. Trainers and first-line supervisors should actively plan for soldiers' access, making it available in work areas, unit learning centers, and unit libraries. However, it is not intended for an individual copy to be provided to each MOS holder. The STP is obtainable on-line from the RDL at <http://www.adtdl.army.mil/atdls.htm>.

This publication applies to the Active Army, the Army National Guard/Army National Guard of the United States, and the United States Army Reserve unless otherwise stated.

The proponent of this publication is United States Army Training and Doctrine Command (TRADOC). Submit comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Department of the Army, Training Directorate, Ordnance Training Division, ATTN: ATCL-AO, 401 First Street, Suite 225, Fort Lee, VA 23801-1511.

CHAPTER 1

Introduction

1-1. General. This STP identifies individual military occupational specialty (MOS) training requirements for soldiers holding MOS 94D. Commanders, trainers, and soldiers should use it to plan, conduct, and evaluate individual training in units. The STP is the primary MOS reference for supporting self-development, evaluating MOS proficiency, and training of 94D soldiers. Commanders employ two primary methods to evaluate soldier proficiency:

- Commander's evaluation. Commander's evaluations are local tests or assessments of soldiers' performance of MOS-specific and common tasks critical to the unit mission. They may be conducted year-round.
- Common task test (CTT). CTTs are hands-on tests used to evaluate proficiency on common tasks. Alternate written tests are provided if equipment is not available for hands-on testing.

This publication is the soldier's primary reference to prepare for a commander's evaluation of MOS-specific tasks. It contains task summaries for all critical tasks specific to the MOS and SL. Commanders and trainers will use this soldier's manual/trainer's guide (SM/TG) to plan and conduct training and commander's evaluations.

Chapter 2, Trainer's Guide, contains information needed to plan training requirements for this MOS. The trainer's guide—

- Identifies subject areas in which soldiers must be trained.
- Identifies critical tasks for each subject area.
- Specifies where soldiers are initially trained on each task.
- Recommends how often each task should be trained to sustain proficiency.
- Recommends a strategy for cross-training soldiers.
- Recommends a strategy for training soldiers to perform higher-level tasks.

Use this STP along with STP 21-1-SMCT (Soldier's Manual of Common Tasks, Skill Level 1), STP 21-24-SMCT (Soldier's Manual of Common Tasks, Skill Levels 2-4), ARTEPs, FM 25-4 (How to Conduct Training Exercises), FM 25-5 (Training for Mobilization and War), FM 7-0 (Training the Force), and FM 7-1 (Battle-Focused Training) to establish effective training plans and programs that integrate soldier, leader, and collective tasks.

1-2. Task Summaries. Task summaries outline wartime performance requirements for each critical task in the STP. They provide both soldier and trainer with the information necessary to prepare, conduct, and evaluate critical task training. As a minimum, task summaries include information soldiers must know and skills they must perform to standard for each task. The following is the task summary format:

- Task number. The task number is a 10-digit number that identifies the task and skill level. Include the task number and title in any correspondence relating to the task.
- Task title. The task title identifies the action to be performed.
- Conditions. The task conditions statement describes the field or garrison conditions under which the task will be performed and identifies the equipment, tools, references, job aids, and supporting personnel that the soldier needs to perform the task in wartime.

- **Standards.** The task standards describe how well and to what level of proficiency the soldier must perform the task under wartime conditions. Standards are typically expressed in terms of accuracy, completeness, duration, sequence, speed, and tolerance.
- **Performance measures.** This section identifies specific actions that the soldier must accomplish to complete the task successfully. Performance measures appear in a GO/NO-GO rating format for easy evaluation. Some tasks may also include detailed training information in a Training Information Outline and an Evaluation Preparation Section. The Evaluation Preparation Section indicates necessary modifications to task performance in order to train and evaluate a task that cannot be trained to the wartime standard under wartime conditions. It may also include special training and evaluation preparation instructions to accommodate these modifications and any instructions that should be given to the soldier before evaluation.
- **References.** This section identifies references that provide more detailed explanations of task performance requirements than are given in the task summary.
- **Warnings.** Warnings alert users to the possibility of immediate personal injury or equipment damage.
- **Notes.** Notes provide additional supportive explanations or tips relating to task performance.

1-3. **Soldier's Responsibilities.** Each soldier is responsible for performing individual tasks identified by the first-line supervisor based on the unit's mission-essential task list (METL). Soldiers must perform tasks to the standards included in the task summary. If soldiers have questions about tasks or which tasks in this STP they must perform, they are responsible for asking their first-line supervisor for clarification. First-line supervisors know how to perform each task or can direct soldiers to appropriate training materials (including current field manuals, technical manuals, and Army regulations). Soldiers are responsible for using these materials to maintain performance. They are also responsible for maintaining performance of all common tasks listed in the SMCTs at their current SL and below. Periodically, soldiers should ask their supervisor or another soldier to check their performance to ensure that they can perform the tasks.

1-4. **NCO Self-Development and the STP.** Self-development is a key component of leader development. Leaders follow planned, progressive, sequential, self-development programs developed by the individual NCO and his or her first-line supervisor to enhance and sustain military competencies. Self-development consists of individual study, research, professional reading, practice, and self-assessment. The self-development concept requires noncommissioned officers (NCOs), as Army professionals, to take responsibility for remaining current in all phases of their MOS. The STP is the NCO's primary source for maintaining MOS proficiency.

Another important resource for self-development is the Army Correspondence Course Program (ACCP). Refer to DA Pamphlet 350-59 (Army Correspondence Course Program Catalog) for detailed eligibility requirements and enrollment information. The catalog is available at local education centers or on-line through the Army Institute for Professional Development (AIPD) web site, <http://www.atsc.army.mil/accp/aipd.htm>. The web site offers on-line enrollment.

1-5. **Commander's Responsibilities.** Commanders must ensure that their unit training plans prepare the unit for war by enabling soldiers to develop and sustain proficiency in their MOS and SL tasks. Commanders should design unit training programs to provide individual training for all soldiers assigned to the unit and to evaluate soldier proficiency routinely as part of the commander's evaluation program. The unit training program should also integrate individual training with crew drills and other collective training. The MOS Training Plan provides information on which to base integration, cross-train, train-up, and sustainment training programs. Commanders should use the MOS Training Plan when developing unit training plans.

1-6. Trainer's Responsibilities. Training is the business of all unit leaders. First-line leaders are the principal trainers in the unit because they directly supervise soldiers and lead crews, squads, sections, and teams.

Trainers can use the MOS Training Plan to determine the critical tasks each soldier is responsible for. They should tell each soldier which tasks he or she must be able to perform. Trainers should evaluate task performance to determine which tasks each soldier can or cannot perform to standard. Soldiers who cannot perform a task to standard needs further training. This STP helps the trainer do what trainers get paid to do—train. Developing effective training is explained in detail in FM 7-0 and FM 7-1.

Every task summary in this STP includes performance measures, which trainers may use year-round to determine if soldiers can perform critical tasks to the specified standards. The performance measures identify what the trainer needs to observe to score a soldier's performance. A blank space is provided for the trainer to check either the GO or NO-GO column for each performance measure. Some tasks require the trainer to watch the soldier perform them (evaluate the process). Other tasks call for the trainer to focus on the results of the soldier's performance (evaluate the product). Comments should not be written on the task summary.

Trainers can monitor the progress of their soldiers by recording task GO/NO-GO results. Trainers may use DA Form 5164-R (Hands-On Evaluation) to record the performance measures a soldier passed or failed. The form, which may be locally reproduced, applies to all tasks in this STP. Trainers may have DA Form 5164-R overprinted with information unique to their training requirements before reproducing it. See Appendix A for instructions on how to obtain and fill out a copy of a DA Form 5164-R.

Trainers may use DA Form 5165-R (Field Expedient Squad Book) to record hands-on GO/NO-GO results for a group of soldiers (for example, a crew, section, or squad) having the same MOS and SL. This form supports conduct of commander's evaluations, and can be used to record training results gathered in the field during slack time for all MOSs and SLs. Use of this form is optional. See Appendix B for instructions on how to obtain and fill out a copy of a DA Form 5165-R. Trainers should work with each soldier until tasks can be performed to specific task summary standards.

1-7. Training Support. References have been identified for each task to assist in planning and conducting training. A consolidated list of references identified by type, publication number, and title and a comprehensive glossary of acronyms, abbreviations, and definitions are included in this STP.

This page intentionally left blank.

CHAPTER 2

Trainer's Guide

2-1. General. The MOS Training Plan identifies the essential components of a unit training plan for individual training. Units have different training needs and requirements based on differences in environment, location, equipment, dispersion, and similar factors. Therefore, the MOS Training Plan should be used as a guide for conducting unit training and not a rigid standard. The MOS Training Plan consists of two parts. Each part is designed to assist the commander in preparing a unit training plan which satisfies integration, cross training, training up, and sustainment training requirements for soldiers in this MOS.

Part One of the MOS Training Plan shows the relationship of an MOS skill level between duty position and critical tasks. These critical tasks are grouped by task commonality into subject areas.

Section I lists subject area numbers and titles used throughout the MOS Training Plan. These subject areas are used to define the training requirements for each duty position within an MOS.

Section II identifies the total training requirement for each duty position within an MOS and provides a recommendation for cross training and train-up/merger training.

Duty Position Column. This column lists the duty positions of the MOS, by skill level, which have different training requirements.

Subject Area Column. This column lists, by numerical key (see Section I), the subject areas a soldier must be proficient in to perform in that duty position.

Cross Train Column. This column lists the recommended duty position for which soldiers should be cross trained.

Train-up/Merger Column. This column lists the corresponding duty position for the next higher SL or Military Occupational Specialty Code (MOSC) the soldier will merge into on promotion.

Part Two lists, by general subject areas, the critical tasks to be trained in an MOS and the type of training required (resident, integration, or sustainment).

Subject Area Column. This column lists the subject area number and title in the same order as Section I, Part One of the MOS Training Plan.

Task Number Column. This column lists the task numbers for all tasks included in the subject area.

Title Column. This column lists the task title for each task in the subject area.

Training Location Column. This column identifies the training location where the task is first trained to soldier training publications standards. If the task is first trained to standard in the unit, the word "Unit" will be in this column. If the task is first trained to standard in the training base, it will identify, by brevity code (ANCOC, BNCOC, and so forth), the resident course where the task was taught. Figure 2-1 contains a list of training locations and their corresponding brevity codes.

AIT	Advanced Individual Training
UNIT	Trained in the Unit

Figure 2-1. Training Locations

Sustainment Training Frequency Column. This column indicates the recommended frequency at which the tasks should be trained to ensure soldiers maintain task proficiency. Figure 2-2 identifies the frequency codes used in this column.

BA	- Biannually
AN	- Annually
SA	- Semiannually
QT	- Quarterly
MO	- Monthly
BW	- Biweekly
WK	- Weekly

Figure 2-2. Sustainment Training Frequency Codes

Sustainment Training Skill Level Column. This column lists the skill levels of the MOS for which soldiers must receive sustainment training to ensure they maintain proficiency to soldier's manual standards.

2-2. Subject Area Codes.

Skill Level 1

- 1 Tactical Radar
- 2 AN/TPN-18
- 3 AN/TPN-18A
- 4 AN/TPX-44
- 5 AN/TSQ-71B
- 6 AN/TSQ-70A
- 7 AN/TSW-7A
- 8 AN/TSQ-198
- 9 AN/TSC-61B
- 10 AN/TRN-30(V)
- 11 AN/ASM-146B or AN/USM-147B
- 12 AN/FSQ-84
- 13 AN/FSQ-84 - MUX and DEMUX
- 14 AN/TPX-41
- 15 Consoles
- 16 Nautel NDB
- 17 Receivers-Transmitters
- 18 Digital Voice Recorder DVRS
- 19 TVOR with ATIS
- 20 Tactical Airspace Integration System AN/TSQ-221
- 21 AN/TPX-56

Skill Level 2

- 22 Tactical Radar Supervision
- 23 Maintenance Operations

2-3. Duty Position Training Requirements.

	DUTY POSITION	SUBJECT AREAS	CROSS TRAIN	TRAIN-UP MERGER
SL 1	Air Traffic Control Equipment Repairer	1-20	NA	94D10 ATC Equipment Repairer
SL 2	ATC Equipment Repairer	1-23	NA	94D20 ATC Equip Repair Supervisor

2-4. Critical Tasks List.

**MOS TRAINING PLAN
94D12**

CRITICAL TASKS

Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
Skill Level 1				
<i>Subject Area 1. Tactical Radar</i>				
093-94D-1000	Prepare Radar Set AN/TPN-18 or AN/TPN-18A for Flight Check	AIT	QT	1-4
093-94D-1050	Prepare Air Traffic Navigation, Integration and Coordination System, AN/TPN-31 for Flight Check	AIT	QT	1-4
093-94D-1060	Perform Unit Preventive Checks and Services on Air Traffic Navigation, Integration and Coordination System, AN/TPN-31	UNIT	MO	1-4
093-94D-1070	Troubleshoot Air Traffic Navigation, Integration and Coordination System, AN/TPN-31	AIT	MO	1-4
093-94D-1080	Repair Air Traffic Navigation, Integration and Coordination System, AN/TPN-31	AIT	MO	1-4
<i>Subject Area 2. AN/TPN-18</i>				
093-94D-1003	Perform Preliminary Checks and Alignments of Radar Set AN/TPN-18	AIT	QT	1-4
093-94D-1006	Perform Preliminary Checks and Alignments of Control Indicator, Radar Set AN/TPN-18 or TPN-18A	AIT	MO	1-4
093-94D-1013	Perform Organizational Preventive Maintenance Checks and Services on Radar Set AN/TPN-18	UNIT	SA	1-4
093-94D-1023	Troubleshoot Radar Set AN/TPN-18	UNIT	QT	1-4
093-94D-1033	Repair Radar Set AN/TPN-18	UNIT	MO	1-4
<i>Subject Area 3. AN/TPN-18A</i>				
093-94D-1016	Perform Preventive Maintenance Checks and Services on Radar Set AN/TPN-18A	UNIT	QT	1-4
093-94D-1026	Troubleshoot Radar Set AN/TPN-18A	AIT	MO	1-4
093-94D-1036	Repair Radar Set AN/TPN-18A	AIT	MO	1-4
<i>Subject Area 4. AN/TPX-44</i>				
093-94D-1019	Perform Organizational Preventive Maintenance Checks and Services on Interrogator Set AN/TPX-44	UNIT	QT	1-4
093-94D-1029	Troubleshoot Interrogator Set AN/TPX-44	AIT	BM	1-4
093-94D-1039	Repair Interrogator Set AN/TPX-44	AIT	QT	1-4
<i>Subject Area 5. AN/TSQ-71B</i>				
093-94D-1010	Perform Unit Preventive Maintenance Checks and Services of Landing Control Central AN/TSQ-71B Shelter	UNIT	MO	1-4
093-94D-1020	Troubleshoot Landing Control Central AN/TSQ-71B	AIT	QT	1-4
093-94D-1030	Repair Landing Control Central AN/TSQ-71B	AIT	SA	1-4

CRITICAL TASKS

Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
Subject Area 6. AN/TSQ-70A				
093-94D-1110	Perform Organizational Preventive Maintenance Checks and Services on Aircraft Control Central AN/TSQ-70A	UNIT	QT	1-4
093-94D-1120	Troubleshoot Aircraft Control Central AN/TSQ-70A	UNIT	QT	1-4
093-94D-1130	Repair Aircraft Control Central AN/TSQ-70A	UNIT	QT	1-4
Subject Area 7. AN/TSW-7A				
093-94D-1160	Perform Organizational Preventive Maintenance Checks and Services on ATC Central AN/TSW-7A	UNIT	QT	1-4
093-94D-1170	Troubleshoot ATC Central AN/TSW-7A	AIT	QT	1-4
093-94D-1180	Repair ATC Central AN/TSW-7A	AIT	MO	1-4
Subject Area 8. AN/TSQ-198				
093-94D-1260	Perform Organizational Preventive Maintenance Checks and Services on Tactical Terminal Control System AN/TSQ-198	UNIT	QT	1-4
093-94D-1270	Troubleshoot Tactical Terminal Control System AN/TSQ-198	AIT	QT	1-4
093-94D-1280	Repair Tactical Terminal Control System AN/TSQ-198	AIT	QT	1-4
Subject Area 9. AN/TSC-61B				
093-94D-1310	Perform Organization Preventive Maintenance Checks and Services on Flight Coordination Central AN/TSC-61B	UNIT	QT	1-4
093-94D-1320	Troubleshoot Flight Coordination Central AN/TSC-61B	UNIT	BM	1-4
093-94D-1330	Repair Flight Coordination Central AN/TSC-61B	UNIT	BM	1-4
093-94D-1340	Perform Direct Support Testing on Flight Coordination Central AN/TSC-61B	UNIT	MO	1-4
Subject Area 10. AN/TRN-30(V)				
093-94D-1420	Troubleshoot Radio Beacon Set AN/TRN-30(V)2	AIT	QT	1-4
093-94D-1430	Repair Radio Beacon Set AN/TRN-30(V)2	AIT	QT	1-4
Subject Area 11. AN/ASM-146B or AN/USM-147B				
093-94D-1460	Perform Preventive Maintenance Checks and Services on Electronic Shop Shelter Mounted, Avionics AN/ASM-146B or AN/ASM-147B	UNIT	MO	1-4
093-94D-2450	Operate Electronic Shop, Shelter Mounted, Avionics AN/ASM-146B or AN/ASM-147B	UNIT	BW	1-4
Subject Area 12. AN/FSQ-84				
093-94D-1503	Prepare Radar Set AN/FPN-40 for Flight Check	UNIT	MO	1-4
093-94D-1504	Perform Preliminary Checks and Alignment on Control Indicator, Radar Set AN/FPN-40	UNIT	WK	1-4
093-94D-1513	Perform Organizational Preventive Maintenance Checks and Services on Radar Set AN/FPN-40	UNIT	MO	1-4
093-94D-1523	Troubleshoot Radar Set AN/FPN-40	UNIT	QT	1-4
093-94D-1533	Repair Radar Set AN/FPN-40	UNIT	BW	1-4

CRITICAL TASKS				
Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
Subject Area 13. AN/FSQ-84 - MUX and DEMUX				
093-94D-1526	Troubleshoot Multiplexer TD-991/G and DeMultiplexer TD-992/G	AIT	BM	1-4
093-94D-1536	Repair Multiplexer TD-991/G and DeMultiplexer TD-992/G	UNIT	MO	1-4
Subject Area 14. AN/TPX-41				
093-94D-1519	Perform Organizational Preventive Maintenance Checks and Services on Interrogator Set AN/TPX-41	UNIT	WK	1-4
093-94D-1529	Troubleshoot Interrogator Set AN/TPX-41	UNIT	MO	1-4
093-94D-1539	Repair Interrogator Set AN/TPX-41	UNIT	MO	1-4
Subject Area 15. Consoles				
093-94D-1600	Program SCU on ATCCSS AN/FSC-92(V)	AIT	QT	1-4
093-94D-1601	Program Voice Communication Switching System AN/FSC-127	AIT	MO	1-4
093-94D-1610	Perform Organization PMCS on Air Traffic Control Switching System AN/FSC-92	UNIT	MO	1-4
093-94D-1611	Perform Organization PMCS on Voice Communication Switch (VCSS) AN/FSC-127	UNIT	MO	1-4
093-94D-1620	Troubleshoot ATCCSS AN/FSC-92(V)	AIT	QT	1-4
093-94D-1621	Troubleshoot VCSS AN/FSC-127	AIT	MO	1-4
093-94D-1629	Troubleshoot C-10931 (CCU) Console	UNIT	MO	1-4
093-94D-1630	Repair ATCCSS AN/FSC-92(V)	AIT	QT	1-4
093-94D-1631	Repair VCSS AN/FSC-127	UNIT	MO	1-4
093-94D-1639	Repair C-10931 (CCU) Console	UNIT	MO	1-4
Subject Area 16. Nautel NDB				
093-94D-1660	Perform Operator's Preventive Maintenance Checks and Services on the Nautel Beacon System	UNIT	BM	1-4
093-94D-1670	Troubleshoot Nautel Beacon System	AIT	QT	1-4
093-94D-1676	Troubleshoot Monitor, Radio Frequency R-2176/FRN	AIT	QT	1-4
093-94D-1680	Repair Transmitter, Radio T-1428/FRN and Tuner, Radio R-2176-FRN	AIT	QT	1-4
093-94D-1686	Repair Monitor, Radio Frequency R-2176/FRN	AIT	SA	1-4

CRITICAL TASKS

Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
Subject Area 17. Receivers-Transmitters				
093-94D-1710	Perform Organization Preventive Maintenance Checks and Services on Receiver, Radio AN/GRR-23 or AN/GRR-24	UNIT	QT	1-4
093-94D-1720	Troubleshoot Receiver, Radio AN/GRR-23 or AN/GRR-24	AIT	SA	1-4
093-94D-1730	Repair Radio Receiver AN/GRR-23 OR AN/GRR-24	AIT	SA	1-4
093-94D-1760	Perform Organizational Preventive Maintenance Checks and Services on Transmitting Set, Radio AN/GRT-21or AN/GRT-22	AIT	QT	1-4
093-94D-1770	Troubleshoot Transmitting Set, Radio AN/GRT-21 Or AN/GRT-22	AIT	QT	1-4
093-94D-1780	Repair Transmitting Set, Radio AN/GRT-21or AN/GRT-22	AIT	QT	1-4
093-94D-1820	Troubleshoot Radio Set AN/GRC-171	UNIT	QT	1-4
093-94D-1830	Repair Radio Set AN/GRC-171	UNIT	QT	1-4
Subject Area 18. Digital Voice Recorder DVRS				
093-94D-1860	Perform Organization Preventive Maintenance Checks and Services on Digital Voice Recorder System (DVRS)	UNIT	QT	1-4
093-94D-1870	Troubleshoot Digital Voice Recorder	AIT	QT	1-4
093-94D-1880	Repair Digital Voice Recorder System	AIT	QT	1-4
Subject Area 19. TVOR with ATIS				
093-94D-1910	Perform Preventive Maintenance Checks and Services on Radio Transmitting Set AN/FRN-41	UNIT	QT	1-4
093-94D-1920	Troubleshoot Radio Transmitting Set AN/FRN-41	UNIT	QT	1-4
093-94D-1926	Troubleshoot ATIS Recorder/Reproducer Set AN/CS 1000	UNIT	QT	1-4
093-94D-1930	Repair Radio Transmitting Set AN/FRN-41	UNIT	QT	1-4
093-94D-1936	Repair ATIS Recorder/Reproducer Set AN/CS 1000	UNIT	QT	1-4
093-94D-1940	Perform Preflight and Post Flight Inspection Actions for Radio Transmitting Set AN/FRN-41	UNIT	QT	1-4
Subject Area 20. Tactical Airspace Integration System AN/TSQ-221				
093-94D-1360	Perform Organization Preventive Maintenance Checks and Services on Tactical Airspace Integration System (TAIS) AN/TSQ-221	UNIT	MO	1-4
093-94D-1370	Troubleshoot Tactical Airspace Integration System AN/TSQ-221	AIT	MO	1-4
093-94D-1380	Repair Tactical Airspace Integration System AN/TSQ-221	AIT	QT	1-4
Subject Area 21. AN/TPX-56				
093-94D-1069	Perform Organization Preventive Maintenance Checks and Services on Interrogator Set AN/TPX-56	UNIT	MO	1-4
093-94D-1079	Troubleshoot Interrogator Set AN/TPX-56	AIT	MO	1-4
093-94D-1089	Repair Interrogator Set AN/TPX-56	AIT	MO	1-4

CRITICAL TASKS

Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
Skill Level 2				
<i>Subject Area 22. Tactical Radar Supervision</i>				
093-94D-3000	Supervise Preparation of Radar Set AN/TPN-18 or AN/TPN-18A for Flight Check	AIT	AN	2-4
093-94D-3503	Supervise Preparation of Radar Set AN/FPN-40 for Flight	UNIT	SA	2-4
093-94D-4040	Verify Preparation of Landing Control Central AN/TSQ-71B for Flight Inspection	UNIT	SA	2-4
<i>Subject Area 23. Maintenance Operations</i>				
093-94D-2901	Maintain Calibration Program	UNIT	SA	2-4
093-94D-3910	Determine ATC Maintenance and Operation Testing Procedures Requirements	UNIT	SA	2-4

CHAPTER 3

MOS/Skill Level Tasks

Skill Level 1

Subject Area 1: Tactical Radar

**Prepare Radar Set AN/TPN-18 or AN/TPN-18A for Flight Check
093-94D-1000**

Conditions: In a contemporary operating environment (COE), given radar set, Field Manual (FM) 3-04.303, Technical Bulletin (TB) 385-4, Technical Manual (TM) 11-5840-281-12-1, TM 11-5840-281-34-1, TM 11-5840-281-35/1, TM 11-5840-281-12, Test Set Radar AN/UPM-145, AN/USM-281C, ME-518, clinometer, and TK-100 Tool Kit. Prepare Radar Set AN/TPN-18 or AN/TPN-18A for flight check, as directed by supervisor or if flight check notification has been received.

NOTE: If listed equipment is not available, comparable equipment may be substituted.

Standards: Prepared Radar Set AN/TPN-18 or AN/TPN-18A for flight inspection in accordance with listed publications.

Performance Measures

NOTE: Verification of performance measures is located in TM 11-5840-281-34-1 and TM 11-5840-281-12-1 for AN/TPN-18A and TM 11-5840-281-35/1 and TM 11-5840-281-12 for AN/TPN-18.

	<u>GO</u>	<u>NO-GO</u>
1. Verified radar group level.	—	—
2. Verified elevation antenna push rod length.	—	—
3. Verified AN/TPN-18A power supplies.	—	—
4. Verified elevation and azimuth data potentiometer and electronic filters adjustments.	—	—
5. Verified search scan mode alignment.	—	—
6. Verified precision scan mode alignment.	—	—
7. Verified simultaneous scan mode alignment.	—	—
8. Verified angle volt dial alignment.	—	—
9. Verified cursor alignment.	—	—
10. Performed transmitter section power-out procedure. Power-out was recorded.	—	—
11. Performed Meteorological Data System (MDS) check on AN/TPN-18A receiver. MDS figure was recorded.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

FM 3-04.303

TM 11-5840-281-12

TM 11-5840-281-12-1

TM 11-5840-281-34-1

TM 11-5840-281-35/1

Related

TB 385-4

**Prepare Air Traffic Navigation, Integration and Coordination System, AN/TPN-31 for Flight Check
093-94D-1050**

Conditions: In a contemporary operating environment (COE), prepare Air Traffic Navigation, Integration, and Coordination System (ATNAVICS) AN/TPN-31 for flight check and given Tool Kit TK-100/G or TK-105/G, Technical Manual (TM) 11-5840-381-10, TM 11-5840-381-23P, and Field Manual (FM) 3-04.303. Assist in assembly, preparation, and use for flight check.

Standards: Assisted air traffic controllers in preparing Radar Set AN/TPN-31 for flight check in accordance with TM 11-5840-381-10 and FM 3-04.303.

Performance Measures

GO NO-GO

NOTE: To prepare the ATNAVICS for use, perform the step-by-step procedures outlined in TM 11-5840-381-10 and FM 3-04.303.

1. Verified sensor pallet siting requirement.	_____	_____
2. Read siting consideration.	_____	_____
3. Verified data prior to radar deployment.	_____	_____
4. Assisted in performing radar alignment and additional data measurement.	_____	_____
5. Grounded sensor pallet in accordance with TM.	_____	_____
6. Grounded operations shelter in accordance with TM.	_____	_____
7. Grounded trailer in accordance with TM.	_____	_____
8. Prepared shelter for use.	_____	_____
9. Retrieved sensor power cable for installation.	_____	_____
10. Retrieved power cable for installation.	_____	_____
11. Retrieved fiber optic cable for installation.	_____	_____
12. Assisted controllers with operations and sensor generator startup procedures.	_____	_____
13. Monitored step-by-step operating procedures.	_____	_____
14. Verified initial adjustment, checks, and self-test procedures.	_____	_____

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- FM 3-04.303
- TM 11-5840-381-10
- TM 11-5840-381-23P

Related

**Perform Unit Preventive Checks and Services on Air Traffic Navigation,
Integration and Coordination System, AN/TPN-31
093-94D-1060**

Conditions: In a contemporary operating environment (COE), perform preventive maintenance checks and services (PMCS) on Air Traffic Navigation, Integration, and Coordination System (ATNAVICS), as directed by supervisor and given Technical Manual (TM) 11-5840-381-10, TM 11-5840-381-23P, TM 5-4120-384-14, TM 11-5810-256-12, and TM 11-5985-357-13; wire brush and soft-bristle brush; oil, grease, rags, sponge, and lint-free cloth; Tool Kit TK-100 or TK-105; Department of the Army (DA) Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record) or equivalent, Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log) and DA Pamphlet 750-8. NOTE: If any of the above equipment is obsolete or not available, you should use equivalent equipment.

Standards: Performed PMCS on ATNAVICS AN/TPN-31. Recorded maintenance activity on DA Form 5988-E and FAA Form 6030-1 in accordance with DA Pamphlet 750-8 and TM 11-5840-381-23P.

Performance Measures

GO NO-GO

NOTE: To ensure that the ATNAVICS is always mission ready, PMCS must be performed regularly. Follow step-by-step procedures outlined in TM 11-5840-381-10. In some instances, systems will be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert conditions, the standard PMCS "frequency" schedule will exceed the TM required scheduled services in order to maintain a high level of readiness.

- | | | |
|--|-----|-----|
| 1. Performed step-by-step procedures on sensor pallet. | ___ | ___ |
| 2. Lubricated sensor pallet as needed in accordance with TM. | ___ | ___ |
| 3. Inspected operations shelter in accordance with TM. | ___ | ___ |
| 4. Performed operations interlock test in accordance with TM. | ___ | ___ |
| 5. Inspected environmental control unit (ECU) in accordance with TM 5-4120-384-14. | ___ | ___ |
| 6. Inspected communications security equipment in accordance with TM 11-5810-256-12. | ___ | ___ |
| 7. Inspected ECU filters. | ___ | ___ |
| 8. Checked power-out and reflective power on all radios. | ___ | ___ |
| 9. Inspected antenna group OE-254/GRC in accordance with TM 11-5985-357-13. | ___ | ___ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 5988-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TM 5-4120-384-14
TM 11-5810-256-12
TM 11-5840-381-10
TM 11-5840-381-23P
TM 11-5985-357-13

Related

**Troubleshoot Air Traffic Navigation, Integration and Coordination System, AN/TPN-31
093-94D-1070**

Conditions: In a contemporary operating environment (COE), troubleshoot inoperative radar set AN/TPN-31 that has failed an operational check, given assigned tools, test, measurement, and diagnostic equipment (TMDE), Technical Manual (TM) 11-5840-381-23P, TM 11-5840-381-10, Tool Kit TK-100/G or TK-105/G.5, Digital Multimeter AN/USM-486, Radar Test Set AN/UPM-155, Department of the Army (DA) Pamphlet 750-8, DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Bulletin (TB) 385-4, and a pencil or ball-point pen.

NOTE: If above equipment is not available, equivalent equipment may be substituted.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment technical manuals. Filled out all applicable maintenance forms in accordance with DA Pamphlet 750-8.

Performance Measures

GO NO-GO

NOTE: Fault isolation procedures are identified in TM 11-5840-381-23P and TM 11-5840-381-10. Fault isolation can be viewed and monitored on the control monitor display (CMD) or the operator interface (OI) screen. Follow step-by-step log-on procedures in TM 11-5840-381-10 and fault isolation procedures in TM 11-5840-381-23P.

- | | | |
|---|-------|-------|
| 1. Performed maintenance log-on procedures on CMD. | _____ | _____ |
| 2. Acknowledged fault isolation screen. | _____ | _____ |
| 3. Started fault isolation procedures. | _____ | _____ |
| 4. Identified faulty component using built-in test equipment (BITE) (to replace faulty component, refer to Task Number 093-94D-1080). | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 2407	
DA FORM 5988-E	
DA FORM 5990-E	
DA PAM 750-8	
TB 385-4	
TM 11-5840-381-10	
TM 11-5840-381-23P	

**Repair Air Traffic Navigation, Integration and Coordination System, AN/TPN-31
093-94D-1080**

Conditions: In a contemporary operating environment (COE), given Faulty Radar Set AN/TPN-31, defective component identified, and the following items: Technical Manual (TM) 11-5840-381-23P, Tool Kit TK-100 or TK-105, Multimeter AN/USM-486, pen or pencil, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and DA Pamphlet 750-8.

NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Returned Radar Set AN/TPN-31 to operational condition using all applicable manuals and test, measurement, and diagnostic equipment (TMDE) in accordance with regulatory guidelines.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
NOTE: Follow step-by-step removal/replacement procedures as outlined in TM 11-5840-381-23P.		
1. Performed sensor vehicle shutdown procedures in accordance with TM.	___	___
2. Rotated radiate/rotate switch to proper position for maintenance services.	___	___
3. Performed step-by-step removal/replacement procedures in TM.	___	___
4. Rotated radiate/rotate switch to operational status.	___	___
5. Performed sensor vehicle step-by-step turn-on procedures in accordance with TM.	___	___
6. Filled out all required maintenance forms and submitted them to supervisor for review.	___	___

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 2407	
DA FORM 5988-E	
DA FORM 5990-E	
DA PAM 750-8	
FAA FORM 6030-1	
TM 11-5840-381-23P	

Subject Area 2: AN/TPN-18

**Perform Preliminary Checks and Alignments of Radar Set AN/TPN-18
093-94D-1003**

Conditions: In a contemporary operating environment (COE), given Radar Set AN/TPN-18, 71B shelter, Tool Kit TK-105/G, Oscilloscope OS-261/U, Multimeter, Department of the Army (DA) Form 2404 (Equipment Inspection And Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, Technical Manual (TM) 11-5840-281-12, TM 11-5840-281-34P, TM 11-5840-281-35/1, and Technical Bulletin (TB) 385-4.

Standards: Performed preliminary checks and alignments of Radar Set AN/TPN-18 in accordance with TMs. Completed DA Form 2404 or DA Form 5988-E in accordance with DA Pamphlet 750-8.

Performance Measures

NOTE: All performance measures are located in TM 11-5840-281-35/1, Chapter 3. Perform checks and alignment steps in accordance with TM specifications. Adhere to all safety precautions noted in TMs and TB 385-4. Check antenna drive oil levels before performing preliminary checks and alignments.

	<u>GO</u>	<u>NO-GO</u>
1. Verified radar set group level adjustment.	—	—
2. Performed receiver transmitter (RT) direct current (DC) voltage supply adjustment.	—	—
3. Verified elevation servo and azimuth scan protractor alignment.	—	—
4. Verified antenna servo actuator alignment.	—	—
5. Performed antenna drive cam alignment.	—	—
6. Performed angle data potentiometer and electronic filter adjustment.	—	—
7. Performed 10- to 35-degree servo actuator adjustment.	—	—
8. Performed antenna drive cam alignment and microswitch adjustments.	—	—
9. Performed azimuth angle data potentiometer and electronic filter adjustments.	—	—
10. Performed antenna tilt actuator alignment.	—	—
11. Performed search scan mode alignment.	—	—
12. Performed precision scan mode alignment.	—	—
13. Performed simultaneous scan mode adjustment.	—	—
14. Verified ferrite switch and ferrite attenuator alignment.	—	—
15. Performed transmitter alignment.	—	—
16. Verified oscillator alignment.	—	—
17. Verified sum receiver channel alignment.	—	—
18. Performed video amplifier alignment.	—	—
19. Performed difference receiver channel alignment.	—	—
20. Performed sensitivity time control alignment.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2404
DA FORM 5988-E
DA PAM 750-8
FAA FORM 6030-1
TB 385-4
TM 11-5840-281-12
TM 11-5840-281-34P
TM 11-5840-281-35/1

Related

TM 11-5840-281-35/2

**Perform Preliminary Checks and Alignments of Control Indicator,
Radar Set AN/TPN-18 or TPN-18A**

093-94D-1006

Conditions: In a contemporary operating environment (COE), given Radar Set AN/TPN-18 or AN/TPN-18A, 71B Shelter, Tool Kit TK-105/G, Oscilloscope OS-261/U, Multimeter, Technical Manual (TM) 11-5840-281-12-1, TM 11-5840-281-34-1, TM 11-5840-281-34P, TM 11-5840-281-12, TM 11-5840-281-35/1, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Work (EGA)), DA Pamphlet 750-8, and Technical Bulletin (TB) 385-4.

Standards: Performed preliminary checks and alignments on control indicators, Radar Set AN/TPN-18 or AN/TPN-18A, in accordance with TMs. Annotated all malfunctions on DA Form 2404 or DA Form 5988-E in accordance with DA Pamphlet 750-8.

Performance Measures

GO NO-GO

NOTE: Verify and perform control indicator power supply adjustments, referring to TM 11-5840-281-12 for AN/TPN-18 or TM 11-5840-281-34-1 for AN/TPN-18A. All performance measures listed below are applicable. Adhere to all safety precautions noted in TMs and TB 385-4.

- | | | |
|---|-------|-------|
| 1. Performed art angle volt dial alignment. | _____ | _____ |
| 2. Performed fix coil amplifier adjustment. | _____ | _____ |
| 3. Verified deflection yoke positioning alignment. | _____ | _____ |
| 4. Performed mixer amplifier alignment. | _____ | _____ |
| 5. Performed plan position indicator (PPI) alignment. | _____ | _____ |
| 6. Performed precision display alignment. | _____ | _____ |
| 7. Performed azimuth-elevation tilt and servo alignment. | _____ | _____ |
| 8. Performed sawtooth generator and comparator alignment. | _____ | _____ |
| 9. Performed cursor fill-in alignment. | _____ | _____ |
| 10. Performed cursor alignment. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 5988-E	
DA PAM 750-8	
TB 385-4	
TM 11-5840-281-12	
TM 11-5840-281-12-1	
TM 11-5840-281-34-1	
TM 11-5840-281-34P	
TM 11-5840-281-35/1	

**Perform Organizational Preventive Maintenance Checks and Services on Radar Set AN/TPN-18
093-94D-1013**

Conditions: In a contemporary operating environment (COE), given Radar Set AN/TPN-18, trichlorotrifluoroethane, lint-free cloth, soft-bristled brush, Technical Manual (TM) 11-5840-281-12, TM 43-0139, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record) or equivalent, DA Pamphlet 25-30, Technical Bulletin (TB) 385-4, and TB 43-0118.

Standards: Performed scheduled organizational preventive maintenance checks and services (PMCS) as indicated by DD Form 314 or equivalent. Annotated all deficiencies on DA Form 2404 or DA Form 5988-E and turned in completed form to the maintenance supervisor. Observed all safety precautions required by TB 385-4 and equipment TMs.

Performance Measures

GO NO-GO

NOTE: Organizational performance measures are outlined in TM 11-5840-281-12, Chapter 5. In some instances, systems may be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert operating conditions, the standard PMCS "frequency" schedule shall exceed the TM required scheduled services in order to maintain a high level of readiness.

- | | | |
|--|-------|-------|
| 1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS. | _____ | _____ |
| 2. Performed monthly checks and services. | _____ | _____ |
| 3. Performed quarterly checks and services. | _____ | _____ |
| 4. Inspected operability checks and cleaned as necessary. | _____ | _____ |
| a. Radar set group: Performed lubrication described in TM. | | |
| b. Radar set: | | |
| (1) Checked and serviced air filters. | | |
| (2) Inspected all meters and indicators for damaged or improper operation. | | |
| (3) Inspected all fuses for correct amperage values. | | |
| (4) Opened doors on receiver-transmitter and rear cover form control-indicator. Checked mechanical fitness and mounting of switches, terminal block, transformer modules, chokes, relays, controls, and chassis assemblies. Checked cable connectors to ensure they were secure. | | |
| (5) Cleaned interior of cases and checked adequacy of moisture-proof and fungi-proof treatment. | | |
| (6) Repainted and refinished surfaces, as required. | | |
| (7) Checked all interior electrical items for evidence of overheating, leaks, bulges, corrosion, and cracks in insulation, loose mounting, or mechanical stress. | | |
| (8) Referred to DA Pamphlet 25-30 to determine if new applicable modification work orders (MWOs) have been published. | | |
| NOTE: All URGENT MWOs must be applied immediately. ALL NORMAL MWOs must be scheduled. | | |
| c. Antenna group: | | |
| (1) Checked for proper operation and physical damage. | | |
| (2) Checked for oil leaks and unusual noises during operation. | | |
| d. Waveguides and quick disconnects: | | |
| (1) Checked for damage, corrosion, and mechanical fitness. | | |
| (2) Checked all waveguide quick disconnect points for O-ring seals. | | |

Performance Measures	<u>GO</u>	<u>NO-GO</u>
e. Ground rod and cable W3006:		
(1) Checked for proper grounding.		
(2) Checked ground cable connections for good electrical connection.		
5. Spot-painted when necessary and weather permitting in accordance with TB 43-0118 and TM 43-0139.	—	—
6. Completed DA Form 2404 or DA Form 5988-E and submitted to maintenance supervisor.	—	—
7. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
 DA FORM 5988-E
 DA PAM 25-30
 DD FORM 314
 TB 43-0118
 TB 385-4
 TM 11-5840-281-12
 TM 43-0139

Related

DA PAM 750-8
 TM 11-5840-281-35/1
 TM 11-5840-281-35/2

**Troubleshoot Radar Set AN/TPN-18
093-94D-1023**

Conditions: In a contemporary operating environment (COE), given an inoperative Radar Set AN/TPN-18 that has failed an operational check; access to all assigned tools; test, measurement, and diagnostic equipment (TMDE); Technical Manual (TM) 11-5840-281-12, TM 11-5840-281-35/1, and TM 11-5840-281-35/2; Tool Kit TK-100/G or TK-105/G; Digital Multimeter ME-518/U, Oscilloscope OS-261C, Radar Test Set AN/UPM-145, dummy load; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, and Technical Bulletin (TB) 385-4. NOTE: If listed equipment is not available, equivalent equipment may be used.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out all maintenance forms in accordance with DA Pamphlet 750-8. Requested final inspection from the maintenance supervisor.

Performance Measures

GO NO-GO

NOTE: Obtained equipment history by questioning equipment operators and reviewing DA Form 2404 or DA Form 5988-E, DA Form 2407 or DA Form 5990-E, and FAA Form 6030-1.

- | | | |
|---|---|---|
| <ol style="list-style-type: none"> 1. Performed a preliminary examination to detect: <ol style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 2. Sectionalized trouble to the faulty chassis or subchassis. 3. Localized the fault to a portion or stage using the following troubleshooting aids and procedures, as necessary: <ol style="list-style-type: none"> a. Waveform amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Waveform illustrations. 4. Isolated fault to the defective part using the following troubleshooting aids and procedures, as necessary: <ol style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 5. Observed all safety precautions during the alignment in accordance with TB 385-4 and equipment TMs. 6. Filled out maintenance forms showing work accomplished in accordance with DA Pamphlet 750-8. | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> |
|---|---|---|

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TB 385-4
TM 11-5840-281-12
TM 11-5840-281-35/1
TM 11-5840-281-35/2

Related

Repair Radar Set AN/TPN-18
093-94D-1033

Conditions: In a contemporary operating environment (COE), given faulty Radar Set AN/TPN-18, defective component identified, Technical Manual (TM) 11-5840-281-12, TM 11-5840-281-35/1, TM 11-5840-281-35/2, TM 11-5840-281-20P, TM 11-5840-281-34P, Department of the Army (DA) Pamphlet 750-8, Technical Bulletin (TB) 385-4, DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log); ball-point pen or pencil, Tool Kit TK-100 or TK-105, Oscilloscope AN/USM-281C, and Multimeter AN/USM-486, AN/UPM-145. NOTE: If listed equipment is not available, equivalent equipment may be used.

Standards: Repaired and returned radar set to fully mission capable status in accordance with performance checks in TM 11-5840-281-12 and TM 11-5840-281-35/1. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E showing work accomplished. Requested final inspection from the maintenance supervisor.

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
1. Identified parts and/or actions needed to repair faulty AN/TPN-18 by referring to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 and took the appropriate option below.	—	—
a. Equipment requires parts available on site: Prepare a supply request and obtain replacement parts in accordance with local standing operating procedure (SOP).		
b. Equipment requires parts not available on site: Contact surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts.		
(1) If parts are available, make arrangements to obtain parts in accordance with local SOP.		
(2) If parts are not available, initiate the appropriate high priority parts request in accordance with local SOP.		
c. Equipment not repairable this station (NRTS). Prepare DA Form 2407 or DA Form 5990-E and evacuate equipment needing repair to the appropriate support maintenance facility in accordance with local SOPs.		
2. Replaced faulty component or module.	—	—
3. Performed necessary alignments or adjustments.	—	—
a. Referred to TM removal/replacement instructions and performed alignment/adjustment, as specified.		
b. If the component or module was not included in the removal/replacement instructions, used the equipment TM and schematics to identify any circuit affected by the component/module replacement.		
c. Evaluated the alignment or adjustment in question to determine if it met the required standard.		
d. Performed necessary alignment or adjustment.		
4. Performance tested AN/TPN-18.	—	—
NOTE: If the performance test indicates the fault has not been repaired or if new troubles have developed, this task ends. Refer to TM 11-5840-281-35/1, TM 11-5840-281-12, and Task Number 093-94D-1023.		
5. Updated DA Form 2407 or DA Form 5990-E and logged maintenance activity in FAA Form 6030-1.	—	—

Performance Measures	<u>GO</u>	<u>NO-GO</u>
6. Requested final inspection.	—	—
7. Closed out maintenance form and records.	—	—
8. Observed all safety precautions during the alignment in accordance with TB 385-4 and equipment TMs.	—	—
9. Filled out DA Form 2407 or DA Form 5990-E in accordance with DA Pamphlet 750-8 showing work accomplished. Requested final inspection from the maintenance supervisor.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2407
- DA FORM 5990-E
- DA PAM 750-8
- FAA FORM 6030-1
- TB 385-4
- TM 11-5840-281-12
- TM 11-5840-281-20P
- TM 11-5840-281-34P
- TM 11-5840-281-35/1
- TM 11-5840-281-35/2

Related

Subject Area 3: AN/TPN-18A

**Perform Preventive Maintenance Checks and Services on Radar Set AN/TPN-18A
093-94D-1016**

Conditions: In a contemporary operating environment (COE), given Radar Set AN/TPN-18A; Tool Kit TK-100/G; Technical Manual (TM) 11-5840-281-12-1, TM 43-0139, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record) or equivalent; DA Pamphlet 25-30, DA Pamphlet 750-8, and Technical Bulletin (TB) 43-0118; cleaning compound, cheesecloth, cleaning cloth, fine sandpaper, crocus cloth, paint and brushes, grease MIL-L-23827, and grease gun. NOTE: If listed equipment is not available, equivalent equipment may be used.

Standards: Performed preventive maintenance checks and services (PMCS) on Radar Set AN/TPN-18A. Annotated all deficiencies on DA Form 2404 or DA Form 5988-E and turned in the completed form to supervisor.

Performance Measures

GO NO-GO

NOTE: Preventive maintenance checks and services are outlined in TM 11-5840-281-12-1. In some instances, systems will be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert operating conditions, the standard PMCS "frequency" schedule shall exceed the TM required scheduled services in order to maintain a high level of readiness.

- | | | |
|--|---|---|
| <ol style="list-style-type: none"> 1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS. 2. Performed monthly checks and services. 3. Performed quarterly checks and services. 4. Inspected operability checks, and cleaned as necessary. <ol style="list-style-type: none"> a. Radar set group: Verified lubrication and oil levels. b. Radar set: <ol style="list-style-type: none"> (1) Checked and serviced air filters. (2) Inspected all meters and indicators for damaged or improper operation. (3) Inspected all fuses for correct amperage values. (4) Opened doors on receiver-transmitter and rear cover from control-indicator. Checked mechanical fitness and mounting of switches, terminal block, transformer modules, chokes, relays, controls, and chassis assemblies. Checked cable connectors to ensure they are secure. (5) Cleaned interior of cases and checked adequacy of moisture-proof and fungi-proof treatment. (6) Repainted and refinished surfaces as required. (7) Checked all interior electrical items for evidence of overheating, leaks, bulges, corrosion, and cracks in insulation, loose mounting, or mechanical stress. (8) Referred to DA Pamphlet 25-30 to determine if new applicable modification work orders (MWOs) had been published. | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> |
|--|---|---|

NOTE: All URGENT MWOs must be applied immediately. All NORMAL MWOs must be scheduled.

**Troubleshoot Radar Set AN/TPN-18A
093-94D-1026**

Conditions: In a contemporary operating environment (COE), given an inoperative Radar Set AN/TPN-18 that has failed an operational check; access to all assigned tools; test, measurement, and diagnostic equipment (TMDE); Landing Control Central AN/TSQ-71B; Technical Manual (TM) 11-5840-281-12-1 and TM 11-5840-281-34-1; Tool Kit TK-100/G or TK-105/G.5; Digital Multimeter AN/USM-486, Oscilloscope OS-261C, Radar Test Set AN/UPM-145, Dummy Load DA-148; Department of the Army (DA) Pamphlet 750-8, DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and Technical Bulletin (TB) 385-4; and pencil or ball-point pen. NOTE: If listed equipment is not available, equivalent equipment may be used.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out maintenance forms in accordance with DA Pamphlet 750-8.

Performance Measures

GO NO-GO

NOTE: Obtained equipment history by questioning equipment operators and reviewing DA Form 2404 or DA Form 5988-E, DA Form 2407 or DA Form 5990-E, and FAA Form 6030-1.

- | | | |
|--|---|---|
| <ol style="list-style-type: none"> 1. Performed a preliminary examination to detect: <ol style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 2. Sectionalized trouble to the faulty chassis or subchassis. 3. Localized the fault to a portion or stage using the following troubleshooting aids and procedures, as necessary: <ol style="list-style-type: none"> a. Waveform amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Waveform illustrations. 4. Isolated fault to defective part using the following troubleshooting aids and procedures, as necessary: <ol style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 5. Filled out DA Form 2407 or DA Form 5990-E, showing work accomplished in accordance with DA Pamphlet 750-8. 6. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs. | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> |
|--|---|---|

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TB 385-4
TM 11-5840-281-12-1
TM 11-5840-281-34-1

Related

Repair Radar Set AN/TPN-18A
093-94D-1036

Conditions: Given defective Radar Set AN/TPN-18A with fault, Technical Manual (TM) 11-5840-281-12-1, TM 11-5840-281-34-1, test, measurement, and diagnostic equipment (TMDE), Tool Kit TK-100 or TK-105, Oscilloscope AN/USM-281C, Multimeter AN/USM-486, AN/UPM-145, Department of the Army (DA) Pamphlet 750-8, DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and local standing operating procedure (SOP). NOTE: If listed equipment is not available, equivalent TMDE and other equipment may be substituted.

Standards: Returned Radar Set AN/TPN-18A to operational condition and used all applicable manuals and TMDE in accordance with DA Pamphlet 750-8.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Referred to last entries on DA Form 2404 or DA Form 5988-E, DA Form 2407 or DA Form 5990-E, and FAA Form 6030-1 to identify parts and/or actions needed to repair faulty AN/TPN-18A and took appropriate option below.	—	—
a. Equipment requires parts available on site: Prepared a supply request and obtained replacement parts in accordance with local SOP.		
b. Equipment requires parts not available on site: Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts.		
(1) Arranged to obtain parts in accordance with local SOP if parts were available.		
(2) Initiated the appropriate high priority parts request in accordance with local SOP if parts were not available.		
c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to the appropriate support maintenance facility in accordance with local SOP.		
2. Replaced faulty component or module.	—	—
3. Performed necessary alignments/adjustments.	—	—
a. Referred to TM removal/replacement instructions and performed alignment or adjustment, as specified.		
b. Used the equipment TM and schematics to identify any circuit affected by the component or module replacement if the component/module was not included in the removal/replacement instructions.		
c. Evaluated the alignment or adjustment in question to determine if it met the required standard.		
d. Performed necessary alignment/adjustment.		
4. Performance tested AN/TPN-18A.	—	—
NOTE: If the performance test indicated the fault had not been repaired, or if new troubles had developed, this task was terminated. Refer to TM 11-5840-281-12-1, TM 11-5840-281-34-1, and Task Number 093-94D-1026.		
5. Updated DA Form 2407 or DA Form 5990-E and annotated maintenance activity on DA Form 2404 or DA Form 5988-E and FAA Form 6030-1 in accordance with DA Pamphlet 750-8.	—	—
6. Requested final inspection.	—	—
7. Closed out maintenance forms and records.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TM 11-5840-281-12-1
TM 11-5840-281-34-1

Related

Subject Area 4: AN/TPX-44

**Perform Organizational Preventive Maintenance Checks and Services
on Interrogator Set AN/TPX-44
093-94D-1019**

Conditions: In a contemporary operating environment (COE), given Interrogator Set AN/TPX-44 due organizational preventive maintenance checks and services (PMCS), as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record) or equivalent; Technical Manual (TM) 11-5895-468-12, Technical Bulletin (TB) 43-0118, and Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)); Tool Kit TK-100/G; cleaning compound, cheesecloth, cleaning cloth, fine sandpaper, crocus cloth, paint, brushes, and grease. NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Performed organizational PMCS on Interrogator Set AN/TPX-44. Annotated all deficiencies on DA Form 2404 or DA Form 5988-E and turned in the form to the maintenance supervisor.

Performance Measures

GO NO-GO

NOTE: Maintenance preventive measures are outlined in TM 11-5895-468-12. In some instances, systems will be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert operating conditions, the standard PMCS schedule "frequency" shall exceed the TM required scheduled services in order to maintain a high level of readiness.

- | | | |
|--|-------|-------|
| 1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS. | _____ | _____ |
| 2. Performed quarterly checks and services. | _____ | _____ |
| 3. Inspected, performed operability checks, lubricated, and cleaned as necessary. | _____ | _____ |
| 4. Spot-painted, if necessary and weather permitting, in accordance with TB 43-0118. | _____ | _____ |
| 5. Gave completed DA Form 2404 or DA Form 5988-E to maintenance supervisor. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2404
- DA FORM 5988-E
- DD FORM 314
- TB 43-0118
- TM 11-5895-468-12

Related

Troubleshoot Interrogator Set AN/TPX-44
093-94D-1029

Conditions: In a contemporary operating environment (COE), given an inoperative Interrogator Set AN/TPX-44 that has failed an operational check; access to all assigned tools and test, measurement, and diagnostic equipment (TMDE); Technical Manual (TM) 11-5895-468-35, TM 11-5895-245-35, Department of the Army (DA) Pamphlet 750-8, Technical Bulletin (TB) 385-4, DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Records), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and the maintenance publications library; Oscilloscope OS-261C, Digital Multimeter, and Tube Socket Adapter Kit MX-1258/U. NOTE: If listed equipment is not available, equivalent equipment may be used.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E showing work accomplished in accordance with DA Pamphlet 750-8.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or subchassis.	—	—
4. Localized the fault to a portion or stage using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Waveform amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Waveform illustrations. 	—	—
5. Isolated fault to the defective part using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 	—	—
6. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—
7. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1, showing work accomplished, in accordance with DA Pamphlet 750-8.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TB 385-4
TM 11-5895-245-35
TM 11-5895-468-35

Related

Repair Interrogator Set AN/TPX-44
093-94D-1039

Conditions: Given Interrogator Set AN/TPX-44 with malfunction detected during normal operations; all assigned test, measurement, and diagnostic equipment (TMDE); radar system; Technical Manual (TM) 11-5895-201-24P, TM 11-5895-245-34P, and TM 11-5840-309-35; Oscilloscope OS-261C, Digital Multimeter AN/USM-486, Tube Socket Adapter Kit MX-1258/U, Signal Generator SG-1144/G, Tool Kit TK-100/G or TK-105/G; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, and Technical Bulletin (TB) 385-4; and a ball-point pen. NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Replaced component, module, chassis, or equipment in the AN/TPX-44. Tested to ensure the fault had been repaired and no new troubles had developed. Closed out all associated maintenance forms and records. Returned system to operators.

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
1. Identified parts and/or actions needed to repair faulty AN/TPX-44 by referring to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1, and took appropriate action as follows:	—	—
a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with local standing operating procedure (SOP).		
b. Equipment requires parts not available on site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts.		
(1) Arranged to obtain parts in accordance with local SOP if parts were available.		
(2) Initiated appropriate high priority parts request in accordance with local SOP if parts were not available.		
c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to the appropriate support maintenance facility in accordance with local SOP.		
2. Replaced faulty component or module.	—	—
3. Performed necessary alignments/adjustments.	—	—
a. Referred to TM removal/replacement instructions and performed alignment/adjustment, as specified.		
b. Used the equipment TM and schematics to identify any circuit affected by the component/module replacement if the component/module was not included in the removal/replacement instructions.		
c. Evaluate the alignment/adjustment in question to determine if it met the required standard.		
d. Perform necessary alignment/adjustment.		
4. Performance tested AN/TPX-44.	—	—

NOTE: If the performance test indicated the fault had not been repaired or if new troubles had developed, this task was terminated. Soldier returned to Task Number 093-94D-1029 and continued to troubleshoot.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
5. Updated DA Form 2407 or DA Form 5990-E and annotated maintenance activity on FAA Form 6030-1.	—	—
6. Requested final inspection.	—	—
7. Closed out maintenance forms and records.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 2407	
DA FORM 5988-E	
DA FORM 5990-E	
DA PAM 750-8	
DD FORM 314	
FAA FORM 6030-1	
TB 385-4	
TM 11-5840-309-35	
TM 11-5895-201-24P	
TM 11-5895-245-34P	

Subject Area 5: AN/TSQ-71B

**Perform Unit Preventive Maintenance Checks and Services
of Landing Control Central AN/TSQ-71B Shelter
093-94D-1010**

Conditions: In a contemporary operating environment (COE), perform preventive maintenance checks and services (PMCS) given a Landing Control Central AN/TSQ-71B Shelter, Technical Manual (TM) 11-5895-474-12 (with addendum), Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and DA Pamphlet 750-8; Tool Kit TK-100 or TK-105; wire brush, soft bristle brush, oil, grease, rags, lint-free cloth, and sponge.

NOTE: If listed equipment is not available, comparable equipment may be substituted.

Standards: Performed PMCS on Landing Control Central AN/TSQ-71B in accordance with TM and DA Pamphlet 750-8.

Performance Measures

GO NO-GO

NOTE: In some instances, systems may be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert operating conditions, the standard PMCS "frequency" schedule shall exceed the TM required scheduled services in order to maintain a high level of readiness.

- | | | |
|---|--|--|
| <ol style="list-style-type: none"> 1. Inspected shelter and associated equipment listed below in accordance with TM: <ol style="list-style-type: none"> a. Under extreme cold weather conditions. b. Under extreme hot weather conditions. c. Under normal conditions.
 2. Inspected radio interconnecting panel SM-3220/TSQ-71B and telephone interconnecting panel SB-3221/TSQ-71B. <ol style="list-style-type: none"> a. Under extreme cold weather conditions. b. Under extreme cold weather conditions. c. Under extreme hot weather conditions. d. Under normal conditions.
 3. Inspected antenna cable connectors on very high frequency (VHF), ultra-high frequency (UHF), and frequency modulated (FM) radio sets. <ol style="list-style-type: none"> a. Under extreme cold weather conditions. b. Under extreme hot weather conditions. c. Under normal conditions.
 4. Inspected air conditioners. <ol style="list-style-type: none"> a. Under extreme cold weather conditions. b. Under extreme hot weather conditions. c. Under normal conditions.
 5. Inspected power unit PU-678/G. <ol style="list-style-type: none"> a. Under extreme cold weather conditions. b. Under extreme hot weather conditions. c. Under normal conditions.
 6. Inspected radio and telephone control panel. <ol style="list-style-type: none"> a. Under extreme cold weather conditions. b. Under extreme hot weather conditions. c. Under normal conditions. | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> |
|---|--|--|

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2404
DA FORM 5988-E
DA PAM 750-8
FAA FORM 6030-1
TM 11-5895-474-12

Related

**Troubleshoot Landing Control Central AN/TSQ-71B
093-94D-1020**

Conditions: In a contemporary operating environment (COE), given an inoperative Landing Control Central AN/TSQ-71B; all assigned tools; test, measurement, and diagnostic equipment (TMDE); access to the maintenance publications library; Technical Manual (TM) 11-5895-474-12 (with addendum) and TM 11-5895-474-30; Tool Kit TK-100/G or TK-105/G, Digital Multimeter AN/USM-486 and Dummy Load DA-75; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, and Technical Bulletin (TB) 385-4. NOTE: If listed equipment is not available, equivalent test equipment may be used.

Standards: Repaired fault using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Completed all maintenance forms in accordance with DA Pamphlet 750-8.

Performance Measures

GO NO-GO

NOTE: Obtain equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E and reviewing FAA Form 6030-1.

- | | | |
|---|---|--|
| <ol style="list-style-type: none"> 1. Performed a preliminary examination to detect: <ol style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 2. Sectionalized trouble to the faulty chassis or subchassis. 3. Localized the fault to a portion or stage, using the following troubleshooting aids and procedures as necessary: <ol style="list-style-type: none"> a. Waveform amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Waveform illustrations. 4. Isolated fault to the defective part using the following troubleshooting aids and procedures, as necessary: <ol style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Intermittents. f. Isolating by parts substitution. 5. Observed all safety precautions during the task in accordance with TMs. 6. Completed DA Form 2407 or DA Form 5990-E, showing work accomplished in accordance with DA Pamphlet 750-8. | <p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p> | <p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p> |
|---|---|--|

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 385-4
TM 11-5895-474-12
TM 11-5895-474-30

Related

**Repair Landing Control Central AN/TSQ-71B
093-94D-1030**

Conditions: In a contemporary operating environment (COE), given Landing Control Central AN/TSQ-71B with identified faulty replaceable module, component, or chassis; Technical Manual (TM) 11-5895-474-12 (with addendum), TM 11-5895-474-30, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and DA Pamphlet 750-8; Tool Kit TK-100/G or TK-105/G, Wattmeter AN/USM-298, Multimeter AN/USM-486, and local standing operating procedure (SOP). NOTE: If listed equipment is not available, equivalent equipment may be used.

Standards: Repaired or replaced faulty replaceable component, module, chassis, or equipment in the AN/TSQ-71B. Performance tested to ensure that the fault had been repaired or replaced and no new troubles had developed. Closed out all associated maintenance forms and records in accordance with DA Pamphlet 750-8.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Identified parts and/or actions needed to repair faulty AN/TSQ-71B by referring to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 and took appropriate action, as follows:	_____	_____
a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with local SOP.		
b. Equipment requires parts not available on site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts.		
(1) Arranged to obtain parts in accordance with local SOP if parts were available.		
(2) Initiated appropriate high priority parts request in accordance with local SOP if parts were not available.		
c. Equipment not repairable this station (NRTS). Prepare DA Form 2407 or DA Form 5990-E and evacuate equipment needing repair to the appropriate support maintenance facility in accordance with local SOPs.		
2. Replaced faulty component or module.	_____	_____
3. Performance tested AN/TSQ-71B.	_____	_____
4. Updated DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E and annotated actions on FAA Form 6030-1.	_____	_____
NOTE: This task ends if the performance test indicates the fault has not been repaired or if new troubles have developed. Refer to Task Number 093-94D-1020.		
5. Requested final inspection.	_____	_____
6. Closed out maintenance forms and records.	_____	_____

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TM 11-5895-474-12
TM 11-5895-474-30

Related

Subject Area 6: AN/TSQ-70A

**Perform Organizational Preventive Maintenance Checks and Services
on Aircraft Control Central AN/TSQ-70A
093-94D-1110**

Conditions: Perform organizational preventive maintenance checks and services (PMCS) on Aircraft Control Central AN/TSQ-70A, which is due PMCS as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record) or equivalent. Given the following: AN/TSQ-70A, Technical Manual (TM) 11-5895-579-12, Tool Kit TK-100/G, cleaning compound, cheesecloth, cleaning cloth, fine sandpaper, crocus cloth, paint and brushes, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, Technical Bulletin (TB) 43-0118, and TM 43-0139. NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Performed PMCS on AN/TSQ-70A and annotated all deficiencies on DA Form 2404 or DA Form 5988-E and FAA Form 6030-1 in accordance with DA Pamphlet 750-8.

Performance Measures

GO NO-GO

NOTE: In some instances, systems will be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert conditions, the standard PMCS "frequency" schedule shall exceed the TM required scheduled services in order to maintain a high level of readiness.

- | | | |
|---|-------|-------|
| 1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS. | _____ | _____ |
| 2. Performed monthly checks and services (TM 11-5895-579-12). | _____ | _____ |
| 3. Inspected operability checks and cleaned, as necessary. | _____ | _____ |
| 4. Spot-painted, if necessary and weather permitting, in accordance with TB 43-0118 and TM 43-0139. | _____ | _____ |
| 5. Gave completed DA Form 2404 or DA Form 5988-E to maintenance supervisor. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

Related

- DA FORM 2404
- DA FORM 5988-E
- DA PAM 750-8
- DD FORM 314
- FAA FORM 6030-1
- TB 43-0118
- TM 11-5895-579-12
- TM 43-0139

Troubleshoot Aircraft Control Central AN/TSQ-70A
093-94D-1120

Conditions: In a contemporary operating environment (COE), troubleshoot the Aircraft Control Central AN/TSQ-70A, which has failed an operational check. Given access to all assigned tools and test, measurement, and diagnostic equipment (TMDE); the maintenance publications library; Aircraft Control Central AN/TSQ-70A; Technical Manual (TM) 11-5895-579-12, TM 11-5895-579-35, TM 11-5805-201-12, TM 11-5805-298-15, TM 11-5820-401-10-1, TM 11-5820-518-20, TM 11-5831-201-20, and TM 11-6660-200-14; Tool Kit TK-100/G or TK-105/G, Digital Multimeter AN/USM-486, Oscilloscope OS-261/C, Electrical Dummy Load DA-75/U, and Signal Generator SG-1112/U; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), DA Form 2407-1 (Maintenance Request Continuation Sheet), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, Technical Bulletin (TB) 385-4; and a ball-point pen. NOTE: If equipment listed above is not available, equivalent equipment may be substituted.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 showing work accomplished.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or subchassis.	—	—
4. Localized the fault to a portion or stage using the following troubleshooting aids and procedures, as necessary. <ul style="list-style-type: none"> a. Waveform amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Waveform illustrations. 	—	—
5. Isolated fault to the defective part using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Intermittents. f. Isolating by parts substitution. 	—	—
6. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—
7. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1, showing work accomplished in accordance with DA Pamphlet 750-8.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 2407-1
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TB 385-4
TM 11-5805-201-12
TM 11-5805-298-15
TM 11-5820-401-10-1
TM 11-5820-518-20
TM 11-5831-201-20
TM 11-5895-579-12
TM 11-5895-579-35
TM 11-6660-200-14

Related

**Repair Aircraft Control Central AN/TSQ-70A
093-94D-1130**

Conditions: Repair Aircraft Control Central AN/TSQ-70A, given replaceable module or component (refer to Task Number 093-94D-1120), Technical Manual (TM) 11-5895-579-12, TM 11-5895-579-35, Department of the Army (DA) Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Tool Kit TK-100/G or TK-105/G, lowest replaceable unit (LRU), component, module, or chassis, and local standing operating procedure (SOP). NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Repaired AN/TSQ-70A using logical troubleshooting procedures and returned the system to fully mission capable operations. Tested LRU to ensure fault was corrected and no new faults occurred. Closed out all associated maintenance forms and records.

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
1. Took appropriate action to begin repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 to identify parts and/or actions needed to repair faulty AN/TSQ-70A and took appropriate action as follows:	_____	_____
a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with local SOP.		
b. Equipment requires parts not available on site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts.		
(1) Arranged to obtain parts in accordance with local maintenance SOP if parts were available.		
(2) Initiated the appropriate high priority parts request in accordance with local maintenance SOP if parts were not available.		
c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and turned in equipment needing repair to the appropriate support maintenance facility in accordance with local SOP.		
2. Replaced faulty component or module.	_____	_____
3. Performance tested AN/TSQ-70A.	_____	_____
4. Updated DA Form 2407 or DA Form 5990-E and logged maintenance activity on FAA Form 6030-1.	_____	_____

NOTE: If the performance test indicated the fault had not been repaired or if new troubles had developed, this task was terminated. Soldier returned to Task Number 093-94D-1120 and continued to troubleshoot.

5. Requested final inspection.	_____	_____
6. Closed out maintenance forms and records.	_____	_____

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2407

DA FORM 5990-E

FAA FORM 6030-1

TM 11-5895-579-12

TM 11-5895-579-35

Related

Subject Area 7: AN/TSW-7A

**Perform Organizational Preventive Maintenance Checks and Services on ATC Central AN/TSW-7A
093-94D-1160**

Conditions: Given Air Traffic Control (ATC) Central AN/TSW-7A with scheduled preventive maintenance checks and services (PMCS) due as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), and given Technical Manual (TM) 11-5895-801-12; Tool Kit TK-100/G; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Bulletin (TB) 43-0118, and TM 43-0139; cleaning compound, cheesecloth, cleaning cloth, fine sandpaper, crocus cloth, paint, and brushes. NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Completed organizational PMCS with all deficiencies noted on appropriate maintenance forms. Turned in all maintenance forms to maintenance supervisor.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS. In some instances, systems will be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert conditions, the standard PMCS "frequency" schedule shall exceed the TM required scheduled services in order to maintain a high level of readiness.	—	—
2. Performed weekly/quarterly checks and services in accordance with TM PMCS chart.	—	—
3. Inspected operability checks and cleaned, as necessary.	—	—
4. Spot-painted, when necessary and weather permitting, in accordance with TB 43-0118 and TM 43-0139.	—	—
5. Turned in completed DA Form 2404 or DA Form 5988-E to maintenance supervisor and logged maintenance activity on FAA Form 6030-1.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measures are failed. If soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 5988-E	
DD FORM 314	
FAA FORM 6030-1	
TB 43-0118	
TM 11-5895-801-12	
TM 43-0139	

**Troubleshoot ATC Central AN/TSW-7A
093-94D-1170**

Conditions: Troubleshoot Air Traffic Control (ATC) Central AN/TSW-7A, which has failed an operational check. Given access to all assigned tools and test, measurement, and diagnostic equipment (TMDE); the maintenance publications library; Technical Manual (TM) 11-5895-801-12 and TM 11-5895-801-34; Tool Kit TK-100/G or TK-105/G; Digital Multimeter AN/USM-486, Oscilloscope OS-261/C, Electrical Dummy Load DA-75/U, and Signal Generator SG-1112/U; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Bulletin (TB) 385-4, and DA Pamphlet 750-8; and a ball-point pen. NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Identified the faulty components using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and the equipment TM. Filled out DA Form 2404 or DA Form 5988-E and appropriate maintenance forms showing work accomplished.

Performance Measures

GO NO-GO

NOTE: In troubleshooting the system, used applicable procedures from the maintenance TMs.

- | | | |
|---|---|---|
| 1. Obtained equipment history by reviewing DA Form 2404 or DA Form 5988-E. | — | — |
| 2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High voltage arcing or other abnormal sounds. | — | — |
| 3. Sectionalized trouble to the faulty chassis or subchassis. | — | — |
| 4. Localized the fault to a portion or stage using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Waveform amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Waveform illustrations. | — | — |
| 5. Isolated fault to the defective part using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. | — | — |
| 6. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs. | — | — |
| 7. Filled out DA Form 2404 or DA Form 5988-E, DA Form 2407 or DA Form 5990-E, and FAA Form 6030-1, showing work accomplished in accordance with DA Pamphlet 750-8. | — | — |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 385-4
TM 11-5895-801-12
TM 11-5895-801-34

Related

TM 11-6130-238-14
TM 11-6140-203-14-1
TM 11-6140-203-14-3
TM 11-6660-200-14

**Repair ATC Central AN/TSW-7A
093-94D-1180**

Conditions: Repair Air Traffic Control (ATC) Central AN/TSW-7A and return to fully mission capable status given the replaceable module or component; Technical Manual (TM) 11-5895-801-12, TM 11-5895-801-34, and TM 11-5895-801-34P; Tool Kit TK-100/G or TK-105/G; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and local standing operating procedure (SOP). NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Replaced faulty component, module, chassis, or equipment to repair the AN/TSW-7A. Tested the equipment to ensure the fault had been repaired and no new troubles had developed. Closed out all associated maintenance forms and records.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Took appropriate action to begin repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E to identify parts and/or actions needed to repair faulty AN/TSW-7A and took appropriate action, as follows: <ul style="list-style-type: none"> a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with local SOP. b. Equipment requires parts not available on site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts. <ul style="list-style-type: none"> (1) Arranged to obtain parts in accordance with local SOP if parts were available. (2) Initiated the appropriate high priority parts request in accordance with local SOP if parts were not available. c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to the appropriate support maintenance facility in accordance with local SOPs. 	—	—
2. Replaced faulty component or module.	—	—
3. Performance tested AN/TSW-7A.	—	—
4. Updated DA Form 2404 or DA Form 5988-E, DA Form 2407 or DA Form 5990-E, and FAA Form 6030-1.	—	—
NOTE: If the performance test indicated the fault had not been repaired, or if new troubles developed, this task was terminated. Soldier returned to Task Number 093-94D-1170 and continued to troubleshoot.		
5. Requested final inspection.	—	—
6. Closed out maintenance forms and records.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DD FORM 314
FAA FORM 6030-1
TM 11-5895-801-12
TM 11-5895-801-34
TM 11-5895-801-34P

Related

Subject Area 8: AN/TSQ-198

**Perform Organizational Preventive Maintenance Checks and Services
on Tactical Terminal Control System AN/TSQ-198
093-94D-1260**

Conditions: Given the Tactical Terminal Control System (TTCS) AN/TSQ-198 with scheduled preventive maintenance checks and services (PMCS) due as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), and given Technical Manual (TM) 11-5895-1568-14, Tool Kit TK-105/G, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and DA Pamphlet 750-8.

NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Performed and completed organizational PMCS, with all deficiencies noted on DA Form 2404 or DA Form 5988-E and FAA Form 6030-1. Turned in forms to the maintenance supervisor.

Performance Measures

GO NO-GO

NOTE: Organizational PMCS charts are in TM 11-5895-1568-14. In some instances, systems will be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert operating conditions, the standard PMCS "frequency" schedule shall exceed the TM required scheduled services in order to maintain a high level of readiness.

- | | | |
|--|-------|-------|
| 1. Checked for rust and corrosion. | _____ | _____ |
| 2. Inspected shelter cabling, wiring, nuts, and bolts. | _____ | _____ |
| 3. Performed maintenance checks and services listed in the TM 11-5895-1568-14 maintenance table. | _____ | _____ |
| 4. Checked power-out on all radios. | _____ | _____ |
| 5. Filled out DA Form 2404 or DA Form 5988-E and annotated maintenance activity on FAA 6030-1. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2404
- DA FORM 5988-E
- DA PAM 750-8
- DD FORM 314
- FAA FORM 6030-1
- TM 11-5895-1568-14

Related

Troubleshoot Tactical Terminal Control System AN/TSQ-198
093-94D-1270

Conditions: Troubleshoot a Tactical Terminal Control System (TTCS) AN/TSQ-198 that has failed an operational check, given access to the AN/TSQ-198; all assigned tools and test, measurement, and diagnostic equipment (TMDE); the maintenance publications library; Technical Manual (TM) 11-5895-1568-14, TM 11-5810-256-12, and TM 11-5820-890-10-6; Tool Kit TK-105/G, Digital Multimeter AN/USM-486, and Test Set Radio Frequency Power AN/URM-213; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Bulletin (TB) 385-4, and DA Pamphlet 750-8; and a ball-point pen.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E showing work accomplished.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by reviewing and questioning equipment operators and reading DA Form 2404 or DA Form 5988-E. Followed troubleshooting procedures in TM 11-5895-1568-14.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or subchassis.	—	—
4. Localized the fault to a portion or stage using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Wave form amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Wave form illustrations. 	—	—
5. Isolated fault to the defective part using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 	—	—
6. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—
7. Filled out DA Form 2407 or DA Form 5990-E, showing work accomplished in accordance with DA Pamphlet 750-8.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 385-4
TM 11-5810-256-12
TM 11-5820-890-10-6
TM 11-5895-1568-14

Related

**Repair Tactical Terminal Control System AN/TSQ-198
093-94D-1280**

Conditions: Repair the Tactical Terminal Control System (TTCS) AN/TSQ-198, returning it to fully mission capable status, given the AN/TSQ-198, replaceable module or component, access to all assigned tools, test, measurement, and diagnostic equipment (TMDE), and the maintenance publications library; Technical Manual (TM) 11-5895-1568-14, TM 11-5810-256-12, and TM 11-5820-890-10-6; Tool Kit TK-105/G, Digital Multimeter AN/USM-486, and Test Set Radio Frequency Power AN/URM-213; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Bulletin (TB) 385-4, and DA Pamphlet 750-8; and a ball-point pen. NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Repaired or replaced faulty component, module, or chassis in AN/TSQ-198. Tested to ensure the fault had been repaired and no new troubles had developed. Closed out all associated maintenance forms and records.

Performance Measures

GO NO-GO

NOTE: To repair TTCS AN/TSQ-198, follow maintenance procedures in TM 11-5895-1568-14.

- | | | |
|---|-------|-------|
| 1. Referred to specific component removal and installation procedures outline in TM 11-5895-1568-14 and followed step-by-step procedures. | _____ | _____ |
| 2. Initiated DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E and annotated maintenance activity on FAA Form 6030-1. | _____ | _____ |
| 3. Turned in all maintenance forms to direct supervisor. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

Related

- DA FORM 2404
- DA FORM 2407
- DA FORM 5988-E
- DA FORM 5990-E
- DA PAM 750-8
- DD FORM 314
- FAA FORM 6030-1
- TB 385-4
- TM 11-5810-256-12
- TM 11-5820-890-10-6
- TM 11-5895-1568-14

Subject Area 9: AN/TSC-61B

**Perform Organization Preventive Maintenance Checks and Services
on Flight Coordination Central AN/TSC-61B**

093-94D-1310

Conditions: Given a Flight Coordination Central AN/TSC-61B system due preventive maintenance checks and services (PMCS), as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Technical Manual (TM) 11-5895-469-12, Tool Kit TK-100/G, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Bulletin (TB) 43-0118, and TM 43-0139; cleaning compound, cheesecloth, cleaning cloth, fine sandpaper, crocus cloth, paint, and brushes. NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Performed organizational PMCS and annotated all deficiencies on DA Form 2404 or DA Form 5988-E and FAA Form 6030-1. Turned in maintenance form to maintenance supervisor.

Performance Measures

GO NO-GO

NOTE: In some instances, systems may be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert operating conditions, the standard PMCS "frequency" schedule shall exceed the TM required scheduled services in order to maintain a high level of readiness.

- | | | |
|--|----|----|
| 1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS. | —— | —— |
| 2. Performed step-by-step organizational PMCS in accordance with TM 11-5895-469-12. | —— | —— |
| 3. Painted equipment, if required, in accordance with TB 43-0118 and TM 43-0139. | —— | —— |
| 4. Completed DA Form 2404 or DA Form 5988-E and turned in to maintenance supervisor. | —— | —— |
| 5. Annotated maintenance activity on the facility maintenance log FAA Form 6030-1. | —— | —— |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2404
- DA FORM 5988-E
- DD FORM 314
- FAA FORM 6030-1
- TB 43-0118
- TM 11-5895-469-12
- TM 43-0139

Related

Troubleshoot Flight Coordination Central AN/TSC-61B
093-94D-1320

Conditions: Troubleshoot Flight Coordination Central AN/TSC-61B, which has failed an operational check, given all assigned tools and test, measurement, and diagnostic equipment (TMDE) and the maintenance publications library; Technical Manual (TM) 11-5895-469-12, TM 11-5895-469-34, TM 11-5821-259-12, TM 11-5821-260-12, and TM 11-5821-311-12; Tool Kit TK-100/G or TK-105/G, Digital Multimeter AN/USM-486, and Electrical Dummy Load DA-75/U; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Bulletin (TB) 385-4, TB 385-4, and DA Pamphlet 750-8; and a ball-point pen. NOTE: If equipment listed is not available, equivalent equipment may be substituted.

Standards: Identified the faulty components using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 showing work accomplished.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E.	—	—
2. Performed preliminary organizational/direct support maintenance troubleshooting procedures in TM 11-5895-469-12 and TM 11-5895-469-34 to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or subchassis.	—	—
4. Localized the fault to a portion or stage using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Wave form amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Wave form illustrations. 	—	—
5. Isolated fault to the defective part using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 	—	—
6. Filled out DA Form 2404 or DA Form 5988-E, DA Form 2407 or DA Form 5990-E, and FAA Form 6030-1 showing work accomplished in accordance with DA Pamphlet 750-8.	—	—
7. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2404
- DA FORM 2407
- DA FORM 5988-E
- DA FORM 5990-E
- DA PAM 750-8
- DD FORM 314
- FAA FORM 6030-1
- TB 385-4
- TM 11-5821-259-12
- TM 11-5821-260-12
- TM 11-5821-311-12
- TM 11-5895-469-12
- TM 11-5895-469-34

Related

**Repair Flight Coordination Central AN/TSC-61B
093-94D-1330**

Conditions: Repair Flight Coordination Central AN/TSC-61B, given replaceable component, module, or chassis (see Task Number 093-94D-1320); Tool Kit TK-100/G or TK-105/G; Technical Manual (TM) 11-5895-469-12, TM 11-5895-469-34, TM 11-5895-469-34P, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and local standing operating procedure (SOP). NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Replaced or repaired faulty component, module, chassis, or equipment in AN/TSC-61B. Tested to ensure the fault had been repaired and no new troubles had developed. Closed out all associated maintenance forms and records.

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
1. Performed appropriate actions to begin repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 to identify parts and/or actions needed to repair faulty AN/TSC-61B. Took appropriate action, as follows:	_____	_____
a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with local SOP.		
b. Equipment requires parts not available on site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts.		
(1) Arranged to obtain parts in accordance with local SOP if parts were available.		
(2) Initiated the appropriate high priority parts request in accordance with local SOP if parts were not available.		
c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and turned in equipment needing repair to the appropriate support maintenance facility in accordance with local SOPs.		
2. Replaced faulty component or module.	_____	_____
3. Performed necessary alignments/adjustments.	_____	_____
a. Referred to TM removal/replacement instructions and performed alignment/adjustment, as specified.		
b. If the component/module was not included in the removal/replacement instructions, used the equipment TM and schematics to identify any circuit affected by the component/module replacement.		
c. Evaluated the alignment/adjustment in question to determine if it met the required standard.		
d. Performed necessary alignment/adjustment.		
4. Performance tested AN/TSC-61B.	_____	_____
NOTE: If the performance test indicates the fault has not been repaired or if new troubles have developed, this task ends. Return to Task Number 093-94D-1320 and continue to troubleshoot.		
5. Updated DA Form 2407 or DA Form 5990-E.	_____	_____
6. Requested final inspection.	_____	_____
7. Closed out maintenance forms and records.	_____	_____

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DD FORM 314
FAA FORM 6030-1
TM 11-5895-469-12
TM 11-5895-469-34
TM 11-5895-469-34P

Related

**Perform Direct Support Testing on Flight Coordination Central AN/TSC-61B
093-94D-1340**

Conditions: Perform direct support testing on flight coordination central that has failed an operational check. Given Flight Coordination Central AN/TSC-61B, all assigned tools and test, measurement, and diagnostic equipment (TMDE), and the maintenance publications library; Technical Manual (TM) 11-5895-469-12, TM 11-5895-469-34, TM 11-5821-259-12, TM 11-5821-260-12, and TM 11-5821-311-12; Tool Kit TK-100/G or TK-105/G, Digital Multimeter AN/USM-486, and Electrical Dummy Load DA-75/U; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Technical Bulletin (TB) 385-4, and DA Pamphlet 750-8; and a pen. NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Performed direct support testing procedures after installation of replaceable component, module, or chassis as outlined in TM 11-5895-469-34. Returned system to organizational level operators at fully mission capable (FMC) status.

Performance Measures

GO NO-GO

NOTE: Direct support maintenance procedures are outlined in TM 11-5895-469-34. The direct support maintenance repair parts and special tools list can be found in TM 11-5895-469-34P. Test equipment is discussed in TM 11-5895-469-34. Use these references as applicable.

- | | | |
|---|-------|-------|
| 1. Referred to TM direct support testing procedures and followed step-by-step maintenance procedures for replaceable module, component, or chassis. | _____ | _____ |
| 2. Filled out applicable maintenance forms and records. | _____ | _____ |
| 3. Requested final inspection from direct line supervisor. | _____ | _____ |
| 4. Returned system to operators. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 2407	
DA FORM 5988-E	
DA FORM 5990-E	
DA PAM 750-8	
DD FORM 314	
TB 385-4	
TM 11-5821-260-12	
TM 11-5821-311-12	
TM 11-5895-469-12	
TM 11-5895-469-34	
TM 11-5895-469-34P	

Subject Area 10: AN/TRN-30(V)

**Troubleshoot Radio Beacon Set AN/TRN-30(V)2
093-94D-1420**

Conditions: Troubleshoot Radio Beacon Set AN/TRN-30(V)2, which has failed an operations check. Given access to all assigned tools and test, measurement, and diagnostic equipment (TMDE); Digital Multimeter AN/USM-486, Tool Kit TK-100/G or TK-105/G, and Oscilloscope OS-261C; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, Technical Manual (TM) 11-5825-255-12, TM 11-5825-255-30, and Technical Bulletin (TB) 385-4; and a ball-point pen. NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E showing work accomplished.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or subchassis.	—	—
4. Localized the fault to a portion or stage using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Waveform amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Waveform illustrations. 	—	—
5. Isolated fault to the defective part using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 	—	—
6. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—
7. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1, showing work accomplished in accordance with DA Pamphlet 750-8.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 385-4
TM 11-5825-255-12
TM 11-5825-255-30

Related

Repair Radio Beacon Set AN/TRN-30(V)2
093-94D-1430

Conditions: Repair identified defective replaceable module or component of Radio Beacon Set AN/TRN-30(V)2 (see Task Number 093-94D-1420), given the AN/TRN-30(V)2 and identified faulty component, module, or chassis; Technical Manual (TM) 11-5825-255-12 and TM 11-5825-255-30; Tool Kit TK-100/G or TK-105/G, Multimeter AN/USM-486, Oscilloscope AN/USM-281C, Electronic Digital Counter AN/USM-207, Dummy Load DA-75/U, and Audio Level Meter TS-585/U; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and local standing operating procedure (SOP). NOTE: If equipment listed is not available, equivalent equipment may be substituted.

Standards: Repaired the AN/TRN-30(V)2, or replaced the faulty replaceable component, module, chassis, or equipment. Tested component to ensure the fault had been repaired and no new troubles had developed. Closed out all associated maintenance forms and records.

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
1. Took appropriate action to begin repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E to identify parts and/or actions needed to repair faulty AN/TRN-30(V)2. Took appropriate action as follows: <ul style="list-style-type: none"> a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with local SOP. b. Equipment requires parts not available on site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts. <ul style="list-style-type: none"> (1) Arranged to obtain parts in accordance with local SOP if parts were available. (2) Initiated the appropriate high priority parts request in accordance with local SOP if parts were not available. c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to the appropriate support maintenance facility in accordance with local SOPs. 	—	—
2. Replaced faulty component or module.	—	—
3. Performed necessary alignments/adjustments. <ul style="list-style-type: none"> a. Referred to TM removal/replacement instructions and performed alignment/adjustment, as specified. b. If the component/module was not included in the removal/replacement instructions, used the equipment TM and schematics to identify any circuit affected by the component/module replacement. c. Evaluated the alignment/adjustment in question to determine if it met the required standard. d. Performed necessary alignment/adjustment. 	—	—
4. Performance tested AN/TRN-30(V)2.	—	—

NOTE: If the performance test indicated the fault had not been repaired or if new troubles developed, this task was terminated. Return to Task Number 093-94D-1420.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
5. Updated DA Form 2407 or DA Form 5990-E and annotated maintenance activity on FAA Form 6030-1.	—	—
6. Requested final inspection.	—	—
7. Closed out maintenance forms and records.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
 DA FORM 2407
 DA FORM 5988-E
 DA FORM 5990-E
 DD FORM 314
 FAA FORM 6030-1
 TM 11-5825-255-12
 TM 11-5825-255-30

Related

Subject Area 11: AN/ASM-146B or AN/USM-147B

**Perform Preventive Maintenance Checks and Services on Electronic Shop Shelter Mounted,
Avionics AN/ASM-146B or AN/ASM-147B
093-94D-1460**

Conditions: Given an Electronic Avionics Shop AN/ASM-146B shelter due preventive maintenance checks and services (PMCS), as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record); given Technical Manual (TM) 11-4940-238-14-1, Department of the Army (DA) Pamphlet 750-8, Technical Bulletin (TB) 43-0118, TM 43-0139, SB 11-573, DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log); and Trichlorethane, lint-free cloth, lens cloth or lens paper, lens cleaner, lubricating oil, lubricating oil (OE-10), fine sandpaper, electrical tape, and grease graphite, and aircraft.

Standards: Performed PMCS in accordance with TM 11-4940-238-14-1. Noted all deficiencies on DA Form 2404 or DA Form 5988-E and FAA Form 6030-1. Turned in all forms to maintenance supervisor.

Performance Measures

GO NO-GO

NOTE: In some instances, systems may be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert operating conditions, the standard PMCS "frequency" schedule shall exceed the TM required scheduled services in order to maintain a high level of readiness.

- | | | |
|--|---|---|
| 1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS. | — | — |
| 2. Performed daily checks and services in accordance with TM. | — | — |
| 3. Performed monthly checks and services in accordance with TM. | — | — |
| 4. Performed quarterly checks and services, if scheduled, in accordance with TM. | — | — |
| 5. Gave completed DA Form 2404 or DA Form 5988-E to maintenance supervisor. | — | — |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 5988-E	
DA PAM 750-8	
DD FORM 314	
FAA FORM 6030-1	
SB 11-573	
TB 43-0118	
TM 11-4940-238-14-1	
TM 43-0139	

**Operate Electronic Shop, Shelter Mounted, Avionics AN/ASM-146B or AN/ASM-147B
093-94D-2450**

Conditions: Operate and emplace Electronic Shop, Shelter Mounted, Avionics AN/ASM-146B, given Technical Manual (TM) 11-4940-238-14-1 and a 5-pound sledgehammer, ground rod, ground strap, pliers, 8-inch adjustable wrench, 8-inch flat-tip screwdriver, 2-ton cargo truck, and a 115 volt, 60-hertz, 10kw external power source and reel assembly RC-405/U. Read all safety precautions in the TM.

Standards: Performed shelter setup procedures by emplacing shelter in proper location, grounding shelter, installing power cable, and operating equipment to perform mission requirements.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Located a suitable location in which to place the vehicular-mounted AN/ASM-146B.	—	—
2. Placed AN/ASM-146B on site.	—	—
3. Placed chock blocks.	—	—
4. Grounded AN/ASM-146B.	—	—
5. Connected power cable.	—	—
6. Checked circuit breakers in shelter.	—	—
7. Applied power to AN/ASM-146B.	—	—
8. Removed all tiedown bars and clamps that secured equipment and drawers during transit.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required
TM 11-4940-238-14-1

Related

Subject Area 12: AN/FSQ-84

**Prepare Radar Set AN/FPN-40 for Flight Check
093-94D-1503**

Conditions: Prepare Radar Set AN/FPN-40 for (periodic) flight check prior to flight inspection, given Fixed Base Radar System AN/FPN-40 installation, Radar Set AN/FPN-40, Radar Test Set AN/UPM-145; Field Manual (FM) 3-04.303, Technical Manual (TM) 11-5840-293-12, TM 11-5840-293-35, and TM 95-225; Tool Kit TK-100/G or TK-105/G, 8-foot stepladder, open-end wrench; Oscilloscope OS-261C/U, Digital Multimeter ME-518/U; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and pencil or ball-point pen. NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Performed all requirements and met all objectives for a flight check in accordance with TMs and FM 3-04.303. Verified alignments, as appropriate, for each type of flight check. Filled out FAA Form 6030-1 for alignments performed.

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
1. Knew general flight inspection procedures:	_____	_____
a. Types of flight checks.		
b. Priorities for flight inspections.		
c. Minimum frequency of flight inspections.		
d. Maintenance personnel responsibilities.		
(1) All possible calibration and checks accomplished in accordance with equipment TMs.		
(2) Any pending modifications or changes accomplished prior to flight inspection.		
(3) Maintenance personnel on hand during inspection.		
(4) Maximum effort expended towards correcting major facility deficiencies prior to departure of flight inspection aircraft.		
2. Prepared for surveillance radar flight inspection.	_____	_____
a. Checked transmitter power output and frequency adjustments.		
b. Adjusted local oscillator (LO) tune.		
c. Adjusted search delay.		
d. Adjusted plan position indicator (PPI) delay vernier.		
e. Verified known target position.		
f. Prepared DA Form 2407 or DA Form 5990-E for alignments performed.		
g. Returned radar to controller in charge.		
3. Prepared for precision approach radar (PAR) flight inspection.	_____	_____
a. Verified receiver transmitter (RT) group is level.		
b. Verified 1,500 cycles per second (CPS) level was 50V peak-to-peak (p-p).		
c. Verified the 7-degree elevation resolver is nulled at 2.50.		
d. Checked transmitter power output and frequency.		
e. Performed receiver LO tune procedures.		
f. Verified angle volts demodulator alignment.		
g. Verified SEARCH DELAY.		
h. Verified PPI delay.		
i. Returned radar to controller in charge for operator cursor alignments.		

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DD FORM 314
FAA FORM 6030-1
FM 3-04.303
TM 11-5840-293-12
TM 11-5840-293-35
TM 95-225

Related

**Perform Preliminary Checks and Alignment on Control Indicator, Radar Set AN/FPN-40
093-94D-1504**

Conditions: Perform preliminary checks, services, and alignments on control indicator, Radar Set AN/FPN-40, given Technical Manual (TM) 11-5840-293-12, TM 11-5840-293-35, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, and other applicable publications.

Standards: Performed preliminary checks and alignments on control indicator, Radar Set AN/FPN-40, in accordance with TM 11-5840-293-12.

Performance Measures

GO NO-GO

NOTE: Preliminary checks and alignment procedures are in TM 11-5840-12. If preliminary checks failed, initial performance test refers to TM 11-5840-293-35.

- | | | |
|--|-------|-------|
| 1. Performed preliminary checks and adjustment outlined in TM 11-5840-293-12. | _____ | _____ |
| 2. Annotated maintenance activity on FAA Form 6030-1 and DA Form 2404 or DA Form 5988-E. | _____ | _____ |
| 3. Returned system to service. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2404
- DA FORM 5988-E
- DA PAM 750-8
- FAA FORM 6030-1
- TM 11-5840-293-12
- TM 11-5840-293-35

Related

**Perform Organizational Preventive Maintenance Checks and Services on Radar Set AN/FPN-40
093-94D-1513**

Conditions: Perform preventive maintenance checks and services (PMCS) on Radar Set AN/FPN-40, due as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record). Given Tool Kit TK-110/G or TK-105/G, Technical Manual (TM) 11-5840-293-12, TM 43-0139, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 25-30, DA Pamphlet 750-8, Supply Bulletin (SB) 11-573, Technical Bulletin (TB) 43-0118, grease, oil, cleaning compound or soap and water, lubricating oil, and cleaning solvent. NOTE: If equipment listed is not available, equivalent equipment may be substituted.

Standards: Performed organizational PMCS, with all deficiencies noted on DA Form 2404 or DA Form 5988-E, which is turned in to maintenance supervisor.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
NOTE: Referred to TM 11-5840-293-12 for performance measures 1 through 7.		
1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS.	—	—
2. Performed general/routine checks of AN/FPN-40.	—	—
3. Performed monthly checks and services.	—	—
4. Performed quarterly checks and services, if scheduled.	—	—
5. Cleaned air filters.	—	—
6. Spot-painted, if necessary and weather permitting, in accordance with TB 43-0118 and TM 43-0139.	—	—
7. Turned in completed DA Form 2404 or DA Form 5988-E to maintenance supervisor.	—	—
8. Annotated maintenance activity on FAA Form 6030-1.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 5988-E	
DA PAM 25-30	
DA PAM 750-8	
DD FORM 314	
FAA FORM 6030-1	
SB 11-573	
TB 43-0118	
TM 11-5840-293-12	
TM 43-0139	

Troubleshoot Radar Set AN/FPN-40
093-94D-1523

Conditions: Troubleshoot Radar Set AN/FPN-40, given fault detected during operational check; given access to all assigned tools and test, measurement, and diagnostic equipment (TMDE); Radar System AN/FSQ-84; Technical Manual (TM) 11-5840-293-12 and TM 11-5840-293-35; Tool Kit TK-100/G or TK-105/G, Digital Multimeter AN/USM 486, Oscilloscope OS-261C, Radar Test Set AN/UPM-145 or AN/UPM-155, Dummy Load DA-148, Tube Socket Adapter Kit MX-1258, and Test Set-Electron Tube TV-7/U; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Bulletin (TB) 385-4, DA Pamphlet 750-8; and a ball-point pen.
NOTE: If listed equipment is not available, equivalent equipment may be substituted.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 showing work accomplished.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators, reading DA Form 2404 or DA Form 5988-E and reviewing FAA Form 6030-1.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or subchassis.	—	—
4. Localized the fault to a portion or stage using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Wave form amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Wave form illustrations. 	—	—
5. Isolated fault to the defective part using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug-in connections. e. Isolating by parts substitution. 	—	—
6. Filled out DA Form 2407 or DA Form 5990-E, showing work accomplished in accordance with DA Pamphlet 750-8.	—	—
7. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 385-4
TM 11-5840-293-12
TM 11-5840-293-35

Related

**Repair Radar Set AN/FPN-40
093-94D-1533**

Conditions: Given Radar set that has failed under normal operations, repair/replace faulty component in Radar Set AN/FPN-40. Given the following items: Radar Set AN/FPN-40 and identifying component, module or chassis, Technical Manual (TM) 11-5840-293-12, TM 11-5840-293-35, TM 11-5840-293-20P, TM 11-5840-293-34P, *Tool Kit TK-100/G or TK-105/G, replacement part, *Oscilloscope AN/USM-281C, *Multimeter AN/USM-486, *AN/UPM-145, Department of the Army (DA) Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and local standing operating procedure (SOP). *NOTE: Equivalent equipment may be substituted.

Standards: Repaired Radar Set AN/FPN-40/replaced the faulty replaceable component, module, chassis, or equipment. Tested system to ensure the fault had been repaired and no new troubles had developed. Closed out all associated maintenance forms and records.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Took appropriate action to begin repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E to identify parts and/or actions needed to repair faulty AN/FPN-40, and took appropriate action as follows: <ul style="list-style-type: none"> a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with local SOP. b. Equipment requires part(s) not available on-site. Contacts surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts. <ul style="list-style-type: none"> (1) Arranged to obtain parts in accordance with local SOP if parts were available. (2) Initiated the appropriate high priority parts request in accordance with local SOP if parts were not available. c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment in need of repair to the appropriate support maintenance facility in accordance with local SOPs. 	_____	_____
2. Replaced faulty component or module.	_____	_____
3. Performed necessary alignments/adjustments. <ul style="list-style-type: none"> a. Refers to TM removal/replacement instructions and performs alignment/adjustment as specified. b. If the component/module is not included in the removal/replacement instructions, uses the equipment TM and schematics to identify any circuit affected by the component/module replacement. c. Evaluates the alignment/adjustment in question to determine if it meets the required standard. d. Performs necessary alignment/adjustment. 	_____	_____
4. Performance tested AN/FPN-40.	_____	_____
NOTE: If the performance test indicated the fault had not been repaired or if new troubles had developed, this task was terminated. Soldier returned to Task Number 093-94D-1523 and continued to troubleshoot.		
5. Updated DA Form 2407 or DA Form 5990-E and FAA Form 6030-1.	_____	_____
6. Requested final inspection from maintenance supervisor.	_____	_____
7. Closed out maintenance forms and records.	_____	_____

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2407
DA FORM 5990-E
FAA FORM 6030-1
TM 11-5840-293-12
TM 11-5840-293-20P
TM 11-5840-293-34P
TM 11-5840-293-35

Related

Subject Area 13: AN/FSQ-84 – MUX and DEMUX

Troubleshoot Multiplexer TD-991/G and DeMultiplexer TD-992/G
093-94D-1526

Conditions: Troubleshoot FSQ-84 system detected inoperative in normal operations but operating normally with the MULTIPLEX BYPASS switch ON. Given access to all assigned tools, test, measurement, and diagnostic equipment (TMDE), and the following: Radar System AN/FSQ-84, *Digital Multimeter AN/USM-486, *Tool Kit TK-100/G or TK-105/G, *Oscilloscope OS-261C, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, Technical Bulletin (TB) 385-4, and ball-point pen. *NOTE: Equivalent equipment may be substituted.

Standards: Identified the faulty component/malfunction using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E showing work accomplished.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or sub-chassis.	—	—
4. Localized the fault to a portion or stage, using the following troubleshooting aids and procedures as necessary: <ul style="list-style-type: none"> a. Wave form amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Wave form illustrations. 	—	—
5. Isolated fault to the defective part, using the following troubleshooting aids and procedures as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 	—	—
6. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1, showing work accomplished in accordance with DA Pamphlet 750-8.	—	—
7. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 385-4

Related

**Repair Multiplexer TD-991/G and DeMultiplexer TD-992/G
093-94D-1536**

Conditions: Given identified faulty replaceable module or component of Multiplexer TD-991/G and DeMultiplexer TD-992/G (see Task Number 093-94D-1526). Given the following items: Department of the Army (DA) Pamphlet 750-8, TD-991/G, TD-992/G, *Tool Kit TK-100/G or TK-105/G, *Multimeter AN/USM-486, *Oscilloscope AN/USM-281C, *Frequency Counter HP 5302A, DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), replaceable component, module, or chassis, and local standing operating procedure (SOP). *NOTE: Equivalent equipment may be substituted.

Standards: Replaced and aligned the replaceable component, module, chassis, or equipment. Performance tested the TD-991/G or TD-992/G to ensure the fault had been repaired and no new troubles had developed. Closed out all associated maintenance forms and records.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Took appropriate action to begin repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E to identify parts and/or actions needed to repair faulty TD-991/G and TD-992/G, and took appropriate action, as follows: <ul style="list-style-type: none"> a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with local SOP. b. Equipment requires parts not available on site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts. <ul style="list-style-type: none"> (1) Arranged to obtain parts in accordance with local SOP if parts were available. (2) Initiated the appropriate high priority parts request in accordance with local SOP if parts were not available. c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to the appropriate support maintenance facility in accordance with local SOPs. 	—	—
2. Replaced faulty component or module.	—	—
3. Performed necessary alignments/adjustments. <ul style="list-style-type: none"> a. Refers to TM removal/replacement instructions and performs alignment/adjustment as specified. b. If the component/module is not included in the removal/replacement instructions, uses the equipment TM and schematics to identify any circuit affected by the component/module replacement. c. Evaluates the alignment/adjustment in question to determine if it meets the required standard. d. Performs necessary alignment/adjustment. 	—	—
4. Performance tested TD-991/G and TD-992/G. NOTE: If the performance test indicated the fault had not been repaired or if new troubles had developed, this task was terminated. Soldier returned to Task Number 093-94D-1526 and continued to troubleshoot.	—	—
5. Updated DA Form 2407 or DA Form 5990-E, annotated maintenance activity on FAA Form 6030-1. Referred to DA Pamphlet 750-8.	—	—
6. Requested final inspection.	—	—
7. Closed out maintenance forms and records.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2407
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1

Related

Subject Area 14: AN/TPX-41

**Perform Organizational Preventive Maintenance Checks and Services
on Interrogator Set AN/TPX-41
093-94D-1519**

Conditions: Perform preventive maintenance checks and services (PMCS) on Interrogator Set AN/TPX-41 due as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record). Given Technical Manual (TM) 11-5895-479-12; Digital Multimeter ME-486/U; cleaning compound, orange stick, cheesecloth, cleaning cloth, fine sandpaper, crocus cloth, and grease; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log). NOTE: If listed equipment is not available, equivalent equipment may be used.

Standards: Performed organizational PMCS in accordance with TM and service schedule on DD Form 314. Annotated all deficiencies on DA Form 2404 or DA Form 5988-E and turned in the form to the maintenance supervisor.

Performance Measures

GO NO-GO

NOTE: Organizational maintenance duties performed on AN/TPX-41 are in TM 11-5895-479-12.

- | | | |
|--|---|---|
| <ol style="list-style-type: none"> 1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS. 2. Performed quarterly checks and services. 3. Inspected and lubricated as necessary: <ol style="list-style-type: none"> a. Main drive gear. b. Synchro drive gear. 4. Spot-painted, if necessary and weather permitting. 5. Turned in completed DA Form 2404 or DA Form 5988-E to maintenance facility supervisor. 6. Annotated maintenance activity on FAA Form 6030-1. | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> |
|--|---|---|

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2404
- DA FORM 5988-E
- DD FORM 314
- FAA FORM 6030-1
- TM 11-5895-479-12

Related

Troubleshoot Interrogator Set AN/TPX-41
093-94D-1529

Conditions: Troubleshoot Interrogator Set AN/TPX41 for malfunction detected during normal operations. Given access to all assigned tools, test, measurement, and diagnostic equipment (TMDE), and the following: radar system, Technical Manual (TM) 11-5895-479-12, TM 11-5895-479-35, TM 11-5895-201-35, TM 11-5840-309-35, TM 11-5895-245-35, AN/TPX-41, *Oscilloscope OS-261C, *Digital Multimeter AN/USM-486, *Tube Socket Adapter Kit MX-1258/U, *Signal Generator SG-1144/G, *Tool Kit TK-100/G or TK-105/G, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, Technical Bulletin (TB) 385-4, and a ball-point pen. *NOTE: Equivalent equipment may be substituted.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E showing work accomplished.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or subchassis.	—	—
4. Localized the fault to a portion or stage, using the following troubleshooting aids and procedures as necessary: <ul style="list-style-type: none"> a. Wave form amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Wave form illustrations. 	—	—
5. Isolated fault to the defective part, using the following troubleshooting aids and procedures as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 	—	—
6. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 showing work accomplished in accordance with DA Pamphlet 750-8.	—	—
7. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 385-4
TM 11-5840-309-35
TM 11-5895-201-35
TM 11-5895-245-35
TM 11-5895-479-12
TM 11-5895-479-35

Related

Repair Interrogator Set AN/TPX-41
093-94D-1539

Conditions: Given faulty replaceable module or component in Interrogator Set AN/TPX-41 (see Task Number 093-94D-1529), given the following items: Interrogator Set AN/TPX-41 and replaceable component, module, or chassis, Technical Manual (TM) 11-5895-479-12, TM 11-5895-479-35, TM 11-5895-201-35, TM 11-5895-245-35, TM 11-5840-309-35, *Tool Kit TK-100/G or TK-105/G, *Multimeter AN/USM-486, *Tube Socket Adapter Kit MX-1258/U, *Signal Generator SG-1144/G, AN/UPM-155 Test Set Radar, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and local SOP. *NOTE: Equivalent equipment may be substituted.

Standards: Replaced faulty replaceable component, module, chassis, or equipment in the AN/TPX-41. Tested to ensure the fault had been repaired and no new troubles had developed. Closed out all associated maintenance forms and records and returned system to operators.

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
1. Took appropriate action to begin repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E to identify parts and/or actions needed to repair faulty AN/TPX-41 and took appropriate action as follows:	—	—
a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with local SOP.		
b. Equipment requires parts not available on site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts.		
(1) Arranged to obtain parts in accordance with local SOP if parts were available.		
(2) Initiated the appropriate high priority parts request in accordance with local SOP if parts were not available.		
c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to the appropriate support maintenance facility in accordance with local SOPs.		
2. Replaced faulty component or module.	—	—
3. Performed necessary alignments/adjustments.	—	—
a. Referred to TM removal/replacement instructions and performs alignment/adjustment as specified.		
b. If the component/module is not included in the removal/replacement instructions, uses the equipment TM and schematics to identify any circuit affected by the component/module replacement.		
c. Evaluated the alignment/adjustment in question to determine if it meets the required standard.		
d. Performed necessary alignment/adjustment.		
4. Performance tested AN/TPX-41.	—	—

NOTE: If the performance test indicates the fault has not been repaired or if new troubles have developed, this task ends. Return to Task Number 093-94D-1529 and continue to troubleshoot.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
5. Updated DA Form 2407 or DA Form 5990-E and annotated maintenance activity on FAA Form 6030-1.	—	—
6. Requested final inspection.	—	—
7. Closed out maintenance forms and records.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 2407	
DA FORM 5988-E	
DA FORM 5990-E	
DA PAM 750-8	
FAA FORM 6030-1	
TM 11-5840-309-35	
TM 11-5895-201-35	
TM 11-5895-245-35	
TM 11-5895-479-12	
TM 11-5895-479-35	

Subject Area 15: Consoles

**Program SCU on ATCCSS AN/FSC-92(V)
093-94D-1600**

Conditions: Program the System Control Unit (SCU) of an AN/FSC-92(V) Air Traffic Control Communications Switching System (ATCCSS) installation in a fixed base environment before making any systems checks or program changes. Given the following items: AN/FSC-92(V), Technical Manual (TM) 11-5895-1186-12, International Business Machine (IBM) personal computer (PC) with monitor, and a system diskette.

Standards: Programmed system configuration to reflect changes made in the hardware and positions, with the SCU programmed to display the current system status, configuration, and time and date.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Operated the SCU.	_____	_____
a. Inserted the system diskette.		
b. Set monitor and computer power to ON.		
c. Checked for audio tone and disk activity.		
d. Typed in date and time.		
e. Entered the password.		
2. Displayed system status.	_____	_____
a. Operated the SCU.		
b. Selected SYSTEM STATUS DISPLAY.		
c. Identified what part of the system is down.		
d. Silenced alarm.		
e. Performed troubleshooting until the status displays stop flashing.		
f. Exited.		
3. Added a local map.	_____	_____
a. Operated the SCU.		
b. Selected LOCAL MAPS EDITING.		
c. Selected ADD LOCAL MAP.		
d. Entered the new name and description.		
e. Recorded the new name and description.		
f. Pressed function key F2.		
g. Selected operator position which will use the map and presses F1.		
h. Changed the hardware configuration.		
i. Assigned key types.		
j. Selected radio frequencies.		
k. Selected operator position.		
l. Selected phones.		
m. Changed local map.		
n. Exited.		
4. Changed a local map.	_____	_____
a. Operated the SCU.		
b. Selected LOCAL MAPS EDITING.		
c. Selected CHANGE LOCAL MAP.		
d. Selected map to change.		
e. Changed map.		
f. Saved changes.		
g. Exited.		

Performance Measures	<u>GO</u>	<u>NO-GO</u>
5. Deleted a local map. a. Operated the SCU. b. Selected LOCAL MAPS EDITING. c. Selected DELETE LOCAL MAP. d. Selected map for deletion. e. Deleted map. f. Exits.	—	—
6. Renamed a local map. a. Operated the SCU. b. Selected LOCAL MAPS EDITING. c. Selected RENAME LOCAL MAP. d. Renamed local map. e. Exited.	—	—
7. Copied a local map. a. Operated the SCU. b. Selected LOCAL MAPS EDITING. c. Selected COPY LOCAL MAP. d. Copied a local map. e. Exited.	—	—
8. Displayed the local map directory. a. Operated the SCU. b. Selected LOCAL MAPS EDITING. c. Selected DISPLAY LOCAL MAP DIRECTORY. d. Exited.	—	—
9. Reassigned local maps. a. Operated the SCU. b. Selected LOCAL REASSIGNMENT. c. Selected operator position. d. Scanned local map listing. e. Activated map. f. Exited.	—	—
10. Edited system units. a. Operates the SCU. b. Selects SYSTEM UNITS EDITING. c. Located data. d. Entered new information. e. Saved changes. f. Exited.	—	—
11. Added a global map. a. Operated the SCU. b. Selected GLOBAL MAPS EDITING. c. Selected ADD GLOBAL MAP. d. Entered name and description. e. Made local map position assignments. f. Exited.	—	—

Performance Measures	<u>GO</u>	<u>NO-GO</u>
12. Changed a global map. a. Operated the SCU. b. Selected GLOBAL MAPS EDITING. c. Selected CHANGE GLOBAL MAP. d. Selected map for editing. e. Typed in new description. f. Changed local map position assignments. g. Saved changes. h. Exited.	—	—
13. Deleted a global map. a. Operated the SCU. b. Selected GLOBAL MAPS EDITING. c. Selected DELETE GLOBAL MAP. d. Selected map for deletion. e. Deleted map. f. Exited.	—	—
14. Renamed a global map. a. Operated the SCU. b. Selected GLOBAL MAPS EDITING. c. Selected RENAME GLOBAL MAP. d. Entered new name. e. Saved changes. f. Exited.	—	—
15. Copied a global map. a. Operated the SCU. b. Selected Global MAPS EDITING. c. Selected COPY GLOBAL MAP. d. Typed current name and new name. e. Copied map. f. Exited.	—	—
16. Displayed the global map directory. a. Operated the SCU. b. Selected GLOBAL MAPS EDITING. c. Selected DISPLAY GLOBAL MAP DIRECTORY. d. Exited.	—	—
17. Reassigned a global map. a. Operates the SCU. b. Selected GLOBAL REASSIGNMENT. c. Scanned global map listing. d. Activated map.	—	—
18. Reset date and time. a. Operated the SCU. b. Selected DATE & TIME SETTING. c. Entered new date and time. d. Set new date and time. e. Exited.	—	—

Performance Measures

GO **NO-GO**

- 19. Changed the password.
 - a. Operated the SCU.
 - b. Selected CHANGING PASSWORDS.
 - c. Selected password for editing.
 - d. Typed in new password and level.
 - e. Set the password.
 - f. Exited.

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TM 11-5895-1186-12

Related

**Program Voice Communication Switching System AN/FSC-127
093-94D-1601**

Conditions: Program Voice Communication Switch in accordance with step-by-step procedures outlined in the technical manual (TM). Read all safety precautions outlined in the TM before any maintenance activity. Given the following items on hand: Technical Instruction (TI) 6650.53 and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log).

Standards: Programmed voice communication switch system in accordance with step-by-step procedures outlined in the TM. Read safety precautions prior to performing maintenance procedures. Returned system to operator fully mission capable. Notified supervisors of maintenance activity and logged maintenance activity on FAA Form 6030-1.

Performance Measures

GO NO-GO

NOTE: Prior to performing any maintenance activity, notified operators and facility chief that system will be down for maintenance. Maintenance manuals can be downloaded from FAA Web site www.faa.gov/and/AND300.

- | | | |
|---|-------|-------|
| 1. Logged onto supervisor terminal to begin maintenance activity. | _____ | _____ |
| 2. Selected program position for maintenance activity. | _____ | _____ |
| 3. Performed step-by-step software programming/loading procedures in accordance with TM. | _____ | _____ |
| 4. Logged on to each console and ran performance test to detect any errors in console system performance. | _____ | _____ |
| 5. Notified operators that system was fully mission capable and returned system to operators. | _____ | _____ |
| 6. Filled out FAA Form 6030-1 recording maintenance activity performed on the system. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required
FAA FORM 6030-1

Related

**Perform Organization PMCS on Air Traffic Control Switching System AN/FSC-92
093-94D-1610**

Conditions: Perform organizational preventive maintenance checks and services (PMCS) in accordance with Technical Manual (TM) 11-5895-1186-12, TM 11-5895-1186-34, and as annotated on Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record). Refer to operator/organizational maintenance manual tool and test equipment requirements allocation chart for the required test equipment (TMDE) to perform maintenance service. Also given: Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)) and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log).

Standards: Performed organizational preventive maintenance checks and services in accordance with TM. Filled out appropriate maintenance forms in accordance with DA Pamphlet 750-8. Returned system to operators.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
NOTE: PMCS are limited to monthly checks and services as listed in TM 11-5895-1186-12 and TM 11-5895-1186-34.		
1. Performed PMCS in accordance with step-by-step maintenance procedures in TM.	—	—
2. Annotated all deficiencies on DA Form 2404 or DA Form 5988-E.	—	—
3. Returned system to operators.	—	—
4. Annotated maintenance activity on FAA Form 6030-1.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 5988-E	
DA PAM 750-8	
DD FORM 314	
FAA FORM 6030-1	
TM 11-5895-1186-12	
TM 11-5895-1186-34	

**Perform Organization PMCS on Voice Communication Switch (VCSS) AN/FSC-127
093-94D-1611**

Conditions: Perform organizational preventive maintenance checks and services (PMCS) due on Voice Communications Security System (VCSS) AN/FSC-127 in accordance with Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)) and technical manual (TM) chart indexes. Use all required test equipment identified in the Technical Instruction (TI) 6650.53 PMCS maintenance chart. Maintenance forms required for this task are: Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log).

Standards: Performed organizational maintenance checks and services in accordance with TM. Filled out all required maintenance forms, noting deficiencies, and returned the system to the operators.

Performance Measures

GO NO-GO

NOTE: Perform PMCS in accordance with schedule maintenance service annotated on DD Form 314 or DA Form 2404 or DA Form 5988-E. Organizational maintenance chart is located in TI 6650.53. Follow step-by-step procedures in performing maintenance procedures.

- | | | |
|--|----|----|
| 1. Performed step-by-step routine maintenance checks and services in accordance with TM maintenance chart. | —— | —— |
| 2. Annotated maintenance activity on FAA Form 6030-1 and DA Form 2404 or DA Form 5988-E. | —— | —— |
| 3. Turned maintenance forms into supervisor for review and return system to operators. | —— | —— |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2404
- DA FORM 2407
- DA FORM 5988-E
- DA FORM 5990-E
- DA PAM 750-8
- DD FORM 314
- FAA FORM 6030-1

Related

Troubleshoot ATCCSS AN/FSC-92(V)
093-94D-1620

Conditions: Troubleshoot Air Traffic Control Communications Switching System (ATCCSS) AN/FSC-92(V) detected inoperative in normal operations, given access to all assigned tools, test, measurement, and diagnostic equipment (TMDE), and the following items: Technical Manual (TM) 11-5895-1186-12, TM 11-5895-1186-34, *Tool Kit TK-100/G or TK-105/G, *Digital Multimeter ME-518/U, *Oscilloscope OS-261/C, *Sine Wave Generator SG-1133, *AC VM (db) AN/USM-145, *Frequency Counter AN/USM-459, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, Technical Bulletin (TB) 385-4, and a ball-point pen.
*NOTE: Equivalent equipment may be substituted.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E showing work accomplished.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E, DA Form 2407 or DA Form 5990-E, and FAA Form 6030-1.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or sub-chassis.	—	—
4. Localized the fault to a portion or stage, using the following troubleshooting aids and procedures as necessary: <ul style="list-style-type: none"> a. Waveform amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Waveform illustrations. 	—	—
5. Isolated fault to the defective part, using the following troubleshooting aids and procedures as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 	—	—
6. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—
7. Filled out DA Form 2407 or DA Form 5990-E, showing work accomplished in accordance with DA Pamphlet 750-8.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 385-4
TM 11-5895-1186-12
TM 11-5895-1186-34

Related

Troubleshoot VCSS AN/FSC-127
093-94D-1621

Conditions: Troubleshoot Voice Communications Security System (VCSS) AN/FSC-127 with suspected fault, given access to the following Items: Technical Instruction (TI) 6650.53, Transmission Test Set AN/USM-485, TK100/G, Multimeter, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log).

Standards: Identified the faulty component to the lowest replaceable unit (LRU) using logical troubleshooting procedures outlined in the maintenance troubleshooting flow chart. Observed all safety precautions required by TB 385-4 and equipment technical manuals (TMs). Filled out DA Form 2407 or DA Form 5990-E showing work accomplished, turned in all forms to maintenance supervisor, and returned system to operators.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning operators and reading DA Form 2404 or DA Form 5988-E and FAA Form 6030-1.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Used TM flow chart to sectionalized trouble to the faulty chassis or sub-chassis.	—	—
4. Localized the fault to a portion or stage, using computer Built-in Test Equipment (BITE) System and TM troubleshooting chart.	—	—
5. Isolated faulty component to the lowest replaceable unit (LRU) by component substitution.	—	—
6. Observed safety precautions during the troubleshooting procedures as outlined in the TM.	—	—
7. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1, showing work accomplished in accordance with DA Pamphlet 750-8.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1

Related

**Troubleshoot C-10931 (CCU) Console
093-94D-1629**

Conditions: Troubleshoot C-10931 Communications Control Unit (CCU) Console that has failed services under normal operating conditions, given the following items: test, measurement, and diagnostic equipment (TMDE), Digital Multimeter AN/USM-486, Signal Generator SG-1144/G, Oscilloscope OS-261C, TK 100/G, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Manual (TM) 11-5895-1141-12, and TM 11-5895-1141-34. Additional test equipment can be used, as required.

Standards: Identified fault in C-10931 (CCU) to the lowest replaceable unit (LRU) using logical troubleshooting procedures outlined in the TM. Annotated maintenance activity on DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E and reading FAA Form 6030-1.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indicators. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or sub-chassis.	—	—
4. Localized the fault to a portion or stage to the LRU, using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Wave form amplitude. b. Wiring diagram. c. Unit/organizational system troubleshooting chart. d. Wave illustrations. 	—	—
5. Referred to Task Number 093-94D-1639 to complete this task.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 2407	
DA FORM 5988-E	
DA FORM 5990-E	
DD FORM 314	
DA PAM 750-8	
FAA FORM 6030-1	
TM 11-5895-1141-12	
TM 11-5895-1141-34	

**Repair ATCCSS AN/FSC-92(V)
093-94D-1630**

Conditions: Given replaceable module (lowest replaceable unit (LRU)), replace faulty replaceable module or component in Air Traffic Control Communications Switching System (ATCCSS) AN/FSC-92(V) (see Task Number 093-94D-1620) given the following items: Technical Manual (TM) 11-5895-1186-12; TM 11-5895-1186-34; *Tool Kit TK-100/G or TK-105/G; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log); identifying faulty component, module, or chassis; local standing operating procedure (SOP); and Transmission Test Set AN/USM-485. NOTE: *Equivalent equipment may be substituted.

Standards: Replaced faulty component (LRU) in the AN/FSC-92 in accordance with the TM. Tested LRU to ensure system was fully operational. Filled out FAA Form 6030-1, DA Form 2407 or DA Form 5990-E, and DA Form 2404 or DA Form 5988-E in accordance with DA Pamphlet 750-8. Turned in maintenance forms to direct line supervisor and returned system to air traffic controllers.

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
1. Took appropriate action to begin repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 to identify parts and/or actions needed to repair faulty AN/FSC-92(V) and took appropriate action, as follows:	_____	_____
a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with maintenance SOP.		
b. Equipment requires parts not available on site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts.		
(1) If parts were available, made arrangements to obtain parts in accordance with maintenance SOP.		
(2) If parts were not available, initiated the appropriate high priority parts request in accordance with maintenance SOP.		
c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to the appropriate support maintenance facility in accordance with maintenance SOPs.		
2. Replaced faulty component or module.	_____	_____
3. Performed necessary alignments/adjustments.	_____	_____
a. Refers to TM removal/replacement instructions and performs alignment/adjustment as specified.		
b. If the component/module is not included in the removal/replacement instructions, uses the equipment TM and schematics to identify any circuit affected by the component/module replacement.		
c. Evaluates the alignment/adjustment in question to determine if it meets the required standard.		
d. Performs necessary alignment/adjustment.		
4. Performance tested AN/FSC-92(V).	_____	_____

NOTE: If the performance test indicates the fault has not been repaired or if new troubles have developed, this task ends. Return to Task Number 093-94D-1629 and continue to troubleshoot.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
5. Updated DA Form 2407 or DA Form 5990-E and annotated maintenance activity on FAA Form 6030-1.	—	—
6. Requested final inspection.	—	—
7. Closed out maintenance forms and records.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2404
- DA FORM 2407
- DA FORM 5988-E
- DA FORM 5990-E
- DA PAM 750-8
- DD FORM 314
- FAA FORM 6030-1
- TM 11-5895-1186-12
- TM 11-5895-1186-34

Related

**Repair VCSS AN/FSC-127
093-94D-1631**

Conditions: Replace faulty module or component in AN/FSC-127 (see Task Number 093-94D-1621), given the following items: supply part (lowest replaceable unit (LRU)), TI 6650.53, Tool Kit TK-100/G or TK-105/G, Department of the Army (DA) Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), AN/USM-485 Transmission Test Set, and Multimeter. NOTE: *Equivalent equipment may be substituted. Manuals can be downloaded from the following web site (<http://www1.faa.gov/and/AND300/and320/library.htm>).

Standards: Replaced faulty LRU in AN/FSC-127. Performance-tested system to ensure faults had been repaired. Filled out all maintenance forms and records: FAA Form 6030-1 and DA Form 2407 or DA Form 5990-E in accordance with DA Pamphlet 750-8. All associated maintenance forms and records were closed out.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Began repair process by referring to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 to identify parts needed to repair faulty AN/FSC-127 and took appropriate action, as follows: <ul style="list-style-type: none"> a. Equipment requires parts available on-site. Prepared a supply request and obtained replacement parts in accordance with maintenance SOP. b. Equipment requires parts not available on site. Contacted contract support maintenance. The process for requesting outside maintenance support should be written in the local SOP. c. Equipment not repairable this station (NTRS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to the appropriate support maintenance facility in accordance with maintenance SOP. 	—	—
2. Replaced faulty module with LRU.	—	—
3. Performed necessary alignments/adjustments in accordance with technical manual (TM). <ul style="list-style-type: none"> a. Refer to TM removal/replacement instructions and perform alignment/adjustment as specified for the LRU. b. If the LRU/component is not included in the removal/replacement instructions, use the equipment TM and schematics to identify any circuit affected by the LRU/component replacement. c. Evaluate the alignment/adjustment in question to determine if it meet the required standard. d. Perform necessary alignment/adjustments in accordance with TM step-by-step maintenance procedures. 	—	—
4. Performance tested AN/FSC-127. NOTE: If the performance test indicates the fault has not been repaired or if new troubles have developed this task ends. Return to Task Number 093-94D-1621 and continue to identify new fault.	—	—
5. Updated DA Form 2407 or DA Form 5990-E and annotated maintenance activity on FAA Form 6030-1.	—	—
6. Requested final inspection.	—	—
7. Closed out maintenance forms and records and returned system to operators.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2407
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1

Related

Repair C-10931 (CCU) Console
093-94D-1639

Conditions: Repair Communications Control Unit (CCU) Console C-10931 that has failed services under normal operating conditions, given the following items: test, measurement, and diagnostic equipment (TMDE); Digital Multimeter AN/USM-486; Signal Generator SG-1144/G; Oscilloscope OS-261C; TK 100/G; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Manual (TM) 11 5895-1141-12; and TM 11-5895-1141-34. Additional test equipment can be used, as required.

Standards: Replaced the defective component (lowest replaceable unit (LRU)) and returned communications console to normal operation. Filled out all maintenance forms and records, FAA Form 6030-1, and DA Form 2407 or DA Form 5990-E.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Took appropriate action to begin repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E to identify parts and/or actions needed to repair CCU C-10931, and took appropriate action, as follows: <ul style="list-style-type: none"> a. Equipment requires parts available on-site. Prepared a supply request and obtained replacement parts in accordance with local SOP. b. Equipment requires parts not available on-site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts. <ul style="list-style-type: none"> (1) If parts are available, arranged to obtain parts in accordance with local SOP. (2) If parts are not available, initiated the appropriate high priority parts request in accordance with local SOP. c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to the appropriate support maintenance facility in accordance with local SOPs. 	—	—
2. Replaced faulty component or module.	—	—
3. Performed necessary alignments/adjustments. <ul style="list-style-type: none"> a. Referred to TM removal/replacement instructions and performed alignment/adjustment as specified. b. If the component or module was not included in the removal/replacement instructions, use the equipment TM and schematics to identify any circuit affected by the component or module replacement. c. Evaluated the alignments/adjustment in question to determine if it meets the required standard. d. Performed necessary alignment/adjustment. 	—	—
4. Tested communication console in accordance with TM. If the performance measures test indicated the fault had not been repaired, or if new troubles had developed, this task ends. Return to Task Number 093-94D-1629 and continue to troubleshoot.	—	—
5. Updated DA Form 2407 or DA Form 5990-E and annotated maintenance activity on FAA Form 6030-1.	—	—
6. Requested final inspection from supervisor and returned system to operators.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TM 11-5895-1141-12
TM 11-5895-1141-34

Related

Subject Area 16: Nautel NDB

**Perform Operator's Preventive Maintenance Checks and Services on the Nautel Beacon System
093-94D-1660**

Conditions: Given that a Nautel Beacon System and associated equipment are due preventive maintenance checks and services (PMCS) as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), and given the following items: Technical Manual (TM) 11-5825-271-12, TM 11-5825-271-34, TM 11-5825-271-34P, Oscilloscope OS-261C, *Digital Multimeter AN/USM-486, TK 100/G, 4, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log).

Standards: Performed operator PMCS in accordance with TM. Filled out DA Form 2404 or DA Form 5988-E listing all deficiencies that cannot be corrected or turned in to the maintenance supervisor.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS.	_____	_____
2. Performed daily PMCS on transmitter and ATU.	_____	_____
3. Performed weekly PMCS on transmitter and ATU.	_____	_____
4. Performed monthly PMCS on transmitter and ATU.	_____	_____
5. Annotated maintenance activity on FAA Form 6030-1 and gave completed DA Form 2404 or DA Form 5988-E to maintenance supervisor.	_____	_____

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 5988-E	
DA PAM 750-8	
DD FORM 314	
FAA FORM 6030-1	
TM 11-5825-271-12	
TM 11-5825-271-34	
TM 11-5825-271-34P	

**Troubleshoot Nautel Beacon System
093-94D-1670**

Conditions: Given the Transmitter Radio System T-1428 (Nautel Beacon), Tuner Radio Frequency TN-588, and Antenna Switching Unit Power Transfer SA-2318/FRN that have failed under normal operating conditions, Technical Manual (TM) 11-5825-271-12, TM 11-5825-271-20P, TM 11-5825-271-34, TM 11-5825-271-34P, Department of the Army (DA) Pamphlet 750-8, DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Dummy Load DA-75-U, Multimeter AN/USM 486, Oscilloscope OS-261/U, and Frequency Counter TD-1209. Additional or equivalent test equipment may be used.

Standards: Identified faulty component or lowest replaceable unit (LRU) in the Nautel Beacon System using logical troubleshooting procedures outlined in the TM. Used built-in test equipment (BITE) as a troubleshooting aid in fault isolation.

Performance Measures

GO NO-GO

NOTE: In troubleshooting a single nondirectional radio beacon (NDB) system, use the fault isolation troubleshooting procedures outlined in TM 11-5825-271-12. Read safety precautions before beginning any maintenance activity.

- | | | |
|--|-------|-------|
| 1. Made visual inspection and checked for burnt or disclosed resistors, broken or disconnected wiring, or other abnormalities that may indicate the circuit fault. | _____ | _____ |
| 2. Followed step-by-step performance-testing procedures outlined in TM 11-5825-271-12 to detect malfunctions. | _____ | _____ |
| 3. Isolated component or LRU using troubleshooting procedures and schematic diagrams in the TM. | _____ | _____ |
| 4. Notified supervisor of fault and began repair procedures. See Task Number 093-94D-1680. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 2407	
DA FORM 5988-E	
DA FORM 5990-E	
DA PAM 750-8	
DD FORM 314	
TM 11-5825-271-12	
TM 11-5825-271-20P	
TM 11-5825-271-34	
TM 11-5825-271-34P	

**Troubleshoot Monitor, Radio Frequency R-2176/FRN
093-94D-1676**

Conditions: Given Nautel Beacon Monitor (nondirectional radio beacon (NDB)) that has failed under normal operations, access to all assigned tools; test, measurement, and diagnostic equipment (TMDE); the maintenance publications library; an installed Nautel NDB; *Digital Multimeter ME-518/U; *Tool Kit TK-100/G or TK-105/G; *NAVAIDS Test Set TM-515; *Oscilloscope OS-261C; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)); Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log); DA Pamphlet 750-8; Technical Manual (TM) 11-5825-270-10; TM 11-5825-270-23; Technical Bulletin (TB) 385-4; and a ball-point pen. NOTE: *Equivalent equipment may be substituted.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Fill out DA Form 2407 or DA Form 5990-E and DA Form 2404 or DA Form 5988-E showing work accomplished.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E, DA Form 2407 or DA Form 5990-E, and FAA Form 6030-1.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or sub-chassis.	—	—
4. Localized the fault to a portion or stage using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Wave form amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Wave form illustrations. 	—	—
5. Isolated fault to the defective part, using the following troubleshooting aids and procedures as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 	—	—
6. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—
7. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1, showing work accomplished in accordance with DA Pamphlet 750-8.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TB 385-4
TM 11-5825-270-10
TM 11-5825-270-23

Related

**Repair Transmitter, Radio T-1428/FRN and Tuner, Radio R-2176-FRN
093-94D-1680**

Conditions: Replace or repair defective component in Transmitter T-1428/FRN and Tuner, Radio R-2176-FRN, given access to the following: supply part lowest replaceable unit (LRU), Tool Kit TK 100/G, Technical Manual (TM) 11-5825-270-10, TM 11-5825-270-23P, TM 11-5825-270-23, TM 11-5825-271-12, TM 11-5825-271-20P, TM 11-5825-271-34, TM 11-5825-271-34P, Department of the Army (DA) Pamphlet 750-8, DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log).

Standards: Repaired or replaced or identified LRU or component in Nautel Beacon System. Observed all safety precautions outlined in TM before maintenance activity. Filled out all required maintenance paperwork: FAA Form 6030-1 and DA Form 2407 or DA Form 5990-E. Notified supervisor of maintenance activity and returned the system to online status.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Began repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E to identify parts and/or actions needed to repair faulty Nautel Beacon System and took appropriate action as follows: <ul style="list-style-type: none"> a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with maintenance standing operating procedure (SOP). b. Equipment requires parts not available on site. Contacted area maintenance facility and other units in the surrounding area to locate parts. <ul style="list-style-type: none"> (1) If available, made arrangements to obtain parts in accordance with maintenance SOP. (2) If parts were not available, initiated the appropriate high priority parts request in accordance with maintenance SOP. c. Equipment not repairable this station (NTRS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to appropriate support maintenance facility in accordance with maintenance SOP. 	—	—
2. Replaced faulty component or module.	—	—
3. Performed necessary alignment/adjustments.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TM 11-5825-270-10
TM 11-5825-270-23
TM 11-5825-270-23P
TM 11-5825-271-12
TM 11-5825-271-20P
TM 11-5825-271-34
TM 11-5825-271-34P

Related

**Repair Monitor, Radio Frequency R-2176/FRN
093-94D-1686**

Conditions: Replace or repair component or lowest replaceable unit (LRU) in Radio Frequency Monitor R-2176/FRN (see Task Number 093-94D-1676), given the following items: Department of the Army (DA) Pamphlet 750-8; Technical Manual (TM) 11-5825-270-10; TM 11-5825-270-23; TM 11-5825-270-23P; *Tool Kit TK-100/G or TK-105/G; DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)) identifying faulty component, module, or chassis; *Signal Generator HP-8640B; *Multimeter AN/USM-486; *Electronic Voltmeter ME-459/U; *Oscilloscope AN/USM-281C; *Radio Frequency Monitor R-2176/FRN; Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log); and local standing operating procedure (SOP). NOTE: *Equivalent equipment may be substituted.

Standards: Repaired the component, module, or chassis in the Radio Frequency Monitor R-2176/FRN. Tested monitor to ensure the fault had been repaired and no new troubles had developed. Filled out FAA Form 6030-1 and DA Form 2407 or DA Form 5990-E. Turned maintenance forms in to supervisor and returned system to Air Traffic Control Services.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Began repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 to identify parts and/or actions needed to repair faulty R-2176/FRN and took appropriate action, as follows: <ul style="list-style-type: none"> a. Equipment requires parts available on site. Prepared a supply request and obtained replacement parts in accordance with local maintenance SOP. b. Equipment requires parts not available on site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts. <ul style="list-style-type: none"> (1) If parts were available, made arrangements to obtain parts in accordance with local maintenance SOP. (2) If parts were not available, initiated the appropriate high priority parts request in accordance with local maintenance SOP. c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and turned in equipment needing repair to the appropriate support maintenance facility in accordance with local maintenance SOP. 	—	—
2. Replaced faulty component or module.	—	—
3. Performed necessary alignments/adjustments. <ul style="list-style-type: none"> a. Referred to removal/replacement instructions in TM and performed alignment/adjustment, as specified. b. If the component/module was not included in the removal/replacement instructions, used the equipment TM and schematics to identify any circuit affected by the component/module replacement. c. Evaluate the alignment/adjustment in question to determine if it meets the required standard. d. Perform necessary alignment/adjustment. 	—	—
4. Performance tested R-2176/FRN. NOTE: If the performance test indicated the fault had not been repaired or if new troubles had developed, this task was terminated. Soldier returned to Task Number 093-94D-1676 and continued to troubleshoot.	—	—
5. Updated DA Form 2407 or DA Form 5990-E and FAA Form 6030-1.	—	—
6. Requested final inspection.	—	—
7. Closed out maintenance forms and records.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2407
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TM 11-5825-270-10
TM 11-5825-270-23
TM 11-5825-270-23P

Related

Subject Area 17: Receivers-Transmitters

**Perform Organization Preventive Maintenance Checks and Services
on Receiver, Radio AN/GRR-23 or AN/GRR-24
093-94D-1710**

Conditions: Given a receiver AN/GRR-23 or AN/GRR-24 due preventive maintenance checks and services (PMCS) as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record) and the following items: Technical Manual (TM) 11-5820-805-14; TM 43-0139; AN/GRR-23 or AN/GRR-24; cleaning compound, cheesecloth, and cleaning cloth; fine sandpaper, crocus cloth, paint, and brushes; *Tool Kit TK-100/G; semi-gloss paint; lightweight machine oil; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)); Technical Bulletin (TB) 43-0118; and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log). NOTE: *Equivalent equipment may be substituted.

Standards: Performed organizational PMCS with all deficiencies noted on DA Form 2404 or DA Form 5988-E and FAA Form 6030-1. Turned maintenance forms in to maintenance supervisor.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS.	—	—
2. Performed daily/weekly/monthly checks and services in accordance with TM 11-5820-805-14.	—	—
3. Inspected operability checks and cleaned as necessary.	—	—
a. Daily:		
(1) Check front panel.		
(2) Check switch positions.		
(3) Check fuses and lamps.		
(4) Check background noise.		
(5) Check operation.		
NOTE: Performed daily check only if the receiver was in continuous operation. If receiver was shut down, omit these checks on a daily basis. Similar checks for receiver in shutdown are included on a weekly basis.		
b. Weekly:		
NOTE: Performed these steps only if receiver has been in shutdown, but is connected for operation.		
(1) Turn on receiver.		
(2) Check background noise.		
(3) Check operation.		
(4) Check test points.		
c. Monthly:		
(1) Check runners.		
(2) Check installation.		
(3) Check paint and finish.		
(4) Check spare fuses.		
(5) Check cleanliness.		
(6) Perform performance checkout.		
4. Spot-painted, if necessary and weather permitting, in accordance with TB 43-0118 and TM 43-0139.	—	—

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
5. Gave completed DA Form 2404 or DA Form 5988-E to maintenance supervisor.	—	—
6. Annotated maintenance activity on FAA Form 6030-1.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2404
 DA FORM 5988-E
 DA PAM 750-8
 DD FORM 314
 FAA FORM 6030-1
 TB 43-0118
 TM 11-5820-805-14
 TM 43-0139

Related

**Troubleshoot Receiver, Radio AN/GRR-23 or AN/GRR-24
093-94D-1720**

Conditions: Given Receiver Set AN/GRR23/24 that has failed operational check and all assigned tools; test, measurement, and diagnostic equipment (TMDE); Technical Manual (TM) 11-5820-805-14; TM 11-5820-805-24P; Radio Receiver AN/GRR-23 or AN/GRR-24 (installed); *Tool Kit TK-100/G or TK-105/G; *Digital Multimeter ME-518/U; *Signal Generator SG-1144/G; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)); DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)); Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log); Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record); DA Pamphlet 750-8; Technical Bulletin (TB) 385-4; and a ball-point pen. NOTE: *Equivalent equipment may be substituted.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E, FAA Form 6030-1, and DA Form 2404 or DA Form 5988-E, showing work accomplished.

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E, DA Form 2407 or DA Form 5990-E, and FAA Form 6030-1.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or sub-chassis.	—	—
4. Localized the fault to a portion or stage, using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Wave form amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Wave form illustrations. 	—	—
5. Isolated fault to the defective part, using the following troubleshooting aids and procedures as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 	—	—
6. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1, showing work accomplished in accordance with DA Pamphlet 750-8.	—	—
7. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 385-4
TM 11-5820-805-14
TM 11-5820-805-24P

Related

**Repair Radio Receiver AN/GRR-23 OR AN/GRR-24
093-94D-1730**

Conditions: Repair AN/GRR-23 or AN/GRR-24 (see Task Number 093-94D-1720) given the following items: replaceable module or component, Technical Manual (TM) 11-5820-805-14, TM 11-5820-805-24P, Radio Receiver AN/GRR-23 or AN/GRR-24, *Multimeter AN/USM-486, *Oscilloscope AN/USM-281C, *Electronic Voltmeter HP-400, *Voltmeter HP-410C, *600-ohm headset, *Signal Generator HP-8640B, *Tool Kit TK-100/G or TK-105/G, Department of the Army (DA) Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), local standing operating procedure (SOP), and identifying fault component, module, or chassis. NOTE: *Equivalent equipment may be substituted.

Standards: Repaired AN/GRR-23/24 by replacing the faulty lowest replaceable unit (LRU). Tested the system in accordance with TM and performed quality assurance testing by having operators perform radio check. All associated maintenance forms and records were closed out.

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
1. Identified part(s) and/or actions(s) needed to repair faulty receiver by referring to last entry on DA Form 2407 or DA Form 5990-E and took appropriate actions as follows:	—	—
a. Equipment requires parts available on-site. Prepared supply request and obtained replacement parts in accordance with local SOP.		
b. Equipment requires parts not available on-site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts.		
(1) If parts were available, arranged to obtain parts in accordance with local SOP.		
(2) If parts were not available, initiated the appropriate high priority parts request in accordance with local SOP.		
c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and turned in equipment needing repair to the appropriate support maintenance facility in accordance with local SOPs.		
2. Replaced faulty component or module.	—	—
3. Performed necessary alignments/adjustments.	—	—
a. Refer to TM removal/replacement instructions and perform alignment/adjustment as specified.		
b. If the component/module is not included in the removal/replacement instructions, use the equipment TM and schematics to identify any circuit affected by the component/module replacement.		
c. Evaluate the alignment/adjustment in question to determine if it meets the required standard.		
d. Perform necessary alignment/adjustment.		
4. Performance test receiver.	—	—
NOTE: If the performance test indicates the fault has not been repaired or if new troubles have developed, this task ends. Return to Task Number 093-94D-1720 and continue to troubleshoot.		
5. Updated DA Form 2407 or DA Form 5990-E and FAA Form 6030-1.	—	—
6. Requested final inspection.	—	—
7. Closed out maintenance forms and records.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2407
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TM 11-5820-805-14
TM 11-5820-805-24P

Related

**Perform Organizational Preventive Maintenance Checks and Services on Transmitting Set,
Radio AN/GRT-21 or AN/GRT-22
093-94D-1760**

Conditions: Given a transmitter AN/GRT-21 or AN/GRT-22 installation and the equipment due preventive maintenance checks and services (PMCS), as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), and given the following items: Technical Manual (TM) 11-5820-806-14, TM 11-5820-805-24P, TM 43-0139, AN/GRT-21 or AN/GRT-22, cleaning compound, cheesecloth, cleaning cloth, fine sandpaper, crocus cloth, paint and brushes, *Tool Kit TK-100/G, semi-gloss paint, lightweight machine oil, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and Technical Bulletin (TB) 43-0118. NOTE: *Equivalent equipment may be substituted.

Standards: Performed and completed organizational PMCS with all deficiencies noted on DA Form 2404 or DA Form 5988-E and FAA Form 6030-1. Turned in maintenance forms to maintenance supervisor.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS.	—	—
2. Performed daily/weekly/monthly checks and services.	—	—
3. Inspected operability checks and cleaned as necessary.	—	—
a. Daily:		
(1) Check front panel.		
(2) Check switch positions.		
(3) Check fuses and lamps.		
(4) Check power output.		
b. Weekly:		
(1) Check power amplifier front panel blower filter.		
(2) Check test meters.		
(3) Check operation.		
c. Monthly:		
(1) Check runners.		
(2) Check power amplifier front and rear panel blower filters.		
(3) Check installation.		
(4) Check paint and finish.		
(5) Check spare fuses.		
(6) Check power amplifier blower.		
(7) Perform performance checkout.		
4. Spot-painted, if necessary and weather permitting, in accordance with TB 43-0118 and TM 43-0139.	—	—
5. Turned in completed DA Form 2404 or DA Form 5988-E and FAA Form 6030-1 to maintenance supervisor.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 5988-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 43-0118
TM 11-5820-806-14
TM 11-5820-806-24P
TM 43-0139

Related

Troubleshoot Transmitting Set, Radio AN/GRT-21 Or AN/GRT-22
093-94D-1770

Conditions: Given transmitter set AN/GRT-21/22 that has failed an operational check, access to all assigned tools; test, measurement, and diagnostic equipment (TMDE); the maintenance publications library; Technical Manual (TM) 11-5820-806-14; Radio Transmitting Set AN/GRT-21 or AN/GRT-22 (installed); *Tool Kit TK-100/G or TK-105/G; *Digital Multimeter ME-518/U; *Oscilloscope OS-261C; *Dummy Load DA-75/U; Signal Generator SG-1144/U, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)); DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)); Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log); Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record); DA Pamphlet 750-8; and Technical Bulletin (TB) 385-4. NOTE: *Equivalent equipment may be substituted.

Standards: Identified the faulty component using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out FAA Form 6030-1 and DA Form 2407 or DA Form 5990-E showing work accomplished. Turned maintenance forms into supervisor and requested radio check by operators.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or sub-chassis.	—	—
4. Localized the fault to a portion or stage, using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Wave form amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Wave form illustrations. 	—	—
5. Isolated fault to the defective part, using the following troubleshooting aids and procedures as necessary: <ul style="list-style-type: none"> a. Voltage and resistance diagram. b. Complete schematic diagram. c. System troubleshooting charts. d. Receptacle and plug in connections. e. Isolating by parts substitution. 	—	—
6. Filled out DA Form 2407 or DA Form 5990-E showing work accomplished in accordance with DA Pamphlet 750-8.	—	—
7. Observed all safety precautions during the task in accordance with TB 385-4 and equipment TMs.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 385-4
TM 11-5820-806-14

Related

**Repair Transmitting Set, Radio AN/GRT-21 or AN/GRT-22
093-94D-1780**

Conditions: Given replaceable module or component to repair transmitter set AN/GRT 21 or AN/GRT-22 (see Task Number 093-94D-1770); Technical Manual (TM) 11-5820-806-14; TM 11-5820-806-24P; *Tool Kit TK-100/G or TK-105/G; Department of the Army (DA) Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)) identifying faulty component, module, or chassis; AN/GRT-21 or AN/GRT-22; *Electrical Dummy Load DA-75/U; *Radio Frequency Power Test Set AN/URM-298 (wattmeter); *Oscilloscope AN/USM-281C; *Signal Generator SG-1144/U; *Cable Assembly CG-409/U (two required); *Adapter UG-201A/U (four required); Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log); and local standing operating procedure (SOP). NOTE: *Equivalent equipment may be substituted.

Standards: Repaired Transmitter Set AN/GRT-21/22 by replacing lowest replaceable unit (LRU) in accordance with TM requirements. Tested to ensure the fault had been repaired and no new troubles had developed. Filled out FAA Form 6030-1 and DA Form 2407 or DA Form 5990-E showing work accomplished. Turned in maintenance forms to supervisor and requested radio check from operators.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Began repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 to identify parts and/or actions needed to repair faulty transmitter and took appropriate action, as follows: <ul style="list-style-type: none"> a. Equipment requires parts not available on site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts. <ul style="list-style-type: none"> (1) If parts were available, arranged to obtain parts in accordance with local maintenance SOP. (2) If parts were not available, initiated the appropriate high priority parts request in accordance with local SOP. b. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and turned in equipment needing repair to the appropriate support maintenance facility in accordance with local maintenance SOPs. 	—	—
2. Replaced faulty component or module.	—	—
3. Performed necessary alignments/adjustments. <ul style="list-style-type: none"> a. Referred to TM removal/replacement instructions and performed alignment/adjustment, as specified. b. If the component or module was not included in the removal/replacement instructions, use the equipment TM and schematics to identify any circuit affected by the component or module replacement. c. Evaluate the alignment/adjustment in question to determine if it meets the required standard. d. Perform necessary alignment/adjustment. 	—	—
4. Performance test transmitter and request radio check by operators. NOTE: If the performance test indicates the fault has not been repaired or if new troubles have developed, this task ends. Return to Task Number 093-94D-1770 and continue to troubleshoot.	—	—
5. Updated DA Form 2407 or DA Form 5990-E.	—	—
6. Requested final inspection and annotated maintenance activity on FAA Form 6030-1.	—	—
7. Closes out maintenance forms and records.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2407
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TM 11-5820-806-14
TM 11-5820-806-24P

Related

**Troubleshoot Radio Set AN/GRC-171
093-94D-1820**

Conditions: Given Radio Set AN/GRC-171 that has failed under normal operating conditions, Technical Manual (TM) 11-5820-815-14, AN/USM 486 Multimeter, AN/USM 298 Radio Watt Meter, Oscilloscope AN/USM-261, Signal Generator SG-1144/U, TK 100/G, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and any additional test equipment listed in TM needed to perform maintenance troubleshooting procedures.

Standards: Identified faulty component or lowest replaceable unit (LRU) in Radio Set AN/GRC-171 using logical systematic troubleshooting procedures outlined in the TM. Observed all safety precautions and filled out DA Form 2407 or DA Form 5990 in accordance with DA Pamphlet 750-8. Annotated maintenance activity on FAA Form 6030-1.

Performance Measures

GO NO-GO

NOTE: Troubleshooting procedures are presented in flow chart format in TM 11-5820-815-14. In troubleshooting the Radio Set AN/GRC-171, use the block diagrams and schematic flow chart in the TM. Read all safety instructions before beginning any maintenance activity. Adhere to TB 385-4 safety manual.

- | | | |
|--|--|--|
| <ol style="list-style-type: none"> 1. Performed a preliminary examination to detect: <ol style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel operation. c. Any odor of burned parts or insulation. d. High voltage arcing or other abnormal sounds. 2. Performed step-by-step alignment procedures in the TM to detect faulty component. 3. Sectionalized trouble to faulty chassis or sub-chassis. 4. Localized the fault to a portion or stage, using the troubleshooting flow chart in the TM. 5. Isolated fault to the defective part using: <ol style="list-style-type: none"> a. Voltage and resistance diagrams. b. Complete schematic diagram. c. Step-by –Step troubleshooting procedures. d. Isolating by parts substitution. 6. Filled out DA Form 2407 or DA Form 5990-E, showing work accomplished in accordance with DA Pamphlet 750-8. 7. Observed all safety precautions. | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> |
|--|--|--|

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TB 385-4
TM 11-5820-815-14

Related

**Repair Radio Set AN/GRC-171
093-94D-1830**

Conditions: Replace or repair defective component or lowest replaceable unit (LRU) in radio set AN/GRC-171, given Technical Manual (TM) 11-5820-815-14, Department of the Army (DA) Pamphlet 750-8, TK 100/G, AN/GRM-114A or equivalent test equipment as listed in the TM, AN/USM 298 Watt Meter, Multimeter AN/USM-486, DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log).

Standards: Identified faulty replaceable component or LRU in Radio Set AN/GRC-171. Replaced LRU and returned the radio to fully mission capable status. Observed all safety precautions in accordance with TM and TB 385-4. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 in accordance with DA Pamphlet 750-8. Performed operational check with operators and returned radio set to air traffic control section.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Began repair process. Referred to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 to identify parts and/or actions needed to repair faulty transmitter and took appropriate action, as follows: <ul style="list-style-type: none"> a. Equipment requires parts available on-site. Prepared a supply request and obtained replacement parts in accordance with local maintenance standing operating procedure (SOP). b. Equipment requires parts not available on-site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts. <ul style="list-style-type: none"> (1) If parts were available, arranged to obtain parts in accordance with local maintenance SOP. (2) If parts were not available, initiated the appropriate high priority parts request in accordance with local maintenance SOP. c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and turned in equipment needing repair to the appropriate support maintenance facility in accordance with local maintenance SOP. 	—	—
2. Replaced faulty component or module.	—	—
3. Performed necessary alignments/adjustments. <ul style="list-style-type: none"> a. Referred to TM removal/replacement instructions and perform alignment/adjustment as specified. b. If the component or module is not included in the removal/replacement instructions, use the equipment TM and schematics to identify any circuit affected by the component or module replacement. c. Evaluate the alignment/adjustment in question to determine if it meets the required standard. d. Perform necessary alignment/adjustment. 	—	—
4. Performance test transceiver and requested radio check by operators. NOTE: If the performance test indicates the fault has not been repaired or if new troubles have developed, this task ends. Return to Task Number 093-94D-1820 and continue to troubleshoot radio.	—	—
5. Requested final inspection from supervisor and annotated maintenance activity on FAA Form 6030-1.	—	—
6. Closed out maintenance forms and records.	—	—
7. Updated DA Form 2407 or DA Form 5990-E.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2407

DA FORM 5990-E

DA PAM 750-8

FAA FORM 6030-1

TM 11-5820-815-14

Related

Subject Area 18: Digital Voice Recorder DVRS

**Perform Organization Preventive Maintenance Checks and Services
on Digital Voice Recorder System (DVRS)
093-94D-1860**

Conditions: Given Digital Voice Recorder System (DVRS) due scheduled preventive maintenance checks and services (PMCS) under normal conditions in accordance with Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record). Perform PMCS in accordance with technical manual (TM), given the following items: Technical Instruction (TI) 6670.13 and TI6670.11, TK 100/G, AN/USM 486 Multimeter, Department of the Army (DA) Pamphlet 750-8, DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log). Review safety precautions outlined in TM before any maintenance procedures begin.

Standards: Performed and completed organizational PMCS in accordance with TM. Filled out appropriate maintenance forms and records. Turned in maintenance forms to supervisor for review. Returned fully operational system to operators.

Performance Measures

GO NO-GO

NOTE: Performed PMCS in accordance with TM. The DVRS manual can be downloaded from FAA Web site <http://www1.faa.gov/and/AND300/and320/library.htm>

- | | | |
|--|--|--|
| <ol style="list-style-type: none"> 1. Initiated DA Form 2404 or DA Form 5988-E, gathered equipment needed to perform PMCS, and notified operators of scheduled PMCS services due. 2. Performed daily/bi-weekly/monthly/quarterly/semiannual, and annual checks and services in accordance with DD Form 314. 3. Inspected operability checks and cleaned, as necessary. <ol style="list-style-type: none"> a. Daily: <ol style="list-style-type: none"> (1) Checked front panel. (2) Checked switch positions. (3) Checked fuses and lamps. (4) Checked for any odor of burned parts or insulation. b. Bi-Weekly: <ol style="list-style-type: none"> (1) Checked power supplies and front and rear panel air filters. (2) Ran system operations check to detect any malfunctions. (3) Checked to ensure that Global Positioning System (GPS) clock, windows clock, and data retrieval units (DRUs) are working properly. c. Monthly: <ol style="list-style-type: none"> (1) Checked voice log. (2) Logger software. (3) Recorder playback quality. d. Quarterly: <ol style="list-style-type: none"> (1) Windows working properly. (2) DRU's working properly. (3) Blowers/Cooling fans working. (4) Remote alarm. (5) Voice quality. e. Semiannually: Checked condition of uninterruptible power system/supply (UPS). | <p>_____</p> <p>_____</p> <p>_____</p> | <p>_____</p> <p>_____</p> <p>_____</p> |
|--|--|--|

Performance Measures

GO **NO-GO**

f. Annual checks:

- (1) Time Code source for Digital Voice Recorder (DVR).
- (2) DRU System.
- (3) DRU Frequency Response.
- (4) DRU signal to noise ratio.
- (5) Checked to ensure that logger conforms to cross-talk requirements and cassette deck audio performance.

4. Filled out DA Form 2404 or DA Form 5988-E and updated DD Form 314 and annotated maintenance activity on FAA Form 6030- 1. Notified operators schedule maintenance is completed.

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2404
- DA FORM 5988-E
- DA PAM 750-8
- DD FORM 314
- FAA FORM 6030-1

Related

**Troubleshoot Digital Voice Recorder
093-94D-1870**

Conditions: Given Digital Voice Recorder System (DVRS) that has failed under normal operating conditions. Troubleshoot system to the lowest replaceable unit (LRU) using technical manual (TM) troubleshooting procedures and computer monitor built in test system. You have the following material on hand: Technical Instruction (TI) 6670.11 and TI 6670.13, TK 100/G, AN/USM-486 Multimeter, Department of the Army (DA) Pamphlet 750-8, and DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log). Read all precaution safety measures before any maintenance activity begins.

Standards: Identified faulty component or LRU in DVRS using logical troubleshooting procedures in the TM troubleshooting chart. Observed all safety precautions identified in the TM and Technical Bulletin (TB) 385-4. Annotated maintenance activity on FAA Form 6030-1 and filled out DA Form 2407 or DA Form 5990-E.

Performance Measures

GO NO-GO

NOTE: Performed all maintenance activity in accordance with TI 6670.11. Read all safety precautions before any maintenance procedures begin. Notified operators before performing any maintenance procedures. TMs can be downloaded from the world wide web <http://www1.faa.gov/and/AND300/and320/library.htm>.

- | | | |
|---|-------|-------|
| 1. Performed maintenance log on procedures in accordance with TI. | _____ | _____ |
| 2. Ran system diagnostic test to determine fault to LRU. | _____ | _____ |
| 3. Followed menu prompt in identifying fault. | _____ | _____ |
| 4. Filled out DA Form 2407 or DA Form 5990-E. | _____ | _____ |
| 5. Returned system to operators. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2407
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TB 385-4

Related

**Repair Digital Voice Recorder System
093-94D-1880**

Conditions: Repair Digital Voice Recorder System (DVRS) by removing defective lowest replaceable unit (LRU) and installing new LRU given the following: Technical Instruction (TI) 6670.11, TK 100/G Tool Kit, Department of the Army (DA) Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and the DVRS.

Standards: Replaced defective unit and returned system to fully mission capable status. Filled out DA Form 2407 or DA Form 5990-E and annotated maintenance activity on FAA Form 6030-1. Observed all safety instructions in accordance with technical instructions in TI 6670.11. Notified supervisor and returned system to operators.

Performance Measures

GO NO-GO

NOTE: Followed removal/replace procedures in TI 6670.11 Read safety instruction before any work begun. Technical manuals (TMs) can be downloaded from the world wide web <http://www1.faa.gov/and/AND300/and320/library.htm>.

- | | | |
|--|-------|-------|
| 1. Referred to removal replacement procedures in TM. | _____ | _____ |
| 2. Performance tested replaceable unit by running diagnostic maintenance procedures in log data processor. | _____ | _____ |
| 3. Notified operators to bring system back on line. | _____ | _____ |
| 4. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1. | _____ | _____ |
| 5. Turned all maintenance forms into supervisor for review. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2407
- DA FORM 5990-E
- FAA FORM 6030-1

Related

- DA PAM 750-8

Subject Area 19: TVOR with ATIS

**Perform Preventive Maintenance Checks and Services on Radio Transmitting Set AN/FRN-41
093-94D-1910**

Conditions: Given Radio Transmitting Set AN/FRN-41(V) installation equipment due preventive maintenance checks and services (PMCS) as indicated by Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), and the following items: Technical Manual (TM) 11-5825-266-14-1, TM 43-0139, AN/FRN-41(V), *Multimeter ME-518, *Frequency Counter HP-5315A, *Oscilloscope OS-261/U, Trichlorotrifluoroethane, cheesecloth, cleaning cloth, fine sandpaper, crocus cloth, paint, and brushes, *Tool Kit TK-100 or TK-105, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and Technical Bulletin (TB) 43-0118. NOTE: *Equivalent equipment may be substituted.

Standards: Performed organizational PMCS, noted all deficiencies on DA Form 2404 or DA Form 5988-E, annotated maintenance activity on FAA Form 6030-1, and turned in completed forms to the maintenance supervisor.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Initiated DA Form 2404 or DA Form 5988-E and gathered equipment needed to perform PMCS.	—	—
2. Performed level 1, level 2, or level 3 checks and services as required in TM 11-5825-266-14-1.	—	—
3. Inspected, performed operability checks, and cleaned as necessary.	—	—
4. Spot-painted, if necessary and weather permitting, in accordance with TB 43-0118 and TM 43-0139.	—	—
5. Gave completed DA Form 2404 or DA Form 5988-E to maintenance supervisor.	—	—
6. Annotated maintenance activity on FAA Form 6030-1.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 5988-E	
DA PAM 750-8	
DD FORM 314	
FAA FORM 6030-1	
TB 43-0118	
TM 11-5825-266-14-1	
TM 43-0139	

Troubleshoot Radio Transmitting Set AN/FRN-41
093-94D-1920

Conditions: Given the terminal very high frequency (VHF) omnidirectional range (TVOR) station that has failed an operational check under normal operating conditions and given access to all assigned tools, test, measurement, and diagnostic equipment (TMDE), Technical Manual (TM) 11-5825-266-14-1, TM 11-5825-266-14-3, Radio Transmitting Set AN/FRN-41, Tool Kit AN/FRN-41, *Tool Kit TK-100/G or TK-105/G, *Multimeter AN/USM-486, *Oscilloscope AN/USM-281C, *Frequency Counter AN/USM-207, *Audio Oscillator AN/URM-127, *RMS Voltmeter HP-3400, *Average Power Meter ME-441/U, *Thermistor Mount 478A, *Multimeter ME-498/U, Resistor, 600 ohm, cables, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Bulletin (TB) 385-4, DA Pamphlet 750-8, and a ballpoint pen. NOTE: *Equivalent equipment may be substituted.

Standards: Identified the faulty component or lowest replaceable unit (LRU) using logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 showing work accomplished.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Obtained equipment history by questioning equipment operators and reading DA Form 2404 or DA Form 5988-E and DA Form 2407 or DA Form 5990-E and reviewing historical faults in FAA Form 6030-1.	—	—
2. Performed a preliminary examination to detect: <ul style="list-style-type: none"> a. Abnormal equipment operation. b. Abnormal front panel indications. c. Any odor of burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 	—	—
3. Sectionalized trouble to the faulty chassis or sub-chassis.	—	—
4. Localized the fault to a portion or stage, using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Wave form amplitude. b. Wiring diagram. c. Unit/organizational symptom troubleshooting chart. d. Wave form illustrations. 	—	—
5. Isolated fault to the defective part, using the following troubleshooting aids and procedures, as necessary: <ul style="list-style-type: none"> a. Voltage schematic diagram. b. Complete schematic diagram. c. System step-by-step troubleshooting charts. d. Receptacle and plug pin connections. e. Isolating by parts substitution. 	—	—
6. Filled out DA Form 2404 or DA Form 5988-E, showing work accomplished in accordance with DA Pamphlet 750-8.	—	—
7. Filled out DA Form 2407 or DA Form 5990-E, showing work accomplished in accordance with DA Pamphlet 750-8.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
DD FORM 314
FAA FORM 6030-1
TB 385-4
TM 11-5825-266-14-1
TM 11-5825-266-14-3

Related

**Troubleshoot ATIS Recorder/Reproducer Set AN/CS 1000
093-94D-1926**

Conditions: Notified by operators that Automatic Terminal Information System (ATIS) Recorder/Reproducer has failed under normal operating conditions and given the following: Technical Manual (TM) 11-5835-249-14, Technical Bulletin (TB) 385-4, Oscilloscope AN/USM-261, Test Set Oscillator SG 1128 or equivalent, Department of the Army (DA) Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and TK 100/G.

Standards: Identified faulty component using logical troubleshooting procedures outlined in the TM. Observed all safety precautions in TM. Filled out DA Form 2407 or DA Form 5990-E in accordance with DA Pamphlet 750-8.

Performance Measures

GO NO-GO

NOTE: Obtained equipment history by questioning equipment operators and reading historical log FAA Form 6030-1.

- | | | |
|--|--|--|
| <ol style="list-style-type: none"> 1. Performed preliminary examination to detect: <ol style="list-style-type: none"> a. Abnormal equipment operations. b. Abnormal front panel indications. c. Any odor or burned parts or insulation. d. High-voltage arcing or other abnormal sounds. 2. Used procedures given for the performance test to identify the functional steps. 3. Isolated the fault using the instructions given in fault analysis table. 4. Observed all safety instructions during troubleshooting procedures. 5. Filled out DA Form 2407 or DA Form 5990-E in accordance with DA Pamphlet 750-8. | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> |
|--|--|--|

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

References

- Required**
- DA FORM 2407
 - DA FORM 5990-E
 - DA PAM 750-8
 - FAA FORM 6030-1
 - TB 385-4
 - TM 11-5835-249-14

Related

**Repair Radio Transmitting Set AN/FRN-41
093-94D-1930**

Conditions: Repair or replace faulty replaceable module or component in Radio Transmitting Set AN/FRN-41 (identified in Task Number 093-94D-1920) given the following: Technical Manual (TM) 11-5825-266-14-1, TM 11-5825-266-14-3, *Tool Kit TK-100/G or TK-105/G, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), local standing operating procedure (SOP), and new lowest replaceable unit (LRU), module, or chassis. NOTE: *Equivalent equipment may be substituted.

Standards: Repaired Radio Transmitting Set AN/FRN-41 in accordance with TM. Tested AN/FRN-41 to ensure the fault had been repaired and no new troubles had developed, returned system to online status, and closed out all associated maintenance forms and records.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Began repair process by referring to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 to identify parts and/or actions needed to repair faulty AN/FRN-41 and took appropriate action as follows:	_____	_____
a. Equipment requires parts available on-site. Prepared a supply request and obtained replacement parts in accordance with local maintenance SOP.		
b. Equipment requires parts not available on-site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts.		
(1) If parts were available, arranged to obtain parts in accordance with local maintenance SOP.		
(2) If parts were not available, initiated the appropriate high priority parts request in accordance with local SOP.		
c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to the appropriate support maintenance facility in accordance with local maintenance SOPs.		
2. Replaced faulty component or module.	_____	_____
3. Performed necessary alignments or adjustments.	_____	_____
a. Referred to TM removal/replacement instructions and performed alignment/adjustment, as specified.		
b. If the component or module is not included in the removal/replacement instructions, use the equipment TM and schematics to identify any circuit affected by the component or module replacement.		
c. Evaluate the alignment/adjustment in question, to determine if it meets the required standard.		
d. Perform necessary alignment/adjustment.		
4. Performance tested AN/FRN-41.	_____	_____
NOTE: If the performance test indicates the fault has not been repaired or if new troubles have developed, this task ends. Return to Task Number 093-94D-1920 and continue to troubleshoot.		
5. Updated DA Form 2407 or DA Form 5990-E and FAA Form 6030-1.	_____	_____
6. Requested final inspection from supervisor.	_____	_____
7. Closed out maintenance forms and records.	_____	_____

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
FAA FORM 6030-1
TM 11-5825-266-14-1
TM 11-5825-266-14-3

Related

**Repair ATIS Recorder/Reproducer Set AN/CS 1000
093-94D-1936**

Conditions: Repair Automatic Terminal Information System (ATIS) Recorder/Reproducer Set AN/CS-1000 given replaceable module, component, or lowest replaceable unit (LRU); Technical Manual (TM) 11-5835-249-14; TK 100/G; AN/USM 488 Oscilloscope; Signal Generator 8640B; Multimeter AN/USM-486; Department of the Army (DA) Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)); Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log); and any additional or equivalent equipment necessary to perform maintenance activity.

Standards: Repaired ATIS using logical troubleshooting procedures outlined in TM 11-5835-249-14. Observed all safety precautions in the TM. Returned system to operators in fully mission capable status, completed all maintenance forms, and turned in maintenance forms to supervisor.

Evaluation Preparation: Take appropriate action to begin repair process. Refer to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 to identify part(s) and/or action(s) needed to repair faulty AN/FRN-41.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Began repair process by referring to last entry on DA Form 2407 or DA Form 5990-E and FAA Form 6030-1 to identify parts and/or actions needed to repair faulty AN/FRN-41 and took appropriate action as follows:	_____	_____
a. Equipment requires parts available on-site. Prepared a supply request and obtained replacement parts in accordance with local maintenance standing operating procedure (SOP).		
b. Equipment requires parts not available on-site. Contacted surrounding sites, area maintenance supply facility (AMSF), or other units to locate parts.		
(1) If parts were available, arranged to obtain parts in accordance with local maintenance SOP.		
(2) If parts were not available, initiated the appropriate high priority parts request in accordance with local SOP.		
c. Equipment not repairable this station (NRTS). Prepared DA Form 2407 or DA Form 5990-E and evacuated equipment needing repair to the appropriate support maintenance facility in accordance with local maintenance SOPs		
2. Replaced faulty component or module.	_____	_____
3. Performed necessary alignments/adjustments.	_____	_____
a. Refers to TM removal/replacement instructions and performs alignment/adjustment as specified.		
b. If the component is not included in the removal/replacement instructions use the equipment TM and schematics to identify any circuit affected by the component or module replacement.		
c. Evaluated the alignment/adjustment in question to determine if it met the required standard.		
d. Perform necessary alignments/adjustment.		
4. Tested component in system.	_____	_____
NOTE: If the performance test indicates the fault has not been repaired or if new troubles have developed, this task ends. Return to Task Number 093-94D-1926.		
5. Updated DA Form 2407 or DA Form 5990-E and FAA Form 6030-1.	_____	_____

Performance Measures

	<u>GO</u>	<u>NO-GO</u>
6. Requested final inspection from supervisor.	—	—
7. Returned system to operators fully mission capable.	—	—
8. Closed out all maintenance forms.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2407
 DA FORM 5990-E
 DA PAM 750-8
 FAA FORM 6030-1
 TM 11-5835-249-14

Related

**Perform Preflight and Post Flight Inspection Actions for Radio Transmitting Set AN/FRN-41
093-94D-1940**

Conditions: Given radio set AN/FRN-41 with very high frequency (VHF) omnidirectional range (VOR) that is scheduled a Federal Aviation Administration (FAA) flight check in accordance with airfield regulations and Field Manual (FM) 3-04.303. You are given the following materials: Technical Manual (TM) 11-5825-266-14-1, TM 11-5825-266-4-3, FAA Form 6030-1 (Facility Maintenance Log), AN/URM-213 Power Meter, AN/GRM 114B, or equivalent test equipment may be used.

Standards: Performed preflight and post flight inspections actions for Radio Transmitting Set AN/FRN-41 in accordance with TM requirement. Coordinated with flight aircraft for in flight alignments. Read all safety standards in the TM and filled out all necessary flight inspection forms and FAA Form 6030-1.

Performance Measures

GO NO-GO

NOTE: Read specific maintenance alignment and adjustment procedures before performing maintenance activity. Flight check maintenance procedures are in TM 11-5825-266-14-1 and TM 11-5825-266-14-3. Read all safety precautions in the TM.

- | | | |
|--|-------|-------|
| 1. Performed preflight check ground check procedures and recorded parameters in accordance with TM. | _____ | _____ |
| 2. Established communications with flight check aircraft to align zero magnetic north with aircraft zero magnetic north. | _____ | _____ |
| 3. Performed post flight check ground check procedures and recorded all parameter measurements. | _____ | _____ |
| 4. Communicated with aircraft to determine if AN/FRN-41 passed flight check and any restrictions discovered during flight inspections. | _____ | _____ |
| 5. Annotated finding in FAA Form 6030-1 and notified operators of flight finding and if useable returned system to service. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- FAA FORM 6030-1
- FM 3-04.303
- TM 11-5825-266-14-1
- TM 11-5825-266-14-3

Related

- TM 11-5825-266-14-2

Subject Area 20: Tactical Airspace Integration System AN/TSQ-221

**Perform Organization Preventive Maintenance Checks and Services
on Tactical Airspace Integration System (TAIS) AN/TSQ-221
093-94D-1360**

Conditions: Given Tactical Airspace Integration System (TAIS) due preventive maintenance checks and services (PMCS) in accordance with Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record); TAIS AN/TSQ-221; all assigned tools and test, measurement, and diagnostic equipment (TMDE); the maintenance publications library; Technical Manual (TM) 11-5820-890-10-8 and TM 11-5895-1668-10; Tool Kit TK-100/G or TK-105/G, Digital Multimeter AN/USM-486, and Electrical Dummy Load DA-75/U; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), Technical Bulletin (TB) 385-4, and DA Pamphlet 750-8; and a ball-point pen. NOTE: If equipment listed is not available, equivalent equipment may be substituted.

Standards: Performed organizational PMCS on the TAIS and annotated all deficiencies on DA Form 2404 or DA Form 5988-E. Turned in maintenance form to maintenance supervisor.

Performance Measures

GO NO-GO

NOTE: Perform PMCS in accordance with scheduled maintenance service annotated on DD Form 314. Organizational PMCS procedures are outlined in TM 11-5895-1668-10. In some instances, systems may be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert operating conditions, the standard PMCS "frequency" schedule shall exceed the TM required scheduled services in order to maintain a high level of readiness.

- | | | |
|--|-------|-------|
| 1. Performed routine PMCS checks in accordance with TM maintenance chart. | _____ | _____ |
| 2. Read TM statement identifying improper cleaning hazards. | _____ | _____ |
| 3. Used DA Form 2404 or DA Form 5988-E in recording faults discovered before, during, or after operations. | _____ | _____ |
| 4. Annotated maintenance activity on FAA Form 6030-1. | _____ | _____ |
| 5. Turned all maintenance forms in to maintenance supervisor. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 5988-E	
DA PAM 750-8	
DD FORM 314	
FAA FORM 6030-1	
TB 385-4	
TM 11-5820-890-10-8	

**Troubleshoot Tactical Airspace Integration System AN/TSQ-221
093-94D-1370**

Conditions: Given Tactical Airspace Integration System (TAIS) AN/TSQ-221 that has failed an operational check; all assigned tools and test, measurement, and diagnostic equipment (TMDE); the maintenance publications library; Technical Manual (TM) 11-5895-1668-10, TM 11-5895-1668-20, and TM 11-5895-1668-20P; Tool Kit TK-100/G or TK-105/G, Digital Multimeter AN/USM-486, and Electrical Dummy Load DA-75/U; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Technical Bulletin (TB) 385-4, and DA Pamphlet 750-8; and a ball-point pen. NOTE: If equipment listed is not available, equivalent equipment may be substituted.

Standards: Identified the faulty components using built-in test equipment (BITE) and logical troubleshooting procedures. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out maintenance forms showing work accomplished.

Performance Measures

GO NO-GO

NOTE: In performing troubleshooting applications, follow step-by-step flow chart in the malfunction/symptoms index table of TM 11-5895-1668-20. Maintenance personnel may use quick reference guide for additional troubleshooting assistance.

- | | | |
|---|-------|-------|
| 1. Diagnosed probable fault using malfunction index chart in TM. | _____ | _____ |
| 2. Followed systematic flow chart cited in malfunction/symptom index to test fault. | _____ | _____ |
| 3. Referred to Task Number 093-94D-1380 for removal/repair of faulty component. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA FORM 2404
DA FORM 2407
DA FORM 5988-E
DA FORM 5990-E
DA PAM 750-8
TB 385-4

Related

**Repair Tactical Airspace Integration System AN/TSQ-221
093-94D-1380**

Conditions: Diagnose faulty replaceable module or component in Tactical Airspace Integration System (TAIS) AN/TSQ-221 (see Task Number 093-94D-1370), given Tool Kit TK-100/G or TK-105/G, Technical Manual (TM) 11-5895-1668-10, TM 11-5895-1668-20, TM 11-5895-1668-20P, Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), DA Pamphlet 750-8, local standing operating procedure (SOP), and replaceable component, module, or chassis. NOTE: If equipment listed is not available, equivalent equipment may be substituted.

Standards: Replaced or repaired faulty component, module, chassis, or equipment in AN/TSQ-221. Tested to ensure the fault had been repaired and no new troubles had developed. Closed out all associated maintenance forms and records.

Performance Measures

GO NO-GO

NOTE: Performing removal/installation procedures requires two maintenance personnel. Follow step-by-step procedures in TM 11-5895-1668-20. After completing maintenance procedures, ensure system is powered up in accordance with operator's manual. If not, system will register fault.

- | | | |
|---|-------|-------|
| 1. Performed system shutdown for maintenance. | _____ | _____ |
| 2. Removed faulty component in accordance with step-by-step removal procedures in TM. | _____ | _____ |
| 3. Installed serviceable component in accordance with step-by-step installation procedures in TM. | _____ | _____ |
| 4. Performed component in-system test in accordance with TM specification step-by-step test procedures. | _____ | _____ |
| 5. Filled out DA Form 2404 or DA Form 5988-E, DA Form 2407 or DA Form 5990-E, and FAA Form 6030-1 in accordance with DA Pamphlet 750-8. | _____ | _____ |
| 6. Turned in maintenance forms to supervisor. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2404
- DA FORM 2407
- DA FORM 5988-E
- DA FORM 5990-E
- DA PAM 750-8
- FAA FORM 6030-1

Related

Subject Area 21: AN/TPX-56

**Perform Organization Preventive Maintenance Checks and Services
on Interrogator Set AN/TPX-56
093-94D-1069**

Conditions: In a contemporary operating environment (COE), perform preventive maintenance checks and services (PMCS) on Air Traffic Navigation, Integration, and Coordination System (ATNAVICS) as directed by supervisor, given Technical Manual (TM) 11-5840-381-10 and TM 11-5895-1611-12&P; soft-bristle and wire brushes, oil, grease, rags, lint-free cloth, and sponge; Tool Kit TK-100 or TK-105; Department of the Army (DA) Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), Department of Defense (DD) Form 314 (Preventive Maintenance Schedule and Record), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and DA Pamphlet 750-8. NOTE: If equipment listed above is not available, equivalent equipment should be substituted.

Standards: Performed PMCS in accordance with applicable TM. Annotated all deficiencies on DA Form 2404 or DA Form 5988-E in accordance with DA Pamphlet 750-8. Logged PMCS on FAA Form 6030-1.

Performance Measures

GO NO-GO

NOTE: If unit maintainer cannot repair a defective component, depot maintenance is required. Follow step-by-step PMCS as outlined in TM 11-5895-1611-12&P. In some instances, systems will be in the desert, operating in extreme environmental conditions and high operating tempo (OPTEMPO). During desert conditions, the standard PMCS "frequency" schedule shall exceed the TM required scheduled services in order to maintain a high level of readiness.

- | | | |
|---|-------|-------|
| 1. Performed built-in test (BIT) by turning on power circuit breaker. | _____ | _____ |
| 2. Inspected exterior surfaces. | _____ | _____ |
| 3. Inspected batteries. | _____ | _____ |
| 4. Inspected indicators. | _____ | _____ |
| 5. Inspected switches and controls. | _____ | _____ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

- DA FORM 2404
- DA FORM 5988-E
- DA PAM 750-8
- DD FORM 314
- FAA FORM 6030-1
- TM 11-5840-381-10
- TM 11-5895-1611-12&P

Related

**Troubleshoot Interrogator Set AN/TPX-56
093-94D-1079**

Conditions: In a contemporary operating environment (COE), given Interrogator Set AN/TPX-56 with registered fault on the control monitor display (CMD); all assigned tools; test, measurement, and diagnostic equipment (TMDE); the maintenance publications library; Technical Manual (TM) 11-5895-1611-12&P, TM 11-5840-381-10, and TM 11-5840-381-23P; Department of the Army (DA) Pamphlet 750-8, Technical Bulletin (TB) 385-4, Digital Multimeter, DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log). NOTE: If equipment listed above is not available, equivalent equipment should be substituted.

Standards: Identified the faulty component using the CMD or operator interface (OI) screens. Observed all safety precautions required by TB 385-4 and equipment TMs. Filled out DA Form 2407 or DA Form 5990-E and logged maintenance activity on FAA Form 6030-1 showing work accomplished in accordance with DA Pamphlet 750-8.

Performance Measures

GO NO-GO

NOTE: Field servicing is limited to removal/replacement of circuit card assemblies (CCAs)/modules and batteries. If the fault still exists after all checks in the troubleshooting chart and fault isolation table have been exhausted, return the unit to depot level maintenance for repair. Use TM 11-5840-381-10, TM 11-5840-381-23P, and TM 11-5895-1611-12&P.

- | | | |
|---|-----|-----|
| 1. Performed maintenance log on procedures on CMD. | ___ | ___ |
| 2. Acknowledged fault isolation screen OI screen. | ___ | ___ |
| 3. Started fault isolation procedures. | ___ | ___ |
| 4. Identified faulty component using built in test equipment (BITE). | ___ | ___ |
| 5. Referred to troubleshooting chart to apply corrective measures in TM 11-5895-1611-12&P for TPX-56 IFF. | ___ | ___ |
| 6. Annotated maintenance activity on DA Form 2407 or DA Form 5988-E and FAA Form 6030-1 in accordance with DA Pamphlet 750-8. | ___ | ___ |

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 2407	
DA FORM 5988-E	
DA FORM 5990-E	
DA PAM 750-8	
FAA FORM 6030-1	
TB 385-4	
TM 11-5840-381-10	
TM 11-5840-381-23P	
TM 11-5895-1611-12&P	

**Repair Interrogator Set AN/TPX-56
093-94D-1089**

Conditions: Given Interrogator Set AN/ TPX-56 with identified faulty component, Technical Manual (TM) 11-5895-1611-12&P, TM 11-5840-381-23P, Department of the Army (DA) Pamphlet 750-8, Tool Kit TK-100 or TK-105, Multimeter AN/USM-486, AN/UPM-155 Test Set, DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA)), Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and local standing operating procedure (SOP). NOTE: If equipment listed is not available, equivalent equipment may be substituted.

Standards: Replaced faulty component using TM 11-5840-381-23P and TM 11-5895-1611-12&P and restored system to operational status. Filled out all maintenance forms applicable to maintenance services.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
NOTE: Observed all safety warning outlined in TM 11-5840-381-23P for replacement of Interrogator Set AN/TPX-56.		
1. Performed sensor vehicle shutdown in accordance with TM.	___	___
2. Rotated radiate/rotate switch to proper position for maintenance services.	___	___
3. Performed step-by-step removal/replacement procedures outlined in TM.	___	___
4. Rotated radiate/rotate switch to proper position.	___	___
5. Performed sensor shelter step-by-step turn-on procedures.	___	___
6. Annotated maintenance activity on DA Form 2404 or DA Form 5988-E, DA Form 2407 or DA Form 5990-E, and FAA Form 6030-1.	___	___
7. Turned in maintenance forms to supervisor for review of maintenance activity.	___	___

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	
DA FORM 2407	
DA FORM 5988-E	
DA FORM 5990-E	
DA PAM 750-8	
FAA FORM 6030-1	
TM 11-5840-381-23P	
TM 11-5895-1611-12&P	

Skill Level 2

Subject Area 22: Tactical Radar Supervision

**Supervise Preparation of Radar Set AN/TPN-18 or AN/TPN-18A for Flight Check
093-94D-3000**

Conditions: In a contemporary operating environment (COE), given Field Manual (FM) 3-04.303, Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and FAA Order 8200.1B, and given that Radar Set AN/TPN-18 or 18A has been set up on an airfield under normal conditions and that coordination has been made with ground controlled aircraft (GCA) section and supporting units for flight inspection. Supervise maintenance personnel in performing flight check measurements and adjustments.

Standards: Supervised preparation of Radar Set AN/TPN-18 or 18A for flight check. Ensured personnel followed step-by-step alignment procedures outlined in the technical manual (TM). Ensured personnel read and understood all safety precautions before starting maintenance procedures.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Coordinated directly or indirectly with GCA section and supporting units for flight inspection.	—	—
2. Issued air traffic services (ATS) maintenance section operation order (OPORD) that included actions to be performed before, during, and after flight inspection.	—	—
3. Assigned tasks to ATS maintenance section, as required, to: <ul style="list-style-type: none"> a. Prepare Radar Set AN/TPN-18 or 18A for flight inspection (preflight alignments). b. Document maintenance actions on FAA Form 6030-1. c. Install the theodolite in the proper location. 	—	—
4. Certified that preflight check alignments are within standards and tolerances according to TM.	—	—
5. Coordinated preflight check with local aviation unit to verify that Radar Set AN/TPN-18 or 18A met standards outlined in FM 3-04.303 and FAA Order 8200.1A (USSFIM).	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

FAA FORM 6030-1
FAA ORDER 8200.1B
FM 3-04.303

Related

**Supervise Preparation of Radar Set AN/FPN-40 for Flight
093-94D-3503**

Conditions: In a contemporary operating environment (COE), given Radar Set AN/FPN-40, Field Manual (FM) 3-04.303, Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), and FAA Order 8200.1B. Supervise preparation of Radar Set AN/FPN-40 for (periodic) flight checks under normal operating conditions, coordinating with air traffic services (ATS) chief and supporting units for preflight inspection. Read FM 3-04.303 for familiarization with FAA rules and guidance.

Standards: Supervised personnel performing preflight check alignments on AN/FPN-40 Radar Set. Ensured personnel followed step-by-step alignment procedures and read all safety precautions when performing maintenance procedures.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Coordinated directly or indirectly with ATS chief, GCA section, and supporting units for flight inspection.	—	—
2. Issued ATS maintenance section operations order (OPORD) that included the actions to be performed before, during, and after flight inspection.	—	—
3. Assigned task to ATS maintenance section as required to: <ul style="list-style-type: none"> a. Prepare Radar Set AN/FPN-40 for flight inspection (preflight checks, alignments). b. Document maintenance actions on FAA Form 6030-1. 	—	—
4. Verified that preflight check alignments were within standards and tolerances according to technical manual (TM).	—	—
5. Coordinated preflight check to verify alignment met outlined standards in the USSFIM.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
FAA FORM 6030-1	
FAA ORDER 8200.1B	
FM 3-04.303	

**Verify Preparation of Landing Control Central AN/TSQ-71B for Flight Inspection
093-94D-4040**

Conditions: In a contemporary operating environment (COE), given AN/TSQ 71B Radar System, Technical Manual (TM) 11-5840-281-34-1, TM 11-5840-281-12-1, TM 11-5840-281-34P, Field Manual (FM) 3-04.303, and Federal Aviation Administration (FAA) Form 6030-1 (Facility Maintenance Log), you must verify flight check alignments and adjustments being performed by your soldiers in preparation for flight check.

Standards: Verified that Landing Control Central AN/TSQ-71B met flight inspection standards in accordance with TM. Followed all safety precautions outlined in the TM.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
NOTE: Preparation alignments can be found in TM 11-5840-281-34-1 and TM 11-5840-12-1. Soldiers should be familiar with FM 3-04.303.		
1. Verified technicians performed alignments and adjustment procedures on radar set AN/TPN-18 or TPN-18 in accordance with the TM.	—	—
2. Verified technicians performed alignments and adjustments in 71B shelter in accordance with the TM.	—	—
3. Coordinated with battalion S4 for preflight check inspection and verified flight approaches using the theodolite to determine that glide slope measurements coincided with preset glide slope measurements.	—	—
4. Notified battalion maintenance S4 that radar is fully mission capable for flight check inspection.	—	—
5. Verified all maintenance faults recorded on FAA Form 6030-1.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
FAA FORM 6030-1	
FM 3-04.303	
TM 11-5840-281-12-1	
TM 11-5840-281-34-1	
TM 11-5840-281-34P	

Subject Area 23: Maintenance Operations

Maintain Calibration Program**093-94D-2901**

Conditions: In a contemporary operating environment (COE), maintain a calibration program given Technical Bulletin (TB) 43-180 and TB 750-25; DA Form 3758-R (Calibration and Repair Requirements Worksheet (LRA)); test, measurement, and diagnostic equipment (TMDE) master listing; hand receipts; Department of the Army (DA) Label 80 (US Army Calibrated Instrument); and DA Form 2404 (Equipment Inspection and Maintenance Worksheet) or DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)).

Standards: Identified equipment requiring calibration or calibration not required (CNR) labels and maintained a calibration program as required by TB 750-25.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Identified all equipment on hand that might require a calibration label.	—	—
a. Test equipment.		
b. Equipment modules.		
c. Dummy loads.		
d. Voltage test probes.		
e. Radiac equipment.		
f. Motor pool equipment.		
g. Miscellaneous.		
2. Determined which identified equipment was listed in TB 43-180.	—	—
a. Identified equipment requiring calibration.		
b. Identified CNR equipment.		
3. Prepared DA Form 3758-R if new equipment not listed in TB 43-180 required calibration.	—	—
4. Scheduled equipment for calibration.	—	—
a. Staggered like equipment when possible so that there was always equipment available on site.		
b. Assigned a higher priority for critical TMDE when necessary.		
c. Scheduled plug-in modules and accessories for calibration with the major piece of equipment.		
d. Had signature cards for the first appointment and ordered, as required locally, to update customer files.		
5. Prepared CNR labels, as required, for remaining equipment.	—	—
6. Turned in/picked up equipment from the calibration facility.	—	—
a. Turned in equipment with a minimum of accessories and covers.		
b. Obtained signed and dated receipt for equipment.		
c. Inspected equipment for accessories and damage before signing receipt.		
d. Obtained calibration listings when available.		
7. Updated calibration listings.	—	—
a. Verified calibration due dates.		
b. Deleted entries.		
c. Added entries.		

Performance Measures**GO** **NO-GO**

- | | |
|---|----------------|
| 8. Maintained a temporary storage area for calibrate before use (CBU) equipment. <ul style="list-style-type: none"> a. Identified CBU equipment as appropriate. <ul style="list-style-type: none"> (1) Equipment seldom used. (2) Equipment incomplete and not usable. b. Identified a limited access storage area. c. Prepared DA Label 80 for CBU. d. Updated calibration listing for CBU items. e. Stored equipment until required. f. Calibrated equipment prior to use. | _____ _____ |
|---|----------------|

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References**Required**

DA FORM 2404
 DA FORM 3758-R
 DA FORM 5988-E
 DA LABEL 80
 TB 43-180
 TB 750-25

Related

**Determine ATC Maintenance and Operation Testing Procedures Requirements
093-94D-3910**

Conditions: In a contemporary operating environment (COE), determine air traffic control (ATC) maintenance and operational testing requirements in the ATC maintenance facility, given applicable standard operating procedures (SOPs), Field Manual (FM) 3-04.303, and Federal Aviation Administration (FAA) Order 8200.1B.

Standards: Determined ATC maintenance and operational testing requirements by reading the battalion maintenance SOP, the maintenance facility SOP, FM 3-04.303, and FAA Order 8200.1B.

Performance Measures	<u>GO</u>	<u>NO-GO</u>
1. Read the battalion SOP for familiarization with battalion maintenance program.	—	—
2. Read the assigned maintenance SOP for site maintenance operations.	—	—
3. Read FM 3-04.303 for familiarization with FAA rules and regulatory guidance.	—	—
4. Reviewed FAA Order 8200.1B for familiarization with flight inspection procedures for flight checking the radar system.	—	—

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
FAA ORDER 8200.1B	
FM 3-04.303	

APPENDIX A**HANDS-ON EVALUATION (DA FORM 5164-R) INSTRUCTIONS**

DA Form 5164-R (Hands-On Evaluation) allows the trainer to keep a record of the performance measures a soldier passes or fails on each task.

Before evaluation:

1. Obtain a blank copy of DA Form 5164-R, which you may locally reproduce on 8 ½ x 11 paper.
2. Enter the task title and 10-digit number from the STP task summary.
3. In Column a, enter the performance measure numbers from the task summary.
4. In Column b, enter the performance measure corresponding to the number in Column a (you may abbreviate this information, if necessary).
5. Locally reproduce the partially completed form when evaluating more than one soldier on the task or when evaluating the same soldier more than once.

During evaluation:

1. Enter the date just before evaluating the soldier's task performance.
2. Enter the evaluator's name, the soldier's name, and the unit.
3. For each performance measure in Column b, enter a check in Column c (PASS) or Column d (FAIL), as appropriate.
4. Compare the number of performance measures the soldier passes (and, if applicable, which ones) against the task standards specified in the task summary. If the standards are met or exceeded, check the GO block under STATUS; otherwise, check the NO-GO block.

HANDS-ON EVALUATION For use of this form, see STP 11-25S14-SM-TG; the proponent agency is TRADOC		DATE 1 November 2004	
TASK TITLE Troubleshoot Digital Voice Recorder		TASK NUMBER 093-94D-1870	
ITEM a	PERFORMANCE STEP TITLE b	SCORE (Check One)	
		PASS c	FAIL d
1.	Performed maintenance log on procedure in accordance with TI.	<input checked="" type="checkbox"/> P	<input type="checkbox"/> F
2.	Ran system diagnostic test to determine fault to LRU.	<input type="checkbox"/> P	<input checked="" type="checkbox"/> F
3.	Followed menu prompt in identifying fault.	<input checked="" type="checkbox"/> P	<input type="checkbox"/> F
4.	Filled out DA Form 2407 or DA Form 5990-E.	<input checked="" type="checkbox"/> P	<input type="checkbox"/> F
5.	Returned system to operators.	<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
		<input type="checkbox"/> P	<input type="checkbox"/> F
EVALUATOR'S NAME SSG Powell		UNIT E Co., 29th Ord Co.	
SOLDIER'S NAME PV2 Howard		STATUS <input type="checkbox"/> GO <input checked="" type="checkbox"/> NO GO	

DA FORM 5164-R, SEP 85

EDITION OF DEC 82 IS OBSOLETE

APD V2.01

Figure A-1. Sample of a completed DA Form 5164-R

APPENDIX B**FIELD EXPEDIENT SQUAD BOOK****FIELD EXPEDIENT SQUAD BOOK (DA FORM 5165-R) INSTRUCTIONS**

DA Form 5165-R (Field Expedient Squad Book) allows the trainer to keep a record of task proficiency for a group of soldiers.

Before evaluation:

1. Obtain a blank copy of [DA Form 5165-R](#), which you may locally reproduce on 8 ½" x 11" paper.
2. Locally reproduce the partially completed form if you are evaluating more than nine soldiers.

During evaluation:

1. Enter the names of the soldiers you are evaluating, one name per column, at the top of the form.
2. Under STATUS, record (in pencil) the date in the GO block if the soldier demonstrated task proficiency to soldier's manual standards. Keep this information current by always recording the most recent date on which the soldier demonstrated task proficiency. Record the date in the NO-GO block if the soldier failed to demonstrate task proficiency to soldier's manual standards. Soldiers who failed to perform the task should be retrained and reevaluated until they can meet the standards. When the standards are met, enter the date in the appropriate GO block and erase the previous entry from the NO-GO block.

After evaluation:

1. Read down each column (GO/NO-GO) to determine the training status of an individual. This will give you a quick indication of which tasks a soldier needs training on.
2. Read across the rows for each task to determine the training status of all soldiers. You can readily see which tasks to focus training on.
3. Line through the STATUS column of any soldier who leaves the unit.

USER APPLICATION		FIELD EXPEDIENT SQUAD BOOK										SHEET								
STP 81-1-SMCT Soldier's Manual of Common Tasks		For use of this form, see STP 10-92A10-SM-TG; the proponent agency is TRADOC.										1								
		SOLDIER'S NAME										OF 3								
TASK NUMBER AND TITLE	STATUS																			
	GO	NO-GO	GO	NO-GO	GO	NO-GO	GO	NO-GO	GO	NO-GO	GO	NO-GO								
071-326-0572 Estimate Range	4-17-04		3-17-04		3-17-04		3-17-04		4-2-04											
071-329-1001 Identifying Terrain	4-2-04		4-6-04		4-15-04		4-20-04		4-5-04											
071-311-2004 Battlesight Zero	4-6-04		4-6-04						4-5-04											
878-920-1001 Armored Vehicles	5-8-04		5-8-04						5-8-04											
071-329-1002 Grid Coordinates																				
071-329-1003 Azimuth																				
071-311-2001 M16A1 Rifle																				
071-503-1001 M17-SERIES																				
081-503-1007 Drenthamiracle																				
091-503-1009 MOPP Gear																				
081-831-1021 Buddy-Aid																				
081-831-1005 Prevent Shock																				
081-831-1009 Frostbite																				
071-326-0511 Retreat to Flares																				
071-325-4407 Employ Hand Grenades																				
081-503-1003 Exchange MOPP Gear																				
081-831-1005 Prevent Shock																				

SAMPLE

Figure B-1. Sample of a completed DA Form 5165-R

GLOSSARY**Section I****Acronyms & Abbreviations**

ACCP	Army Correspondence Course Program
AIPD	Army Institute for Professional Development
AIT	advanced individual training
AMSF	area maintenance supply facility
AN	annually
ANCOC	advanced noncommissioned officer course
AR	Army regulation
ARTEP	Army Training and Evaluation Program
ATC	air traffic control
ATCCSS	Air Traffic Control Communications Switching System
ATIS	Automatic Terminal Information System
ATNAVICS	Air Traffic Navigation, Integration, and Coordination System
ATS	Air Traffic Services
ATTN	attention
BA	biannually
BIT	built-in test
BITE	built-in test equipment
BNCOC	basic noncommissioned officer course
BW	biweekly
CBU	calibrate before use
CCA	circuit card assembly
CCU	Communications Control Unit
CMD	control monitor display
CNR	calibration not required
COE	contemporary operating environment

CPS	cycles per second
CTT	common task test
DA	Department of the Army
DA	Department of the Army
D.C.	District of Columbia
DC	direct current
DD	Department of Defense
DRU	data retrieval unit
DVR	digital voice recorder
DVRS	Digital Voice Recorder System
ECU	environmental control unit
EGA	enhanced graphics adapter
FAA	Federal Aviation Administration
FM	field manual; frequency modulation
FMC	fully mission capable
GCA	ground controlled aircraft
GPS	Global Positioning System
IBM	International Business Machine
LO	local oscillator
LRU	lowest replaceable unit
MDS	meteorological data system
METL	mission essential task list
MO	monthly
MOS	Military Occupational Specialty
MOSC	military occupational specialty code
MWO	modification work order
NCO	noncommissioned officer
NDB	nondirectional radio beacon

No.	number
NRTS	not repairable this station
OI	operator interface
OPORD	operations order
OPTEMPO	operational tempo
PAM	pamphlet
PAR	precision approach radar
PC	personal computer
PMCS	preventive maintenance checks and services
p-p	peak-to-peak
PPI	plan position indicator
QT	quarterly
RDL	Reimer Digital Library
RT	receiver transmitter
SA	semiannually
SB	supply bulletin
SCU	System Control Unit
SL	skill level
SM	soldier's manual
SMCT	soldier's manual of common tasks
SOP	standing operating procedure
STP	soldier training publication
TAIS	tactical airspace integration system
TB	technical bulletin
TG	trainer's guide
TI	technical instruction
TM	technical manual
TMDE	test, measurement, and diagnostic equipment

TRADOC	Training and Doctrine Command
TTCS	Tactical Terminal Control System
TVOR	terminal very high frequency omnidirectional range
UHF	ultra-high frequency
UNIT	Trained in the unit
UPS	uninterruptible power system/supply
US	United States
USSFIM	United States Standard Flight Inspection Manual
V	volt(s)
VA	Virginia
VCSS	Voice Communications Security System
VHF	very high frequency
VOR	very high frequency omnidirectional range
WK	weekly

Section II

Terms

ANCOC (Advanced Noncommissioned Officers' Course)

Training designed for soldiers in grade E6 to teach them the duties of grade E7 and to prepare them for assuming the greater responsibility.

BNCOC (Basic Noncommissioned Officers' Course)

Training designed for sergeants to learn the duties of a staff sergeant and to prepare them for assuming duties and positions of greater responsibility.

Mission essential task list (METL)

A compilation of collective mission essential tasks that must be successfully performed if an organization is to accomplish its wartime missions.

Operating tempo (OPTEMPO)

The annual operating miles/hours for systems in a particular unit required to execute the commander's training strategy. It is stated in terms of the miles/hours for the major system in a unit; however, all equipment generating significant operating and support cost has an established operating tempo.

REFERENCES

Department of Army Forms

DA forms are available on the Army Electronic Library (AEL) and the APD web site, www.apd.army.mil.

DA FORM 2404	Equipment Inspection and Maintenance Worksheet
DA FORM 2407	Maintenance Request
DA FORM 2407-1	Maintenance Request Continuation Sheet
DA FORM 3758-R	Calibration and Repair Requirements Worksheet
DA FORM 5164-R	Hands-On Evaluation
DA FORM 5165-R	Field Expedient Squad Book
DA FORM 5988-E	Equipment Inspection Maintenance Worksheet (EGA)
DA FORM 5990-E	Maintenance Request (EGA)

Department of Army Pamphlets

DA PAM 25-30	Consolidated Index of Army Publications and Blank Forms 1 April 2006
DA PAM 350-59	Army Correspondence Course Program Catalog 1 October 2002
DA PAM 750-8	The Army Maintenance Management System (TAMMS) Users Manual 22 August 2005

Department of Defense Forms

DD Forms are available from the OSD web site, www.dior.whs.mil.

DD FORM 314	Preventive Maintenance Schedule and Record
-------------	--

Field Manuals

FM 3-04.303	Air Traffic Services Facility Operations, Training, Maintenance, and Standardization 3 December 2003
FM 7-0	Training the Force 22 October 2002
FM 7-1	Battle Focused Training 15 September 2003
FM 25-4	How to Conduct Training Exercises 10 September 1984
FM 25-5	Training for Mobilization and War 25 January 1985

Other Product Types

DA LABEL 80	US Army Calibrated Instrument
FAA FORM 6030-1	Facility Maintenance Log
FAA ORDER 8200.1B	United States Standard Flight Inspection Manual 1 January 2003

Soldier Training Publications

STP 21-1-SMCT	Soldier's Manual of Common Tasks, Skill Level 1 11 October 2005
STP 21-24-SMCT	Soldier's Manual of Common Tasks (SMCT), Skill Levels 2-4 31 August 2003

Supply Bulletins

SB 11-573 Painting and Preservation of Supplies Available for Field Use for Electronics Command Equipment. 8 February 1969

Technical Bulletins

TB 43-0118 Field Instructions for Painting and Preserving Communications-Electronics Equipment. 15 June 1986

TB 43-180 Interactive Electronic Technical Manual (IETM) for Calibration and Repair Requirements for the Maintenance of Army Materiel 29 July 2005

TB 385-4 Safety Requirements for Maintenance of Electrical and Electronic Equipment 1 August 1992

TB 750-25 Maintenance of Supplies and Equipment: Army Test, Measurement and Diagnostic Equipment (TMDE) Calibration and Repair Support (C&RS) Program 1 March 1997

Technical Manuals

TM 5-4120-384-14 Operator's, Organizational, Direct Support and General Support Maintenance Manual for Air Conditioner, Horizontal Compact; 18,000 BTU/HR, 208 V, 3 Phase, 50/60 HZ, Model F18H-3S (NSN 4120-01-165-1125); MDL F18H-3SA (4120-01-237-4663); MDL F18H-3SB (4120-01-268-4451) and 230V, Single Phase, 60HZ, MDL F18H-1S (4120-01-268-4450) 27 May 1985

TM 11-4940-238-14-1 Operator's, Organizational, Direct Support and General Support Maintenance Manual for Electronic Shops, Shelter Mounted, Avionics AN/ASM-146B (NSN 4940-00-435-7764) and AN/ASM-146C (4940-01-110-9560), AN/ASM-147B (4940-00-435-7765) and AN/A 16 January 1978

TM 11-5805-201-12 Operator's and Unit Maintenance Manual for Telephone Sets, TA-312/PT (NSN 5805-00-543-0012) and TA-312A/PT (NSN 5805-01-217-7310) (TO 31W1-2PT-291) 1 August 1990

TM 11-5805-298-15 Operator's, Organizational, Direct Support, General Support, Depot Maintenance Manual: Generators, Ringing Static, TA-248/PT and TA-248A/PT 10 September 1965

TM 11-5810-256-12 Operator's and Unit Maintenance Manual for Communications Security Equipment KY-57 (NSN 5810-00-434-3644) 12 August 1993

TM 11-5820-401-10-1 Operator's Manual for Radio Sets AN/VRC-12(NSN 5820-00-223-7412), AN/VRC-43(5820-00-223-7415), AN/VRC-44(5820-00-223-7417), AN/VRC-45(5820-00-223-7418), AN/VRC-46(5820-00-223-7433), AN/VRC-47(5820-00-223-7434), AN/VRC-48(5820-00-223-7435) 15 January 1986

TM 11-5820-518-20 Organizational Maintenance Manual for Radio Sets, AN/ARC-51X (NSN 5821-00-082-3698) and AN/ARC-51BX (5821-00-082-3926) 3 May 1968

TM 11-5820-805-14 Operator's, Organizational, Direct Support, and General Support Maintenance Manual: Receiver, Radio, AN/GRR-23 and AN/GRR-24 25 June 1973

TM 11-5820-805-24P Organizational, Direct Support, and General Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts and Special Tools) for Receivers, Radio AN/GRR-23 and AN/GRR-24 29 August 1977

TM 11-5820-806-14 Operator's, Organizational, Direct Support, and General Support Maintenance Manual: Transmitting Set, Radio, AN/GRT-21 and AN/GRT-22 15 November 1977

TM 11-5820-806-24P Organizational, Direct Support and General Support Maintenance Repair Parts and Special Tools Lists for Transmitting Set, Radio, AN/GRT-21 and AN/GRT-22 30 December 1977

TM 11-5820-815-14 Service and Circuit Diagrams Radio Set AN/GRC-171 (Rescinded for Active Army - valid for Reserve Components) 1 March 1975

TM 11-5820-890-10-6 SINGARS ICOM Ground Radios Used with Automated Net Control Device (ANCD); Precision Lightweight GPS Receiver (PLGR); Handheld Remote Control Radio Device (HRCRD) Operator's Pocket Guide Radio Sets Manpack Radio (AN/PRC 87A/D/F) (NSN:N/A) 1 December 1998

TM 11-5820-890-10-8 Operator's Manual for SINGARS Ground Combat Net Radio, ICOM Manpack Radio, AN/PRC-119A (NSN 5820-01-267-9482)(EIC:L2Q), Short Range Vehicular Radio AN/VRC-87A (5820-01-267-9480) (EIC:L22), Short Range Vehicular Radio with Single Radio Mount 1 December 1998

TM 11-5821-259-12 Operator's and Aviation Intermediate Maintenance Manual for Radio Sets, AN/ARC-114 (NSN 5821-00-935-5071)(EIC:JUW) AN/ARC-114A (58210-00-165-2970)(EIC:JU2) and AN/ARC-114B (5821-01-325-8773)(EIC:N/A) 1 October 1987

TM 11-5821-260-12 Operator's and Aviation Intermediate Maintenance Manual for Radio Sets, AN/ARC-115 and AN/ARC-115A(V). 1 October 1987

TM 11-5821-311-12 Operator's and Organizational Maintenance Manual for Radio Receivers-Transmitters, RT-1167/ARC-164(V), RT-1167C/ARC-164(V), RT-1167F/ARC-64(V), RT-1145F/ARC-164(V). 1 August 1987

TM 11-5825-255-12 Operator's and Organizational Maintenance Manual: Beacon Sets, Radio AN/TRN-30(V)1 and AN/TRN-30(V)2 19 October 1983

TM 11-5825-255-30 Direct Support Maintenance Manual for Beacon Sets, Radio AN/TRN-30(V)1 and AN/TRN-30(V)2 10 August 1977

TM 11-5825-266-14-1 Operator's, Organizational, Direct and General Support Maintenance Manual: Radio Transmitting Sets, AN/FRN-41(V)1, AN/FRN-41(V)2, AN/FRN-41(V)3, AN/FRN-41(V)4 and AN/FRN-41(V)T1 28 January 1980

TM 11-5825-266-14-3 Operator's, Organizational, Direct and General Support Maintenance Manual: Radio Transmitting Sets, AN/FRN-41(V)1 and AN/FRN-41(V)2 28 January 1980

TM 11-5825-270-10 Operator's Manual for Monitor, Radio Frequency, R-2176/FRN 23 July 1981

TM 11-5825-270-23 Organizational and Direct Support Maintenance Manual for Monitor, Radio, Frequency, R-2176/FRN (NSN 6625-01-098-2534) 24 March 1982

TM 11-5825-270-23P	Organizational and Direct Support Maintenance Repair Parts and Special Tools List for Monitor, Radio Frequency, R-2176/FRN (NSN 6625-01-098-2534) 5 December 1983
TM 11-5825-271-12	Operator's and Organizational Maintenance Manual for Transmitter, Radio, T-1428/FRN; Tuner, Radio Frequency, TN-588/FRN and Switching Unit, Power Transfer, SA-2318/FRN 17 August 1983
TM 11-5825-271-20P	Organizational Maintenance Repair Parts and Special Tools Lists for Transmitter, Radio, T-1428/FRN (NSN 5895-01-099-3576); Tuner, Radio Frequency, TN-588/FRN (5895-01-107-2124) and Switching Unit, Power Transfer, SA-2318/FRN (6110-01-099-3573) 5 July 1983
TM 11-5825-271-34	Direct Support and General Support Maintenance Manual for Transmitter, Radio, T-1428/FRN; Tuner, Radio Frequency, TN-588/FRN and Switching Unit, Power Transfer, DA 2318/FRN 20 September 1983
TM 11-5825-271-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools Lists for Transmitter, Radio, T-1428/FRN; Tuner, Radio Frequency, TN-588/FRN and Switching Unit, Power Transfer, SA-2318/FRN 5 July 1983
TM 11-5831-201-20	Organizational Maintenance Manual: Control, Intercommunication Set, C-1611D/ARC and Discriminator, Discrete Signal, MD-736A 12 January 1970
TM 11-5835-249-14	Operator's, Organizational, Direct Support and General Support Maintenance Manual for Recorder-Reproducer Set, Sound, AN/GSH-45, Model TRC 89-4 (NSN 5835-01-070-8319) 9 October 1980
TM 11-5840-281-12	Operator's and Organizational Maintenance Manual for Radar Set, AN/TPN-18 24 November 1970
TM 11-5840-281-12-1	Operator's and Organizational Maintenance Manual for Radar Set, AN/TPN-18A 15 January 1986
TM 11-5840-281-20P	Organizational Maintenance Repair Parts and Special Tools Lists: Radar Set AN/TPN-18 10 April 1979
TM 11-5840-281-34-1	Direct and General Support Maintenance Manual for Radar Set, AN/TPN-18A 10 February 1981
TM 11-5840-281-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools Lists (Including Depot Maintenance Repair Parts and Special Tools) for Radar Set AN/TPN-18 8 May 1979
TM 11-5840-281-35/1	Direct Support, General Support, and Depot Maintenance Manual: Radar Set AN/TPN-18 15 January 1971
TM 11-5840-281-35/2	Direct Support, General Support, and Depot Maintenance Manual: Radar Set, AN/TPN-18 15 January 1971
TM 11-5840-293-12	Operator's and Organizational Maintenance Manual: Radar Set, AN/FPN-40 (W/IFF Capability) 1 September 1986
TM 11-5840-293-20P	Organizational Maintenance Repair Parts and Special Tools Lists for Radar Set, AN/FPN-40 6 February 1979
TM 11-5840-293-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools Lists (Including Depot Maintenance Repair Parts and Special Tools) for Radar Set AN/FPN-40 10 April 1979
TM 11-5840-293-35	Direct Support, General Support, and Depot Maintenance Manual: Radar Set AN/FPN-40 (with IFF Capability) 2 November 1966

TM 11-5840-309-35 Direct Support, General Support, and Depot Maintenance Manual: Decoder, Video, KY-593/TPX-44 (NSN 5840-00-944-1203) and Control, Remote Switching, C-7014/TPX-44 (5895-00-944-1319) 22 January 1968

TM 11-5840-381-10 Operator's Manual for Air Traffic Navigation, Integration, and Coordination System (ATNAVICS) AN/TPN-31 (NSN 5840-01-450-8126) 15 January 2005

TM 11-5840-381-23P Unit and Direct Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts) for Air Traffic Navigation, Integration, and Coordination System (ATNAVICS) AN/TPN-31 (NSN 5840-01-450-8126) 15 February 2003

TM 11-5895-1141-12 Operator's and Organizational Maintenance Manual for Control, Radio Channel, C-10931(P)/FRC (NSN 5820-01-114-1456) 1 July 1982

TM 11-5895-1141-34 Direct Support and General Support Maintenance Manual for Control, Radio Channel, C-10931(P)/FRC (NSN 5820-01-114-1456) 1 July 1982

TM 11-5895-1186-12 Operator's and Organizational Maintenance Manual for Air Traffic Control Communications Switching System, AN/FSC-92(V) 15 June 1986

TM 11-5895-1186-34 Direct Support and General Support Maintenance Manual, Air Traffic Control Communications Switching System AN/FSC-92(V) 1 August 1986

TM 11-5895-1568-14 Operator, Unit, Direct Support and General Support Maintenance Manual for Tactical Terminal Control System, AN/TSQ-198 (NSN 5895-01-388-1454) (EIC: N/A) 1 May 1997

TM 11-5895-1611-12&P Operator's and Unit Level Maintenance Manual Including Repair Parts and Special Tools List (RPSTL) for Interrogator Set AN/TPX-56(V)2 1 June 2001

TM 11-5895-201-24P Organizational, Direct Support, and General Support Maintenance Repair Parts and Special Tools Lists (Including Depot Maintenance Repair Parts and Special Tools): Coder-Control, Interrogation Sets KY-97/TPX, KY-97A/TPX (FSN 5895-378-4782), 8 March 1974

TM 11-5895-201-35 Direct Support, General Support and Depot Maintenance Manual: Coder-Control, Interrogator Sets, KY-97/TPX, KY-97A/TPX (NSN 5895-00-378-4782), KY-97B/TPX (5895-00-629-9483), KY-97C/TPX and KY-592/TPX-4 5 February 1964

TM 11-5895-245-34P Direct Support and General Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts and Special Tools) for Receiver-Transmitters, RADIO, RT-211A/TPX (NSN 5895-00-543-1567), RT-264D/UPX-6 9 April 1981

TM 11-5895-245-35 Direct Support, General Support, and Depot Maintenance Manual for Receiver-Transmitter, Radio, RT-211A/TPX and RT-264D/UPX-6 and Receiver-Transmitter, Radar, RT-820/TPX-44 20 March 1964

TM 11-5895-468-12 Operator's and Organizational Maintenance Manual Including Repair Parts and Special Tool Lists: Interrogator Set AN/TPX-44 29 August 1967

TM 11-5895-468-35 Direct Support, General Support, and Depot Maintenance Manual: Interrogator Set, AN/TPX-44 (NSN 5895-00-944-1314) 11 June 1968

TM 11-5895-469-12	Operator's and Organizational Maintenance Manual for Flight Coordination Central, AN/TSC-61B (NSN 5895-01-057-3968) 15 August 1979
TM 11-5895-469-34	Direct Support and General Support Maintenance Manual Flight Coordination Central, AN/TSC-61B (NSN 5895-01-057-3968) 12 March 1980
TM 11-5895-469-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools Lists (Including Depot Maintenance Repair Parts and Special Tools) for Flight Coordination Central, AN/TSC-61B (NSN 5895-01-057-3968) 5 March 1981
TM 11-5895-474-12	Operator's and Unit Maintenance Manual for Landing Control Central, AN/TSQ-71B and AN/TSQ-71B (Modified) (NSN 5895-01-092-8074) 1 September 1990
TM 11-5895-474-30	Direct Support Maintenance Manual for Landing Control Central AN/TSQ-71B and AN/TSQ-71B (Modified) (NSN 5895-01-092-8074) (EIC: JP5) 15 January 1992
TM 11-5895-479-12	Operator's and Organizational Maintenance Manual (Including Repair Parts and Special Tools): Interrogator Set, AN/TPX-41 12 August 1971
TM 11-5895-479-35	Direct Support, General Support, and Depot Maintenance Manual: Interrogator Set, AN/TPX-41 (NSN 5895-00-406-1603) 4 November 1971
TM 11-5895-579-12	Operator's and Organizational Maintenance Manual for Aircraft Control Central, AN/TSQ-70A (NSN 5895-00-054-9366) 6 January 1970
TM 11-5895-579-35	Direct Support, General Support and Depot Maintenance Manual: Aircraft Control Central AN/TSQ-70A 17 February 1970
TM 11-5895-801-12	Operator's and Unit Maintenance Manual Air Traffic Control Center AN/TSW-7A (NSN 5895-01-018-1246) (EIC: JP3) 15 May 1992
TM 11-5895-801-34	Direct Support and General Support Maintenance Manual: Air Traffic Control Central, AN/TSW-7A (NSN 5820-01-018-1246) 19 June 1979
TM 11-5895-801-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools Lists (Including Depot Maintenance Repair Parts and Special Tools) for Air Traffic Control Central, AN/TSW-7A (NSN 5820-01-018-1246) (EIC: JP3) 1 August 1992
TM 11-5985-357-13	Operator's, Organizational, and Direct Support Maintenance Manual for Antenna Group, OE-254/GRC (NSN 5985-01-063-1574) 1 February 1991
TM 11-6660-200-14	Operator's, Organizational, Direct Support and General Support Maintenance Manual for Wind Measuring Set, AN/GMQ-11 (NSN 6660-00-663-8084) 30 July 1984
TM 43-0139	Painting Instructions for Army Materiel 27 July 1988
TM 95-225	United States Standard: Flight Inspection 1 May 1963

NOTE: The following TMs are available only on CD-ROM.

TM 11-5895-1668-10	Operator Manual for Command System, Tactical (Tactical Airspace Integration System) (TAIS) AN/TSQ-221 (NSN 5895-01-476-4132) 1 February 2003
TM 11-5985-1668-20	Unit Maintenance Manual for Command System, Tactical (Tactical Airspace Integration System) (TAIS) AN/TSQ-221 (NSN 5895-01-476-4132) 1 February 2003
TM 11-5985-1668-20P	Unit Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts) for Command System, Tactical (Tactical Airspace Integration System) (TAIS) AN/TSQ-221 (NSN 5895-01-476-4132) (EIC: N/A) 1 April 2002

Send your order request to the following:

PM Aviation Mission Equipment Field Office
ATTN: SFAE-AV-AS-AME
Building 1200 East
Fort Monmouth, NJ 07703-5043

Related Publications

Related publications are sources of additional information. They are not required in order to understand this publication.

Department of Army Forms

DA FORM 2028 Recommended Changes to Publications and Blank Forms
DA FORM 2404 Equipment Inspection and Maintenance Worksheet

Department of Army Pamphlets

DA PAM 750-8 The Army Maintenance Management System (TAMMS) Users Manual
22 August 2005

Other Product Types

FAA FORM 6030-1 Facility Maintenance Log

Technical Bulletins

TB 385-4 Safety Requirements for Maintenance of Electrical and
Electronic Equipment 1 August 1992

Technical Manuals

TM 11-5825-266-14-2 Operator's, Organizational, Direct Support and General Support
Maintenance Manual: Radio Transmitting Sets, AN/FRN-41(V)1,
AN/FRN-41(V)2, AN/FRN-41(V)3, AN/FRN-41(V)4 and AN/FRN-41(V)TI
14 January 1980

TM 11-5840-281-34-1 Direct and General Support Maintenance Manual for Radar Set,
AN/TPN-18A 10 February 1981

TM 11-5840-281-35/1 Direct Support, General Support, and Depot Maintenance Manual:
Radar Set AN/TPN-18 15 January 1971

TM 11-5840-281-35/2 Direct Support, General Support, and Depot Maintenance Manual:
Radar Set, AN/TPN-18 15 January 1971

TM 11-5840-381-23P Unit and Direct Support Maintenance Repair Parts and Special Tools List
(Including Depot Maintenance Repair Parts) for Air Traffic Navigation,
Integration, and Coordination System (ATNAVICs) AN/TPN-31
(NSN 5840-01-450-8126) 15 February 2003

TM 11-6130-238-14 Operator's, Organizational, Direct Support, and General Support
Maintenance Manual for Charger, Battery PP-1659/G and PP-1659A/G
(NSN 6130-00-985-8185) (NG) (AR) 28 February 1977

TM 11-6140-203-14-1 Operator's, Organizational, Direct Support and General Support
Maintenance Manual for Aircraft and Nonaircraft Nickel-Cadmium
Batteries (General). 14 October 1980

TM 11-6140-203-14-3 Operator's, Organizational, Direct Support and General Support
Maintenance Manual: Nonaircraft Nickel-Cadmium Batteries.
7 November 1979

TM 11-6660-200-14 Operator's, Organizational, Direct Support and General Support
Maintenance Manual for Wind Measuring Set, AN/GMQ-11
(NSN 6660-00-663-8084) 30 July 1984

STP 9-94D12-SM-TG
8 JUNE 2006

By Order of the Secretary of the Army:

Official:



JOYCE E. MORROW

*Administrative Assistant to the
Secretary of the Army*

0613801

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

DISTRIBUTION:

*Active Army, Army National Guard, and US Army Reserve. Not to be distributed.
Electronic media only.*

