

**STP 9-44E14-SM-TG**

**Soldier's Manual  
and  
Trainer's Guide**

**MACHINIST  
MOS 44E  
SKILL LEVELS 1, 2, 3, AND 4**

**June 2007**

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

## **MOS 44E**

### **Machinist Skill Levels 1, 2, 3 and 4**

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## **Preface**

This Soldier Training Publication (STP) is intended for Soldiers holding military occupational specialty (MOS) 44E, Skill Levels (SLs) 1, 2, 3, and 4, their supervisors, trainers, and commanders. It contains an MOS Training Plan providing 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 44E should have access to this publication. Trainers and firstline 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 Reimer Digital Library (RDL).

Tasks in this manual apply 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, Fix/Arm Division, ATTN: ATCL-TDF, 401 First Street, Suite 101A, Fort Lee, VA 23801-1511.

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## Chapter 1

### Introduction

1-1. General. This Soldier Training Publication (STP) identifies individual MOS training requirements for Soldiers holding MOS 44E. 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 44E Soldiers. Commanders employ two primary methods to evaluate Soldiers' 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 skill level (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), Army training and evaluation programs (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. 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 can not 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 manual 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 skill level 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 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 skill level 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.

a. 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 need 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.

b. 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.

c. 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 of this STP for a sample DA Form 5164-R with instructions.

d. 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 skill level. 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 skill levels. Use of this form is optional. See Appendix B for a sample DA Form 5165-R with instructions. 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.

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## Chapter 2

### Training 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 skill level or 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 on), the resident course where the task was taught. Figure 2-1 contains a list of training locations and their corresponding brevity codes.

<b>BNCOC</b>	Basic NCO Course
<b>AIT</b>	Advanced Individual Training
<b>UNIT</b>	Trained in the Unit
<b>ANCOC</b>	Advanced NCO Course
<b>BTC</b>	Basic Technical Course

**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.
- **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.

<b>BA</b> - Biannually
<b>AN</b> - Annually
<b>SA</b> - Semiannually
<b>QT</b> - Quarterly
<b>MO</b> - Monthly
<b>BW</b> - Biweekly
<b>WK</b> - Weekly

**Figure 2-2. Sustainment Training Frequency Codes**

2-2. Subject Area Codes.

**Skill Level 1**

- 1 GENERAL METAL WORKING SHOP PRACTICES TASKS
- 2 LATHE OPERATIONS TASKS
- 3 MILLING MACHINE OPERATIONS TASKS

**Skill Level 2**

- 1 GENERAL METAL WORKING SHOP PRACTICES TASKS

**Skill Level 3**

- 1 COMMON LOGISTICS TASKS
- 1 METAL WORKER TASKS (SL3)
- 2 MACHINIST TASKS (SL3)

**Skill Level 4**

- 1 COMMON LOGISTICS TASKS

2-3. Duty Position Training Requirements.

<b>44E CAREER FIELD DUTY POSITIONS</b>			
<b>Duty Position</b>	<b>Subject Area</b>	<b>Cross Train</b>	<b>Train-up/Merger</b>
<b>Skill Level 1</b>			
Machinist	1 - 7	NA	44E20/Machinist
<b>Skill Level 2</b>			
Machinist	1 - 7	NA	44E30/Section Chief 44E30/Machinist 44E30/Machine Operator Supervisor 44E30/Precision Machinist 44E30/Welder Supervisor 44E30/Metalworker Supervisor 44E30/Metalworker Inspector 44E30/Technical Inspector
<b>Skill Level 3</b>			
Section Chief Machinist Machine Operator Supervisor Precision Machinist Welder Supervisor Metalworker Supervisor Metalworker Inspector Technical Inspector	8 - 11	NA	44E40/Section Chief 44E40/Platoon Sergeant 44E40/Machine Shop Supervisor
<b>Skill Level 4</b>			
Section Chief Platoon Sergeant Machine Shop Supervisor	12	NA	63Z50/Mechanical Maintenance Supervisor

2-4. Critical Tasks List.

**MOS TRAINING PLAN  
44E14**

**CRITICAL TASKS**

Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
<b>Skill Level 1</b>				
<b>Subject Area 1. GENERAL METAL WORKING SHOP PRACTICES TASKS</b>				
091-44E-1001	Perform Preventive Maintenance on Machining Tools and Equipment	AIT	AN	1/2
091-44E-1002	Interpret Shop Drawings as it Applies to Machining	AIT	AN	1/2
091-44E-1003	Perform Layout Operations	AIT	AN	1/2
091-44E-1004	Perform Bench Work Operations	AIT	AN	1/2
091-CLT-1000	Identify Metals Using the Appearance, Fracture, Spark, or Torch Test Method	AIT	AN	1/2
091-CLT-1002	Perform Routine Hand Drilling Operations	AIT	AN	1/2
091-CLT-1003	Prepare Maintenance Forms	AIT	AN	1/2
091-CLT-1006	Perform Hand Threading Operations	AIT	AN	1/2
091-CLT-1010	Follow Shop Safety Practices and Procedures	AIT	AN	1/2
<b>Subject Area 2. LATHE OPERATIONS TASKS</b>				
091-44E-1007	Perform Facing and Straight Shoulder Turning Using a Lathe	AIT	AN	1/2
091-44E-1008	Perform Parting and Grooving Using a Lathe	AIT	AN	1/2
091-44E-1009	Perform Drilling, Reaming, and Boring Using a Lathe	AIT	AN	1/2
091-44E-1010	Perform Filing/Polishing Using a Lathe	AIT	AN	1/2
091-44E-1011	Perform Taper Turning Using a Lathe	AIT	AN	1/2
091-44E-1012	Perform Threading Operations Using a Lathe	AIT	AN	1/2
091-44E-1013	Perform Knurling Using a Lathe	AIT	AN	1/2
<b>Subject Area 3. MILLING MACHINE OPERATIONS TASKS</b>				
091-44E-1015	Perform Indexing Using a Milling Machine	AIT	AN	1/2
091-44E-1016	Perform Plain/Face Milling Using a Milling Machine	AIT	AN	1/2
091-44E-1017	Perform Angular Milling Using a Milling Machine	AIT	AN	1/2
091-44E-1019	Perform Sawing/Parting on a Milling Machine	AIT	AN	1/2
<b>Skill Level 2</b>				
<b>Subject Area 1. GENERAL METAL WORKING SHOP PRACTICES TASKS</b>				
091-44E-2001	Supervise a Preventive Maintenance on Machining Equipment and Tools	UNIT	AN	2
091-44E-2002	Write a Set of Directions for a Machining-related Task or Project	UNIT	AN	2
091-CLT-2002	Review Maintenance Forms	UNIT	AN	2

**CRITICAL TASKS**

<b>Task Number</b>	<b>Title</b>	<b>Training Location</b>	<b>Sust Tng Freq</b>	<b>Sust Tng SL</b>
091-CLT-2003	Supervise a Shop Safety Program	UNIT	AN	2
091-CLT-2004	Supervise Inventory to Maintain Proper Levels of Spare Materials and Stock as Required	UNIT	AN	2
<b>Skill Level 3</b>				
<b>Subject Area 1. COMMON LOGISTICS TASKS</b>				
091-CLT-3001	Manage a Shop Safety Program	BNCOC	AN	3
091-CLT-3002	Maintain a Publications Library	BNCOC	AN	3
091-CLT-3003	Establish Maintenance Facilities	BNCOC	AN	3
091-CLT-3004	Assist in Preparing a Standing Operating Procedure	BNCOC	AN	3
091-CLT-3005	Manage Tool Control Procedures	BNCOC	AN	3
091-CLT-3006	Manage Key Control Procedures	BNCOC	AN	3
091-CLT-3007	Manage the TMDE Calibration Program	BNCOC	AN	3
091-CLT-3008	Recon Terrain/Route	BNCOC	AN	3
091-CLT-3009	Supervise Maintenance Operations	BNCOC	AN	3
091-CLT-3010	Interpret Maintenance Operational Overlay	BNCOC	AN	3
091-CLT-3011	Deploy Maintenance Support Teams	BNCOC	AN	3
091-CLT-3012	Interpret a Standard Army Maintenance System (SAMS) Generated Maintenance Report	BNCOC	AN	3
091-CLT-3013	Manage the Unit Level Logistics System (ULLS)	BNCOC	AN	3
091-CLT-3014	Manage the Unit Army Oil Analysis Program (AOAP)	BNCOC	AN	3
091-CLT-3015	Deploy Company Maintenance Team/Recovery Support Team	BNCOC	AN	3
091-CLT-3016	Review the Army Materiel Status System (AMSS) Reports	BNCOC	AN	3
<b>Subject Area 1. METAL WORKER TASKS (SL3)</b>				
091-44E-3002	Create Complex Sketch or Drawing Requiring Welding of Parts	BNCOC	AN	3
091-44E-3003	Direct Shielded Metal Arc Welding (SMAW) Operations	BNCOC	AN	3
091-44E-3004	Direct Gas Metal Arc Welding (GMAW) Operations	BNCOC	AN	3
091-44E-3005	Direct Flux-Cored Arc Welding (FCAW) Operations	BNCOC	AN	3
091-44E-3006	Direct Gas Tungsten Arc Welding (GTAW) Operations	BNCOC	AN	3
091-44E-3007	Direct Oxy-Fuel Cutting Operations	BNCOC	AN	3
091-44E-3008	Set Up Field Welding Operations	BNCOC	AN	3
091-44E-3009	Direct Plasma Arc Cutting Operations	BNCOC	AN	3
091-44E-3010	Manage a Metal Working Shop Quality Control Program to Include Performance of Non-destructive Testing Techniques	BNCOC	AN	3
091-44E-3011	Manage Glass, Fuel Tank, and Radiator Repair Operations	BNCOC	AN	3
091-44E-3012	Manage Tactical Vehicle Structural Repair Operations	BNCOC	AN	3
091-44E-3013	Perform Precision Lay Out	BNCOC	AN	3

**CRITICAL TASKS**

Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
<b>Subject Area 2. MACHINIST TASKS (SL3)</b>				
091-44E-3014	Develop a Process Plan for a Part Requiring Milling, Drilling, Turning, or Grinding.	BNCOC	AN	3
091-44E-3015	Direct Lathe Operations	BNCOC	AN	3
091-44E-3016	Direct Conventional and Versa Mil Milling Operations	BNCOC	AN	3
091-44E-3017	Apply Geometric, Algebraic, and Basic Trigonometric Concepts to Machining Tasks	BNCOC	AN	3
<b>Skill Level 4</b>				
<b>Subject Area 1. COMMON LOGISTICS TASKS</b>				
091-CLT-4001	Perform Senior Rater Responsibilities for a Maintenance Section	ANCOC	AN	4
091-CLT-4002	Supervise Platoon/Section Administrative Procedures	ANCOC	AN	4
091-CLT-4003	Manage Combat Stress	ANCOC	AN	4
091-CLT-4004	Ensure Maintenance Operations are in Compliance With the Army Environmental Program	ANCOC	AN	4
091-CLT-4005	Enforce Compliance With the Shop Safety Program	ANCOC	AN	4
091-CLT-4006	Coordinate Support for the Maintenance Platoon/Section	ANCOC	AN	4
091-CLT-4007	Select a Field Maintenance Site	ANCOC	AN	4
091-CLT-4008	Prepare an Operational Overlay for Maintenance Operations	ANCOC	AN	4
091-CLT-4009	Control Flow of Work Through the Maintenance Shop	ANCOC	AN	4
091-CLT-4010	Integrate Automated Logistics Support Systems	ANCOC	AN	4
091-CLT-4011	Plan Logistics Support for Maintenance Operations	ANCOC	AN	4
091-CLT-4012	Monitor the Preparation and Disposition of the Army Materiel Status System (AMSS) Reports	ANCOC	AN	4
091-CLT-4013	Analyze the Prescribed Load List (PLL) Report	ANCOC	AN	4
091-CLT-4014	Monitor Quality Control Program	ANCOC	AN	4
091-CLT-4015	Analyze Bench Stock Listing	ANCOC	AN	4
091-CLT-4016	Analyze Open Work Request Reconciliation Listing	ANCOC	AN	4
091-CLT-4017	Analyze Completed Shop Workload Summary	ANCOC	AN	4
091-CLT-4018	Analyze Shop Deadline and Deferred Workload Listing	ANCOC	AN	4
091-CLT-4019	Analyze Shop Workload Summary Listing	ANCOC	AN	4
091-CLT-4020	Maintain Property Accountability	ANCOC	AN	4
091-CLT-4021	Prepare Standing Operating Procedures for Maintenance Operations	ANCOC	AN	4
091-CLT-4022	Supervise the Deployment of Company Maintenance Team/Recovery Support Team/Maintenance Support Team	ANCOC	AN	4
091-CLT-4023	Conduct a Route Reconnaissance for a Maintenance Mission	ANCOC	AN	4
091-CLT-4024	Conduct an Area Reconnaissance for a Maintenance Mission	ANCOC	AN	4
091-CLT-4025	Manage Battlefield Maintenance Support	ANCOC	AN	4

## CRITICAL TASKS

<b>Task Number</b>	<b>Title</b>	<b>Training Location</b>	<b>Sust Tng Freq</b>	<b>Sust Tng SL</b>
091-CLT-4026	Perform Support Operations NCO Duties	ANCOC	AN	4
091-CLT-4027	Manage Maintenance Operations at a Maintenance Collection Point	ANCOC	AN	4
091-CLT-4028	Provide Maintenance Support During Tactical Operations	ANCOC	AN	4

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**Chapter 3**

**MOS/Skill Level Tasks**

Skill Level 1

Subject Area 1: GENERAL METAL WORKING SHOP PRACTICES TASKS

**Perform Preventive Maintenance on Machining Tools and Equipment**

**091-44E-1001**

**Conditions:** In a field or garrison contemporary environment, given required tools, measuring devices, safety equipment, additional tools, equipment specified in the technical manuals (TMs), repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Maintained assigned equipment in accordance with TM 9-243.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools and equipment.	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Performed preventive maintenance checks and services (PMCS).	—	—
5. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
6. Cleaned tools and equipment.	—	—

**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
- TC 9-524
- TM 9-243
- DA PAM 750 -8

**Related**

**Interpret Shop Drawings as it Applies to Machining**  
**091-44E-1002**

**Conditions:** In a field or garrison contemporary environment, given different types of shop drawings and technical publications.

**Standards:** Interpreted shop drawings/sketches in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable materials.	—	—
3. Identified types of shop drawings correctly.	—	—
a. Pictorial.		
b. Isometric.		
c. Oblique.		
d. Oblique (Cabinet).		
e. Orthographic.		
f. Development drawings.		
g. Scale.		
4. Identified types of lines in a shop drawing.	—	—
a. Outline.		
b. Hidden line.		
c. Centerline.		
d. Extension line.		
e. Dimension line.		
f. Leader line.		
g. Long break line.		
h. Tolerances.		

**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 5-553

**Related**

**Perform Layout Operations  
091-44E-1003**

**Conditions:** In a field or garrison contemporary environment, given a work bench, machinist bench vise, machinist's tool kit, aluminum stock, layout dye, file, hacksaw blades with various pitches, shop drawings, additional tools, equipment specified in technical manuals (TMs), repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Lay out a workpiece in accordance with applicable technical publications.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Selected and used applicable technical publications.	_____	_____
2. Selected and used applicable tools and equipment.	_____	_____
3. Practiced shop safety and maintenance discipline.	_____	_____
4. Prepared workpiece for layout.	_____	_____
5. Applied layout fluid to workpiece.	_____	_____
6. Laid out workpiece.	_____	_____
7. Checked for accuracy.	_____	_____
8. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	_____	_____
9. Maintained tools and equipment.	_____	_____

**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  
FM 5-553  
TC 9-524  
DA PAM 750-8

**Related**

**Perform Bench Work Operations**

**091-44E-1004**

**Conditions:** In a field or garrison contemporary environment, given a work bench, machinist bench vise, machinist's tool kit, stock, file, hacksaw blades with various pitches, shop drawings, additional tools, equipment specified in technical manuals (TMs), repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Demonstrated the performance of bench work operations skills within specified tolerances, in accordance with applicable technical publications.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools and equipment.	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Used files, scrapers, and coated abrasives to deburr parts until they are free of sharp edges or burrs.	—	—
5. Used an arbor press to a bushing in a hole prepared for the press fit.	—	—
6. Installed a stud and saw to proper dimensions and squared to the surface.	—	—
7. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
8. Maintained tools and equipment.	—	—

**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
- TC 9-524
- DA PAM 750-8

**Related**

**Identify Metals Using the Appearance, Fracture, Spark, or Torch Test Method  
091-CLT-1000**

**Conditions:** In a field or garrison contemporary operating environment, given carbon steel, cast iron, lead brass, copper, aluminum, stainless steel coupons, oxyacetylene welding set, welder's tool kit, welding apron, sander, grinder, file, safety equipment, applicable technical publications, and supervisor/assistance.

**Standards:** Identified each type of metal using visual, spark, file methods and the Society of Automotive Engineers (SAE) numbering system methods in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools and equipment.	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Determined the category of metal (ferrous or nonferrous).	—	—
5. Identified metal by appearance test.	—	—
6. Identified metal by fracture test.	—	—
7. Identified metal by spark test.	—	—
8. Identified metal by torch test.	—	—
9. Maintained tools and equipment.	—	—

**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**  
TC 9-237

**Related**

**Perform Routine Hand Drilling Operations  
091-CLT-1002**

**Conditions:** In a field or garrison contemporary operating environment, given an upright drilling machine; machinist's tool kit; portable drill; metal stock; drill gauge; fractional, numbered, and lettered size twist drills; UNC, UNF, and NPT threading set; cutting oil; solvent; hand oiler; layout dye; shop drawing; applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Performed drilling operations in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	_____	_____
2. Selected and used applicable tools and equipment.	_____	_____
3. Practiced shop safety and maintenance discipline.	_____	_____
4. Set up the drilling machine.	_____	_____
5. Performed drilling (upright and portable) operations.	_____	_____
6. Performed hand tapping.	_____	_____
7. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	_____	_____
8. Maintained tools and equipment.	_____	_____

**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
- TC 9-524
- DA PAM 750-8

**Related**

**Prepare Maintenance Forms  
091-CLT-1003**

**Conditions:** In a field or garrison contemporary operating environment, given Department of the Army (DA) Forms required for documentation of maintenance and repairs, applicable technical publications, and supervision/assistance.

**Standards:** Prepared DA Forms in accordance with applicable technical publications.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Stated the purpose and types of different DA Forms used during PMCS.	—	—
a. Purpose of DA Form 5988-E (Equipment Inspection Maintenance Worksheet).		
b. DA Form 2404 (Equipment Inspection and Maintenance Worksheet).		
c. DA Form 2407 (Maintenance Request) and DA Form 2407-1 (Maintenance Request Continuation Sheet).		
d. DA Form 5990-E (Maintenance Request).		
2. Performed maintenance or repair procedure.	—	—
3. Annotated actions taken on applicable DA Form.	—	—
4. Ensured form(s) were checked by 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 2407-1
- DA FORM 5988-E
- DA FORM 5990-E
- DA PAM 750-8

**Related**

**Perform Hand Threading Operations  
091-CLT-1006**

**Conditions:** In a field or garrison contemporary operating environment, given a machinist's tool kit; workbench; table vise; UNC, UNF, and NPT threading sets; aluminum; steel round stock; steel pipe; metal stock; cutting oil; solvent; hand oiler; shop drawing; additional tools; equipment specified in technical manuals (TMs); repair parts; applicable maintenance forms and technical publications; and supervision/assistance.

**Standards:** Performed hand threading in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools and equipment.	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Cut external threads on workpieces using a hand die.	—	—
5. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
6. Maintained tools and equipment.	—	—

**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  
 TC 9-524  
 TM 9-243  
 DA PAM 750-8

**Related**

**Follow Shop Safety Practices and Procedures  
091-CLT-1010**

**Conditions:** In a field or garrison contemporary operating environment, given a maintenance site/facility, maintenance personnel, and applicable references.

**Standards:** Followed all safety procedures, so preventable accidents were avoided and if accidents occurred they were properly recorded and reported in accordance with applicable references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Read all safety references on hand.	—	—
2. Followed requirements for a successful shop safety and accident prevention program.	—	—
3. Corrected safety concerns and violations.	—	—
4. Conducted scheduled and unscheduled safety inspections.	—	—
5. Documented safety violations, reported the violations as required, and conducted follow-up inspections to ensure violations were corrected.	—	—
6. Kept necessary records of safety inspections and accident reports.	—	—
7. Ensured material safety data sheet (MSDS) were prepared and maintained as required in applicable work areas.	—	—

**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**  
 AR 190-13  
 AR 220-1  
 AR 385-10  
 AR 385-40  
 AR 385-55  
 AR 700-138  
 AR 750-1  
 DA PAM 750-8  
 FM 4-30.3  
 TB 43-180

**Related**

Subject Area 2: LATHE OPERATIONS TASKS

**Perform Facing and Straight Shoulder Turning Using a Lathe  
091-44E-1007**

**Conditions:** In a field or garrison contemporary operating environment, given a lathe, machinist's tool kit, steel stock, hand oiler, surface gauge, dial test indicator, test bar, surface plate, aluminum steel, 1-2 inch outside micrometer, depth micrometer, shop drawings, additional tools, equipment specified in technical manuals (TMs), repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Performed facing, straight, and shoulder turning using a lathe in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools, equipment, and test, measurement, and diagnostic equipment (TMDE).	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Set up lathe.	—	—
5. Aligned lathe centers.	—	—
6. Performed facing and center drilling on the lathe.	—	—
7. Performed straight turning on the lathe.	—	—
8. Performed shoulder turning on the lathe.	—	—
9. Measured results.	—	—
10. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
11. Maintained tools, equipment, and TMDE.	—	—

**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
- TC 9-524
- TM 9-3416-225-12
- DA PAM 750-8

**Related**

**Perform Parting and Grooving Using a Lathe  
091-44E-1008**

**Conditions:** In a field or garrison contemporary operating environment, given a lathe, machinist's tool kit, 1-inch diameter aluminum stock, required stock, dial indicator, test bar, marker, cutting oil, 100-grit abrasive cloth, 1-2 inch outside micrometer, shop drawing, additional tools, equipment specified in technical manuals (TMs), repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Performed parting and grooving using a lathe in accordance with applicable technical publications.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools, equipment, and test, measurement, and diagnostic equipment (TMDE).	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Set up the lathe for parting.	—	—
5. Parted material on the lathe.	—	—
6. Set up lathe to machine form grooves.	—	—
7. Machined form grooves on the lathe.	—	—
8. Measured results.	—	—
9. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
10. Maintained tools, equipment, and TMDE.	—	—

**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  
 TC 9-524  
 TM 9-3416-225-12  
 DA PAM 750-8

**Related**

**Perform Drilling, Reaming, and Boring Using a Lathe**  
**091-44E-1009**

**Conditions:** In a field or garrison contemporary operating environment, given a lathe, machinist's tool kit, steel stock, hand oiler, surface gauge, dial test indicator, test bar, surface plate, aluminum steel, 1-2 inch outside micrometer, depth micrometer, shop drawings, additional tools, equipment specified in technical manuals (TMs), repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Performed drilling, reaming, and boring using a lathe in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools, equipment, and test, measurement, and diagnostic equipment (TMDE).	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Set up lathe.	—	—
5. Aligned lathe centers.	—	—
6. Performed drilling.	—	—
7. Performed reaming.	—	—
8. Performed boring.	—	—
9. Measured results.	—	—
10. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
11. Maintained tools, equipment, and TMDE.	—	—

**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  
 TC 9-524  
 TM 9-3416-225-12  
 DA PAM 750-8

**Related**

**Perform Filing/Polishing Using a Lathe  
091-44E-1010**

**Conditions:** In a field or garrison environment, given a lathe, machinist's tool kit, 1 inch diameter aluminum stock, required stock, dial indicator, test bar, marker, cutting oil, 100 grit abrasive cloth, 1-2 inch outside micrometer, shop drawing, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Performed filing/polishing using a lathe in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools, equipment, and test, measurement, and diagnostic equipment (TMDE).	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Set up lathe for filing and polishing.	—	—
5. Filed workpiece on a lathe.	—	—
6. Polished material on a lathe.	—	—
7. Visually inspected results.	—	—
8. Measured results.	—	—
9. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
10. Maintained tools, equipment, and TMDE.	—	—

**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
- TC 9-524
- TM 9-3416-225-12
- DA PAM 750-8

**Related**

**Perform Taper Turning Using a Lathe  
091-44E-1011**

**Conditions:** In a field or garrison environment, given a machinist's tool kit, lathe with attachments, meal stock, test bar, 1/2-inch drills, 3/4-inch drill, drill indicator, micrometer, No. 3 Morse taper plug gauge, layout dye, shop drawing, additional tools, equipment specified in TMs, repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Performed taper turning using a lathe in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools, equipment, and test, measurement, and diagnostic equipment (TMDE).	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Set up the lathe for tapers.	—	—
5. Turned a taper using the taper attachment.	—	—
6. Set up the lathe to cut an external taper using the tailstock offset method.	—	—
7. Cut an external taper on a lathe using the tailstock offset method.	—	—
8. Set up the lathe for boring an internal taper using the taper attachment.	—	—
9. Bore an internal taper on the lathe using the taper attachment.	—	—
10. Set up the lathe to cut an external taper using the compound rest.	—	—
11. Cut an external taper on a lathe using the compound rest.	—	—
12. Measured finished work for accuracy.	—	—
13. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
14. Maintained tools, equipment, and TMDE.	—	—

**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  
 TC 9-524  
 TM 9-3416-225-12  
 DA PAM 750-8

**Related**

**Perform Threading Operations Using a Lathe  
091-44E-1012**

**Conditions:** In a field or garrison environment, given a machinist's tool kit, lathe with attachments, 8-13 pitch screw thread micrometer, set of .072-inch wires, small 13 pitch screw, large 8 pitch screw, additional tools, equipment specified in technical manuals (TMs), repair parts, applicable maintenance forms and technical publications, and supervision/ assistance.

**Standards:** Performed threading operations using a lathe in accordance with applicable technical publications.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools, equipment, and test, measurement, and diagnostic equipment (TMDE).	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Set up lathe.	—	—
5. Calculated thread dimensions.	—	—
6. Performed threading operations.	—	—
7. Measured finished work for accuracy.	—	—
8. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
9. Maintained tools, equipment, and TMDE.	—	—

**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  
TC 9-524  
TM 9-3416-225-12  
DA PAM 750-8

**Related**

**Perform Knurling Using a Lathe**  
**091-44E-1013**

**Conditions:** In a field garrison environment, given machine shop maintenance equipment, lathe with attachments, workpiece, 1-2 inch outside micrometer, hand oiler, shop drawings, machinist's tool kit, additional tools, equipment specified in technical manuals (TMs), repair parts, applicable forms and technical publications, and supervision/assistance.

**Standards:** Performed knurling using a lathe in accordance with applicable technical references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools, equipment, and test, measurement, and diagnostic equipment (TMDE).	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Determined knurling pattern.	—	—
5. Drilled center hole for tailstock.	—	—
6. Installed applicable holding device and center support, as required.	—	—
7. Mounted workpiece.	—	—
NOTE: Mounted workpiece in chuck should be supported by a dead center, tailstock, or steady rest, as required.		
8. Selected, mounted, and centered knurling tool.	—	—
9. Adjusted knurling tool 90 degrees to workpiece axis.	—	—
10. Laid out length to be knurled.	—	—
11. Set the lathe to the lowest spindle speed.	—	—
12. Determined and set feed.	—	—
13. Machined workpiece; apply cutting oil, as required.	—	—
14. Checked knurled pattern.	—	—
15. Measured finished workpiece for accuracy.	—	—
16. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
17. Maintained tools, equipment, and TMDE.	—	—

**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  
TC 9-524  
TM 9-3416-225-12  
DA PAM 750-8

**Related**

Subject Area 3: MILLING MACHINE OPERATIONS TASKS

**Perform Indexing Using a Milling Machine**

**091-44E-1015**

**Conditions:** In a field or garrison environment, given a milling machine, indexing head, machinist's tool kit, additional tools, equipment specified in technical manuals (TMs), repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Performed indexing using a milling machine in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools, equipment, and test, measurement, and diagnostic equipment (TMDE).	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Set up the milling machine for indexing.	—	—
5. Performed indexing.	—	—
6. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
7. Maintained tools, equipment, and TMDE.	—	—

**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
- TC 9-524
- TM 9-3417-210-10
- DA PAM 750-8

**Related**

**Perform Plain/Face Milling Using a Milling Machine**  
**091-44E-1016**

**Conditions:** In a field or garrison environment, given a milling machine, machinist's tool kit, aluminum stock, plain and side milling cutters, dial indicator, 1-2 inch outside micrometer, 2-3 inch outside micrometer, parallels, shop drawing, cutting oil, additional tools, equipment specified in technical manuals (TMs), repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Performed plain/face milling using a milling machine in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools, equipment, and test, measurement, and diagnostic equipment (TMDE).	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Set up the machine for plain and face milling.	—	—
5. Laid out workpiece.	—	—
6. Mounted milling cutter.	—	—
7. Mounted workpiece in holding device.	—	—
8. Selected cutting oil.	—	—
9. Determined and set speeds and feeds.	—	—
10. Set direction of cutter rotation.	—	—
11. Set table trip dogs for length of cut.	—	—
12. Referenced cutter for depth of cut.	—	—
13. Performed plain milling.	—	—
14. Performed face milling.	—	—
15. Measured finished workpiece for accuracy.	—	—
16. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
17. Maintained tools, equipment, and TMDE.	—	—

**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  
TC 9-524  
TM 9-3417-210-10  
DA PAM 750-8

**Related**

**Perform Angular Milling Using a Milling Machine  
091-44E-1017**

**Conditions:** In a field or garrison environment, given machine shop field maintenance equipment, milling machine with attachments, machinist's tool kit, angle milling cutter, 1-1/2 inch shell end milling cutter, depth micrometer, dial indicator, lead or composition hammer, parallels, paper shims of a known thickness, shop drawing, workpiece, cutting oil, aluminum stock, slitting saw, materials, shop drawing, additional tools, equipment specified in technical manuals (TMs), repair parts, applicable maintenance forms, and technical publications, and supervision/assistance.

**Standards:** Performed angular milling using a milling machine in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools, equipment, and test, measurement, and diagnostic equipment (TMDE).	—	—
3. Practiced shop safety and maintenance discipline.	—	—
4. Set up the milling machine to angle mill material.	—	—
5. Selected and mount appropriate milling cutter.	—	—
6. Selected holding device(s); then mounted and aligned workpiece (if vise is used, align vise first).	—	—
7. Determined and set speeds, feeds, and direction of cutter rotation.	—	—
8. Referenced workpiece to cutter using paper shims.	—	—
9. Angled mill material.	—	—
10. Measured finished workpiece for accuracy.	—	—
11. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
12. Maintained tools, equipment, and TMDE.	—	—

**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
- TC 9-524
- TM 9-3417-210-10
- DA PAM 750-8

**Related**

**Perform Sawing/Parting on a Milling Machine**  
**091-44E-1019**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, machine shop field maintenance equipment, milling machine with attachments, milling cutters, T-4 aluminum, lead or composition hammer, workpiece, shop drawing, cutting oil, parallels, paper shims of a known thickness, additional tools, equipment specified in technical manuals (TMs), repair parts, safety equipment, and applicable maintenance forms and technical publications.

**Standards:** Performed sawing/parting on a milling machine in accordance with applicable technical publications.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Reviewed work request.	—	—
2. Ensured task is within shop capability/authorization.	—	—
3. Ensured applicable technical publications are available.	—	—
4. Ensured proper tools and equipment are available to perform and inspect sawing/parting on a milling machine.	—	—
5. Performed initial inspection.	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures are followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured sawing/parting on a milling machine is performed in accordance with appropriate technical manuals and references.	—	—
a. Set up milling machine for sawing.		
b. Perform sawing operations.		
c. Measure finished workpiece for accuracy.		
d. Set up milling machine for parting.		
e. Perform parting operations.		
f. Measure finished workpiece for accuracy.		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure sawing/parting on a milling machine have been performed in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms are completed as required.	—	—
14. Ensured tools and equipment are properly maintained.	—	—

**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**

TC 9-524

TM 9-3417-210-10

**Related**

Skill Level 2

Subject Area 1: GENERAL METAL WORKING SHOP PRACTICES TASKS

**Supervise a Preventive Maintenance on Machining Equipment and Tools**

**091-44E-2001**

**Conditions:** In a field or garrison environment, given required tools, measuring devices, safety equipment, additional tools, equipment specified in the technical manuals (TMs), repair parts, applicable maintenance forms and technical publications, and supervision/assistance.

**Standards:** Maintained assigned equipment in accordance with TM 9-243.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Selected and used applicable technical publications.	—	—
2. Selected and used applicable tools and equipment.	—	—
3. Practiced shop safety and maintenance disciplines.	—	—
4. Performed preventive maintenance checks and services (PMCS).	—	—
5. Annotated actions taken on the DA Form 5988-E (Equipment Inspection Maintenance Worksheet).	—	—
6. Maintained tools and equipment.	—	—

**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
- TC 9-524
- TM 9-243
- DA PAM 750-8

**Related**

**Write a Set of Directions for a Machining-related Task or Project  
091-44E-2002**

**Conditions:** In a field or garrison environment, given a pencil, paper, calculator and drafting board, applicable maintenance forms and technical publications.

**Standards:** Prepared a set of directions for appropriate task in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work request.	—	—
2. Ensured task was within shop capability and function.	—	—
3. Ensured applicable technical publications were available for reference.	—	—
4. Ensured proper materials were available to write the set of directions.	—	—
5. Assigned personnel to perform task.	—	—
6. Ensured all safety precautions and procedures were followed.	—	—
7. Provided assistance as necessary.	—	—
8. Conducted an in-process inspection and checked to ensure that the set of directions was prepared in accordance with appropriate technical manuals and references.	—	—
9. Performed a final inspection to ensure directions were prepared in accordance with appropriate technical manuals and references.	—	—
10. Critiqued personnel on job performance.	—	—

**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 PAM 750-8

**Related**

**Review Maintenance Forms**  
**091-CLT-2002**

**Conditions:** In a field or garrison environment, given Department of the Army (DA) Forms required for documentation of maintenance and repairs, applicable technical publications, and supervision/assistance.

**Standards:** Prepared DA Forms in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Selected applicable form(s).	—	—
2. Selected applicable technical publications.	—	—
3. Performed maintenance or repair procedure.	—	—
4. Annotated actions taken on applicable DA Form.	—	—
5. Ensured form(s) were checked by 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 PAM 750-8

**Related**

**Supervise a Shop Safety Program  
091-CLT-2003**

**Conditions:** In a contemporary operating environment given a maintenance site/facility, maintenance personnel, and applicable references.

**Standards:** Ensured that personnel followed all safety procedures and preventable accidents were avoided. If accidents occurred, they were properly recorded and reported in accordance with applicable references. Identified and listed safety requirements and checkpoints for your area and activity. This program will ensure safe working conditions by conducting routine safety inspections.

**Evaluation Preparation:** Read TC9-237 and TC9-510 on Safety Precautions in Welding Operations. Instructor/supervisor is to be thoroughly familiar with accident prevention procedures, the individual's and supervisor's responsibility for safety, and the purpose of the shop safety program.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured all safety references were on hand.	—	—
2. Established and documented requirements for a shop safety and accident prevention program.	—	—
3. Prepared a list of shop activities to be inspected.	—	—
4. Conducted initial safety inspections.	—	—
5. Ensured that inspection was scheduled so that normal operations were disrupted as little as possible.	—	—
6. Conducted scheduled and unscheduled safety inspections.	—	—
7. Ensured that any and all potential hazards were corrected.	—	—
8. Documented safety violations, reported the violations as required, and conducted follow-up inspections.	—	—
9. Kept records of safety inspections and accident reports.	—	—
10. Ensured material safety data sheets (MSDS) were prepared and maintained.	—	—

**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**

<b>Required</b>	<b>Related</b>
AR 190-13	AR 385-10
AR 220-1	AR 385-40
AR 700-138	AR 385-55
AR 750-1	TC 9-237
DA PAM 750-8	TC 9-510
FM 4-30.3	
TB 43-180	

**Supervise Inventory to Maintain Proper Levels of Spare Materials and Stock as Required  
091-CLT-2004**

**Conditions:** In a contemporary operating environment, perform this task given a current copy of the shop stock list, AR 710-2, DA Pamphlet 710-2-2, and a copy of Federal Logistics (FEDLOG) discs. This task can be performed in a field or garrison environment.

**Standards:** Maintained accurate shop inventory to ensure adequate supplies and materials were available in the shop stock according to AR 710-2 and DA Pamphlet 710-2-2.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured consumables listed on the shop stock met the criteria listed in AR 710-2 and DA Pamphlet 710-2-2.	—	—
2. Ensured each item was demand supported.	—	—
3. Ensured stockage levels were developed in accordance with DA Pamphlet 710-2-2.	—	—
4. Ensured excess stocks were turned in within 10 days of review.	—	—
5. Ensured replenishment of stock was based on the reorder point (ROP).	—	—
6. Ensured the shop stock was inventoried during the scheduled review period.	—	—
7. Ensured the shop stock list was signed by the unit commander and submitted to the supply support activity (SSA).	—	—

**References**

**Required**  
AR 710-2  
DA PAM 710-2-2  
FEDLOG

**Related**

Skill Level 3

Subject Area 1: COMMON LOGISTICS TASKS

**Manage a Shop Safety Program**

**091-CLT-3001**

**Conditions:** In a contemporary operating environment given a maintenance site/facility, maintenance personnel, and applicable references.

**Standards:** Ensured that personnel followed all safety procedures and preventable accidents were avoided. If accidents occurred, they were properly recorded and reported in accordance with applicable references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured all safety references were on hand.	—	—
2. Established and documented goals and requirements for a successful shop safety and accident prevention program.	—	—
3. Briefed and regularly updated subordinates on shop safety program.	—	—
4. Conducted initial safety inspections.	—	—
5. Ensured initial safety concerns and violations were corrected.	—	—
6. Conducted scheduled and unscheduled safety inspections.	—	—
7. Documented safety violations, reported the violations as required, and conducted follow-up inspections to ensure violations were corrected.	—	—
8. Kept necessary records of safety inspections and accident reports.	—	—
9. Ensured material safety data sheets (MSDS) were prepared and maintained as required in applicable work areas.	—	—

**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**

- AR 190-13
- AR 220-1
- AR 700-138
- AR 750-1
- DA PAM 750-8
- FM 4-30.3
- TB 43-180

**Related**

- AR 385-10
- AR 385-40
- AR 385-55

**Maintain a Publications Library**  
**091-CLT-3002**

**Conditions:** In a contemporary operating environment given publications and storage location, local and higher headquarters publications indexes and publications procedures, standing operating procedure (SOP), and applicable forms and references.

**Standards:** Ensured required publications are on hand or ordered, publications were arranged and maintained properly, forms/records were properly maintained, and changes were posted in accordance with applicable in accordance with applicable references and local procedures.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Determined all publications required by the maintenance shop or section.	—	—
2. Reviewed and updated publications library SOP as needed.	—	—
3. Ensured that technical publications on hand or on order were the most current in accordance with DA Pamphlet 25-30.	—	—
4. Ensured that doctrinal, training, and organizational publications on hand or on order were the most current in accordance with DA Pamphlet 25-30 and local listings.	—	—
5. Ensured that administrative publications on hand or on order were the most current in accordance with DA Pamphlet 25-30.	—	—
6. Ensured that local and higher headquarters publications on hand or on order were the most current in accordance with DA Pamphlet 25-30 and local listings.	—	—
7. Prepared DA Form 4569-1-R (Security Assistance Publication Requisition Code Sheet) in accordance with DA Pamphlet 25-33.	—	—
8. Prepared the required transmittal form in accordance with DA Pamphlet 25-33.	—	—
9. Prepared DA Form 17 (Requisition for Publications and Blank Forms) and DA Form 17-1 (Requisition for Publications and Blank Forms (Continuation Sheet) to request local and higher headquarters publications in accordance with DA Pamphlet 25-33 and local or higher headquarters publications requisitioning procedures.	—	—
10. Ensured that published changes were posted to applicable publications in accordance with DA Pamphlet 25-40 and publications change instructions.	—	—
11. Removed obsolete, rescinded, or superseded publications from library in accordance with DA Pamphlet 25-40 and publications change instructions.	—	—
12. Arranged publications in proper order and in a suitable location in accordance with DA Pamphlet 25-40.	—	—
13. Labeled binders used for storing library publications in accordance with AR 25-400-2 and DA Pamphlet 25-40.	—	—
14. Notified personnel to return loaned publications to the library in a timely manner in accordance with publications library SOP.	—	—
15. Updated Army Publishing Directorate (APD), local, and higher headquarters publications accounts, as required, in accordance with DA Pamphlet 25-33 and local or higher headquarters publications account instructions.	—	—

**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**

AR 25-400-2  
DA FORM 17  
DA FORM 17-1  
DA FORM 4569-1-R  
DA PAM 25-30  
DA PAM 25-33  
DA PAM 25-40

**Related**

AR 25-11

**Establish Maintenance Facilities  
091-CLT-3003**

**Conditions:** In a contemporary operating environment given a maintenance site, maintenance personnel, applicable equipment, maintenance shop/section standing operating procedure (SOP), and applicable references.

**Standards:** Set up a maintenance shop facility suitable for accomplishing necessary maintenance functions in accordance with applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured SOP and required reference were available.	—	—
2. Identified commander's maintenance requirements for accomplishing the unit mission.	—	—
3. Set up the maintenance facility in accordance with SOP.	—	—

**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 4-30.3

**Related**

**Assist in Preparing a Standing Operating Procedure  
091-CLT-3004**

**Conditions:** In a contemporary operating environment given FM 4-30.3, higher headquarters standing operating procedure (SOP), and commander's guidance.

**Standards:** Prepared a draft copy of a maintenance shop/section internal or external SOP for supervisor's review, comment, and approval in accordance with applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured applicable publications were available.	—	—
2. Ensured unit policies and commander's guidance were followed.	—	—
3. Ensured shop operation policies were adequately addressed.	—	—
4. Updated the shop SOP, as required.	—	—

**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 4-30.3

**Related**

**Manage Tool Control Procedures  
091-CLT-3005**

**Conditions:** In a contemporary operating environment given applicable supply catalog(s), applicable references, and hand receipt forms.

**Standards:** Managed tool control procedures in accordance with applicable references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured applicable references were available.	—	—
2. Established policies and procedures for the control of tools.	—	—
3. Ensured all DA Form 2062s (Hand Receipt/Annex Number) were properly filled out and updated.	—	—
4. Ensured tools and equipment were inventoried in accordance with applicable references.	—	—
5. Ensured tool shortages were annotated on a shortage annex.	—	—
6. Ensured subordinates applied property accountability 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**

- AR 190-13
- AR 220-1
- AR 385-10
- AR 385-40
- AR 700-138
- AR 750-1
- DA FORM 2062
- DA PAM 710-2-1
- FM 1-02
- FM 4-30.3

**Related**

- DA PAM 750-8

**Manage Key Control Procedures**  
**091-CLT-3006**

**Conditions:** In a contemporary operating environment given keys, key control rosters, key boxes/cabinets, and applicable publications.

**Standards:** Managed key control procedures in accordance with applicable references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured necessary publications were available.	—	—
2. Established key control policies and procedures.	—	—
3. Established key control access rosters.	—	—
4. Ensured personnel were aware of their responsibilities for the security and accountability of keys.	—	—
5. Ensured key control access rosters were properly maintained and adhered to.	—	—

**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**  
AR 190-13  
AR 190-51

**Related**

**Manage the TMDE Calibration Program  
091-CLT-3007**

**Conditions:** In a contemporary operating environment given test, measurement, and diagnostic equipment (TMDE), maintenance personnel, and applicable references.

**Standards:** Managed the TMDE calibration program in accordance with applicable references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured necessary publications were available.	—	—
2. Reviewed and updated TMDE computer printout list.	—	—
3. Ensured preventive maintenance checks and services (PMCS) and inventory of all TMDE and auxiliary equipment are conducted, as required.	—	—
4. Ensured TMDE was turned in for calibration in accordance with computer printouts.	—	—

**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**  
AR 750-43  
TB 43-180

**Related**

**Recon Terrain/Route  
091-CLT-3008**

**Conditions:** In a contemporary operating environment given a maintenance situation/operation order (OPORD), operational overlay, grid coordinates of destination, vehicle with personnel, and applicable references.

**Standards:** Performed a route and terrain reconnaissance and selected the most appropriate route to follow and the most appropriate location to set up a maintenance site in accordance with maintenance situation or OPORD and applicable references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured necessary equipment and publications were available.	—	—
2. Conducted a map reconnaissance of the terrain and route.	—	—
3. Selected personnel for reconnaissance team.	—	—
4. Conducted a route reconnaissance to determine best access to destination and to ensure safety of personnel and equipment.	—	—
5. Reconned terrain to determine suitability for maintenance site use, to determine best avenues of entry and exit, and to ensure safety of personnel and equipment.	—	—
6. Reported findings and conclusions to supervisors.	—	—

**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 4-30.3  
FM 5-170

**Related**

**Supervise Maintenance Operations****091-CLT-3009**

**Conditions:** In a contemporary operating environment given maintenance personnel, equipment, maintenance facility/site, standing operating procedures (SOPs), and applicable references.

**Standards:** Established and maintained an effective maintenance shop operation in accordance with SOP and applicable references.

**Performance Steps**

1. Ensure unit maintenance procedures are in accordance with AR 750-1, DA Pamphlet 750-3, and local and major command (MACOM) policies.
  - a. Review unit SOPs for maintenance.
  - b. Inform unit personnel of changes in policy and new policy that impacts unit SOP.
2. Provide technical assistance to unit maintenance activities.
  - a. Inspect unit maintenance operations.
  - b. Identify shortcomings.
  - c. Make recommendations for corrective actions.
  - d. Provide training in maintenance procedures.
  - e. Provide training and technical assistance as needed for operations under extreme heat (up to 125 degrees F).
    - (1) Cooling systems. Check coolant level daily. Maintain coolant levels approximately two inches below the radiator overflow pipe if so equipped. Check radiator air passages for obstructions frequently. Check fan belt for proper tension. Check coolant temperature indicators frequently for any indication of overheating.
    - (2) Lubrication. Make sure that lubricants used are as specified for the prevailing ambient temperature in the current lubrication order.
    - (3) Fuel system. When filling the fuel tanks, allow sufficient space for fuel expansion.
    - (4) Batteries. Check electrolyte level frequently. Add distilled water as required to compensate for evaporation.
    - (5) Engine. Kept the external surface of the engine as clean as possible.
  - f. Provide training and technical assistance as needed for operations in dusty or sandy areas.
    - (1) General. If possible, provide shelter for the equipment. Use available natural barriers to shield the equipment from blowing dust or sand.
    - (2) Cleaning. Wipe dust and sand from the equipment frequently. When possible, thoroughly washed down with clean water.
    - (3) Engine. Shorten the service interval for the engine air cleaner and oil filter to compensate for intake of additional dust or dirt. Kept external surface of engine as clean as possible.
    - (4) Fuel systems. Drain sediment from fuel tanks, fuel strainers, and fuel filters frequently. Was particularly careful to prevent dust or dirt from entering the fuel tank/fuel system. Shorten the service intervals for the fuel filters appropriately.
    - (5) Lubrication. Lubrication intervals must be shortened appropriately. Use particular care to keep lubricants from becoming contaminated with dust or dirt.
3. Provide maintenance management to units.
  - a. Review reports (materiel condition status report [MCSR] and (unit level logistics system-ground [ULLS-G]).
  - b. Coordinate with higher-level maintenance activities.
  - c. Direct cross-leveling of maintenance assets/workloads.
  - d. Prioritize maintenance efforts of units.

**Performance Measures**

	<u>GO</u>	<u>NO-GO</u>
1. Ensured unit maintenance procedures are in accordance with AR 750-1, DA Pamphlet 750-3, and local and major command (MACOM) policies.	—	—
2. Provided technical assistance to unit maintenance activities.	—	—
3. Provided maintenance management to units.	—	—

**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**

<b>Required</b>	<b>Related</b>
AR 385-10	
AR 385-40	
AR 385-55	
AR 600-55	
AR 700-138	
AR 700-4	
AR 710-2	
AR 725-50	
AR 735-5	
AR 750-1	
AR 750-43	
DA PAM 25-30	
DA PAM 710-2-1	
DA PAM 710-2-2	
DA PAM 750-1	
DA PAM 750-3	
DA PAM 750-8	
FM 4-30.3	

**Interpret Maintenance Operational Overlay  
091-CLT-3010**

**Conditions:** In a contemporary operating environment given an operational overlay, map, maintenance situation/operation order (OPORD), and applicable references.

**Standards:** Interpreted the maintenance operational overlay by identifying key features and elements of the area of operations in accordance with applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured necessary references and materials were available.	—	—
2. Identified mapping symbols on the operational overlay.	—	—
3. Identified key features of the map and operational overlay.	—	—
4. Identified key elements of the area of operations on the map and operational overlay.	—	—
5. Updated the operational overlay, as necessary.	—	—

**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 1-02  
 FM 4-30.3  
 FM 5-170

**Related**

**Deploy Maintenance Support Teams  
091-CLT-3011**

**Conditions:** In a contemporary operating environment given a request for maintenance support/maintenance situation, map, operational overlay, grid coordinates of destination, vehicles, equipment, maintenance personnel, FM 4-30.3, and other applicable references.

**Standards:** Deployed the maintenance support team in accordance with the maintenance situation or request for maintenance support and applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Reviewed the request for maintenance support/maintenance situation.	—	—
2. Determined personnel and equipment requirements necessary to perform the mission.	—	—
3. Identified available resources for the support team, including personnel with applicable military occupational specialties (MOSs), vehicles, tools, test equipment, publications, repair parts, time, and facilities as necessary.	—	—
4. Determined requirements for defending the team.	—	—
5. Briefed the team on the mission.	—	—
6. Deployed the maintenance support team.	—	—

**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 4-30.3

**Related**  
FM 1-02  
FM 5-170

**Interpret a Standard Army Maintenance System (SAMS) Generated Maintenance Report  
091-CLT-3012**

**Conditions:** In a contemporary operating environment given a computer system or systems with Standard Army Maintenance System-Level 1 Enhanced (SAMS-1E) software, database of equipment files, SAMS operator, AISM 18-L21-AHN-BUR-UM, AISM 18-L26-AHO-BUR-EM, DA Form 2407 (Maintenance Request), DA Pamphlet 750-8, and applicable references.

**Standards:** Supervised SAMS-1 functions of a direct support level maintenance shop in accordance with applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured necessary equipment and publications were available.	—	—
2. Ensured SAMS operator was adequately trained.	—	—
3. Reviewed the SAMS-1 system and the flow of information to and from system interfaces.	—	—
4. Reviewed the purpose and use of SAMS-1 categories and codes.	—	—
5. Supervised the processing of maintenance requests (DA Form 2407).	—	—
6. Interpreted SAMS-1 reports to identify maintenance trends and problems.	—	—
7. Requested and interpreted ad hoc reports, as necessary.	—	—

**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**

AISM 18-L21-AHN-BUR-UM  
 AISM 18-L26-AHO-BUR-EM  
 DA FORM 2407  
 DA PAM 750-8

**Related**

**Manage the Unit Level Logistics System (ULLS)  
091-CLT-3013**

**Conditions:** In a contemporary operating environment given a computer system(s) with Unit Level Logistics System-Ground (ULLS-G) software, database of equipment files, associated Army Materiel Status System (AMSS) software, ULLS operator, and applicable references.

**Standards:** Supervised ULLS-G functions of a unit-level maintenance shop in accordance with applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured necessary equipment and references were available.	—	—
2. Ensured ULLS operator was properly trained.	—	—
3. Reviewed the ULLS flow of information to and from system interfaces.	—	—
4. Reviewed ULLS-G maintenance forms for accuracy.	—	—
5. Analyzed ULLS-G reports and data to identify maintenance trends and problems.	—	—
a. Document register.		
b. Prescribed load list (PLL) inventory report.		
c. Zero balance report.		
d. PLL excess management report.		
e. PLL inquiry.		
f. Non-mission capable (NMC) report.		
6. Analyzed AMSS reports and data to identify maintenance trends and problems.	—	—
a. AMSS authorization report.		
b. Projected Fully Mission Capable (FMC) Rates Report.		
c. Equipment exception report.		
d. System status summary.		
e. Class IX failure data by administrative number.		
f. Rollup by equipment identification code (EIC).		
g. Rollup by unit identification code (UIC).		
h. NMC report.		

**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**

<b>Required</b>	<b>Related</b>
AR 710-2	
DA PAM 710-2-1	

**Manage the Unit Army Oil Analysis Program (AOAP)  
091-CLT-3014**

**Conditions:** In a contemporary operating environment given Automated Oil Analysis Log Printout, unit and higher headquarters AOAP standing operating procedures (SOPs) and policies, and applicable references.

**Standards:** Managed the unit AOAP in accordance with applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured necessary publications were available.	—	—
2. Reviewed the objectives and policies of the AOAP.	—	—
3. Identified responsibilities of key AOAP personnel.	—	—
4. Ensured sampling intervals and procedures were followed.	—	—
5. Ensured samples were processed in accordance with applicable references and SOPs.	—	—
6. Ensured lab results were processed in accordance with applicable references and SOPs and follow-up actions were 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 PAM 750-8  
TB 43-0211

**Related**

**Deploy Company Maintenance Team/Recovery Support Team  
091-CLT-3015**

**Conditions:** In a contemporary operating environment given maintenance situation or a request for maintenance support, map, operational overlay, grid coordinates of destination, vehicles, equipment, maintenance personnel, FM 1-02, FM 4-30.3, and FM 5-170.

**Standards:** Deployed the company maintenance team or recovery support team in accordance with the maintenance situation or request for maintenance support and applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Reviewed the request for maintenance support or maintenance situation.	—	—
2. Determined personnel and equipment requirements necessary to perform the mission.	—	—
3. Identified available resources for the company maintenance team or recovery support team, including personnel with applicable MOSs, vehicles, tools, test equipment, publications, repair parts, time, and facilities, as necessary.	—	—
4. Determined requirements for defending the team.	—	—
5. Briefed the team on the mission:	—	—
a. Reviewed the operational overlay.		
b. Conducted a map reconnaissance of the route and destination.		
6. Deployed the maintenance support team.	—	—

**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 1-02  
FM 4-30.3  
FM 5-170

**Related**

**Review the Army Materiel Status System (AMSS) Reports  
091-CLT-3016**

**Conditions:** In a contemporary operating environment given AMSS reports produced from an ULLS-G system, AR 710-2, and DA Pamphlet 710-2-1.

**Standards:** Analyzed AMSS reports and data to identify maintenance trends and problems in accordance with applicable references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured necessary ULLS equipment and references were available.	—	—
2. Analyzed AMSS reports and data to identify maintenance trends and problems.	—	—
a. AMSS authorization report.		
b. Projected FMC rates report.		
c. Equipment exception report.		
d. System status summary.		
e. Class IX failure data by administrative number.		
f. Rollup by EIC.		
g. Rollup by UIC.		
h. NMC report.		

**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**

AR 710-2

DA PAM 710-2-1

**Related**

Subject Area 1: METAL WORKER TASKS (SL3)

**Create Complex Sketch or Drawing Requiring Welding of Parts  
091-44E-3002**

**Conditions:** In a field or garrison environment, given a tape, scale, pencil, paper, triangles, tee square, and drafting board, applicable maintenance forms and technical publications.

**Standards:** Prepared shop drawings/sketches in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work request.	_____	_____
2. Ensured task was within shop capability/function.	_____	_____
3. Ensured applicable technical publications were available.	_____	_____
4. Ensured proper equipment and supplies were available to prepare shop drawings/sketches.	_____	_____
5. Assigned personnel to perform task.	_____	_____
6. Ensured all safety precautions and procedures were followed.	_____	_____
7. Provided assistance when necessary.	_____	_____
8. Ensured the shop drawings/sketches were prepared in accordance with appropriate technical manuals and references.	_____	_____
9. Conducted an in-process inspection.	_____	_____
10. Performed a final inspection to ensure drawings/sketches were prepared in accordance with appropriate technical manuals and references.	_____	_____
11. Critiqued personnel on their job performance.	_____	_____

**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 5-553  
ORD ST 9-166

**Related**

**Direct Shielded Metal Arc Welding (SMAW) Operations**  
**091-44E-3003**

**Conditions:** In field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, welder's tool kit, SMAW equipment, electrodes, low carbon steel coupons, additional tools, equipment specified in TMs, repair parts, safety equipment, and applicable maintenance forms and technical publications.

**Standards:** Directed all position SMAW, ferrous metal in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work requests or equipment inspection worksheets.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment were available to perform and inspect all position SMAW, ferrous metal.	—	—
5. Ensured that initial inspections were performed.	—	—
6. Assigned personnel to perform tasks.	—	—
7. Ensured all safety precautions and procedures were followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured all position SMAW, ferrous metal were performed in accordance with appropriate technical manuals and references. <ul style="list-style-type: none"> <li>a. Set up SMAW equipment for operations (ferrous metals).</li> <li>b. Performed all position SMAW.</li> <li>c. Inspected completed work.</li> </ul>	—	—
10. Conducted an in-process inspection.	—	—
11. Perform a final inspection to ensure all position SMAW, ferrous metal were performed in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms were completed as required.	—	—
14. Ensured tools and equipment were properly maintained.	—	—

**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**  
TC 9-237

**Related**

TM 9-3431-265-14&P  
TM 9-3431-272-13&P  
TM 9-4940-567-13&P

**Direct Gas Metal Arc Welding (GMAW) Operations  
091-44E-3004**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, GMAW equipment, welding shop, welder's tool kit, aluminum stock, stainless steel coupons, titanium, (titanium-specific tools, equipment, and supplies), welder's helmet, needle nose pliers, additional tools, equipment specified in technical manuals (TMs), repair parts, safety equipment, applicable maintenance forms, and technical publications, and supervision/assistance.

**Standards:** Supervised all position GMAW ferrous/nonferrous titanium metal in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work request or equipment inspection worksheet.	—	—
2. Ensured task were within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment were available to perform and inspect all position GMAW ferrous/nonferrous/titanium metal.	—	—
5. Performed initial inspection.	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures were followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured all position GMAW ferrous/nonferrous/titanium metal was performed in accordance with appropriate technical manuals and references.	—	—
a. Set up GMAW equipment for ferrous metal.		
b. Performed GMAW ferrous metal.		
c. Set up GMAW equipment for nonferrous metal.		
d. Performed GMAW nonferrous metal.		
e. Set up GMAW equipment for titanium metal.		
f. Performed GMAW titanium metal.		
g. Visually inspected welds.		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure all position GMAW ferrous/nonferrous/titanium metals were performed in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms are completed as required.	—	—
14. Ensured tools and equipment are properly maintained.	—	—

**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**  
TC 9-237

**Related**

TM 9-3431-265-14&P  
TM 9-3431-272-13&P  
TM 9-4940-567-13&P

**Direct Flux-Cored Arc Welding (FCAW) Operations**  
**091-44E-3005**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, trailer-mounted welding shop, FCAW equipment, welder's tool kit, protective clothing and equipment, additional tools, equipment specified in technical manuals (TMs), repair parts, and applicable maintenance forms and technical publications.

**Standards:** Supervised all position FCAW welding operations, ferrous/nonferrous metal in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work request or equipment inspection worksheet.	—	—
2. Ensured task was within shop capacity/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment. were available to direct the performance of arc-welding (FCAW) operations.	—	—
5. Performed initial inspection	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures were followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured that materials for all position FCAW welding was prepared. <ul style="list-style-type: none"> <li>a. Determined and selected the size and type of material.</li> <li>b. Selected filler material.</li> <li>c. Laid out materials, if appropriate.</li> <li>d. Cleaned metal to be welded.</li> </ul>	—	—
10. Set up all position FCAW welding equipment. <ul style="list-style-type: none"> <li>a. Selected appropriate welding tip.</li> <li>b. Selected type of joint (tee, butt, corner, lap, edge).</li> </ul>	—	—
11. Directed proper performance of all position FCAW welding.	—	—
12. Conducted an in-process inspection.	—	—
13. Performed a final inspection to ensure all flux-cored arc welding operations were performed in accordance with appropriate technical manuals and references.	—	—
14. Critiqued personnel on their job performance.	—	—
15. Ensured maintenance forms were completed as required.	—	—
16. Ensured tools and equipment were properly maintained.	—	—

**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**

TC 9-237

**Related**

TM 9-3431-265-14&P

TM 9-3431-272-13&P

TM 9-4940-567-13&P

**Direct Gas Tungsten Arc Welding (GTAW) Operations**  
**091-44E-3006**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, GTAW equipment, welding shop, welder's tool kit, aluminum stock, stainless steel coupons, titanium, welder's helmet, needle nose pliers, safety equipment, additional tools, equipment specified in technical manuals (TMs), repair parts, and applicable maintenance forms and technical publications.

**Standards:** Supervised all position GTAW ferrous/nonferrous titanium metal in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work request or equipment inspection worksheet.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment were available to perform and inspect all position GTAW, ferrous/nonferrous/titanium metal.	—	—
5. Performed initial inspection.	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures were followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured all position GTAW ferrous/nonferrous/titanium metal was performed in accordance with appropriate technical manuals and references.	—	—
a. Ferrous metal.		
(1) Set up GTAW equipment for ferrous metal.		
(2) Performed GTAW ferrous metal.		
(3) Visually inspected weld.		
b. Nonferrous metal.		
(1) Set up GTAW equipment for non-ferrous metal.		
(2) Performed GTAW non-ferrous metal.		
(3) Visually inspected weld.		
c. Titanium metal.		
(1) Set up GTAW equipment for titanium metal.		
(2) Performed GTAW titanium metal.		
(3) Visually inspected weld.		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure all position GTAW ferrous/nonferrous/titanium metal was in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms were completed as required.	—	—
14. Ensured tools and equipment were properly maintained.	—	—

**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**  
TC 9-237

**Related**

TM 9-3431-265-14&P  
TM 9-3431-272-13&P  
TM 9-4940-567-13&P

**Direct Oxy-Fuel Cutting Operations**

**091-44E-3007**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, welder's tool kit, oxy-fuel torch set, oxy-fuel cutting attachment, cutting booth, soapy water solution, armor plates, additional tools, equipment specified in technical manuals (TMs), repair parts, safety equipment, applicable maintenance forms, and technical publications, and supervision/assistance.

**Standards:** Supervised all oxyacetylene cutting operations in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work requests or equipment inspection worksheets.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment were available to perform and inspect all oxyacetylene cutting operations.	—	—
5. Performed initial inspection.	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures were followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured all oxyacetylene cutting operations were performed in accordance with appropriate technical manuals and references.	—	—
a. Determined the size and type of material.		
b. Set up oxyacetylene welding set with cutting attachment.		
c. Laid out materials, if appropriate.		
d. Selected appropriate cutting tip.		
e. Adjusted oxygen and acetylene working pressure.		
f. Visually inspected the finished cut.		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure all oxyacetylene cutting operations were performed in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms are completed as required.	—	—
14. Ensured tools and equipment were properly maintained.	—	—

**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**

TC 9-237

**Related**

TM 9-3431-265-14&P

TM 9-3431-272-13&P

TM 9-4940-567-13&P

**Set Up Field Welding Operations**

**091-44E-3008**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, welding shop (trailer mounted) with accessories, general mechanic's tool kit, additional tools, equipment specified in technical manuals (TMs), repair parts, safety equipment, and applicable maintenance forms and technical publications.

**Standards:** Supervised the set up of fixed-welding operations in accordance with applicable technical publications.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Reviewed work request or equipment inspection worksheet.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment were available to set up and inspect the field welding operations.	—	—
5. Performed initial inspection.	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures were followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured the field welding operations were set up in accordance with appropriate technical manuals and references.	—	—
a. Set up the trailer mounted welding shop for SMAW operations.		
b. Set up the trailer mounted welding shop for GTAW operations.		
c. Set up the trailer mounted welding shop for GMAW operations.		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure the set up of all field welding operations was set up in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms are completed as required.	—	—
14. Ensured tools and equipment are properly maintained.	—	—

**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**  
TC 9-237

**Related**  
TM 9-3431-265-14&P  
TM 9-3431-272-13&P  
TM 9-4940-567-13&P

**Direct Plasma Arc Cutting Operations**  
**091-44E-3009**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, welding shop (trailer mounted), copper coated carbon electrodes, steel coupons, additional tools, equipment specified in technical manuals (TMs), repair parts, safety equipment, and applicable maintenance forms and technical publications.

**Standards:** Supervised plasma arc cutting operations in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work request or equipment maintenance worksheet.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment were available to perform and inspect plasma arc cutting operations.	—	—
5. Performed initial inspection.	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures are followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured plasma arc cutting operations were performed in accordance with appropriate technical manuals and references.	—	—
a. Set up plasma arc equipment.		
b. Performed plasma arc cutting.		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure operations were performed in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms were completed as required.	—	—
14. Ensured tools and equipment were properly maintained.	—	—

**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**  
TC 9-237

**Related**  
TM 9-3431-265-14&P  
TM 9-3431-272-13&P  
TM 9-4940-567-13&P

**Manage a Metal Working Shop Quality Control Program to Include Performance of Non-destructive Testing Techniques**

**091-44E-3010**

**Conditions:** In a field or garrison environment, given metal samples, bench utility grinder, Goggles, Safety Glasses or Faceshield and applicable maintenance forms and technical publications.

**Standards:** Prepared a Quality Control Program and performed spot-check inspections utilizing nondestructive testing, in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work request.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Assigned personnel to perform task.	—	—
5. Ensured proper tools and equipment were available to perform identification of metals using the spark, visual and chemical methods on ferrous or non-ferrous metals.	—	—
6. Ensured all safety precautions and procedures were followed.	—	—
7. Provided assistance when necessary.	—	—
8. Ensured proper tools and equipment were available to perform visual weld inspection.	—	—
9. Ensured visual weld inspection was performed in accordance with appropriate technical manuals and references.	—	—
a. Applied procedures for inspecting welds (destructive methods).		
(1) Cross sectional inspecting procedures.		
(2) Tensile strength test inspecting procedures.		
b. Applied procedures for inspecting welds (non-destructive methods).		
(1) Visual method.		
(2) Dye-penetrant method.		
(3) Magnetic particle method. (If available)		
(4) X-ray method. (IF available)		
(5) Ultrasonic method. (If available)		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure weld was performed in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms were completed as required.	—	—
14. Ensured tools and equipment were properly maintained.	—	—

**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**

TC 9-237

TC 9-524

**Related**

TM 9-3431-265-14&P

TM 9-3431-272-13&P

TM 9-4940-567-13&P

**Manage Glass, Fuel Tank, and Radiator Repair Operations  
091-44E-3011**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, fuel tank, oxy-fuel welding set, explosive meter, welder's tool kit, air compressor, rubber plug set, nonelectric soldering copper, 18-gauge galvanized steel, tin snips, soft solder, soldering flux, fire extinguisher, solvent, clean rags, flexible exhaust hose, water hose, steam cleaner, radiator test tank, additional tools, equipment specified in technical manuals (TMs), repair parts, safety equipment, and applicable maintenance forms and technical publications.

**Standards:** Supervised the repair operations of glass, fuel tank, and radiators in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work request or equipment maintenance worksheet.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment were available to perform and inspect repair operations.	—	—
5. Performed initial inspection.	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures were followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured repair operations were performed in accordance with appropriate technical manuals and references.	—	—
a. Inspected glass, fuel tank , and/or radiator for damage.		
b. Completed necessary repairs.		
c. Inspected all repairs.		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure repairs were performed in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms were completed as required.	—	—
14. Ensured tools and equipment were properly maintained.	—	—

**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**

- TC 9-237
- TC 9-510
- TM 750-254

**Related**

- TM 9-3431-265-14&P
- TM 9-3431-272-13&P
- TM 9-4940-567-13&P

**Manage Tactical Vehicle Structural Repair Operations**  
**091-44E-3012**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, body and fender tool kit, metal body repair tools (electric, pneumatic, and hydraulic tools), damaged vehicle, additional tools, equipment specified in technical manuals (TMs), repair parts, safety equipment, and applicable maintenance forms and technical publications.

**Standards:** Supervised repair/replacing structural components in accordance with applicable technical publications.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Reviewed work request or equipment maintenance worksheet.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment re available to perform and inspect repair/replacing structural components.	—	—
5. Performed initial inspection.	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures were followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured repair/replacing structural components was performed in accordance with appropriate technical manuals and references.	—	—
a. Identified repair tools and their use.		
b. Analyzed damages.		
c. Analyzed vehicle structural repair sequence.		
d. Performed metal roughing and aligning (bumping).		
e. Performed hammering operations.		
f. Performed filling procedures.		
g. Performed sanding procedures.		
h. Mixed body plastics.		
i. Applied body plastics.		
j. Performed heat-shrinking operations.		
k. Fabricated structural components		
l. Identified components for replacement.		
m. Performed riveting operations.		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure repair/replacing structural components was performed in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms were completed as required.	—	—
14. Ensured tools and equipment were properly maintained.	—	—

**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**  
TC 9-510

**Related**

**Perform Precision Lay Out  
091-44E-3013**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, parallels, V-block and clamp, vernier height gauge, surface plate, angle plate, sine bar, layout dye, vernier caliper, additional tools, equipment specified in technical manuals (TMs), repair parts, safety equipment, and applicable maintenance forms and technical publications.

**Standards:** Supervised layout of a workpiece in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work request or equipment maintenance worksheet.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment were available to perform and inspect laying out a workpiece.	—	—
5. Performed initial inspection.	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures were followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured laying out a workpiece was performed in accordance with appropriate technical manuals and references.	—	—
a. Used precision layout tools.		
b. Performed layout preparation procedures.		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure laying out a workpiece was performed in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms are completed as required.	—	—
14. Ensured tools and equipment are properly maintained.	—	—

**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**  
TC 9-237

**Related**

Subject Area 2: MACHINIST TASKS (SL3)

**Develop a Process Plan for a Part Requiring Milling, Drilling, Turning, or Grinding.  
091-44E-3014**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, maintenance forms, technical publications, and a list of required tools, fixtures, and cutting fluids needed.

**Standards:** Prepared/Supervised the development of a process plan for a part requiring milling, drilling, turning, or grinding.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Reviewed work request or equipment inspection worksheet.	—	—
2. Ensured task was within shop capacity/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools, equipment, and set of strategies were available to develop the process plan.	—	—
5. Assigned personnel to perform the task.	—	—
6. Ensured all safety precautions and procedures were followed.	—	—
7. Provided assistance when necessary.	—	—
8. Ensured that the process plan included the following:	—	—
a. Formation of a set of strategies to manufacture the part.		
b. Completion of an operation sheet that reflected the chosen strategies, including the required speeds and feeds.		
c. Explanation of the steps in the process plan.		
d. Identification of all major components and functions of the machine tools, all major hand tools, fixtures, cutting fluids, and work materials.		
9. Conducted and in-process inspection.	—	—
10. Performed a final inspection to ensure the process plan was developed in accordance with appropriate technical manuals and references.	—	—
11. Critiqued personnel on their job performance.	—	—
12. Ensured maintenance forms were completed and required.	—	—
13. Ensured tools and equipment was properly maintained.	—	—

**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 5-553  
TC 9-515

**Related**  
TM 9-243

**Direct Lathe Operations**

**091-44E-3015**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, machine shop field maintenance equipment, lathe with attachments, machinist's tool kit, test bar, shop drawing, workpiece, cutting oil, additional tools, equipment specified in technical manuals (TMs), repair parts, safety equipment, and applicable maintenance forms and technical publications.

**Standards:** Perform/Supervised facing, straight, and shoulder turning on a lathe in accordance with applicable technical publications.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Reviewed work request.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment were available to perform facing, straight, and shoulder turning on a lathe.	—	—
5. Performed initial inspection.	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures were followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured facing, straight, and shoulder turning on a lathe were performed in accordance with appropriate technical manuals and references.	—	—
a. Set up lathe for facing.		
b. Performed facing procedures.		
c. Set up lathe for straight turning.		
d. Performed straight turning procedures.		
e. Set up lathe for shoulder turning.		
f. Performed shoulder turning procedures.		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure facing, straight, and shoulder turning was performed in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms were completed as required.	—	—
14. Ensured tools and equipment were properly maintained.	—	—

**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**  
 TC 9-524  
 TM 9-3416-225-12

**Related**

**Direct Conventional and Versa Mil Milling Operations  
091-44E-3016**

**Conditions:** In a field or garrison environment, given a maintenance request or equipment inspection worksheet describing repair/fabrication requirements, machine shop field maintenance equipment, milling machine with attachments, additional tools, equipment specified in technical manuals (TMs), repair parts, safety equipment, and applicable maintenance forms and technical publications.

**Standards:** Perform/Supervised milling operations in accordance with applicable technical publications.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Reviewed work request or equipment maintenance worksheet.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment were available to perform and inspect milling operations (advanced applications).	—	—
5. Performed initial inspection.	—	—
6. Assigned personnel to perform task.	—	—
7. Ensured all safety precautions and procedures were followed.	—	—
8. Provided assistance when necessary.	—	—
9. Ensured milling operations (advanced applications) were performed in accordance with appropriate technical manuals and references.	—	—
a. Set up milling machine for advanced applications.		
b. Performed milling operations (advanced applications).		
(1) Performed milling operations with a rotary table.		
(2) Performed milling operations with a boring head.		
(3) Performed indexing operations.		
c. Measured finished workpiece for accuracy.		
10. Conducted an in-process inspection.	—	—
11. Performed a final inspection to ensure that milling operations (advanced applications) were performed in accordance with appropriate technical manuals and references.	—	—
12. Critiqued personnel on their job performance.	—	—
13. Ensured maintenance forms were completed as required.	—	—
14. Ensured tools and equipment were properly maintained.	—	—

**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**  
TC 9-524  
TM 9-3417-210-10

**Related**  
TC 9-237  
TC 9-515

**Apply Geometric, Algebraic, and Basic Trigonometric Concepts to Machining Tasks  
091-44E-3017**

**Conditions:** In a field or garrison environment, given a ruler, plain paper, pencil, calculator, applicable technical publications, and supervision/assistance.

**Standards:** Used mathematic skills and concepts commonly used in the machining industry (such as using trade formulas to prepare a process plan) to solve for one unknown in order to do metal working/machining task, in accordance with applicable technical publications.

<b>Performance Measures</b>	<u>GO</u>	<u>NO-GO</u>
1. Reviewed work request or equipment maintenance worksheet.	—	—
2. Ensured task was within shop capability/authorization.	—	—
3. Ensured applicable technical publications were available.	—	—
4. Ensured proper tools and equipment were available to perform and inspect laying out a workpiece.	—	—
5. Applied mathematical concepts to machining tasks.	—	—
a. Rules for determining the height of the sine bar for a given angle		
b. Rules for figuring tapers		
c. Trigonometry formulas		

**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**  
TC 9-515

**Related**

Skill Level 4

Subject Area 1: COMMON LOGISTICS TASKS

**Perform Senior Rater Responsibilities for a Maintenance Section  
091-CLT-4001**

**Conditions:** In a Contemporary Operating Environment, given a noncommissioned officer evaluation report (NCOER) with the rater's portion completed, accompanying counseling statements, and AR 623-3.

**Standards:** Performed senior rater's responsibilities in accordance with applicable references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured all materials and references were available.	—	—
2. Reviewed quarterly counseling that supported the NCOER.	—	—
3. Reviewed the administrative data and rater's portions of the NCOER for accuracy and content.	—	—
4. Prepared the senior rater's portion of the NCOER.	—	—
5. Ensured the NCOER was submitted for review and further processing.	—	—

**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**  
AR 623-3

**Related**

**Supervise Platoon/Section Administrative Procedures  
091-CLT-4002**

**Conditions:** In a Contemporary Operating Environment, given situation(s) requiring platoon/section administrative procedures supervision and applicable forms, records, and publications.

**Standards:** Supervised platoon or section administrative procedures in accordance with applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Established files using the Army Records Information Management System (ARIMS). a. Prepared file folders and guides. b. Arranged file folders and guides. c. Prepared file drawer labels. d. Prepared a list of file numbers.	—	—
2. Processed a recommendation for award.	—	—
3. Processed and updated a flag on records.	—	—
4. Verified the accuracy of Suspension of Favorable Action Report.	—	—
5. Processed and updated a bar to reenlistment.	—	—
6. Processed a chapter action. a. Selected appropriate type of chapter action and identified separation guidelines. b. Initiated and followed up on the chapter action.	—	—
7. Processed a recommendation for advancement/promotion.	—	—
8. Verified accuracy of Enlisted Promotion Report (AAC-C01).	—	—
9. Assisted a subordinate noncommissioned officer (NCO) who had received notice of selection to be released under the Qualitative Management Program (QMP).	—	—

**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**  
AR 25-400-2  
AR 600-8-2  
AR 614-200  
AR 635-200

**Related**

**Manage Combat Stress****091-CLT-4003**

**Conditions:** In a Contemporary Operating Environment, given a situation requiring stress management and FM 22-51.

**Standards:** Managed combat stress in accordance with applicable reference.

**Performance Measures**

	<u>GO</u>	<u>NO-GO</u>
1. Identified sources of combat stress.	—	—
2. Identified the signs and classifications of battle fatigue.	—	—
3. Identified signs of stress in self, others, and the unit.	—	—
4. Took appropriate steps to reduce and/or prevent stress.	—	—

**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 22-51

**Related**

**Ensure Maintenance Operations are in Compliance With the Army Environmental Program  
091-CLT-4004**

**Conditions:** In a Contemporary Operating Environment, given a maintenance facility/site, maintenance personnel and equipment, and applicable references.

**Standards:** Ensured maintenance operations were in compliance with the Army Environmental Program and other regulatory publications.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured all publications were available.	—	—
2. Reviewed maintenance SOP for the following to ensure environmental policies and procedures were adequately addressed. <ul style="list-style-type: none"> <li>a. Environmental strategies of compliance, restoration, prevention, and conservation.</li> <li>b. Federal, state, local, and host nation laws and regulations.</li> </ul>	—	—
3. Updated, changed, or amended standing operating procedure (SOP), as necessary.	—	—
4. Ensured all Soldiers had received training on environmental laws, regulations, policies, and procedures.	—	—
5. Ensured inspections for hazardous material (HAZMAT) were conducted as required.	—	—

**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**  
AR 385-10  
AR 40-5  
FM 4-30.3

**Related**

**Enforce Compliance With the Shop Safety Program  
091-CLT-4005**

**Conditions:** In a Contemporary Operating Environment, given a maintenance site/facility, maintenance personnel, unit safety standing operating procedure (SOP), and applicable references.

**Standards:** Enforced compliance with the shop safety program in accordance with applicable references and unit safety SOP.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured all safety references were on hand.	—	—
2. Ensured all safety equipment was on hand, accessible, and properly maintained.	—	—
3. Ensured all Soldiers were regularly updated on the shop safety program.	—	—
4. Ensured periodic safety inspections were being conducted and safety concerns and violations were being corrected.	—	—
5. Ensured safety violations were being documented and reported as required and follow-ups were being conducted.	—	—
6. Inspected records of safety inspections and accident reports for accuracy and completeness.	—	—
7. Inspected Material Safety Data Sheets (MSDS) to ensure that they were posted and maintained in applicable work areas.	—	—
8. Performed periodic safety spot checks and inspections for safety awareness and systemic safety problems.	—	—
a. Performed on-the-spot corrections.		
b. Performed follow-ups.		

**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**  
 AR 385-10  
 AR 385-40  
 AR 385-55  
 AR 614-200  
 DA PAM 385-1  
 TB 43-0142  
 TB MED 524

**Related**

**Coordinate Support for the Maintenance Platoon/Section  
091-CLT-4006**

**Conditions:** In a Contemporary Operating Environment, given an operation order (OPORD)/maintenance situation, a maintenance platoon or section with personnel and equipment, standing operating procedure (SOP), and applicable references.

**Standards:** Coordinated support for the maintenance platoon or section in accordance with SOP and applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Evaluated the tactical situation and OPORD requirements.	—	—
2. Determined support needed at each location.	—	—
3. Notified parent and supported units of support requirements.	—	—
4. Followed up to ensure support had been coordinated and was being provided.	—	—
a. Notified appropriate parent and supported units to resolve any problems.		
b. Addressed problems in after action review (AAR).		

**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 4-30.3

**Related**

**Select a Field Maintenance Site  
091-CLT-4007**

**Conditions:** In a Contemporary Operating Environment, given an operation order (OPORD) to establish a field maintenance site, maintenance personnel, equipment, and references.

**Standards:** Selected a field maintenance site in accordance with the OPORD and applicable reference.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Considered the following elements of a good field maintenance site during the selection process.	—	—
a. Area should be reasonably flat and have good drainage.		
b. Area should have firm soil to permit parking and movement of heavy vehicles and equipment.		
c. Area should be accessible to support units.		
d. Terrain should facilitate defense.		
e. Area should be near built-up areas that can be used for mission support.		
2. Performed a map reconnaissance to determine possible sites.	—	—
3. Performed an area reconnaissance and site recons to determine the best site.	—	—
4. Informed higher headquarters of the field maintenance site location.	—	—
5. Relocated to the new field maintenance site.	—	—

**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 4-30.3

**Related**

**Prepare an Operational Overlay for Maintenance Operations  
091-CLT-4008**

**Conditions:** In a Contemporary Operating Environment, given a map, overlay material, maintenance situation/operation order (OPORD), and applicable references.

**Standards:** Prepared an operational overlay for maintenance operations by depicting key activities and elements within the area of operation in accordance with applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured necessary references and materials were available.	—	—
2. Placed units and activities on the maintenance operations overlay using the appropriate symbols.	—	—
3. Placed key features of the area of operation on the overlay.	—	—
4. Updated the operational overlay, as necessary.	—	—

**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 1-02
- FM 4-30.3
- FM 5-170

**Related**

**Control Flow of Work Through the Maintenance Shop  
091-CLT-4009**

**Conditions:** In a Contemporary Operating Environment, given a maintenance shop including personnel, work orders, and applicable references.

**Standards:** Controlled the flow of work within the maintenance shop to ensure maximum production, effective use of personnel and facilities, and orderly progression of work so that overloads were prevented or corrected, and the shop was working near capacity with a manageable backlog.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Screened maintenance requests.	—	—
2. Assigned work to the appropriate shop section.	—	—
3. Maintained workload status for the various sections.	—	—
4. Directed repair priorities and additional actions (evacuation, operational readiness float [ORF], intra-shop, deferred), as applicable.	—	—
5. Ensured shop supply section orders and maintained repair parts as required.	—	—
6. Improved operational procedures where necessary.	—	—

**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 4-30.3  
TC 43-4

**Related**

**Integrate Automated Logistics Support Systems  
091-CLT-4010**

**Conditions:** In a Contemporary Operating Environment, given a Unit Level Logistics System-Ground (ULLS-G) computer system with software and equipment data base in a unit-level maintenance shop, a Standard Army Maintenance System-1 (SAMS-1) computer system with software and database in a direct support (DS)-level maintenance shop, a Standard Army Maintenance System-2 (SAMS-2) computer system with software and data base in a support operations section, and applicable publications.

**Standards:** Integrated automated logistics support systems in a maintenance shop in accordance with applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Identified the architecture and interface of Army automated logistics systems.	—	—
2. Supervised ULLS-G functions in a unit level maintenance shop.	—	—
3. Supervised SAMS-1 functions in a DS level maintenance shop.	—	—
4. Supervised SAMS-2 functions in a support operations section.	—	—
5. Interfaced with Standard Army Retail Supply System-Objective (SARSS-O) for supply functions.	—	—

**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**

<b>Required</b>	<b>Related</b>
AIMS 18-L21-AHN-BUR-UM	
AIMS 18-L26-AHO-BUR-EM	
AR 710-2	
DA PAM 710-2-1	
DA PAM 750-8	

**Plan Logistics Support for Maintenance Operations  
091-CLT-4011**

**Conditions:** In a Contemporary Operating Environment, given an operation order (OPORD)/maintenance situation, maintenance personnel and equipment, and applicable references.

**Standards:** Planned logistics support for maintenance operations in accordance with applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Assessed the combat situation.	—	—
2. Determined support needed.	—	—
a. People (skills and numbers).		
b. Equipment (transportation, tools, test, measurement, and diagnostic equipment [TMDE], and communications).		
c. Supplies (components, assemblies, and repair parts).		
3. Organized resources to provide needed support.	—	—
4. Followed these planning considerations:	—	—
a. Number and type of units supported.		
b. Stock levels for repair parts.		
c. Forward displacement of maintenance support teams and maintenance collection points.		
d. Channels and procedures for recovery, collection, evacuation, and disposition of captured or abandoned materiel.		

**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 4-30.3

**Related**

**Monitor the Preparation and Disposition of the Army Materiel Status System (AMSS) Reports  
091-CLT-4012**

**Conditions:** In a Contemporary Operating Environment, given a unit level logistics system-ground (ULLS-G) computer system with AMSS software, AMSS reports produced from a ULLS-G system, and applicable references.

**Standards:** Verified accuracy of AMSS report data, identified maintenance trends and problems, and ensured timely completion and forwarding of reports in accordance with applicable references and standing operating procedure (SOP).

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured necessary ULLS equipment and references were available.	—	—
2. Checked AMSS report data for accuracy and completeness.	—	—
3. Analyzed AMSS reports and data to identify maintenance trends and problems.	—	—
4. Notified supported units, logistics assistance office/logistics assistance representative, and chain of command (as necessary) to resolve problems and prevent future occurrences.	—	—
5. Ensured AMSS reports were completed and forwarded through appropriate channels in accordance with SOP.	—	—

**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**

- AR 710-2
- DA PAM 710-2-1
- DA PAM 750-8

**Related**

**Analyze the Prescribed Load List (PLL) Report  
091-CLT-4013**

**Conditions:** In a Contemporary Operating Environment, given PLL reports produced by Unit Level Logistics System-Ground (ULLS-G) system and applicable references.

**Standards:** Analyzed the PLL reports to ensure inventory accuracy and identified potential supply shortages and problems impacting on maintenance readiness in accordance with references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured reports and references were available.	—	—
a. PLL inventory report.		
b. Zero balance report.		
c. PLL excess management report.		
d. PLL inquiries, as needed.		
e. Non-mission capable (NMC) report.		
2. Performed random inventory checks and resolved discrepancies.	—	—
3. Determined expedient measures necessary to resolve non-mission capable-supply (NMC-S) equipment awaiting PLL items on the zero balance report.	—	—
4. Resolved discrepancies in report data within the ULLS-G 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**

- AR 710-2
- DA PAM 710-2-1
- DA PAM 750-8

**Related**

**Monitor Quality Control Program  
091-CLT-4014**

**Conditions:** In a Contemporary Operating Environment, given a maintenance facility/site, maintenance personnel, maintenance standing operating procedure (SOP), and applicable references.

**Standards:** Monitored the quality control program to ensure quality of work in accordance with cited references.

<b>Performance Measures</b>	<u>GO</u>	<u>NO-GO</u>
1. Ensured quality assurance/quality control (QA/QC) inspectors were adequately trained and knowledgeable in their respective maintenance areas and were on orders, if required by SOP, from the commander.	—	—
2. Ensured QA/QC inspectors followed maintenance SOP guidelines and procedures and appropriate technical manual (TM) procedures for initial and final inspections.	—	—
3. Performed periodic checks of inspectors work for accuracy of initial diagnosis and quality of final inspections.	—	—
4. Ensured supervisors were conducting in-process inspections of work done by mechanics and technicians.	—	—

**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**

AR 710-2  
DA PAM 710-2-1  
FM 4-30.3

**Related**

**Analyze Bench Stock Listing**  
**091-CLT-4015**

**Conditions:** In a Contemporary Operating Environment, given a Standard Army Maintenance System-1 (SAMS-1) generated bench stock listing (AHN-023) and applicable references.

**Standards:** Analyzed bench stock listing to identify supply problems that may impact maintenance readiness in accordance with cited references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured report and references were available.	—	—
2. Performed random bench stock inventory checks.	—	—
3. Determined expedient measures necessary to resolve non-mission capable-supply (NMC-S) equipment awaiting bench stock items.	—	—
4. Resolved any discrepancies in report data in the SAMS-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**

AISM 18-L21-AHN-BUR-UM  
AR 710-2  
DA PAM 710-2-1  
DA PAM 750-8

**Related**

**Analyze Open Work Request Reconciliation Listing  
091-CLT-4016**

**Conditions:** In a Contemporary Operating Environment, given a Standard Army Maintenance System-1 (SAMS-1) generated open work request reconciliation listing and applicable references.

**Standards:** Analyzed the open work request reconciliation listing in accordance with cited references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured references and equipment were available.	—	—
2. Conducted face-to-face reconciliation with team chief.	—	—
3. Supervised Standard Army Maintenance System (SAMS) operator on purging operations.	—	—
4. Supervised SAMS operator on mail status returned on organizational disk.	—	—
5. Improved operational procedures where necessary.	—	—

**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**

AIMS 18-L21-AHN-BUR-UM

AIMS 18-L26-AHO-BUR-EM

**Related**

**Analyze Completed Shop Workload Summary  
091-CLT-4017**

**Conditions:** In a Contemporary Operating Environment, given a Standard Army Maintenance System-1 (SAMS-1) generated completed shop workload summary report and applicable references.

**Standards:** Analyzed the completed shop workload summary report in accordance with cited references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured references and equipment were available.	—	—
2. Assigned workload to personnel, as required.	—	—
3. Tracked status of all jobs requiring parts.	—	—
4. Ensured once job was completed, parts were turned in and paperwork was completed in accordance with local standing operating procedure (SOP).	—	—
5. Improved operational procedures where necessary.	—	—

**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**

AIMS 18-L21-AHN-BUR-UM

AIMS 18-L26-AHO-BUR-EM

**Related**

**Analyze Shop Deadline and Deferred Workload Listing**  
**091-CLT-4018**

**Conditions:** In a Contemporary Operating Environment, given a Standard Army Maintenance System-1 (SAMS-1) generated shop deadline and deferred workload listing report and applicable references.

**Standards:** Analyzed the shop deadline and deferred workload listing report in accordance with cited references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured references and equipment were available.	—	—
2. Prioritized jobs by the status and priority code.	—	—
3. Tracked workload listing for proper status of operation and maintenance (O/M).	—	—
4. Supervised AHN-006, AHN-022, and AHN-026 reports.	—	—
5. Improved operational procedures, where necessary.	—	—

**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**

AIMS 18-L21-AHN-BUR-UM

AIMS 18-L26-AHO-BUR-EM

**Related**

**Analyze Shop Workload Summary Listing  
091-CLT-4019**

**Conditions:** In a Contemporary Operating Environment, given a Standard Army Maintenance System-1 (SAMS-1) generated shop workload summary listing, and applicable references.

**Standards:** Analyzed the shop workload summary listing in accordance with cited references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured references and equipment were available.	—	—
2. Assigned workload to personnel, as required.	—	—
3. Tracked status of all jobs requiring parts.	—	—
4. Ensured once job was completed, parts were turned in, and paperwork was completed in accordance with local standing operating procedure (SOP).	—	—
5. Improved operational procedures, where necessary.	—	—

**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**

AISM 18-L21-AHN-BUR-UM

AISM 18-L26-AHO-BUR-EM

**Related**

**Maintain Property Accountability**  
**091-CLT-4020**

**Conditions:** In a Contemporary Operating Environment, given property and tools, property book listing and/or hand receipts, blank forms, and applicable references.

**Standards:** Maintained property accountability in accordance with cited references.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Ensured all references, technical bulletins (TBs), supply catalogs (SCs), and forms were available.	—	—
2. Performed initial inventory of all property, tools, and equipment. <ul style="list-style-type: none"> <li>a. Completed shortage annexes, as necessary.</li> <li>b. Reported all shortages, as necessary.</li> <li>c. Initiated report of survey or other property loss actions, as necessary.</li> <li>d. Ordered replacement items.</li> </ul>	—	—
3. Prepared sub-hand receipts for subordinate sections.	—	—
4. Ensured subordinates inventoried all property, tools, and equipment on each respective sub-hand receipt and shortage annex and signed for property on-hand.	—	—
5. Signed for property on property book or hand receipts, as applicable.	—	—
6. Performed periodic inventories of tools and sensitive items, as required.	—	—
7. Performed periodic partial or full inventories, as required.	—	—

**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**

AR 710-2  
DA PAM 710-2-1

**Related**

**Prepare Standing Operating Procedures for Maintenance Operations  
091-CLT-4021**

**Conditions:** In a Contemporary Operating Environment, given FM 4-30.3, higher headquarters standing operating procedure (SOP), and commander's guidance.

**Standards:** Prepared a maintenance shop internal or external SOP for the commander's review, comment, and approval in accordance with cited references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured applicable publication was available.	—	—
2. Prepared a maintenance shop internal or external SOP.	—	—
3. Ensured unit policies and commander's guidance were followed.	—	—
4. Ensured shop operation policies were adequately addressed.	—	—
5. Updated the shop SOP, as required.	—	—

**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 4-30.3

**Related**

**Supervise the Deployment of Company Maintenance Team/Recovery Support Team/  
Maintenance Support Team**

**091-CLT-4022**

**Conditions:** In a Contemporary Operating Environment, given a request for maintenance support/maintenance situation, map, operational overlay, grid coordinates of destination, vehicle(s), equipment, maintenance personnel, and applicable references.

**Standards:** Supervised the deployment of company maintenance team and recovery support teams in accordance with the maintenance situation or request for maintenance support and cited reference.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Reviewed the request for maintenance support or maintenance situation.	—	—
2. Ensured personnel and equipment were available to perform the mission.	—	—
3. Ensured resources for the company maintenance team, recovery support team, and/or maintenance support team, including personnel with applicable MOS, vehicles, tools, test equipment, publications, repair parts, time, and facilities were appropriately identified.	—	—
4. Ensured requirements for defending the teams had been properly determined and arranged.	—	—
5. Ensured team leaders were briefed on the mission.	—	—
a. Reviewed the operational overlay.		
b. Conducted a map reconnaissance of the route and destination.		
6. Ensured the company maintenance team, recovery support team, and/or maintenance support team were deployed.	—	—

**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 1-02  
FM 4-30.3  
FM 5-170

**Related**

**Conduct a Route Reconnaissance for a Maintenance Mission  
091-CLT-4023**

**Conditions:** In a Contemporary Operating Environment, given a maintenance situation/operation order (OPORD), operational overlay, grid coordinates for a proposed route, map, vehicle with personnel, and applicable references.

**Standards:** Conducted a route reconnaissance for a given route identifying distances/times, problem areas along the route, possible bypasses or alternate routes, and prepared strip maps in accordance with the maintenance situation/OPORD and applicable references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured necessary equipment and publications were available.	—	—
2. Determined the route to be used for the maintenance mission.	—	—
3. Performed a map reconnaissance of the route.	—	—
4. Contacted units along the route and coordinated passage.	—	—
5. Selected personnel to conduct the reconnaissance.	—	—
6. Conducted a reconnaissance of the route by identifying the following key features.	—	—
a. Potential problem areas (that is, possible enemy contact, trafficability, and so forth).		
b. Possible bypasses and alternate routes.		
7. Recorded information on a strip map for use by the maintenance team.	—	—
8. Advised the commander or staff officer on use of the route for maintenance missions.	—	—

**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 4-30.3  
FM 5-170

**Related**

**Conduct an Area Reconnaissance for a Maintenance Mission  
091-CLT-4024**

**Conditions:** In a Contemporary Operating Environment, given a maintenance situation/operation order (OPORD), operational overlay, grid coordinates for a proposed occupation area, map, vehicle with personnel, and applicable references.

**Standards:** Performed an area reconnaissance, selecting the most appropriate location to establish a maintenance site in accordance with the maintenance situation or OPORD and cited reference.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Ensured necessary equipment and publications were available.	—	—
2. Performed a map reconnaissance of the area.	—	—
3. Selected personnel to conduct the reconnaissance.	—	—
4. Conducted a reconnaissance of the area to determine suitability for maintenance operations, accessibility in and out of the site, defendability, and actions required for the safety of personnel and equipment.	—	—
5. Advised the commander or staff officer on occupying the area of operations based upon the reconnaissance.	—	—

**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 4-30.3  
FM 5-170

**Related**

**Manage Battlefield Maintenance Support  
091-CLT-4025**

**Conditions:** In a Contemporary Operating Environment, given an operation order (OPORD)/maintenance situation, maintenance personnel, equipment, and applicable references.

**Standards:** Managed battlefield maintenance support in accordance with cited reference.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Assessed the combat situation and organized and prioritized support based on the type of operation.	—	—
a. Offensive operation.		
b. Defensive operation.		
2. Planned for and executed appropriate maintenance support.	—	—
a. Identified requirements.		
b. Identified available resources.		
(1) Personnel and skills.		
(2) Publications.		
(3) Time.		
(4) Facilities.		
(5) Test, measurement, and diagnostic equipment (TMDE) and tools.		
(6) Parts.		
c. Managed resources for maximum return, with priority on the following:		
(1) Maintenance support forward.		
(2) Commander's guidance.		
(3) Battle damage repair.		
(4) Controlled exchange.		
(5) Cannibalization.		
(6) Evacuation.		
(7) Recovery.		
3. Followed priorities for repair of battle damaged systems.	—	—
a. Most essential for completion of the immediate mission.		
b. Least amount of time to repair.		
c. Repairable, but not in time to continue the immediate mission.		
d. Damaged beyond repair candidate for cannibalization.		

**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 4-30.3

**Related**

**Perform Support Operations NCO Duties  
091-CLT-4026**

**Conditions:** In a Contemporary Operating Environment, given a position as a support operations maintenance noncommissioned officer (NCO) and applicable references.

**Standards:** Performed the duties of a support operations maintenance NCO, ensuring that the direct support (DS) maintenance mission is effectively coordinated and integrated within the battalion or support group.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Provided guidance on maintenance priorities within the unit.	—	—
2. Set objectives for maintenance shop production.	—	—
3. Monitored maintenance shop workflow and status of repair part requisitions.	—	—
4. Supervised, controlled, and directed the operation of battalion units for the below.	—	—
a. DS maintenance.		
b. Evacuation.		
c. Repair parts supply.		
d. Repairable exchange (RX).		
e. Technical assistance.		

**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 100-16  
FM 4-30.3

**Related**

**Manage Maintenance Operations at a Maintenance Collection Point  
091-CLT-4027**

**Conditions:** In a Contemporary Operating Environment, given an operation order (OPORD)/maintenance situation, a maintenance collection point (MCP) site, maintenance personnel and equipment, and applicable references.

**Standards:** Managed maintenance operations at an MCP in accordance with the OPORD and cited references.

<b>Performance Measures</b>	<u><b>GO</b></u>	<u><b>NO-GO</b></u>
1. Set up the MCP.	—	—
2. Managed flow of equipment for repair. <ul style="list-style-type: none"> <li>a. Focused efforts toward repairing systems for current battle or start of next battle.</li> <li>b. Fixed 4 to 6 hour jobs at unit maintenance collection point (UMCP).</li> <li>c. Evacuated other equipment to brigade MCP or farther rear location.</li> <li>d. Maximized battle damage assessment repair (BDAR), cannibalization, and controlled exchange at central MCP.</li> </ul>	—	—
3. Managed company maintenance teams, recovery support teams, and maintenance support teams held at MCP.	—	—
4. Managed prescribed load list (PLL) assets for forward combat units.	—	—
5. Relocated forward (as necessary) to continue fix-forward support.	—	—

**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 4-30.3

**Related**

**Provide Maintenance Support During Tactical Operations  
091-CLT-4028**

**Conditions:** In a Contemporary Operating Environment, given an operation order (OPORD)/maintenance situation, maintenance personnel and equipment, and applicable references.

**Standards:** Provided maintenance support during tactical operations in accordance with the OPORD and cited reference.

<b>Performance Measures</b>	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Provided maintenance support during offensive operations.	—	—
2. Provided maintenance support during defensive operations.	—	—
3. Provided maintenance support during retrograde operations.	—	—
4. Provided maintenance support during reconstitution operations.	—	—
5. Provided maintenance support during night operations.	—	—
6. Provided maintenance support in a nuclear, biological, chemical (NBC) environment.	—	—
7. Provided maintenance support during stability and support operations (SASO).	—	—
a. Peace operations.		
b. Humanitarian operations.		
c. Disaster relief operations.		
8. Provided maintenance support in adverse conditions.	—	—
a. Desert operations.		
b. Cold weather operations.		
c. Jungle operations.		
d. Mountain operations.		
e. Urban terrain operations.		

**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 4-30.3

**Related**

## Chapter 4

### Duty Position Tasks

#### **44E-MACHINIST, CMF 63.**

a. Major Duties. The machinist supervises and performs the fabrication, repair, and modifications of metallic and nonmetallic parts and supervises metalworking shop activities. Duties for MOS 44E at each level of skill are:

(1) *MOSC 44E10.* Fabricates, repairs, and modifies metallic and nonmetallic parts, utilizing such machines as engine lathes, utility grinders, power cutoff saws, armature undercutters, arbor and hydraulic presses, drill presses, and their associated attachments, accessories, and tools.

(2) *MOSC 44E20.* Perform duties in preceding skill level, supervises lower level grade Soldiers and provides technical guidance to the Soldiers in the accomplishment of their duties.

(3) *MOSC 44E30.* Perform duties in preceding skill levels, perform metal workers (MOS 44B) duties, supervises lower grade Soldiers and provides technical guidance to the Soldiers in the accomplishment of their duties, Inspects completed work.

(4) *MOSC 44E40.* . Perform duties in preceding skill level, supervises lower level grade Soldiers and provides technical guidance to the Soldiers in the accomplishment of their duties. Performs as support maintenance machine shop supervisor or metalworker supervisor.

b. Physical Demands Rating and Qualifications for Initial Award of MOS. The machinist must possess the following qualifications:

(1) A physical demands rating of heavy.

(2) A physical profile of 222222.

(3) Normal color vision.

(4) Minimum score of 100 in aptitude area GM .

(5) Near and distance visual acuity of at least 20/30 in each eye regardless of whether or not corrective lenses are worn.

(6) Must possess a valid state motor vehicle operator license.

(7) No more than one error on Titmus Stereo Circles at 16 inches or no errors on eight positions of Verhoeff Stereoptor at 16 inches.

(8) Formal training (completion of MOS 44E course conducted under the auspices of the USA Ordnance Center and School) mandatory; or meet the civilian acquired skills criteria listed in AR 601-210.

c. Additional Skill Identifiers.

- (1) P5—Master Fitness Trainer.
- (2) 2S—Battle Staff Operations (skill level 3 and above).
- (3) 4A—Reclassification Training.

d. Physical Requirements and Standards of Grade. Physical requirements and SG relating to each skill level are listed in the following tables:

- (1) Table 10-44E-1. Physical requirements.
- (2) Table 10-44E-2. Standards of grade TOE/MTOE.
- (3) Table 10-44E-3. Standards of grade TDA.

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## Appendix A

### Hands-on Evaluation

#### 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. Figure A-1 shows a sample of a completed DA Form 5164-R.

##### 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 2006	
TASK TITLE Apply Mathematical Operations to Machining Tasks		TASK NUMBER 091-44E-1030	
ITEM a	PERFORMANCE STEP TITLE b	SCORE (Check One)	
		PASS c	FAIL d
1.	Selected and used applicable technical publications.	<input checked="" type="checkbox"/> P	<input type="checkbox"/> F
2.	Selected and used applicable materials.	<input type="checkbox"/> P	<input checked="" type="checkbox"/> F
3.	Solved shop mathematical problems.	<input checked="" type="checkbox"/> P	<input type="checkbox"/> F
4.	Ensured work was checked by supervisor.	<input checked="" 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
		<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	

SAMPLE

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

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**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. Figure B-1 shows a sample of a completed DA Form 5164-R.

**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.

FIELD EXPEDIENT SQUAD BOOK		SHEET 1 OF 3									
USER APPLICATION		SOLDIER'S NAME									
STP 21-1-SMCT Soldier's Manual of Common Tasks		Hughes		Murphy		Smith		Jones		Gray	
TASK NUMBER AND TITLE	STATUS										
	GO	NO-GO	GO	NO-GO	GO	NO-GO	GO	NO-GO	GO	NO-GO	
071-326-0512 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		4-5-04		4-5-04		4-2-04		4-5-04		
071-311-2024 Battlelight Zero	4-8-04		5-8-04						5-8-04		
878-920-1001 Armored Vehicles	5-8-04										
071-329-1002 Grid Coordinates											
071-329-1003 Magnetic Azimuth											
071-311-2001 MOUNT M109 Rifle											
071-503-1001 MOUNT M17-SEVERE											
031-503-1007 Drenthaminate											
031-503-1009 MOPP Gear											
081-831-1031 Buddy-Aid											
081-831-1005 Revert Shock											
081-831-1009 FROSTBITE											
071-326-0511 Revert to Flares											
071-325-4407 Employ Hand Grenades											
031-503-1023 Exchange MOPP Gear											
081-831-1005 Revert Shock											

SAMPLE

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

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## Glossary

### Section I

#### Acronyms & Abbreviations

<b>AC</b>	Active Component
<b>ACCP</b>	Army Correspondence Course Program
<b>AIPD</b>	Army Institute for Professional Development
<b>AISM</b>	automated information systems manual
<b>AIT</b>	advanced individual training
<b>AMSS</b>	Army Materiel Status System
<b>AN</b>	annually
<b>ANCOC</b>	advanced noncommissioned officer course
<b>AOAP</b>	Army Oil Analysis Program
<b>AR</b>	Army regulation
<b>ARTEP</b>	Army Training and Evaluation Program
<b>BA</b>	biannually
<b>BNCOC</b>	Basic Non-Commissioned Officer Course (BNCOC)
<b>BW</b>	biweekly
<b>CLT</b>	common logistic task
<b>CTT</b>	common task test
<b>DA</b>	Department of the Army
<b>DA Form</b>	Department of the Army form
<b>DA PAM</b>	Department of the Army pamphlet
<b>DS</b>	Direct Support
<b>EIC</b>	equipment identification code
<b>FM</b>	Field Manual
<b>FMC</b>	fully mission capable
<b>HAZMAT</b>	hazardous material
<b>HQ</b>	headquarters

<b>MACOM</b>	major Army command
<b>MCP</b>	maintenance collection point
<b>MCSR</b>	materiel condition status report
<b>METL</b>	Mission Essential Task List
<b>MO</b>	monthly
<b>MOS</b>	Military Occupational Specialty
<b>MOSC</b>	military occupational specialty code
<b>MSDS</b>	Material Safety Data Sheet
<b>NA</b>	not applicable
<b>NBC</b>	nuclear, biological, and chemical
<b>NCO</b>	Non-Commissioned Officer
<b>NCOER</b>	Noncommissioned Officer Evaluation Report
<b>NMC</b>	non-mission capable
<b>NMC-S</b>	nonmission capable-supply
<b>O&amp;M</b>	operation and maintenance
<b>OPORD</b>	operation order
<b>PLL</b>	Prescribed Load List
<b>PMCS</b>	preventive maintenance checks and services
<b>QA/QC</b>	quality assurance/quality control
<b>QMP</b>	Qualitative Management Program
<b>QT</b>	quarterly
<b>RC</b>	Reserve Component
<b>RDL</b>	Reimer Digital Library
<b>SA</b>	semiannual
<b>SAE</b>	Society of Automotive Engineers
<b>SAMS</b>	Standard Army Maintenance System
<b>SAMS-1</b>	Standard Army Maintenance System-Level 1
<b>SAMS-2</b>	Standard Army Maintenance System-Level 2

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<b>SARSS-O</b>	Standard Army Retail Supply System-Objective
<b>SASO</b>	stability and support operations
<b>SL</b>	skill level
<b>SM/TG</b>	Soldier's manual/trainer's guide
<b>SMCT</b>	Soldier's manual of common tasks
<b>SOP</b>	standing operating procedure
<b>STP</b>	Soldier training publication
<b>TB</b>	technical bulletin
<b>TB MED</b>	technical bulletin (medical)
<b>TM</b>	technical manual
<b>TMDE</b>	test, measurement, and diagnostic equipment
<b>TRADOC</b>	Training and Doctrine Command
<b>UIC</b>	unit identification code
<b>ULLS</b>	Unit Level Logistics System
<b>ULLS-G</b>	Unit Level Logistics System-Ground
<b>UMCP</b>	unit maintenance collection point
<b>USAMC</b>	United States Army Materiel Command
<b>USAOC&amp;S</b>	United States Army Ordinance Center and School
<b>WK</b>	weekly

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## References

### Required Publications

Required publications are sources that users must read in order to understand or to comply with this publication.

#### Army Regulations

AR 25-400-2	The Army Records Information Management System (ARIMS), 15 November 2004
AR 40-5	Preventive Medicine, 22 July 2005
AR 190-13	The Army Physical Security Program, 30 September 1993
AR 190-51	Security of Unclassified Army Property (Sensitive and Nonsensitive), 30 September 1993
AR 220-1	Unit Status Reporting, 19 December 2006
AR 385-10	The Army Safety Program, 29 February 2000
AR 385-40	Accident Reporting and Records, 1 November 1994
AR 385-55	Prevention of Motor Vehicle Accidents, 12 March 1987
AR 600-8-2	Suspension of Favorable Personnel Actions (Flags), 23 December 2004
AR 600-55	The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing), 31 December 1993
AR 614-200	Enlisted Assignments and Utilization Management, 14 February 2007
AR 623-3	Evaluation Reporting System, 15 May 2006
AR 635-200	Active Duty Enlisted Administrative Separations, 6 June 2005
AR 700-4	Logistics Assistance, 17 March 2006
AR 700-138	Army Logistics Readiness and Sustainability, 26 February 2004
AR 710-2	Supply Policy Below the National Level, 8 July 2005
AR 725-50	Requisition, Receipt, and Issue System, 15 November 1995
AR 735-5	Policies and Procedures for Property Accountability, 28 February 2005
AR 750-1	Army Materiel Maintenance Policy, 10 April 2007
AR 750-43	Army Test, Measurement, and Diagnostic Equipment, 3 November 2006

#### Department of Army Forms

DA FORM 17	Requisition for Publications and Blank Forms
DA FORM 17-1	Requisition for Publications and Blank Forms (Continuation Sheet)
DA FORM 2062	Hand Receipt/Annex Number
DA FORM 2404	Equipment Inspection and Maintenance Worksheet
DA FORM 2407	Maintenance Request
DA FORM 2407-1	Maintenance Request Continuation Sheet
DA FORM 4569-1-R	Security Assistance Publication Requisition Code Sheet
DA FORM 5164-R	Hands-on Evaluation
DA FORM 5165-R	Field Expedient Squad Book
DA FORM 5988-E	Equipment Inspection Maintenance Worksheet
DA FORM 5990-E	Maintenance Request

### Department of Army Pamphlets

DA PAM 25-30	Consolidated Index of Army Publications and Blank Forms, 1 January 2007
DA PAM 25-33	User's Guide for Army Publications and Forms, 15 September 1996
DA PAM 25-40	Army Publishing: Action Officers Guide, 7 November 2006
DA PAM 350-59	Army Correspondence Course Program Catalog, 1 October 2002
DA PAM 385-1	Small Unit Safety Officer/NCO Guide, 29 November 2001
DA PAM 710-2-1	Using Unit Supply System (Manual Procedures), 31 December 1997
DA PAM 710-2-2	Supply Support Activity Supply System: Manual Procedures, 30 September 1998
DA PAM 750-1	Commander's Maintenance Handbook, 2 February 2007
DA PAM 750-3	Soldiers' Guide for Field Maintenance Operations, 28 September 2006
DA PAM 750-8	The Army Maintenance Management System (TAMMS) Users Manual, 22 August 2005

### Field Manuals

FM 1-02	Operational Terms and Graphics, 21 September 2004
FM 4-30.3	Maintenance Operations and Procedures, 28 July 2004
FM 5-170	Engineer Reconnaissance, 5 May 1998
FM 5-553	General Drafting, 6 January 1984
FM 7-0	Training the Force, 22 October 2002
FM 7-1	Battle Focused Training, 15 September 2003
FM 22-51	Leaders' Manual for Combat Stress Control, 29 September 1994
FM 25-4	How to Conduct Training Exercises, 10 September 1984
FM 25-5	Training For Mobilization And War, 25 January 1985
FM 100-16	Army Operational Support, 31 May 1995

### Other Product Types

AISM 18-L21-AHN-BUR-UM	Standard Army Maintenance System Level 1 (SAMS-1) End User Manual
AISM 18-L26-AHO-BUR-EM	Standard Army Maintenance System Level 2 (SAMS-2) End User Manual
FEDLOG	Federal Logistics (discs)
ORD ST 9-166	Shop Drawings

### Soldier Training Publications

STP 21-1-SMCT	Soldier's Manual of Common Tasks Skill Level 1, 2 October 2006
STP 21-24-SMCT	Soldier's Manual of Common Tasks (SMCT) Warrior Leader Skill Levels 2-4, 2 October 2006

### Technical Bulletins

TB 43-0142	Safety Inspection and Testing of Lifting Devices, 28 February 1997
TB 43-0211	Army Oil Analysis Program (AOAP) Guide for Leaders and Users, 1 December 2004
TB 43-180	Interactive Electronic Technical Manual (IETM) for Calibration and Repair Requirements for the Maintenance of Army Materiel, 7 July 2006
TB MED 524	Occupational and Environmental Health: Control of Hazards to Health From Laser Radiation, 31 January 2006

**Technical Manuals**

- TM 9-243 Use and Care of Hand Tools and Measuring Tools (M6290-AJ-MAN-010; TO 32-1-101; TM-10209-10/1), 12 December 1983
- TM 9-3416-225-12 Organizational Maintenance Manual for Lathe, Engine, Bench Mounted, Solid Bed Type; 10-Inch Swing NO.2 Morse Taper Center, 1 3/8 Spindle Hole, 110V, 60 HZ, Single Phase, 3/4 HP w/Army DWG NO. 7550151 Bench(Standard-Modern Tool Series 2,000, 8 November 1965
- TM 9-3417-210-10 Operator's Manual: Milling Machine, Ram Type, Swivel Head, Plain Table, Power Feed, 1 1/2 HP, 110V, 60 Cycle, Single Phase (Van Norman Co., Models IR-3-22 and IRQ-3-22)(FSN 3417-624-4254), 17 March 1967
- TM 750-254 Cooling Systems, Tactical Vehicles, 29 March 1972

**Training Circulars**

- TC 9-237 Operator's Circular Welding Theory and Application, 7 May 1993
- TC 9-510 Metal Body Repair and Related Operations, 30 September 1993
- TC 9-515 Shop Mathematic, 24 December 1990
- TC 9-524 Fundamentals of Machine Tools, 29 October 1996
- TC 43-4 Commander's and Shop Officer's Guide for Support Maintenance Management, 8 May 1996

### Related Publications

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

#### Army Regulations

AR 25-11	Record Communications and the Privacy Communications System, 4 September 1990
AR 385-10	The Army Safety Program, 29 February 2000
AR 385-40	Accident Reporting and Records, 1 November 1994
AR 385-55	Prevention of Motor Vehicle Accidents, 12 March 1987
AR 601-210	Regular Army and Army Reserve Enlistment Program, 16 May 2005

#### Department of the Army Forms

DA FORM 2028	Recommended Changes to Publications and Blank Forms
--------------	---

#### Department of Army Pamphlets

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

#### Field Manuals

FM 1-02	Operational Terms and Graphics, 21 September 2004
FM 5-170	Engineer Reconnaissance, 5 May 1998

#### Technical Manuals

TM 9-243	Use and Care of Hand Tools and Measuring Tools (M6290-AJ-MAN-010; TO 32-1-101; TM-10209-10/1), 12 December 1983
TM 9-3431-265-14&P	Operator's, Organizational, Direct Support and General Support Maintenance Manual Including Repair Parts List for Welding Machines(Hobart Brothers Co., Models RCC-610, 27,H4 and GA-600) (NSN 3431-00-935-7913), 8 February 1988
TM 9-3431-272-13&P	Operator's, Unit and Direct Support Maintenance Manual (Including Repair Parts and Special Tools List) for Welding Shop, Trailer Mounted Model 11838792 (NSN 3431-01-341-6232), 26 October 1994
TM 9-4940-567-13&P	Operator's, Unit, and Direct Support Maintenance Manual Including Repair parts and Special Tools List for Trailer Mounted Welding Shop Set (TMWSS) Contact (SEW) (NSN 4940-01-454-9877), 1 October 2003

#### Training Circulars

TC 9-237	Operator's Circular Welding Theory and Application, 7 May 1993
TC 9-510	Metal Body Repair and Related Operations, 30 September 1993
TC 9-515	Shop Mathematic, 24 December 1990
TC 9-524	Fundamentals of Machine Tools, 29 October 1996

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12 June 2007

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