

STP 8-91A15-SM-TG

SOLDIER'S MANUAL AND TRAINER'S GUIDE

MOS 91A

**MEDICAL
EQUIPMENT
REPAIRER**

SKILL LEVELS 1/2/3/4/5

APRIL 2003



HEADQUARTERS, DEPARTMENT OF THE ARMY

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 AND
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 MOS 91A
 MEDICAL EQUIPMENT REPAIRER
 SKILL LEVELS 1, 2, 3, 4 AND 5**

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PREFACE

This publication is for skill level 1, 2, 3, 4, and 5 soldiers holding military occupational specialty (MOS) 91A and for trainers and first-line supervisors. It contains standardized training objectives, in the form of task summaries, to train and evaluate soldiers on critical tasks that support unit missions during wartime. Trainers and first-line supervisors should ensure soldiers holding MOS/SL 91A1/2/3/4/5 have access to this publication. This STP is available for download from the Reimer Digital Library (RDL).

This manual applies to both Active and Reserve Component soldiers.

The proponent of this publication is HQ, TRADOC. Send comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Academy of Health Sciences, ATTN: MCCS-HTI, 1750 Greeley Rd, STE 135, Fort Sam Houston, TX 78234-5078.

CHAPTER 1

Introduction

1-1. General

This manual identifies the individual MOS training requirements for soldiers in MOS 91A. Commanders, trainers, and soldiers should use it to plan, conduct, and evaluate individual training in units. This manual is the primary MOS reference to support the self-development and training of every soldier.

Use this manual with Soldier's Manuals of Common Tasks (STP 21-1-SMCT and STP 21-24-SMCT), Army Training and Evaluation Programs (ARTEPs), and FM 25-101, Battle Focused Training, to establish effective training plans and programs that integrate soldier, leader, and collective tasks.

1-2. Battle Focused Training

As described in FM 7-0, Training the Force, and FM 25-101, Battle Focused Training, the commander must first define the mission essential task list (METL) as the basis for unit training. Unit leaders use the METL to identify the collective, leader, and soldier tasks which support accomplishment of the METL. Unit leaders then assess the status of training and lay out the training objectives and the plan for accomplishing needed training. After preparing the long- and short-range plans, leaders then execute and evaluate training. Finally, the unit's training preparedness is reassessed, and the training management cycle begins again. This process ensures that the unit has identified what is important for the wartime mission, that the training focus is applied to the necessary training, and that training meets established objectives and standards.

Additionally, the AMEDD is developing training products that will enhance medical preparedness in the case of a Chemical, Biological, Radiological, Nuclear, and High-Yield Explosive (CBRNE) event. To assist commanders and leaders in training their units, CBRNE-related information is being included in AMEDD Mission Training Plans (MTPs). Even though most collective tasks within an MTP may directly affect or support a CBRNE event, the ones that will most directly be impacted are clearly indicated with a statement in the CONDITION that reads: "THIS TASK MAY BE USED TO SUPPORT A CBRNE EVENT." These collective tasks and any supporting individual tasks in this soldier's manual should be considered for training emphasis. Also included in the MTP is a CBRNE Appendix. The purpose of the appendix is to give a general overview of the Federal Response Plan, the AMEDD support role, and the command structure for those agencies and elements involved or participating in a CBRNE event. It is understood that military resources temporarily support and augment, but do not replace local, state, and federal civilian agencies having primary authority and responsibility for domestic disaster assistance.

1-3. Relationship of Soldier Training Publications (STPs) to Battle Focused Training

The two key components of enlisted STPs are the Trainer's Guide (TG) and Soldier's Manual (SM). The TG and SM give leaders important information to help in the battle focused training process. The TG relates soldier and leader tasks in the MOS and SL to duty positions and equipment. It provides information on where the task is trained, how often training should occur

to sustain proficiency, and who in the unit should be trained. As leaders go through the assessment and planning stages, they should use the TG as an important tool in identifying what needs to be trained.

The execution and evaluation of soldier and leader training should rely on the Armywide training objectives and standards in the SM task summaries. The task summaries ensure that soldiers in any unit or location have the same definition of task performance and that trainers evaluate the soldiers to the same standard.

1-4. Task Summaries

Task summaries contain information necessary to conduct training and evaluate soldier proficiency on tasks critical to the MOS. A separate task summary is provided for each critical task. These task summaries are, in effect, standardized training objectives which ensure that soldiers do not have to relearn a task on reassignment to a new unit. The format for the task summaries included in this manual is as follows:

- **Task Title.** The task title identifies the action to be performed.
- **Task Number.** A 10-digit number identifies each task or skill. Include this task number, along with task title, in any correspondence relating to the task.
- **Conditions.** The task conditions identify all the equipment, tools, references, job aids, and supporting personnel that the soldier needs to perform the task in wartime. This section identifies any environmental conditions that can alter task performance, such as visibility, temperature, and wind. This section also identifies any specific cues or events that trigger task performance.
- **Standards.** The task standards describe how well and to what level you must perform a task under wartime conditions. Standards are typically described in terms of accuracy, completeness, and/or speed.
- **Performance Steps.** This section includes a detailed outline of information on how to perform the task.
- **Evaluation Preparation (when used).** This subsection indicates necessary modifications to task performance in order to train and evaluate a task that cannot be trained to the wartime standard under wartime conditions. It may also include special training and evaluation preparation instructions to accommodate these modifications and any instruction that should be given to the soldier before evaluation.
- **Performance Measures.** This evaluation guide identifies the specific actions that the soldier must do to successfully complete the task. These actions are listed in a GO/NO-GO format for easy evaluation. Each evaluation guide contains a feedback statement that indicates the requirements for receiving a GO on the evaluation.
- **References.** This section identifies references that provide more detailed and thorough explanations of task performance requirements than that given in the task summary description.

Additionally, some task summaries include safety statements and notes. Safety statements (danger, warning, and caution) alert users to the possibility of immediate death, personal injury, or damage to equipment. Notes provide a small, extra supportive explanation or hint relative to the performance measures.

1-5. Soldier's Responsibilities

Each soldier is responsible for performing individual tasks which the first-line supervisor identifies based on the unit's METL. The soldier must perform the tasks to the standards listed in the SM. If a soldier has a question about how to do a task or which tasks in this manual he or she must perform, it is the soldier's responsibility to ask the first-line supervisor for clarification. The first-line supervisor knows how to perform each task or can direct the soldier to the appropriate training materials.

1-6. NCO Self-Development and the Soldier's Manual

Self-development is one of the key components of the leader development program. It is a planned progressive and sequential program followed by leaders to enhance and sustain their military competencies. It consists of individual study, research, professional reading, practice, and self-assessment. Under the self-development concept, the NCO, as an Army professional, has the responsibility to remain current in all phases of the MOS. The SM is the primary source for the NCO to use in maintaining MOS proficiency.

Another important resource for NCO self-development is the Army Correspondence Course Program (ACCP). Refer to DA Pamphlet 350-59 for information on enrolling in this program and for a list of courses, or write to: AMEDDC&S, ATTN: MCCS-HSN, 2105 11TH STREET SUITE 4191, FORT SAM HOUSTON TX 78234-5064.

Unit learning centers are valuable resources for planning self-development programs. They can help access enlisted career maps, training support products, and extension training materials. A life cycle management diagram for MOS 91A soldiers is on page 1-4. You can find more information and check for updates to this diagram at <http://das.cs.amedd.army.mil/ooc.htm> (scroll down to LIFE CYCLE MANAGEMENT, select ENLISTED, and find the appropriate tab along the bottom.) This information, combined with the MOS Training Plan in Chapter 2, forms the career development model for the MOS.

1-7. Trainer's Responsibilities

Training soldier and leader tasks to standard and relating this training to collective mission-essential tasks is the NCO trainer's responsibility. Trainers use the steps below to plan and evaluate training.

- Identify soldier and leader training requirements. The NCO determines which tasks soldiers need to train on using the commander's training strategy. The unit's METL and ARTEP and the MOS Training Plan (MTP) in the TG are sources for helping the trainer define the individual training needed.
- Plan the training. Training for specific tasks can usually be integrated or conducted concurrently with other training or during "slack periods." The unit's ARTEP can assist in identifying soldier and leader tasks which can be trained and evaluated concurrently with collective task training and evaluation.
- Gather the training references and materials. The SM task summary lists all references which can assist the trainer in preparing for the training of that task.

MOS 91A
MEDICAL EQUIPMENT REPAIRER
CAREER/TRAINING LIFE CYCLE

RANK	AMEDD Course NR	TRAINING	LENGTH	LOCATION	ATTENDANCE REQUIREMENT	Self-Development Course NR	SELF-DEVELOPMENT	LENGTH	LOCATION	ATTENDANCE REQUIREMENT
* E1 - E5		Basic Combat Training Course	9 wks	Ft. LW/Ft. Sill Ft. Jackson Ft. Benning	IET		Army Correspondence Course Program (ACCP)			
	4B-F2/198-91A10	DoD Biomedical Equip Maintenance Technician	41 wks	Sheppard AFB, TX	IET	081-CBRNE-W	<i>Introduction to CBRNE</i>		On-Line	Just in Time
	300-F11	COMPUTER BASED MEDICAL SYSTEMS MAIN COURSE	4 wks	Sheppard AFB, TX	Just in Time	081-MD0006	Basic Human Anatomy		Correspondence	Sustainment
	300-F12	ADV MEDICAL LAB SYSTEMS MAINTENANCE COURSE	4 wks	Sheppard AFB, TX	Just in Time	081-MD0010	Basic Medical Terminology		Correspondence	Sustainment
	300-F13	ADV MEDICAL SYSTEMS MAINTENANCE COURSE	4 wks	Sheppard AFB, TX	Just in Time	081-MD0351	Radiographic X-Ray		Correspondence	Sustainment
	300-F14	ADV DIAG IMAGING SYSTEMS MAINTENANCE COURSE	6 wks	Sheppard AFB, TX	JIT/Functional	081-MD0353	Anesthesia Apparatus		Correspondence	Sustainment
	300-F15	IMAGING PROCUREMENT/ACCEPTANCE PROC COURSE	3 wks	Sheppard AFB, TX	Just in Time	081-MD0354	Surgical Dressing Sterilizer		Correspondence	Sustainment
	300-F16	TELEMEDICINE EQUIPMENT MAINTENANCE COURSE	3 wks	Sheppard AFB, TX	Just in Time	081-MD0355	Portable Ventilator		Correspondence	Sustainment
	300-F17	Biomedical Equip Maint Mgmt	3 wks	Sheppard AFB, TX	Just in Time	081-MD0356	Electrical Safety		Correspondence	Sustainment
		PLDC	4 wks	Multiple sites	Leadership	081-MD0367	Refrigerator & Field Sink		Correspondence	Sustainment
	6-8-C40(91A30)	AMEDD NCO BASIC (NCOES)	4 Wks 4 Days	FSH, TX	Leadership	081-MD0368	Laboratory Centrifuge		Correspondence	Sustainment
		BASELINE	REQUIRED	RECOMMENDED	PROFIS	081-MD0370	Operating Room Table		Correspondence	Sustainment
		Field Management of Chemical & Biological Casualties (FMCBC)		X	X/TOE	081-MD0371	Dental Chair, Stool & Dental Operating		Correspondence	Sustainment
	081-MD0357	Basic Supply Procedures		Correspondence	Sustainment	081-MD0373	Dental Chair (JSA-R)		Correspondence	Sustainment
	081-MD0358	Med Maintenance & Supply		Correspondence	Sustainment	081-MD0381	Single-Phase X-Ray Systems		Correspondence	Sustainment
	081-MD0359	X-Ray Film Processors		Correspondence	Sustainment	081-MD0383	Electrosurgery Units		Correspondence	Sustainment
	081-MD0361	Dental X-Ray Units		Correspondence	Sustainment	081-MD0387	Diagnostic Ultrasound system		Correspondence	Sustainment
081-MD0362	Defibrillator & Monitor		Correspondence	Sustainment	081-MD0388	Dry chemical Analyzer		Correspondence	Sustainment	
081-MD0363	Electrosurgical Apparatus		Correspondence	Sustainment	081-MD1130	ASMA		Correspondence	Sustainment	
081-MD0365	Suction & Pressure Apparatus		Correspondence	Sustainment	081-ENHANC	Combat Life Saver (CLS)		Unit Training	Just in Time	
081-MD0366	Compressor		Correspondence	Sustainment		PPSCP				
E4 - E7	300-F11	COMPUTER BASED MEDICAL SYSTEMS MAIN COURSE	4 wks	Sheppard AFB, TX	Just in Time					
	300-F12	ADV MEDICAL LAB SYSTEMS MAINTENANCE COURSE	4 wks	Sheppard AFB, TX	Just in Time	300-A0710	Medical Logistics Enlisted Supervisor Short Course	4 days	SA, TX	Just in time
	300-F13	ADV MEDICAL SYSTEMS MAINTENANCE COURSE	4 wks	Sheppard AFB, TX	Just in Time	340-A0715	MEDCOM CSM/SGM SR NCO	4 Days	SA, TX	Optional
	300-F14	ADV DIAG IMAGING SYSTEMS MAINTENANCE COURSE	6 wks	Sheppard AFB, TX	JIT/Functional	340-A0743	CSM/SGM SR NCO Course	4 days	Landstuhl, Germany	Leadership
	300-F15	IMAGING PROCUREMENT /ACCEPTANCE PROC COURSE	3 wks	Sheppard AFB, TX	Just in Time					
	300-F16	TELEMEDICINE EQUIPMENT MAINTENANCE COURSE	3 wks	Sheppard AFB, TX	Just in Time		USAMMA Internship Program	6 Mo	Ft Detrick	Just in time
	300-F17	Biomedical Equip Maint Mgmt	3 wks	Sheppard AFB, TX	Just in Time	J3AZR4A271 012	Medical Facilities Management	21 days	Sheppard AFB, TX	Just in time
E6 - E9	250-ASI2S	Battle Staff NCO	4 Wks, 1 Day	USASMA (Ft. Bliss)	Optional		Specialty Courses			
	5K-F3/520-F3	Instructor Training Course	2 weeks	AHS	JIT/SI (5K)	5K-F13/520-F10	<i>CBRNE TRAINER EVALUATOR</i>	2 Days	Fort Sam Houston, TX	Just in Time
	5K-F6/520-F6	Sm Grp Ldr Crse	2 weeks	AHS	JIT	5K-F7/520-F7	ADVANCED INSTRUCTOR TRAINING COURSE (Ph 1&2)	1 Wk, 3 Days	FSH, TX	
		Master Fitness Trainer	2 wks	Multiple Sites	Just in time ASI P5	5K-F8/520-F8	EDUCATION AND TRAINING FOR THE 21ST CENTURY	4 wks	FSH, TX	
		Recruiter	6 wks	USAREC	Just in time					
	6-8-C42	AMEDD NCO Advanced (NCOES)	2 Wks, 3 Days	FSH, TX	Leadership					
	1-250-C5	U.S. ARMY SERGEANTS MAJOR	38 Wks, 2 Days	USASMA (Ft. Bliss)	Just in time MEL-A					
521-F1	Command Sergeant Major Course	1 wk	USASMA	Leadership						
521-SQIM	First Sergeant Course	8 wks	USASMA	Just in time SQI-M						
	Drill Sgt School	9 wks	Multiple Sites	Just in Time SQI-X						

Note: 91A personnel may apply for a conversion/position as MOS 670A, Warrant Officer, Health Services Maintenance Technician; Expert Field Medical Badge and DEP MEDS if assigned PROFIS

- Determine risk assessment and identify safety concerns. Analyze the risk involved in training a specific task under the current conditions at the time of scheduled training. Ensure that your training preparation takes into account those cautions, warnings, and dangers associated with each task.
- Train each soldier. Show the soldier how the task is done to standard, and explain step-by-step how to do the task. Give each soldier one chance to do the task step-by-step.
- Emphasize training in mission-oriented protective posture (MOPP) level 4 clothing. Soldiers have difficulty performing even the very simple tasks in an NBC environment. The combat effectiveness of the soldier and the unit can degrade quickly when trying to perform in MOPP 4. Practice is the best way to improve performance. The trainer is responsible for training and evaluating soldiers in MOPP 4 so that they are able to perform critical wartime tasks to standards under NBC environment conditions.
- Check each soldier. Evaluate how well each soldier performs the tasks in this manual. Conduct these evaluations during individual training sessions or while evaluating soldier proficiency during the conduct of unit collective tasks. This manual provides an evaluation guide for each task to enhance the trainer's ability to conduct year-round, hands-on evaluations of tasks critical to the unit's mission. Use the information in the MTP as a guide to determine how often to train the soldier on each task to ensure that soldiers sustain proficiency.
- Record the results. The leader book referred to in FM 25-101, appendix B, is used to record task performance and gives the leader total flexibility on the method of recording training. The trainer may use DA Forms 5164-R (Hands-On Evaluation) and 5165-R (Field Expedient Squad Book) as part of the leader book. The forms are optional and locally reproducible. STP 21-24-SMCT contains a copy of the forms and instructions for their use.
- Retrain and evaluate. Work with each soldier until he or she can perform the task to specific SM standards.

1-8. Training Tips for the Trainer

Prepare yourself.

- Get training guidance from your chain of command on when to train, which soldiers to train, availability of resources, and a training site.
- Get the training objective (task, conditions, and standards) from the task summary in this manual.
- Ensure you can do the task. Review the task summary and the references in the reference section. Practice doing the task or, if necessary, have someone train you on the task.
- Choose a training method.
- Prepare a training outline consisting of informal notes on what you want to cover during your training session.
- Practice your training presentation.

Prepare the resources.

- Obtain the required resources identified in the conditions statement for each task.
- Gather equipment and ensure it is operational.
- Coordinate for use of training aids and devices.
- Prepare the training site according to the conditions statement and evaluation preparation section of the task summary, as appropriate.

Prepare the soldiers.

- Tell the soldier what task to do and how well it must be done. Refer to the standards statement and evaluation preparation section for each task as appropriate.
- Caution soldiers about safety, environment, and security.
- Provide any necessary training on basic skills that soldiers must have before they can be trained on the task.
- Pretest each soldier to determine who needs training in what areas by having the soldier perform the task. Use DA Form 5164-R and the evaluation guide in each task summary to make this determination.

NOTE: Deficiencies noted in soldiers' ability to perform critical tasks taught in schools or by extension training materials should be reported to the proponent school.

Train the soldiers who failed the pretest.

- Demonstrate how to do the task or the specific performance steps to those soldiers who could not perform to SM standards. Have soldiers study the appropriate materials.
- Have soldiers practice the task until they can perform it to SM standards.
- Evaluate each soldier using the evaluation guide.
- Provide feedback to those soldiers who fail to perform to SM standards and have them continue to practice until they can perform to SM standards.

Record results in the leader book.

1-9. Training Support

This manual includes the following information which provides additional training support information.

- Appendix A, DA Form 5165-R (Field Expedient Squad Book). This appendix provides an overprinted copy of DA Form 5165-R for the tasks in this MOS. The NCO trainer can use this form to set up the leader book described in FM 25-101, appendix B. The use of this form may help preclude writing the soldier tasks associated with the unit's mission essential task list, and can become a part of the leader book.
- Glossary. The glossary, which follows the last appendix, is a single comprehensive list of acronyms, abbreviations, definitions, and letter symbols.
- References. This section contains two lists of references, required and related, which support training of all tasks in this SM. Required references are listed in the conditions statement and are required for the soldier to do the task. Related references are materials which provide more detailed information and a more thorough explanation of task performance.

CHAPTER 2

Trainer's Guide

2-1. General. The MOS Training Plan (MTP) 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 MTP should be used as a guide for conducting unit training and not a rigid standard. The MTP 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 MTP 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 MTP. 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 MTP.
- **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, etc.), the resident course where the task was taught. Figure 2-1 contains a list of training locations and their corresponding brevity codes.

SOJT	Supervised On-The-Job Training
AIT	Advanced Individual Training

Figure 2-1. Training Locations

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

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

Figure 2-2. Sustainment Training Frequency Codes

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