CRM LESSON PLAN REPORT

PERFORM MAINTENANCE ON THE MACHINE GUN 40 MM, MK 19 MOD 3
101-92Y10D10 / 05.0 ©

Approved
06 Sep 2016

Effective Date: 06 Sep 2016

SCOPE:

None

SECTION I. ADMINISTRATIVE DATA

All Course Masters/POIs Including This Lesson

Courses

Course Number	Version	Title	Phase	Status
551-92Y10	05.0	Unit Supply Specialist	N/A	Analysis

POIs

POI Number	Version	Title	Phase	Status
551-92Y10	05.0 ©	Unit Supply Specialist	0	Analysis

Task(s) Taught(*) or Supported

Task Number	Task Title	Status
Individual		
101-92Y-1409 (*)	Perform Organizational (Unit) Maintenance on Small Arms	Approved

Reinforced Task(s)

Task Number	Task Title	Status
101-92Y-1301	Control Weapons and Ammunition in the Arms Room	Approved

Knowledge

Knowledge Id	Title	Taught	Required
None			

Skill

Skill Id	Title	Taught	Required
None			

Administrative/ Academic Hours

The administrative/academic (50 min) hours required to teach this lesson are as follows:

Academic	Resident Hours / Methods		
Yes	1 hr	15 mins	Hardware-Oriented Test
Yes	4 hrs	25 mins	Demonstration
Yes	0 hrs	15 mins	Reflective Discussion
Yes	1 hr	30 mins	Practical Exercise (Hands-On/Written)
Yes	0 hrs	15 mins	Discussion (Small or Large Group)
Total Hours(50 min):	8 hrs	0 mins	

Instructor Action Hours

The instructor action (60 min) hours required to teach this lesson are as follows:

Hours/Actions		
0 hrs	15 mins	Classroom Breakdown
0 hrs	15 mins	Classroom Setup
1 hrs	0 mins	Logistics Support – Weapon
0 hrs	25 mins	Student Counseling
1 hrs	0 mins	Student Re-test
0 hrs	25 mins	Student Re-train
Total Hours (60 min):	3 hrs	20 mins

Test Lesson(s)

Hours	Lesson Number Version	Lesson Title
None		

Prerequisite Lesson(s)

Hours	Lesson Number Version	Lesson Title
None		

Training Material Classification

Security Level: This course/lesson will present information that has a Security Classification of: U - Unclassified.

Foreign Disclosure Restrictions

FD1. This training product has been reviewed by the training developers in coordination with the Fort Lee, Virginia foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

References

Number	Title	Date
AR 25-400-2	THE ARMY RECORDS INFORMATION MANAGEMENT SYSTEM (ARIMS)	02 Oct 2007
DA PAM 750-8	The Army Maintenance Management System (TAMMS) Users Manual	22 Aug 2005
TM 9-1010-230-10	OPERATORS MANUAL FOR MACHINE GUN, 40-MM, MK 19, MOD 3 (NSN 1010-01-126-9063) (EIC: 4AE) {TM 08521A-10/1A;TO 11W2-5-16-1;SW 363-C3-MMM-010}	31 Aug 2012
TM 9-1010-230-23&P	TECHNICAL MANUAL FIELD MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) FOR MACHINE GUN, 40 MM, MK19 MOD 3, NSN 1010-01-126-9063 (EIC 4AE) MACHINE GUN, 40 MM, MK19 MOD 3, MACHINE GUN, 40 MM, MK19	31 Aug 2012

Student Study Assignment

None

Instructor Requirements

Primary Instructor and Assistant Instructor(s)

Support Personnel Requirements

Armorer

Computer System Analyst

Additional Support Personnel Requirements

Name	Student Ratio	Qty	Man Hours
Armorer	0:0	1	1.0
Computer System Analyst	0:0	1	8.0

Equipment Required for Instruction

ID - Name	Student Ratio	Instructor Ratio	Spt	Qty	Exp
1005-00-322-9716 - Mount, Tripod, Machine Gun, .50 Caliber: M3	1:6	0:0	No	1	No
1010-01-490-9697 - Machine Gun, Grenade: MK19	1:1	0:0	No	1	No
5180-00-357-7770 - Tool Kit, Repairman's, Small Arms	1:10	0:0	No	1	No
7021-01-C14-3190 - Computer, Micro Lap-Top Portable AC: M4500 Dell	0:0	0:0	No	2	No
7021-01-D01-0269 - PC Tablet, Data Entry: IPAD 2 WIFI 64GB Apple	1:1	0:0	No	1	No
7025-01-C11-4208 - Printer, Daisy Wheel/Dot Matrix/:2335DN MFP Dell	0:0	0:0	No	1	No
7050-01-C14-4309 - Interactive Pen Display: ID422W Smart	0:0	0:0	No	1	No
7490-01-T00-0291 - Card Programmer: RFC-03G Turning Technologies	1:1	0:0	No	0	No
7490-01-T00-0292 - Card Programmer: XRC-R02 Turning Technologies	1:30	0:0	No	0	No

(Note: Asterisk before ID indicates a TADSS.)

Materials Required

Instructor Materials:

a. Lesson Plan

b. Practical Exercise (PE)

c. Practical Exercise Solution.

d. Required publications.

Student Materials:

a. Student handout (Blank Forms)

b. Practical Exercise.

c. Required publications.

d. Pen or pencil.

e. Safety equipment (Goggles)

Classroom, Training Area, and Range Requirements

ID - Name	Quantity	Student Ratio	Setup Mins	Cleanup Mins
17135-3000 Laboratory Instructional Building, 3000 Square Foot		1:30	20	30

Ammunition Requirements

DODIC - Name	Exp	Student Ratio	Instruct Ratio	Spt Qty
B472 - Dummy Cartridge, 40 Millimeter, M25 F/L60	N	5:1	0:0	5

Instructional Guidance/ Conduct of Lesson

NOTE: Before presenting this lesson, instructors must thoroughly prepare by studying this lesson and identified reference material.

NOTE: Instructor/Facilitator will ensure to incorporate ALM 2015 and OE experiences.

ARMY LEARNING MODEL

All instructors/Facilitators will facilitate training under Army Learning Model. ensuring training is based on quality, relevance and effectiveness of face to face learning experiences through outcome-oriented instructional strategies. This type of instruction will foster critical thinking, initiative and operational relevance in context.

OE INTEGRATION

Instructors/Facilitators will facilitate conversations from students and relate this lesson to current Operational Environments (OE) using personal experiences and/or examples obtained from the Center for Army Lessons Learned (CALL). Instructors should provide sufficient OE variables and scenarios to produce the desired soldier training outcome for this lesson.

NOTE: Verify that the training material is loaded on the computers before beginning the lesson.

Proponent Lesson Plan Approvals

Name	Rank	Position	Date
romulo.santos	Not available	Approver	06 Sep 2016

SECTION II. INTRODUCTION

Method of Instruction: Discussion (Small or Large Group)
Mode of Delivery: Resident Instruction
Instr Type (I:S Ratio): Military - ICH, (1:30)
Time of Instruction: 15 mins

Motivator

INSTRUCTOR NOTE: Have students draw weapons from the armsroom.

SLIDE 92Y10D10-1 (ON)

Introduce the lesson to the students.

The commander has designated you as his or her representative, responsible for the organizational maintenance of small arms. As a unit armorer, you will prepare, maintain, submit, and file all maintenance requirements for the unit's organizational weapons. You must have the skills and the ability to perform all organizational maintenance tasks. The unit armorer is an important job and requires attention to detail. If the MK19 Machine Gun is not maintained to required standards, the weapon may not be safe to operate, unit readiness will be degraded, and you unit may not be prepared to perform its mission.

SLIDE 92Y10D10-1 (OFF)
SLIDE 92Y10D10-2 (ON)

Discuss the Terminal Learning Objective with the students.

SLIDE 92Y10D10-2 (OFF)

Terminal Learning Objective

NOTE. Inform the students of the following Terminal Learning Objective requirements.
At the completion of this lesson, you [the student] will:

Action:	Perform Preventive Maintenance on the Machine Gun 40mm MK19 MOD 3.
Conditions:	Assigned as the unit armorer, in a classroom environment and given the requirement to perform preventive maintenance on the MK19 Machine Gun. given TM 9-1010-230-10, TM 9-1010-230-23&P, DA Pam 750-8, a blank DA Form 2404, a blank DA Form 2407, pen or pencil, practical exercise, armorer toolkit, safety equipment, linked dummy rounds and a MK19 Machine Gun.
Standards:	The student will perform preventive maintenance on the Machine Gun, 40mm, MK19 Mod 3 in accordance with TM 9-1010-230-10, TM 9-1010-230-23&P and DA Pam 750-8, without losing accountability.
Learning Domain - Level:	None assigned

No JPME Learning Areas Supported:	None

Safety Requirements

General classroom, weapon and electrical equipment safety procedures will be followed.

Before starting an inspection and/or performing any maintenance procedures, be sure to clear the weapon. During the clearing procedure always keep the weapon pointed in a safe direction.

A potential safety hazard exists if the weapon is assembled or disassembled incorrectly.

Students will ensure that safety glasses are worn at all times during the assembly and disassembly of the weapon.

Risk Assessment Level

Medium - Back Plate

Assessment: When installing the back plate, fingers can be injured when pushing on the sear and pushing forward on the back plate.

When weapon is cocked, back plate and bolt being removed could cause back plate to be released causing injury
Controls: Incorporate procedures and warnings as described in TM 9-1005-203-23&P.

Additional instruction and supervision; ensure proper placement of hands.

Additional instruction and increased supervision; ensure bolt is in forward position.
Leader Actions: When possible, additional instructors will assist the primary instructor during the block of instruction.

Primary Instructor will utilize "stop-go" method when training. Student will not proceed until told to do so. Instructor will spot-check each weapon.

Continually emphasize safety to students. Let students know what the outcome will be if procedures are not followed exactly as prescribed.

Environmental Considerations

NOTE: Instructor should conduct a risk assessment to include environmental considerations IAW the current environmental considerations publication, and ensure students are briefed on hazards and control measures..

NOTE: It is the responsibility of all Soldiers, DA Civilians, and Contractors to protect the environment from damage.

NOTE: Have dirty rags turned in to the supply room and cleaned on a weekly basis.

Instructional Lead-in

Explain to the students that performing unit maintenance on small arms is similar to performing maintenance on a car. It is important to keep your car in good running condition so you can get

back and forth to work. In the U.S. Army, weapons must be maintained to specified standards so the unit can successfully perform its mission.

SECTION III. PRESENTATION

TLO - LSA 1. Learning Step / Activity TLO - LSA 1. Identify the Characteristics, Capabilities and Features, and Major Components.

Method of Instruction:	Demonstration
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - ICH, (1:10)*
Time of Instruction:	20 mins
Media Type:	Actual Equipment / PowerPoint Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.
Note: Marked as (*) is	derived from the parent learning object

SLIDE 92Y10D10-3 (ON) Click on picture to begin video.

INSTRUCTOR NOTE: Refer students to TM 9-1010-230-23&P, WP 0002 00-1

a. **MK19 Machine Gun.** The MK19 MOD 3 is an air-cooled, belt fed, blowback operated, fully automatic weapon. Because it fires from an open bolt, the MK19 MOD 3 will not "cook off".

b. **Location and Description of Major Components**

1) Top Cover Assembly. Hinged to the receiver at the forward end by two straight pins. Locks by a latch assembly attached to the rear left side of the cover.

2) Secondary Drive Lever. Consists of a lever and permanently installed retaining ring. The forked end of the lever connects to the inner feed slide pin. The slot-end engages the pivot post on the primary drive lever. The secondary drive lever's pivot post engages the hole in the top cover assembly. The retaining ring is attached to the pivot post.

3) Primary Drive Lever. Located on the top of the vertical cam assembly. Features a large and small pivot post. The large post protrudes through the raised portion of the vertical cam assembly and through the receiver. The small pivot post engaes the slot in the secondary drive lever.

4) Vertical Cam Assembly. Extends down the receiver's long axis and passes through the center of the bolt. The raised portion attaches to the receiver and to the primary drive lever.

5) Backplate Pin Assembly. Consists of a steel pin with a knurled head. and a permanently installed retaining ring. The backplate pin assembly secures the bolt and backplate assembly to the receiver.

6) Receiver. The steel housing which supports all the other components. The ammunition-feed area of the receiver contains a primary and a secondary positioning pawl. The groove from the right-hand wall to the mouth of the feed area is called the "link guide". The grooved rails on the inside of the receiver support the bolt.

7) Control Grip Assembly. Attached to the backplate on the rear of the bolt and backplate assembly. Consists of two handgrips and a butterfly-type trigger located between the two grips.

8) Bolt and Backplate Assembly. Consists of a machined steel bolt attached to a backplate by a set of telescoping rods, tubes, and recoil springs.

9) Charger Assemblies, Left-Hand and Right-Hand. Each assembly consists of a charger housing to which is attached the arm with a handle assembly and charger handle lock. The charge housings are installed on the sides of the receiver.

10) Sear Assembly. Consists of the receiver sear and safety mechanism components inside a sear housing. The gun's safety is mounted on the rear of the assembly.

11) Alignment Guide Assembly. Consists of the steel alignment guide and a flat spring held by a flat head screw and shoulder screw. The shoulder screw holds the alignment guide against the forward wall of the receiver's ammunition-feed area. The ogive plunger assembly protrudes through the elongated opening in the alignment guide.

12) Barrel. The 40mm grenade barrel screws into the receiver. The chromed bore is rifled to impart spin to the fired round.

13) Flash Suppressor. The threaded end of the flash suppressor screws onto the end of the barrel and is secured with a slotted spring pin.

14) Ogive Plunger Assembly. Protrudes through the forward wall of the ammunition-feed area of the receiver and is held in place by the alignment guide assembly. Consists of a housing, plunger, and compression spring. The rearward end of the assembly is contoured to cushion the ogive of the round.

15) Round Positioning Block. Consisits of a block with machined pins and springs. The pins are mounted to key slots in the right-hand wall of the reciever's ammunition-feed area.

16) Rear Sight Assembly. Hinged to the rear sight base hinge support on top of the receiver. The rear sight base is held by four socket head screws and is designed to hold the AN/TVS-5 Night Vision Sight. The M2 bracket interfaces between the rear sight and the AN/TVS-5 Night Vision Sight. The sight frame holds a scale labeled from 300 to 1500 meters, an elevation mechanism, and windage.

17) Feed Throat Assembly. Assists feeding of 40mm ammunition. The feed throat attaches to the forward left side of the receiver by two sets of spring-loaded shoulder pins. Without a feed throat, machine gun stoppages may occur because of twisted or misaligned rounds.

18) Feed Tray. Hinges to the underside of the top cover assembly and to the receiver by two knurled straight pins. Holds the feed slide assembly, which slides on the rails of the tray. A feed tray pawl and spring are attached to the feed tray by a grooved pin.

19) Feed Slide Assembly. Consists of a steel outer feed slide, feed pawls, a housing, and the internal components of the housing. The shuttle spring is compressed inside the housing and is held in place by three self-locking shoulder screws to the outer feed slide. Two feed slide pawls protruded from the underside of the outer feed tray. The pawls are held inposition by a flat leaf-type spring and pin.

20) Knurled Straight Pins. Connect the top cover assembly with the feed tray and receiver. Each pin contains a crosspin to prevent it from slipping out.

21) Sight Bracket Mount. Consists of a bracket and five machine bolts.

INSTRUCTOR NOTE: Refer students to TM 9-1010-230-23&P, WP 0094 00-5, Table 2.

c. A tool kit and special tools include only the standard tools applicable to the set for the procedure. Follow the instructions in the TM for the correct tool to use for each procedure described. Use only the right tool for the job, otherwise, you may cause more damage to the weapon.

d. Ammunition.

INSTRUCTOR NOTE: Refer students to TM 9-1010-230-23&P, WP 0090 00-1.

Warning: Use only ammuniiton authorized for use with the MK19 machine gun.

Warning: In case of a runaway gun, never try to break the ammo belt with your hands. Injury could result. Lower one charging handle to prevent the gun from firing.

Warning: Do not relink or fire ammunition that has been cycled through the weapon.

1) M922/M922A1 Dummy Rounds. The dummy cartridge, 40mm, M922/M922A1 (DODIC B472) linked with M16A2 links, 10 rounds per belt, packed in an M2A1 metal box will be authorized for each MK19 MOD 3. The dummy cartridges are totally inert and are used for checking gun function and for gun crew training.

2) M430/M430A1 High-Explosive Dual Purpose Round. The cartridge, 40 mm, high explosive dual purpose (HEDP), M430/M430A1, linked with M16A2 links, is the current standard round designated for use with the MK19 MOD 3.

3) M918 Target Practice Round. The cartridge, 40mm, M918 TP, linked with M16A2 links is the companion training cartridge to the M430/M430A1. This round contains a pyrotechnic charge, which on impact, emits a flash-bang signature to simulate the service ammunition.

SLIDE 92Y10D10-3 (OFF)
SLIDE 92Y10D10-4 (ON) Click in black video screen to begin video.

e. Theory of Operation.

The weapon has six major mechanical functions which occur during its cycle of operation: charging, extracting, cocking, firing, recoil, and automatic feeding.

1) Charging. Charging is the process of manually pulling the bolt to the rear by pulling the charging handle assemblies. The bolt assembly's rearward movement causes the primary drive lever to move to the left. The primary drive lever rotates the adjustable secondary drive lever. The forked end of the secondary drive lever, which rests on the inner feed slide pin, moves the feed slide assembly to the right. The feed pawls on the feed slide assembly move the linked rounds over one place in the

ammunition-feed area of the receiver. The leading round is now in line with the bolt face.

2) Extracting (Delinking the Round from the belt). When the opearator presses the trigger after charging the gun, the bolt slams forward under spring tension. The bolt's extractors snap over the cartridge of the leading round. As the operator charges the gun a second time, the link on the second round in the feeder contacts a depression in the receiver forcing the male and female links apart. As the round is pulled rearward by the extractors, the curved edge of the vertical cam assembly forces the round down the face of the bolt, out of the extractors, and into the bolt fingers. When the bolt is fully to the rear, the round is lined up with the chamber. The primer of the round is aligned with the firing pin, ready for firing. The rounds in the ammunition-feed area have been moved over one place.

3) Cocking. The rearward movement of the bolt causes the cocking lever to retract the firing pin. The firing pin is held rearward by the firing pin sear. The firing pin sear and the cocking lever each prevent the gun from firing until the bolt is released forward.

4) Firing. The releasing of the firing pin detonates the primer. Before the MK19 MOD 3 will fire:

a) The bolt must be to the rear with the firing pin cocked.

b) A round must be centered on the face of the bolt by the bolt fingers.

c) Both charge handle assemblies must be forward, up and locked. If either charger handle assembly is down, the bolt sear will not come in contact with the forward end of the receiver to allow the firing pin to fire the round.

d) The thumb safety must be on "F" (Fire).

When the opearator presses the trigger, the trigger depresses the operating rod, which depresses the tip of the receiver sear. The receiver sear disengages the bolt sear. The bolt is released forward under spring tension, with a round in its bolt fingers. When the cocking lever hits the forward end of the left-hand receiver rail slot, it is forced rearward. The bolt sear hits a plate in the bottom of the receiver, pushing the firing pin sear up to release the firing pin. The firing pin is driven forward, under tension by the firing pin spring. The firing pin detonates the primer of the round, igniting the propellant. At the moment of firing, the round, which has a reinforced propellant chamber, is not fully within the barrel's chamber (the bolt never locks in the weapon). Thus, the cartridge case protrudes from the chamber, still held by the bolt fingers. The exploding powder then forces the projectile down the bore and out the muzzle of the gun. The bolt is fully forward with a new round in its extractors.

5) Recoil and Automatic Feeding. The gases from the burning powder blow the bolt rearward with a new round in its extractors. During recoil several functions happen almost at once. The new round is extracted and is cammed down on top of the spent case by the vertical cam's curved rail. The spent case with its link still attached is forced from the bolt fingers and out the bottom of the gun (ejection). The feed slide assembly pulls the round to the right in the receiver's ammunition feed area, where a new round is now ready to be delinked and extracted (automatic feeding). During the bolt's rearward travel, the cocking lever is pushed forward, which cocks the firing pin.

When the bolt reaches the limit of its rearward travel, the recoil springs are completely compressed. Any over-travel is absorbed by the bolt buffer assembly and receiver buffer bodies thus reducing trunnion load (recoil force) at the gun/mount attaching points. If the trigger is still depressed, the bolt sear will not engage the receiver sear and another firing cycle occurs. If the trigger is released, the bolt sear engages the receiver sear, which prevents the bolt from going forward, thus stopping firing.

6) Safety Mechanisms. Components which prevent the weapon from firing accidentally or interrupt the firing cycle intentionally are considered safety mechanisms. These include:

a) Thumb Safety. Activates the safety slide inside the sear assembly. The safety slide blocks the sear from being depressed by the operator as long as the safety in on "S" (SAFE).

b) Charger Handle Assemblies Down. The safety slide on the inside edge of each charger arm slides rearward as the handle assembly is rotated down. With a handle assembly down, the bolt sear cannot come in contact with the forward end of the receiver to release the firning pin, so firing cannot occur. One or both handle assemblies may be lowered. remember "CHARGER HANDLE ASSEMBLY DOWN" is the action for a runaway gun

SLIDE 92Y10D10-4 (OFF)

Check on Learning:	Determine if the students have learned the material presented by soliciting student questions and explanations. Ask the students questions and correct misunderstandings.
Review Summary:	Conduct a Review/Summary of the information presented in the Learning Step.

TLO - LSA 2. Learning Step / Activity TLO - LSA 2. Unload and Clear the MK19 Machine Gun

Method of Instruction:	Demonstration
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - ICH, (1:10)*
Time of Instruction:	15 mins
Media Type:	Actual Equipment / PowerPoint Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.
Note: Marked as (*) is	derived from the parent learning object

SLIDE 92Y10D10-5 (ON)- Click on picture to view video on clearing and disassembly of the MK19.

INSTRUCTOR NOTE: Inform the students to refer to TM 9-1010-230-10, WP 0005 00-29, for details on clearing the MK 19 machine gun. Do not squeeze the trigger until the machine gun has been cleared. Inspect the chamber to ensure that it is empty, and

check to see that there are no obstructions in the barrel. Do not keep live ammunition near your work/maintenance area.

a. Unload the Machine Gun 40mm, MK19 Mod 3

1) Remove live round or spent case from bolt.

a) Put the weapon on 'S' (SAFE) and keep it pointed in a safe direction.

b) Remove case catch bag (if applicable). Charge the weapon.

WARNING: Do not use a bayonet to remove an empty case or live round!

c) Return the charger handles to the forward position and rotate only one charger handle up.

d) Insert the tip of a cleaning rod through the receiver rail as close to the bolt face as possible.

e) Raise up on the cleaning rod to force the live round or case off the bolt face and out the bottom of the gun. Catch the live round as it falls out.

WARNING: Do not relink or fire ammunition which has been cycled through the weapon.

f) Turn in the live round as required by current directives.

2. Remove linked rounds from feeder.

Open top cover and see if any linked rounds are in the feeder. If rounds are present:

a) With one hand, reach beneath the feeder. Press the primary and secondary positioning pawls simultaneously.

b) At the same time, slide the linked rounds out of the feeder and out of the feed throat.

c) Return the linked rounds to the ammunition can.

b. Clear the MK 19 machine gun. I will now describe how to clear the MK19. You will perform each task as I describe the sequence.

WARNING: Before starting an inspection, and/or performing any maintenance procedures, be sure to clear the weapon. Inform the students not to squeeze the trigger until the weapon has been cleared. Inspect the chamber to ensure that it is empty, and check to see that there are no obstructions in the barrel. Do not keep live ammunition near your work/maintenance area.

1) Carry the MK19 at port arms with muzzle pointed upward.
2) Put on your safety goggles.
3) Point weapon in safe direction.
4) Clear ammo from bolt face and feeder.
5) Put bolt in forward position.
6) Rest gun on mount or flat surface.

Check on Learning:

Determine if the students have learned the material presented by soliciting student questions and explanations. Ask the students questions and correct misunderstandings.

Review Summary:

Conduct a Review/Summary of the information presented in the Learning Step.

TLO - LSA 3. Learning Step / Activity TLO - LSA 3. Disassemble the MK19 Machine Gun.

Method of Instruction:	Demonstration
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - ICH, (1:10)*
Time of Instruction:	1 hr 30 mins
Media Type:	Actual Equipment / PowerPoint Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.
Note: Marked as (*) is	derived from the parent learning object

INSTRUCTOR NOTE: Refer student to TM 9-1010-230-10, WP 0011 00-1 for detailed instruction on disassembly.

a. Disassemble the MK19 machine gun. I will now describe in detail how to disassemble the MK19. You will perform each task as I describe the sequence.

1) Remove Feed Throat Assembly.

a) Squeeze plungers to ensure proper functioning. If not functioning properly, return to direct support maintenance.

2) Remove Bolt and Backplate Assembly.

WARNING: Before performing any procedure, ensure the weapon is clear of any ammunition.

WARNING: Be sure the bolt is in forward position before removing the backplate pin assembly. Failure to observe this warning will result in injury.

a) Put the safety on 'F' (FIRE).

b) Open top cover.

c) Observing the WARNING, pull straight out on the backplate pin. Use rim of a spent case.

d) Lift up slightly on backplate assembly. Slowly pull the bolt and backplate assembly out of the receiver.

e) Support the bolt with one hand and a control grip with the other. (While pressing down on the sear receiver catch release, lift the bolt up slightly and pull back to remove it.)

3) Remove Primary Drive Lever and Vertical Cam Assembly.

a) Reach under top of receiver to locate the drive lever lock on the vertical cam assembly. Slide the lock rearward about 1/4 inch.

CAUTION: Do not rest vertical cam assembly on its chromed surface.

b) Press down on the primary drive lever's pivot post. This releases the primary drive lever and vertical cam.

CAUTION: Do not allow the vertical cam to be damaged by allowing it to hit the inside of the receiver.

c) Pull out the vertical cam (to the rear) and the primary drive lever from the receiver.

4) Remove Secondary Drive Lever.

a) Raise the top cover.

b) Push down on pivot post from outside top cover. This releases the secondary drive lever.

c) Lift out secondary drive lever from inside the top cover.

5) Remove Feed Slide Assembly

a) Pivot the tray with feed slide assembly out of the top cover.

b) Move feed slide assembly to line up tabs with slots in tray.

c) Lift upward on feed slide assembly.

6) Remove Top Cover Assembly and Feed Tray.

CAUTION: Remove/insert top cover pins using only your fingers, not pliers. Forcing the pin can break the small crosspin in the rod.

NOTE: Feed tray must be down to remove top cover pins.

a) Hold top cover straight up to align crosspin end.

b) Pull straight out on pins.

c) Lift off top cover.

7) Remove Feed Tray.

a. Lift tray out of feeder.

8) Remove Alignment Guide Assembly

a) Depress the flat leaf spring by using a cartridge link toggle (male end) or small tool.

b) Slide alignment guide toward feeder mouth.

c) Pull rearward on alignment guide and lift it out.

9) Remove Ogive Plunger Assembly

a) Alignment guide must be removed first.

b) Pull out ogive plunger

10) Remove Round Positioning Block.

a) Alignment guide must be removed first.

b) Push in and slide round positioning block toward muzzle end of gun.

c) Pull round positioning block away from wall of receiver.

11) Remove Charger Assemblies (LH and RH).

a) Rotate charger handle up.

b) Using either your fingers or a spent case pry out on the lip of the lock plunger.

c) Lift up on the lock plunger to retract it and slide charger assembly all the way rearward.

d) Pull charger assembly away from receiver.

12) Remove Sear Assembly.

a) Turn receiver over on its top. Put safety in 'F' FIRE position.

b) Lift up slightly on lock pin with fingers or female end of cartridge link.

c) Squeeze sear (underneath safety) and simultaneously rotate sear housing assembly approximately 15 degrees in either direction.

d) Press down on sear housing assembly and continue rotation until it stops (90 degrees from original position).

e) Press sear and safety together while you put safety on 'S' (SAFE). This locks the sear in the 'down' position and prevents accidental loss of the sear spring.

f) Lift out sear housing assembly

SLIDE 92Y10D10-5 (OFF)

Check on Learning:

Determine if the students have learned the material presented by soliciting student questions and explanations. Ask the students questions and correct misunderstandings.

Question: What position should the feed tray be in to remove top cover pins?
Answer: The feed tray must be in the down position in order to remove the top cover pins.

Review Summary:

Conduct a Review/Summary of the information presented in the Learning Step.

TLO - LSA 4. Learning Step / Activity TLO - LSA 4. Reassemble the MK19 Machine Gun

Method of Instruction:	Demonstration
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - ICH, (1:10)*
Time of Instruction:	40 mins
Media Type:	Actual Equipment / PowerPoint Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.
Note: Marked as (*) is	derived from the parent learning object

SLIDE 92Y10D10-6 (ON) Click on picture to view video on assembly of the MK19. Be prepared to pause video at 5:55.

INSTRUCTOR NOTE: Refer students to TM 9-1010-230-10, WP 0013 00-1 for detail instruction on assembly of the MK19.

a. Reassemble the MK19 machine gun. I will now describe how to assemble the MK19. You will perform each task as I describe the sequence. Do not assemble any part of the weapon until told to do so.
NOTE: Be sure components are lubricated in accordance with TM 9-1010-230-10, WP 0012 00 prior to reassembly.

1) Install Charger Assemblies (LH and RH)
   a) Turn receiver upright.
   b) Rotate charger handle to the straight-up position.
   c) Line up lugs on charger with slots in receiver rail. Insert charger lugs into slots.
   d) Hold charger tightly against rail. Slide charger forward until it locks in place.
2) Install Round Positioning Block.
   a) Insert blocks into slots, with the tang end forward.
   b) Push against block and slide it toward the rear until the block locks in place.

3) Install Ogive Plunger Assembly.

a) Insert ogive plunger.

4) Install Alignment Guide Assembly.

a) Position the alignment guide assembly so that the pin is lined up with the slot in the feeder wall.

b) Hold the alignment guide against the front wall and slide the alignment guide into the receiver until it 'clicks.'

5) Install Feed Tray and Feed Slide Assembly.

a) Place tray into top of feeder, recessed side up.

b) Pinholes on tray should line up with lugs on receiver.

c) Position feed slide assembly so that tabs are lined up with slots on tray.

d) Insert tabs into slots. Drop feed slide assembly into tray and move it slightly to ensure engagement.

6) Install Top Cover Assembly.

CAUTION: To avoid breaking the crosspin, be sure it is fully inserted into the receiver before closing top cover.

a) Feed tray should be in place resting in the receiver.

b) Place the top cover on the receiver with the pinholes in line with the receiver lug end feed tray pinholes.

c) Hold top cover straight up. Insert top cover pins on both sides. Ensure the crosspin is fully inserted then rotate the top cover fully open.

7) Engage Secondary Drive Lever.

CAUTION: If secondary drive lever is not properly engaed with the feed slide pin, gun will not fire.

a) Rotate the feed slide assembly and tray upward.

b) Engage forked end of secondary drive lever with the feed slide pin.

c) Press raised pivot post through hole in top cover.

d) Press secondary drive lever against cover until it locks in place.

8) Install Vertical Cam Assembly.

CAUTION: Do not damage vertical cam by hitting it on the inside of the receiver.

a) Slide vertical cam assembly through rear of receiver. Raised portion should slide over the top of the receiver. Drive lever lock should be underneath.

b) Engage forked end in the notch.

9) Engage Primary Drive Lever.

a) Hold vertical cam assembly in place and slide primary drive lever into receiver.

b) Slide drive lever lock rearward and engage pivot post of lever through holes in receiver and vertical cam.

c) Slide drive lever lock (on vertical cam just beneath top of receiver) forward.

10) Install Bolt and Backplate Assembly.

CAUTION: Before inserting assembly, put cocking lever in forward position.

Assemble bolt and backplate using one of the following procedures:

a) Procedure 1 - With sear assembly on gun:

(1) Place safety 'F' (FIRE) position.

(2) Press sear using thumbs or rim of cartridge case.

(3) Make sure cocking lever is cocked and forward.

(4) Slide bolt and backplate assembly all the way forward.

(5) Insert backplate pin to lock assembly in place.

b) Procedure 2 - With sear off gun:

(1) Make sure cocking lever is cocked forward.

(2) Insert bolt and backplate assembly into receiver.

(3) Insert backplate pin to lock assembly in place.

(4) Close cover.

11) Install Sear Assembly.

a) Turn receiver over on its top.

b) Place sear housing on the receiver and line up sear housing assembly at a right angle to the barrel centerline.

c) Put safety on 'F' (FIRE) position.

d) Press down and rotate housing assembly until it stops.

e) Press up on sear and continue rotation until it locks in position.

12) Install Feed Throat Assembly.

a) Squeeze plungers, align pins with holes in receiver. Release plunger to reattach feed throat.

INSTRUCTOR NOTE: Inform the students that to prevent damage when closing the lid an After Assembly Check should be conducted to verify

1) Is the secondary drive lever properly engaged with the feed slide pin?

2) Is the feed slide assembly all the way to the left?

3) Is the bolt forward and the charging handles up?

13) Close the top cover gently.

Check on Learning:	Determine if the students have learned the material presented by soliciting student questions and explanations. Ask the students questions and correct misunderstandings.
Review Summary:	Conduct a Review/Summary of the information presented in the Learning Step.

TLO - LSA 5. Learning Step / Activity TLO - LSA 5. Perform a functions check on the MK19 MOD 3 Machine Gun.

Method of Instruction:	Demonstration
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - ICH, (1:10)*
Time of Instruction:	15 mins
Media Type:	Actual Equipment / PowerPoint Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.
Note: Marked as (*) is	derived from the parent learning object

INSTRUCTOR NOTE: Inform students to refer to TM 9-1010-230-10, WP 0013 00-24.

Perform Test and Inspection. I will now describe the procedures to perform a test and inspection on the MK19. You will perform each task as I describe the sequence.

WARNING: Before performing any procedure, ensure the weapon is clear of any ammunition.

a. Check functioning with safety on 'S' (SAFE) then on 'F' (FIRE).

1) With top cover closed, put safety in 'S' (SAFE) position (push left).
2) Pull bolt to the rear.
3) Push charger handles back to forward position. Rotate charger handles up.
4) Observe previously mentioned WARNING.
5) Press trigger. Bolt should not go forward.
6) Put safety in 'F' (FIRE) position (push right).

CAUTION: As bolt is under spring pressure, do not release it any more thatn necessary to test functioning of firing pin. 'DRY FIRING' causes wear on internal components.

7) Press trigger. Bolt should spring forward.
8) Put safety in 'S' (SAFE) position.
9) Leave bolt in forward position and continue

b. Open top cover; inspect interior of receiver for missing/damaged parts.

1) Touch firing pin.

NOTE: If firing pin is not protruding, recharge and release the bolt forward under spring pressure.

2) Touch bolt face to ensure it is lubricated and not dry, pitted, or corroded.

c. Check feed slide assembly and feeder.

1) Move secondary drive lever back and forth. Feed slide assembly should move freely.
2) Press the pawls to check spring tension.
3) Inspect link guide for roughness and galling.
4) Perform feed slide adjustment inspection. Refer to WP 0010 00, Preventive Maintenance Checks and Services Table, step 3.

CAUTION: Before closing top cover always be certain the secondary drive lever is engaged with feed slide pin, feed slide assembly is to the left, and bolt is forward. Never attempt to force top cover closed. Equipment damage could result. do not slam cover shut.

d. Close top cover, observing CAUTION.

SLIDE 92Y10D10-6 (OFF)

Check on Learning: Determine if the students have learned the material presented by soliciting student questions and explanations. Ask the students questions and correct misunderstandings.

Review Summary: Conduct a Review/Summary of the information presented in the Learning Step.

TLO - LSA 6. Learning Step / Activity TLO - LSA 6. Perform Maintenance on the MK19 MOD 3 Machine Gun.

Method of Instruction:	Demonstration
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - ICH, (1:10)*
Time of Instruction:	1 hr
Media Type:	Actual Equipment
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.
Note: Marked as (*) is	derived from the parent learning object

SLIDE 92Y10D10-7 (ON)

INSTRUCTOR NOTE: Refer students to TM 9-1010-230-23&P, WP -37 00. Review the PMCS Introduction with the students.

a. Perform PMCS on the MK19 machine gun. I will now describe in detail how to perform a PMCS on the MK19. A critical part of the process is completing timely and accurate paperwork. You will perform each task as I describe the sequence.

b. Fill out the header information on the DA Form 2404. I will provide the information needed to complete the header data. Make entries as required. Use the **<TAB>** key to move from field to field.

INSTRUCTOR NOTE: Inform the students to refer to the DA Pam 750-8. Have them to power up their systems and access the forms program or refer students to student handout figure 1 and use the blank DA Form 2404. Have each student select the DA Form 2404. Check all computer screens to ensure that students have a DA Form 2404 displayed. Explain each of the entries as you complete the form. **(NOTE: If a computer with forms program is not available, the instructor may opt to use the manual DA Forms 2404/2407 at this point.)** Instructor can add additional faults to ensure students understand.

1) Enter **[HHC, 13th Military Police Battalion]** in block 1.

2) Enter **[Machine gun 40mm MK19 MOD 3]** in block 2.

3) Enter **[5763001]** in block 3. Have students enter the serial number from the weapon they are going to PMCS.

4) Enter **[25 Oct XX]** in block 5.

5) Enter **[Quarterly]** in block 6.

6) Enter **[TM 9-1010-230-23&P]** and**[30 November 2005]** in block 7.

7) The signature of the preparer is put in the signature block, 8a. You will print the DA Form 2404 and sign it as the unit armorer if any deficiencies are found.

INSTRUCTOR NOTE: Your commander or maintenance supervisor only signs the DA Form 2404 after service/inspection is completed. It is the commander's or maintenance supervisor's responsibility to verify that all deficiencies are listed on your DA Form 2404, and that all corrective action has been taken to correct the deficiencies.

INSTRUCTOR NOTE: Tell the students to refer to TM 9-1010-230-23&P, WP 0038 00.

c. Perform inspection of the MK19 Mod 3 Machine Gun and record all deficiencies on the DA Form 2404 during the inspection.

1) MK19 MOD 3 Machine Gun (Exterior):

NOTE: If weapon has been stored and not used for a period of 90 days, perform PMCS.

a) Visually inspect exterior for rust.

b) Remove rust with lubricant and wiping rag.

c) Weapons with less than, or up to, one-third of the exterior protective finish missing will be touched up with solid film lubricant.

2) Bore and Chamber

WARNING: To avoid injury, appropriate eye protection is recommended when cleaning the weapon and/or its parts.

NOTE: If possible, clean bore and chamber immediately after firing.

a) Soak borebrush (on a cleaning rod) with Rifle Bore Cleaner (RBC). Insert borebrush into the muzzle and chamber. Resoak the brush. Repeat until bore and chamber are clean. Carbon may be removed from the chamber using abrasive cloth. Wipe bore and chamber dry and apply a light coat of lubricant

3) Feed Throat Assembly:

a) Check plungers for condition of the following components: Weak springs, knurled pins (test by squeezing each set together).

b) Feed thraot (check for cracks and bent areas). If bent, install on gurn's receiver. Perform dummy round function test.

c) Check for and remove rust with an abrasive cloth. Preserve with light coat of lubricant.

4) Top Cover Assembly:

a) Raise the top cover. Ensure the handle is not loose, dry, or binding. Ensure is not broken.

INSTRUCTOR NOTE: Inform the student that the top cover latch has no spring tension. Have students enter the fault on the DA Form 2404. If required walk the

students through the process.

b) Separate the secondary drive lever from the top cover (WP 0042 00). Remove any rust with wiping rag and lubricant.

c) Lubricate lightly.

5) Secondary Driver Lever Assembly:

a) Inspect for burrs. Remove with a stone. Verify the presence of the retaining ring on the pivot post.

6) Feed Slide Assembly:

a) Verify the feed slide assembly slides in the feed tray.

b) Press the feed slide pawls to verify crisp spring action.

c) Install feed tray (WP 0040 00), feed slide assembly (WP 0040 00), and the adjustable secondary drive lever (WP 0040 00). With the bolt in the forward position and the feed slide assembly to the left, make sure helical compression spring is touching the inside wall of the top cover.

7) Feed Tray and Feed Tray Pawl:

a) Check feed tray for cracks and burrs along the rails of the tray. Inspect for rust. Ensure rails are well lubricated.

b) Press and release the feed tray pawl to verify crisp spring action without binding.

8) Primary and Secondary Pawls:

a) Press and release to verify crisp spring action.

9) Round Positioning Block:

a) Slide the block in the keyholes to verify it is tight.

b) Check for movement of pins. Pins may turn but should not have any side to side or inward and outward movement.

10) Alignment Guide Assembly:

a) Verify the alignment guide pin is tight.

11) Ogive Plunger Assembly:

WARNING: To avoid injury, appropriate eye protection is recommended when cleaning the weapon and/or its parts.

CAUTION: Do not immerse the ogive assembly in cleaning solvent. solvent dilutes the internal lubricant.

a) Insprect for rust and damaged or missing parts.

b) Disassemble and lubricate before firing.

12) Receiver:

a) Verify the three welded pins are present.

b) Remove the bolt and backplate assembly (WP 0040 00). Inspect internal rails for burrs. Inspect feeder link guide for galling or burrs. Check for cracks on weld seams. Inspect all surfaces for rust.

c) Inspect receiver interior and right-hand inner rail for cracks and rust.

13) Bolt and Backplate Assembly:

a) Verify the assembly is clean, lubricated, and has no rust.

b) With the bolt and backplate assembly removed from the receiver (WP 0040

00), the firing pin should retract.

WARNING: Do not relink or fire ammunition which has been cycled through the weapon.

14) Bolt and Backplate Assembly:

a) Check for broken or missing safety wire (WP 0045 00).

b) Check for loose or missing screw. (WP 0045 00).

15) Secondary Pawl:

a) Conduct the dummy round test:

(1) Manually push a dummy round across the feed tray. Verify the pawl snaps behind the rim of the case prior to compression of the bolt fingers.

NOTE: If erosion (chipped) is severe enough to interfere with the function of the round being fed into the bolt fingers, replace the bolt.

(2) Push the dummy round out of the bolt fingers. Verify the round passes easily out of the bolt fingers. If still binding, disassemble, inspect, and replace damaged parts.

16) Feed Slide:

a) Check feed slide alignment before firing (Unit Armorer, with Feed Slide Adjustment Tool).

17) Cam Followers

a) Inspect cam followers, feed pawl, LH and RH bolt fingers for spring tension, rust, flat spots, and lubrication.

18) Vertical Cam Assembly:

a) Remove the vertical cam assembly and the primary drive lever (WP 0040 00).

b) Inspect the chromed surface for burrs, pits, nicks, scratches and aluminum buildup, Remove any aluminum deposits (buildup), surface imperfection, or dullness using 600-grit silicone abrasive paper, abrasive cloth, or wood block. Remove any sharp edges with a stone.

c) If pits are found, measure the distance of the pit from the edge, using a dial caliper. If pits are farther than .030 from the edge, replace the vertical cam assembly.

d) Verify free movement of the drive lever lock.

19) Primary Driver Lever:

a) Inspect for burrs around the pivot post and all surfaces. Remove burrs with a stone.

20) Charger Assemblies, LH and RH:

a) Inspect the function and general condition of the following:

(1) Handle locks.

(2) Slides.

(3) Arm mechanism.

(4) Lock plungers (tips)

b) Check grooved rails for burrs. remove burrs with a stone.

c) Apply light coat of lubricant under each handle lock and between each charger housing and receiver.

21) Sear Assembly:

NOTE: Whenever a new receiver sear is installed, also install a new bolt sear.

Adjust the gun's timing.

a) Inspect receiver sear for wear. Replace if worn, observing NOTE, above.

b) Using a dial caliper, measure the length of the sea spring. If it is shorter than 0.960, discard and install a new spring.

c) Move the thumb safety back and forth to ensure it snaps into and remains in both the "S" (SAFE) and "F" (FIRE) positions.

d) Inspect for broken parts and adequate lubrication.

e) Ensure that the safety lever pin is installed.

22) Functional Check:

a) Check feed slide for adjustment.

WARNING: Ensure stow pin and depression stop are installed before attaching MK 64 mount to tripod. Do not relink or fire ammunition which has been cycled through the weapon.

b. Assemble the weapon and mount it on the MK64 Machine Gun Mount, MK 16 Mod 0 Stand, or M3 Tripod.

1) Raise the top cover and assure the bolt is in the forward position.

2) Feed two linked dummy rounds of 40mm ammuntion into the weapon until the first round is to the righrt of the secondary pawl.

3) Move the feed slide assembly to the left and close the top cover. charge weapon and push the chargers forward and up. Verify that the chargers do not bind when the weapon is charged.

4) Without opening the top cover, verify the second round is now to the right of the secondary pawl. The feed pawl will protrude when felt from the front underside of the feed trray area. Primary and secondary pawls should be in the up position.

5) Move the safety to "F" (FIRE). Press the trigger to release the bolt forward under spring tension. Raise the top cover. Verify the extractors are seated properly on the ammunition case rim and delinking ahs occured. close top cover.

6) Pull the bolt to the rear until the primary pawl clicks prior to complete charging of the bolt. Push the chargers fully forward and up.

CAUTION: Catch the ejected dummy round as it comes out the bottom of the weapon. The round's ogive may become dented if the round is dropped.

7) Press trigger to release bolt forward. charge the weapon, catching the ejected round. {lace thumb safety on "S" (SAFE).

8) Raise top cover and verify the ammunition is seated firmly against bolt face and that the round stop pawl protrudes from the bolt face above the seated ammunition.

9) Verify no malfunctions occured and no discrepancies were noted during accomplishment of steps 1 through 8.

10) Remove dummy ammunition from the weapon using a cleaning rod section.

11) Install the feed throat and insert a belt of six linked dummy rounds. Verify weapon met requirements of steps 3 through 6 when repeated with the six linked rounds of dummy ammunition.

CAUTION: To prevent dented ogive, catch the ejected dummy round as it

comes out of the bottom of the weapon.

12) Remove last dummy round from the weapon, using a cleaning rod section.

13) With rounds removed, charge the weapon and return charging handles forward and in up position. Press trigger and relese bolt. Raise the cover and inspect the bolt face to insure that the firing pin protrudes.

14) Charge the weapon again and return the charging handles to the forward position, leaving one charging handle down. Press the trigger and release the bolt. raise the cover and inspect bolt face to insure that the firing pin does not protrude. This procedure is to confirm stoppage of a runaway gun.

SLIDE 92Y10D10-7 (OFF)

Check on Learning:	Determine if the students have learned the material presented by soliciting student questions and explanations. Ask the students questions and correct misunderstandings.
Review Summary:	Conduct a Review/Summary of the information presented in the Learning Step.

TLO - LSA 7. Learning Step / Activity TLO - LSA 7. Prepare the DA Form 2407.

Method of Instruction:	Demonstration
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - ICH, (1:10)*
Time of Instruction:	5 mins
Media Type:	PowerPoint Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.
Note: Marked as (*) is	derived from the parent learning object

SLIDE 92Y10D10-8 (ON)

a. Now that a fault that requires a higher level of maintenance is identified, you must prepare a DA Form 2407, Maintenance Request Form.

INSTRUCTOR NOTE: Remind students that an automated form DA 5990-E can also be used as a Maintenance Request Form.

1) Enter [**1**] in page number block
2) Enter [**1**] in number of pages block.

SECTION I - Customer Data

3) Enter [**WBAKT0**] in block 1a as the UIC.
4) Enter [**HHC, 13th MP Bn**] in block 1b as the unit.
5) Enter [**765-8591**] in block 1c as the phone number.
6) Block 2a leave blank.

7) Enter [**0**] in block 2b. Refer to DA Pam 750-8, Table B-6 for applicable utilization codes.

8) Block 2c leave blank.

SECTION II - EQUIPMENT DATA

9) Enter [**1**] in Block 5. Refer to DA Pam 750-8, Table B-20 for available codes.

10) Enter [**A**] in block 6

11) Enter [**1010-01-126-9063**] in block 7.

12) Enter [**MK19, Mod 3**] in block 8.

13) Enter **[Machine Gun, 40mm]** in block 9.

14) Block 10a leave blank.

15) Enter [**4AE**] in block 10b.

16) Enter the serial number of the weapon needing to be turned in.

17) Enter [**00001**] in block 12.

18) Enter [**12**] in block 13.

19) Block 14 leave blank.

20) Enter [**N**] in block 19

21) Enter the Admin No in block 20.

22) Enter [**F**] in block 22 as the Level of Work.

20) Enter **[Top Cover Assembly Spring Weak]** in block 24

21) The person submitting the form will sign. Student will sign the SUBMITTED BY block.

22) Enter [**XX301**] in block 34b for the date.

b. Attach DA Form 2404/DA Form 5988E to the DA Form 2407/DA Form 5990E.

c. Submit all copies of the Maintenance Request Form to support maintenance with the weapons.

SLIDE 92Y10D10-8 (OFF)

Check on Learning:	Determine if the students have learned the material presented by soliciting student questions and explanations. Ask the students questions and correct misunderstandings.
Review Summary:	Conduct a Review/Summary of the information presented in the Learning Step.

TLO - LSA 8. Learning Step / Activity TLO - LSA 8. Practical Exercise - Perform Maintenance on the MK19 MOD 3 Machine Gun

Method of Instruction:	Practical Exercise (Hands-On/Written)
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - ICH, (1:10)*
Time of Instruction:	1 hr 30 mins
Media Type:	Actual Equipment / Practical Exercise
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.
Note: Marked as (*) is	derived from the parent learning object

Complete the practical exercise included with this lesson.

a. Give the students time to complete the practical exercise for this lesson.

b. Assist the students as needed during the practical exercise to ensure material is understood.

c. Review the practical exercise with the students and answer any questions the students may have.

Check on Learning:

Determine if the students have learned the material presented by soliciting student questions and explanations. Ask the students questions and correct misunderstandings.

Review Summary:

Review the practical exercise with the students. Review the questions and clear up any misunderstandings that the students may have.

TLO - LSA 9. Learning Step / Activity TLO - LSA 9. Conduct MK19 MOD3 Machine Gun Performance Exam.

Method of Instruction:	Hardware-Oriented Test
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - ICH, (1:10)*
Time of Instruction:	1 hr 15 mins
Media Type:	Actual Equipment
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.
Note: Marked as (*) is	derived from the parent learning object

The student will complete a hands on performance based examination on the MK19 MOD 3 Machine Gun. The student will disassemble, perfom organizational maintenance, complete DA Form 2404, complete DA Form 2407, if required, assemble, and perform a functions check of the MK19 MOD 3 Machine Gun.

Check on Learning:

Determine if the students have learned the material presented by soliciting student questions and explanations. Ask the students questions and correct misunderstandings.

Review Summary:

a. Conduct a Test Review/Analysis with the students.

b. Review any questions and clear up any misunderstandings that the students may have.

c. Ensure all test material is gathered from the students. Secure all test material until it can be secured.

SECTION IV. SUMMARY

Method of Instruction:	Reflective Discussion
Mode of Delivery:	Resident Instruction
Instr Type(I:S Ratio):	Military - ICH, (1:30)
Time of Instruction:	15 mins

Check on Learning

Determine if the students have learned the material presented by soliciting student questions and explanations. Ask the students questions and correct misunderstandings.

Question: Which appendix references the national stock number for tool set small arms?
Answer: Appendix B.

Question: What is the first step before disassembling a weapon?
Answer: Clear the weapon.

Question: What chapter in TM 9-1010-230-23&P covers unit maintenance instructions?
Answer: Chapter 2.

Question: Which TM covers function checks?
Answer: TM 9-1010-230-23&P.

Review/ Summary

SLIDE 92Y10D10-9 (ON)

The following areas were covered during this lesson:
a. MK19 Characteristics, Capabilities and Features, and Theory of Operation.
b. Unload and Clear the MK19 Machine Gun.
c. Disassemble the MK19 Machine Gun.
d. Reassemble the MK19 Machine Gun.
e. Perform Maintenance on the MK19 Machine Gun.
f. Prepare the DA Form 2407 on the MK19 Machine Gun.

SLIDE 92Y10D10-9 (OFF)

SECTION V. STUDENT EVALUATION

Testing Requirements

The soldier will complete hands on performance based examination covering the materials presented in this lesson. The exam will be graded on a GO/NO-GO basis. Student must receive a GO to be considered successful.

Feedback Requirements

NOTE: Feedback is essential to improving training, always encourage students to provide comments and ensure to complete the Module AAR.

NOTE: Review the completed practical exercise with the students. Ensure lesson is understood by asking questions and receiving feedback from the students. Clear up any misunderstandings.

Appendix A - Viewgraph Masters

Perform Maintenance on the Machine Gun 40 mm, MK 19 MOD 3
101-92Y10D10 / Version 05.0 ©

Sequence	Media Name	Media Type
1	MK19 Intro	MP3
2	MK19 Disassembly	MP3
3	MK19 Reassembly	MP3
4	92Y10D10 Ver3 Classroom Presentation	PPTX

Appendix B - Assessment Statement and Assessment Plan

Assessment Statement: None.

Assessment Plan: None.

PRACTICAL EXERCISE(S)/SOLUTION(S) FOR LESSON 101-92Y10D10 Version 05.0 ©

Appendix D - Student Handouts

Perform Maintenance on the Machine Gun 40 mm, MK 19 MOD 3
101-92Y10D10 / Version 05.0 ©

Sequence	Media Name	Media Type
10	92Y10D10 Ver3 Student Handout	DOCX
20	92Y10D10 Ver3 Practical Exercise	DOCX
21	92Y10D10 Ver3 Practical Exercise Solution	DOCX