3rd Sqn 71st Cav Regt (Recon)

Gunnery Skills Test (GST)

The GST evaluates the crew member’s ability to perform gunnery-related skills.  It does not replace tasks in the 19D Soldier’s manuals or Warrior Tasks and Drills.  The tasks used in this chapter provide the commander a means to evaluate and determine that a crew has reached proficiency prior to live-fire gunnery.  The GST should also be used as a diagnostic tool to determine the level and effectiveness of cross-training throughout the unit.

The unit commander and master gunner must enforce the training of the GST tasks.  The tasks conducted by a Scout will be determined by the platform(s) with which his platoon will qualify for that gunnery.  Every soldier will conduct all tasks required for any platform or weapon in the platoon, regardless of whether he will use that specific platform or weapon (for example, an M2 caliber .50 gunner will also conduct the tasks for the MK-19, M240B and M41 ITAS in a HMMWV scout platoon).  The following is a generic breakdown of task requirements and may be changed using the above guidance:

         LMTV-pure platoon:  Tasks 1 through 8.

         HMMWV-pure platoon with TOW launcher:  Tasks 1 through 19.

         HMMWV-pure platoon without TOW launcher:  Tasks 1 through 8 and 13 through 19.

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| **CONTENTS**  [Section I: Administrative Procedures](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#1#1) [Section II: Test Stations](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#2#2) |

Section I - Administrative Procedures

4-1. The GST is administered using tasks, conditions, and standards, as well as administrative guidelines and performance checklists for each type of weapon system. The Squadron or Troop Commanders may add tasks to the GST for a more comprehensive evaluation, but at no time will any tasks be deleted from the GST.  Once basic proficiency has been attained, commanders should include NBC conditions in GST training.

Requirements

4-2. As a minimum, soldiers must take the GST once each quarter, when they (crew members) change positions, and before gunnery qualification, unless the soldier just qualified within the past three months (four months for RC) in his current vehicle position.

4-3. The crew member must complete all actions outlined in the performance checklist within a specified time limit to achieve a GO for the task.  To achieve an *overall* GO on the GST, the crew member must receive a GO on all tasks. Each Troop Master Gunner will maintain the GST packets upon completion of GST testing. All Scout Gunnery Skills Test Checksheet, DA Form 7559-R will be turned into the Squadron Master Gunner.

4-4. Preliminary gunnery training should be conducted before administering the GST. Each crew should be kept together as much as possible during preliminary training and at each test station as much as the training schedule allows.

Evaluation Procedures

Administrative Process

4-5. Stations are set up whereby crew members will conduct one or more GST tasks.  At the station, the evaluator logs crew member’s information on a roster.  He provides the crew member with all materials and equipment and displays them in the manner outlined in this guide.  The evaluator must use the criterion performance checklist for each task.  He informs the crew member of his performance on the task, annotates the crew member’s Scout Gunnery Skills Test Checksheet, DA Form 7559-R (see [Figure 4-1](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#fig4-1#fig4-1)), and directs him either to the next station or to further training.  Only one crew member at a time can be tested, unless otherwise specified in the test administrative guide.

Administrative Procedures for Personnel Receiving a NO-GO

4-6. If the crew member does not achieve the standard indicated on the checklist, he receives a NO-GO.  When a crew member receives a NO-GO, he must be critiqued, to include an explanation of his mistakes and what he must do to correct them.  The crew member will be retested in accordance with the local SOP.

Evaluators

4-7. Either internal or external evaluators may evaluate GST; however, external evaluation is recommended.  All evaluators must have been GST qualified within one year of testing.  Evaluators must have achieved a GO on the task they are to evaluate within 30 days of testing.

Evaluation Criteria

4-8. The unit’s evaluation criteria cover sheet must include the date, crew member’s name, grade, unit, duty position, bumper number, evaluator’s name, overall rating (GO/NO-GO), and remarks (vehicle type) for each task performed.  Personnel receive either a GO or a NO-GO on each task.  A soldier receives a score of NO-GO when he—

       Fails to complete the task.

       Incorrectly performs a task or step.

       Fails to meet the time standards.

4-9. At the conclusion of each task, any crew member failing to meet the prescribed standards will be critiqued, to include an explanation of mistakes and what to do to correct them.  Retesting will be in accordance with the local SOP.

Personnel, Equipment, and Material Required

4-10. The personnel, equipment, and material listed below are required for all stations.  Additional items, if required, are listed in the test administrative guide for each particular task.

       Qualified 19D, 11B, 11C or 88M, Sergeant or above.

       FM 3-20.8.

       Stopwatch.

       Clipboard with pen.

       One helper, qualified 19D, 11B, 11C or 88M, Sergeant or below.

Section II - Test Stations

4-11. Each station consists of a test administration guide and recommended performance checklist for each station.  The performance checklists for all stations must be cross-referenced with the latest TMs.  In all instances, the TM procedures take precedence for scoring criteria.  Additionally, an attempt to further cross-reference with the applicable soldier’s manuals should be made to ensure standardization in training and testing.

Task 1

Prepare a Range Card

TEST ADMINISTRATIVE GUIDE

**TASK:**                             Prepare a range card.

**CONDITIONS:** Given a fully operational vehicle with a weapon system, sector of fire, compass, paper, pencil, map (1:50,000), three marking stakes, and Standard Range Card Form (DA Form 5517-R).

**STANDARDS:** Within 15 minutes, the crewman will prepare a range card that depicts the target area, to include the following:

         Weapon symbol.

         Circle value.

         Sectors of fire.

         Target reference points/reference points (RP).

         Dead space.

         Weapon reference point (WRP).

         Magnetic north.

         Identification data.

         Target/sector data.

**PERSONNEL, EQUIPMENT, AND MATERIAL REQUIRED:**

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         An operational LMTV or HMMWV with BII.

         Three stakes per vehicle.

**PRETEST PREPARATION:**

         Make sure the equipment is operational.

         Make sure the turret is positioned at 6,400 mils.

         Make sure the turret lock is engaged.

**PRETEST CONDITIONS FOR EACH CREWMAN:**

         A blank range card is issued.

         A pencil and compass are issued.

         The left and right limits and reference point are pointed out.

**TEST PLANNING TIME:**

Administrative time:                              5 minutes

Test time:                                               15 minutes

Total time:                                             20 minutes

**INSTRUCTIONS TO THE CREWMAN:**

*“This task will test you on your ability to prepare a range card.  You will have 15 minutes to complete this task.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”* (Start the time.)

If the crewman has not completed each task after 15 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 1

Prepare a Range Card

                                                                                                                          GO          NO-GO

1.     Prepared a range card.

a.     Indicated the identification data.

(1)     Indicated the unit identification                                                                               \_\_\_\_\_\_\_\_

(2)     Indicated the magnetic north.                                                                                  \_\_\_\_\_\_\_\_

b.     Filled in the sketch portion.

(1)     Indicated the weapon position by the proper symbol.                                        \_\_\_\_\_\_\_\_

(2)     Indicated the left and right limits.                                                                            \_\_\_\_\_\_\_\_

(3)     Indicated the circle value.                                                                                         \_\_\_\_\_\_\_\_

(4)     Indicated the TRPs/RPs.                                                                                           \_\_\_\_\_\_\_\_

(5)     Indicated the dead space.                                                                                         \_\_\_\_\_\_\_\_

(6)     Indicated the maximum engagement lines.                                                             \_\_\_\_\_\_\_\_

(7)     Indicated the WRPs.                                                                                                 \_\_\_\_\_\_\_\_

c.     Filled in the data section.

(1)     Indicated the position identification.                                                                      \_\_\_\_\_\_\_\_

(2)     Indicated the vehicle type/bumper number.                                                          \_\_\_\_\_\_\_\_

(3)     Indicated the circle value in meters.                                                                        \_\_\_\_\_\_\_\_

(4)     Indicated the target information.

(a)     Indicated the left and right limits.                                                                            \_\_\_\_\_\_\_\_

(b)     Indicated the TRPs.                                                                                                  \_\_\_\_\_\_\_\_

(c)     Indicated the RPs.                                                                                                     \_\_\_\_\_\_\_\_

(d)     Indicated the WRPs.                                                                                                 \_\_\_\_\_\_\_\_

(5)     Indicated the date and time.                                                                                     \_\_\_\_\_\_\_\_

2.     Completed the performance measures within 15 minutes.                                                     \_\_\_\_\_\_\_\_

Task 2

Identify Combat Vehicles

TEST ADMINISTRATIVE GUIDE

**TASK:**                             Identify combat vehicles.

**CONDITIONS:** Given a classroom with pictures/images of combat vehicle exposures, stopwatch, chair, desk or clipboard, and pencil.

**STANDARDS:** The crewman will identify 36 of the 40 vehicles by nomenclature.  Of the 40 vehicle pictures/images, 15 will be tanks; 17 will be a mix of infantry fighting vehicles (IFV), APCs, reconnaissance vehicles, and ATGM vehicles; and 8 will be a mix of trucks and self-propelled (SP) artillery, ADA, and engineer vehicles.  No more than 12 of the 40 vehicles will be U.S. or allied.

**PERSONNEL, EQUIPMENT, AND MATERIAL REQUIRED:**

         Forty pictures/images of combat vehicles selected from the combat vehicle list in [Table 4-1](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#tab4-1#tab4-1).

         Classroom.

         Performance checklist (one for each soldier).

         Chair, desk, or clipboard (one for each soldier).

         Pencil (one for each soldier).

**PRETEST PREPARATION:**

         Select forty pictures/images from the prescribed list in [Table 4-1](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#tab4-1#tab4-1).

         Make sure the pictures/images can be recognized from all locations in the classroom.

         Make sure the pictures/images are ready to be viewed but are exposed until the test begins.

**TEST PLANNING TIME:**

Administrative time:                              5 minutes

Test time:                                               20 minutes

Total time:                                             25 minutes

**OTHER INFORMATION:**

         This task requires the soldier to identify combat vehicles from the front, side, oblique, or rear using day and thermal vehicle exposures.

         Crewmen will be trained on all of the vehicles listed in Table 4-1.  The 40 pictures/images selected for testing do not have to be 40 different vehicles; the same vehicle may be used more than once in a test, however, a different angle exposure of the vehicle must be used.  The same vehicles, regardless of angle, cannot be shown more than three times.

         The number of crewmen to be tested at one time depends on the classroom seating without compromising test procedures.

         If the crewman does not achieve the standard indicated on the checklist, he receives a NO-GO.  When a crewman receives a NO-GO, he must be critiqued, to include an explanation of vehicles that were incorrectly identified and retested with a second set of pictures/images showing the same vehicles in a different view or different order.

**INSTRUCTIONS TO THE CREWMAN:**

*“At this station, you will be tested on your ability to identify combat vehicles.  You must correctly identify 36 of 40 vehicles by nomenclature.  You will have 15 seconds to view each picture/image and 10 seconds between each picture/image to write your answer on the performance checklist provided.  Make sure you do not get out of sequence or your answers will be incorrect.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”* (Start the time.)

If the crewman has not completed the task after the appropriate time, announce “STOP” loud enough for the crewman to hear.

Table 4-1.  Combat Vehicle List.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| AMX40 Challenger Leopard 2 M1 Abrams Merkava | | zsu23-4 2s1 lav-25 t62 t72 | | T72M1 T80 BMP1 BMP2 M2A2 | | BRDM2 BTR60PB M113 Marder Warrior | |
| T64 T64A T64B | | t64k t72 m84 Type 59 | | Type 62 Type 69 Type 79 | | Type 80 Type 90 | |
| AMX13 AMx30 AMX30 SA Centurion Centurion 155 | | Centurion re Chieftain Leopard 1 m48a5 m551 Sheridan | | M60A1 M60A3 PT76 PT76 Type 60 T80U | | T34 Medium T54 T55 t55k | |
| **Antitank Systems** | | | | | | | |
| ASU57 ASU85 AT1 Snapper AT2 Swatter AT3 Sagger AT4 Spigot | | at5 Spandrel aT6 Spiral b10 pANHARD VCR HOT ITV M901 Milan atgm | | MT12 RPG2 RPG7 SPG9 SS11 Harpoon ATGM Swingfire ATGM | | Type 52 75-mm Recoilless Rifle Type 56 RPG-2 Type 70-1 62-mm Rocket Launcher Type 86 | |
| **Artillery (Self-Propelled/Towed)** | | | | | | | |
| 2S3 2S4 2S5 2S7 2S9 AL FAO 210-mm Astros (MRL) 127-mm Astros (MRL) 180-mm Astros (MRL) 300-mm BM21 | | cgt F1 Dana 152-mm (sp) g-5 155-mm (towed) g-6 155-mm (sp) gct 155-mm (sp) ghn-45 155-mm (towed) M107 M109A1 M109A2 M109A3 | | M109A6 M110A2 M1972 122-mm M1973 152-mm M1974 152-mm (sP) M1975 130-mm (SP) M1977 122-mm (SP) M1978 170-mm (SP) M1981 122-mm (sp) M1985 MRL 122-mm (SP) | | M1985 MRl 240-mm (SP) M1989 170-mm Majnoon 155-mm (SP) MKf3 Mlrs Type 54-1 122-mm Type 59 130-mm Type 85 122-mm | |
| **Antiaircraft** | | | | | | | |
| AMX DCA 30-2 Chaparral Gepard | | M163A1 Vulcan Roland S60 | | ZPU4 2S6 ZSU57-2 | | ZU23 | |
| **Self-Propelled Mortar** | | | | | | | |
| M106 107-mm M125 81-mm | | T54 160-mm Type 85 82-mm | | Type 85 120-mm YW304 82-mm | | YW381 120-mm | |
| **Miscellaneous** | | | | | | | |
| Artillery Command and Reconnaissance Vehicle | | AVLB Fox, NBC Reconnaissance | | M728 CEV M88A1 M9 ACE | | PRP-3 | |
| **Light Armor (APC/IFV/Reconnaissance)** | | | | | | | |
| AML AMX10 amx10p aMX10rc bmd1 bMd 1979/3 bmd2 bmp1k bmp1ksh m2 m2a1 m3 m3a1 | m3a2 brdm1 brdm2 at3BRdm2 at5 BRdm2 RKH BRdm2 Sa9 BRdm2 U BRM BRM 1 BTR152 BTR152K BTR50PK BTR60PA Cmd | | BTR70 BTR80 BTRD Charrua Condor Cougar EE-9 Cascavel EE-11 FOx FV432 IPR IRM Jaquar 1 | | Jaquar 2 Luchs M113A3 M3 APC (Fr) MCT (S) Ferret MK1 Ferret MK2 MTLB NFV-1NVH-1 OT64 Ot65 PSZH-IV Ratel | | Rooikat Saxon Scimitar Scorpion Striker VAB Wz523 WZ551 YW531 YW534 |
|  |  |  |  |  |  |  |  |

PERFORMANCE CHECKLIST FOR TASK 2

Identify Combat Vehicles

                                                                                                                          GO          NO-GO

1.     Identified combat vehicle pictures/images 1 through 40.                                                      \_\_\_\_\_\_\_\_

2.     Completed the performance measures within 20 minutes.                                                     \_\_\_\_\_\_\_\_

TASK 3

Clear, Disassemble (Field Strip), Assemble, Perform a Function Check, Load, and Perform Immediate Action on an M240B Machine Gun

TEST ADMINISTRATIVE GUIDE

**TASK**:                             Clear, disassemble (field strip), assemble, perform a function check, load, and perform immediate action on an M240B machine gun.

**CONDITIONS**:              Given a loaded M240B machine gun, placed on a flat surface.

S**TANDARDS**:               Within 7 minutes, the crewman will—

         Clear (in sequence) and disassemble the M240B machine gun.

         Assemble the M240B machine gun.

         Perform a function check (in sequence) on the M240B machine gun.

         Load (in sequence) the M240B machine gun.

         Perform immediate action (in sequence) on the M240B machine gun.

**PERSONNEL, EQUIPMENT AND MATERIAL:**

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         M240B machine gun.

         Dummy, linked, 7.62-mm ammunition (five rounds per machine gun).

         Table (one per M240B).

         [FM 3-22.68](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/public/6713-1/fm/3-22.68/TOC.htm).

         TM 9-1005-313-10.

**PRETEST PREPARATION:**

         Make sure the equipment is operational and that the weapon is removed from the vehicle.

**TEST PLANNING TIME:**

Administrative:                 5 minutes

Test:                                   7 minutes

Total:                                12 minutes

**INSTRUCTIONS TO THE CREWMAN:**

*“This task will test you your ability to clear, disassemble (field strip), assemble, perform a function check, load, and perform immediate action on an M240B machine gun.  You must clear, perform a function check, load, and perform immediate action in sequence on the M240B machine gun.  The weapon is not clear.  You have 7 minutes to complete this task.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”*  (Start the time.)

If the crewman has not completed the task after 7 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 3

Clear, Disassemble (Field Strip), Assemble, and Perform a Function Check, Load, and Perform Immediate Action on an M240B Machine Gun

                                                                                                                          GO          NO-GO

1.     Cleared (in sequence) the M240B machine gun.

a.     Moved the safety switch to the F (fire) position.                                                           \_\_\_\_\_\_\_\_

b.     Pulled back on the cocking handle and locked the bolt to the rear.                            \_\_\_\_\_\_\_\_

c.     Moved the safety switch to the S (safe) position.                                                         \_\_\_\_\_\_\_\_

d.     Returned the cocking handle to its forward position.                                                    \_\_\_\_\_\_\_\_

e.     Opened the cover.                                                                                                          \_\_\_\_\_\_\_\_

f.      Removed the source of ammunition.                                                                            \_\_\_\_\_\_\_\_

g.     Raised the feed tray.                                                                                                      \_\_\_\_\_\_\_\_

h.     Looked into the chamber for ammunition.                                                                    \_\_\_\_\_\_\_\_

i.      Lowered the feed tray.                                                                                                   \_\_\_\_\_\_\_\_

j.      Moved the safety switch to the F (fire) position.                                                           \_\_\_\_\_\_\_\_

k.     Pulled back on the cocking handle and held it there.                                                     \_\_\_\_\_\_\_\_

l.      Pulled the trigger and allowed the cocking handle to move forward to  
the close and lock position.                                                                                            \_\_\_\_\_\_\_\_

m.    Closed the cover.                                                                                                            \_\_\_\_\_\_\_\_

2.     Disassembled the M240B machine gun.

a.     Cleared the weapon (if not previously cleared).                                                             \_\_\_\_\_\_\_\_

b.     Removed the barrel assembly.                                                                                        \_\_\_\_\_\_\_\_

c.     Removed the heat shield.                                                                                                 \_\_\_\_\_\_\_\_

d.     Removed the trigger housing assembly.                                                                         \_\_\_\_\_\_\_\_

e.     Removed the buttstock and buffer assembly.                                                                 \_\_\_\_\_\_\_\_

f.      Removed the drive spring rod assembly.                                                                       \_\_\_\_\_\_\_\_

g.     Removed the bolt and operating rod assembly.                                                             \_\_\_\_\_\_\_\_

h.     Removed the cover assembly.                                                                                        \_\_\_\_\_\_\_\_

i.      Removed the feed tray.                                                                                                       \_\_\_\_\_\_\_\_

3.     Assembled the M240B machine gun.

a.     Installed the feed tray.                                                                                                        \_\_\_\_\_\_\_\_

b.     Installed the cover assembly.                                                                                            \_\_\_\_\_\_\_\_

c.     Installed the bolt and operating rod assembly.                                                               \_\_\_\_\_\_\_\_

d.     Installed the buttstock and buffer assembly.                                                                  \_\_\_\_\_\_\_\_

e.     Installed the trigger housing assembly.                                                                            \_\_\_\_\_\_\_\_

f.      Installed the heat shield on the barrel assembly.                                                            \_\_\_\_\_\_\_\_

g.     Installed the barrel assembly.                                                                                            \_\_\_\_\_\_\_\_

h.     Installed the drive spring rod assembly.                                                                          \_\_\_\_\_\_\_\_

4.     Performed a function check (in sequence) on the M240B machine gun.

a.     Moved the safety switch to the F (fire) position.                                                           \_\_\_\_\_\_\_\_

b.     Pulled back on the cocking handle and locked the bolt to the rear.                            \_\_\_\_\_\_\_\_

                                                                                                                          GO          NO-GO

c.     Moved the cocking handle to the forward (locked) position.                                      \_\_\_\_\_\_\_\_

d.     Moved the safety switch to the S (safe) position and pulled the trigger.                  \_\_\_\_\_\_\_\_

e.     Checked to make sure the weapon would not fire.                                                         \_\_\_\_\_\_\_\_

f.      Pulled back on the cocking handle.                                                                                  \_\_\_\_\_\_\_\_

g.     Moved the safety switch to the F (fire) position and pulled the trigger.                    \_\_\_\_\_\_\_\_

h.     Allowed the bolt to ease forward to the close and lock position.                                \_\_\_\_\_\_\_\_

5.     Loaded (in sequence) the M240B machine gun.

a.     Moved the safety switch to the F (fire) position.                                                           \_\_\_\_\_\_\_\_

b.     Charged the machine gun.                                                                                                 \_\_\_\_\_\_\_\_

c.     Moved the safety switch to the S (safe) position.                                                         \_\_\_\_\_\_\_\_

d.     Returned the cocking handle to the forward position.                                                  \_\_\_\_\_\_\_\_

e.     Opened the cover.                                                                                                              \_\_\_\_\_\_\_\_

f.      Removed the source of ammunition, if present.                                                              \_\_\_\_\_\_\_\_

g.     Raised the feed tray.                                                                                                            \_\_\_\_\_\_\_\_

h.     Looked into the chamber for ammunition.                                                                       \_\_\_\_\_\_\_\_

i.      Lowered the feed tray.                                                                                                        \_\_\_\_\_\_\_\_

j.      Moved the safety switch to the F (fire) position, pulled back on the  
cocking handle, and pulled the trigger.                                                                            \_\_\_\_\_\_\_\_

k.     Allowed the bolt to ease forward to the close and lock position.                                \_\_\_\_\_\_\_\_

l.      Placed the link belt in the feed tray over the belt holding paws, open  
link down.                                                                                                                              \_\_\_\_\_\_\_\_

m.    Closed the cover.                                                                                                                 \_\_\_\_\_\_\_\_

6.     Performed immediate action (in sequence) on the M240B machine gun (cold gun).

a.     Announced “STOPPAGE” or “MISFIRE.”                                                                      \_\_\_\_\_\_\_\_

b.     Charged the M240B machine gun.                                                                                    \_\_\_\_\_\_\_\_

c.     Attempted to fire.                                                                                                                 \_\_\_\_\_\_\_\_

d.     If the gun did not fire, cleared the weapon.                                                                     \_\_\_\_\_\_\_\_

7.     Performed immediate action (in sequence) on the M240B machine gun (hot gun).

a.     Announced “STOPPAGE” or “MISFIRE.”                                                                      \_\_\_\_\_\_\_\_

b.     Charged the M240B machine gun.                                                                                    \_\_\_\_\_\_\_\_

c.     Attempted to fire.                                                                                                                 \_\_\_\_\_\_\_\_

d.     Waited 15 minutes, and cleared the weapon.                                                                  \_\_\_\_\_\_\_\_

8.     Completed all performance measures within 7 minutes.                                                        \_\_\_\_\_\_\_\_

**Note.**       Clearing and function checks are performed in sequence IAW [FM 3-22.68](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/public/6713-1/fm/3-22.68/TOC.htm).

Task 4

Mount, Place into Operation, and Dismount the AN/PAS-13B(V)2 Thermal Weapons Sight (Using the M240B Machine Gun)

TEST ADMINISTRATIVE GUIDE

**TASK:**                         Mount, place into operation, and dismount the AN/PAS-13B(V)2 TWS (using the M240B machine gun).

**CONDITIONS:**          Given an M240B machine gun, an AN/PAS-13B(V)2 and TM 11-5855-312-10.

**STANDARDS:**           Within 10 minutes, the crewman will—

         Mount the night-vision sight on the M240B machine gun.

         Place the Thermal Weapons Sight into operation.

         Take the Thermal Weapons Sight out of operation.

         Dismount the Thermal Weapons Sight from the M240B machine gun.

**PERSONNEL, EQUIPMENT AND MATERIAL**:

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         M240B machine gun.

         AN/PAS-13(V)2 TWS with BII.

        TM 11-5855-312-10.

         [FM 3-22.68](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/public/6713-1/fm/3-22.68/TOC.htm).

         BA-5347 Lithium Battery or BB2847 battery.

**PRETEST PREPARATION**:

         Make sure the equipment is operational and that the weapon is cleared.

**TEST PLANNING TIME:**

Administrative:                 5 minutes

Test:                                 10 minutes

Total:                                15 minutes

**INSTRUCTIONS TO CREWMAN**:

*“This task will test you on your ability to mount the AN/PAS-13B(V)2 TWS on the M240B machine gun, place the Thermal Weapons Sight into operation, take the Thermal Weapons Sight out of operation, and dismount the Thermal Weapons Sight from the M240B machine gun.  The weapon is clear.  You have 10 minutes to complete this task.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”*  (Start the time.)

If the crewman has not completed the task after 10 minutes, announce “STOP,” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 4

Mount, Place into Operation, and Dismount the Thermal Weapons Sight AN/PAS-13B(V)2 (Using the M240B Machine Gun)

                                                                                                                          GO          NO-GO

1.     Mounted the TWS on the M240B machine gun.

a.  Installed battery in battery compartment                                                                \_\_\_\_\_\_\_\_

b.   Installed  TWS on T4 or T5; hand tighten knob until 2 clicks are heard. \_\_\_\_\_\_\_\_

2.     Placed the TWS into operation.

a.   Push in and turn the BRIGHTNESS knob fully clockwise to turn on the TWS. \_\_\_\_\_\_\_\_

b.   Place eye to eyecup ensure SENSOR COOLING message is displayed. \_\_\_\_\_\_\_\_

c.  Opens objective lens cover. \_\_\_\_\_\_\_\_

d.  Adjusts CONTRAST, FOCUS and BRIGHTNESS for best picture. \_\_\_\_\_\_\_\_

e. Selects M240 RETICLE \_\_\_\_\_\_\_\_

3.     Took the night-vision sight out of operation.

a.    Pushed BRIGHTNESS knob in and turn counter clockwise to OFF position. \_\_\_\_\_\_\_\_

b.   Closed objective lens cover.  \_\_\_\_\_\_\_\_

4.     Dismounted the TWS from an M240B machine gun.

a.     Loosens knob on TWS by turning it counter clockwise. \_\_\_\_\_\_\_\_

b.    Removes TWS from M240B machine gun. \_\_\_\_\_\_\_\_

c.    Removes battery from battery compartment. \_\_\_\_\_\_\_\_

5.   Completed all performance measures within 10 minutes.                                                   \_\_\_\_\_\_\_\_

Task 5

Clear, Disassemble (Field Strip), Assemble, Set Headspace and Timing, Perform a Function Check, Load, and Perform Immediate Action  
on an M2 HB Machine Gun

TEST ADMINISTRATIVE GUIDE

**TASK**:                             Clear, disassemble, assemble, set headspace and timing, perform a function check, load, and perform immediate action on an M2 HB machine gun.

**CONDITIONS**:              Given an M2 HB machine gun, placed on a flat surface, and loaded with dummy ammunition and a headspace and timing gauge.

S**TANDARDS**:               Within 16 minutes, the crewman will—

         Clear (in sequence) the M2 HB machine gun.

         Disassemble and assemble the M2 HB machine gun.

         Set headspace and timing (in sequence) on the M2 HB machine gun.

         Perform a function check (in sequence) on the M2 HB machine gun.

         Load (in sequence) the M2 HB machine gun.

         Perform immediate action (in sequence) on the M2 HB machine gun.

**PERSONNEL, EQUIPMENT AND MATERIAL:**

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         M2 HB machine gun.

         Dummy, linked, caliber .50 ammunition (five rounds per machine gun).

         Table (one per M2 HB machine gun).

         TM 9-1005-213-10.

**PRETEST PREPARATION:**

         Make sure the equipment is operational and that the weapon is removed from the vehicle, placed on a flat surface, loaded, and has a headspace and timing gauge.

**TEST PLANNING TIME:**

Administrative:                 5 minutes

Test:                                 16 minutes

Total:                                21 minutes

**INSTRUCTIONS TO CREWMAN**:

*“This task will test you on your ability to clear, disassemble, assemble, set headspace and timing, perform a function check, load, and perform immediate action on an M2 HB machine gun.  You must clear, set the headspace and timing, perform the function check, load, and perform immediate action in sequence.  You have 16 minutes to complete this task.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”*  (Start the time.)

If the crewman has not completed the task after 16 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 5

Clear, Disassemble (Field Strip), Assemble, Set Headspace and Timing, Perform a Function Check, Load, and Perform Immediate Action  
on the M2 HB Machine Gun

                                                                                                                          GO          NO-GO

1.     Cleared (in sequence) the M2 HB machine gun.

a.     Moved the bolt latch release lock to the unlocked position (single-shot mode).     \_\_\_\_\_\_\_\_

b.     Opened the cover.                                                                                                               \_\_\_\_\_\_\_\_

c.     Lifted the extractor and removed the ammunition belt from the feedway.                  \_\_\_\_\_\_\_\_

d.     Lowered the extractor, and closed the cover.                                                                  \_\_\_\_\_\_\_\_

e.     Pulled back on the retractor slide handle, and locked the bolt to the rear.                 \_\_\_\_\_\_\_\_

f.      Opened the cover.                                                                                                               \_\_\_\_\_\_\_\_

g.     Looked into both the chamber and T-slot for ammunition.                                           \_\_\_\_\_\_\_\_

h.     Maintained pressure on the retractor slide handle, and eased the bolt forward.      \_\_\_\_\_\_\_\_

i.      Closed the cover.                                                                                                                 \_\_\_\_\_\_\_\_

j.      Pressed the trigger, and attempted to fire the weapon.                                                 \_\_\_\_\_\_\_\_

k.     Did not close the cover with the bolt locked to the rear.                                               \_\_\_\_\_\_\_\_

2.     Disassembled the M2 HB machine gun.

a.     Cleared the weapon (if not previously cleared).                                                             \_\_\_\_\_\_\_\_

b.     Removed the barrel.                                                                                                             \_\_\_\_\_\_\_\_

c.     Removed the backplate.                                                                                                      \_\_\_\_\_\_\_\_

d.     Removed the driving spring and rod.                                                                               \_\_\_\_\_\_\_\_

e.     Removed the bolt stud.                                                                                                       \_\_\_\_\_\_\_\_

f.      Removed the barrel buffer body, barrel extension, and bolt.                                        \_\_\_\_\_\_\_\_

g.     Disassembled to three pieces:  barrel buffer body, barrel extension, and bolt.          \_\_\_\_\_\_\_\_

h.     Disassembled the barrel buffer.                                                                                         \_\_\_\_\_\_\_\_

3.     Assembled the M2 HB machine gun.

a.     Reassembled the barrel buffer.                                                                                          \_\_\_\_\_\_\_\_

b.     Reinstalled the barrel buffer, barrel extension, and bolt.                                               \_\_\_\_\_\_\_\_

c.     Installed the bolt stud.                                                                                                        \_\_\_\_\_\_\_\_

d.     Installed the driving spring and rod.                                                                                \_\_\_\_\_\_\_\_

e.     Installed the backplate.                                                                                                       \_\_\_\_\_\_\_\_

f.      Installed the barrel.                                                                                                             \_\_\_\_\_\_\_\_

4.     Adjusted the headspace (in sequence) on the M2 HB machine gun.

a.     Opened the cover.                                                                                                               \_\_\_\_\_\_\_\_

b.     Retracted the bolt until the locking lug on the barrel locking spring was  
centered in the hole of the right side plate of the receiver.                                           \_\_\_\_\_\_\_\_

c.     Held the bolt in position (as in 4b) and unscrewed the barrel two  
notches (clicks).                                                                                                                   \_\_\_\_\_\_\_\_

d.     Allowed the recoiling parts to move forward.                                                                 \_\_\_\_\_\_\_\_

                                                                                                                          GO          NO-GO

**Note.**       Disregard steps 4a-d if the barrel was backed off two notches (clicks)  
during assembly.

e.     Charged the machine gun.                                                                                                  \_\_\_\_\_\_\_\_

f.      Allowed the bolt to move forward.                                                                                   \_\_\_\_\_\_\_\_

g.     Opened the cover, and ensured the firing pin was retracted.                                       \_\_\_\_\_\_\_\_

h.     Retracted the recoiling parts approximately 1/16 inch.                                                  \_\_\_\_\_\_\_\_

i.      Raised the extractor.                                                                                                            \_\_\_\_\_\_\_\_

j.      Inserted the GO end of the gauge into the T-slot between the face of the  
bolt and the barrel.                                                                                                               \_\_\_\_\_\_\_\_

k.     If the GO end did not enter the T-slot—

(1)     Retracted the bolt.                                                                                                      \_\_\_\_\_\_\_\_

(2)     Unscrewed the barrel one notch (click).                                                                 \_\_\_\_\_\_\_\_

(3)     Allowed the recoiling parts to move forward.                                                       \_\_\_\_\_\_\_\_

(4)     Checked the headspace IAW step 4h through 4j.                                                \_\_\_\_\_\_\_\_

l.      If the GO end entered the T-slot, attempted to place the NO-GO end of  
the gauge into the T-slot.                                                                                                   \_\_\_\_\_\_\_\_

m.    If the NO-GO end did not enter the T-slot, went to step 5.                                           \_\_\_\_\_\_\_\_

n.     If the NO-GO end entered the T-slot—

(1)     Retracted the bolt.                                                                                                      \_\_\_\_\_\_\_\_

(2)     Screwed the barrel in one notch (click).                                                                  \_\_\_\_\_\_\_\_

(3)     Allowed the recoiling parts to move forward.                                                       \_\_\_\_\_\_\_\_

(4)     Checked the headspace IAW step 4h and m.                                                        \_\_\_\_\_\_\_\_

5.     Set the timing (in sequence after adjusting headspace; charged weapon if  
necessary) on the M2 HB machine gun.

a.     Pulled the retractor slide handle to retract the recoiling parts about 1/4 inch.           \_\_\_\_\_\_\_\_

b.     Raised the extractor.                                                                                                            \_\_\_\_\_\_\_\_

c.     Inserted the NO-FIRE gauge between the barrel extension and the  
trunnion lock.                                                                                                                       \_\_\_\_\_\_\_\_

d.     Made sure the NO-FIRE gauge beveled edge rested against the barrel notches.     \_\_\_\_\_\_\_\_

e.     Slowly released the recoiling parts, allowing them to move forward.                          \_\_\_\_\_\_\_\_

f.      Depressed the trigger.                                                                                                         \_\_\_\_\_\_\_\_

g.     If the firing pin did not release, went to step 5i.                                                              \_\_\_\_\_\_\_\_

h.     If the firing pin released—

(1)     Retracted the recoiling parts, and removed the NO-FIRE gauge.                       \_\_\_\_\_\_\_\_

(2)     Retracted the bolt and recharged the machine gun.                                             \_\_\_\_\_\_\_\_

(3)     Inserted the FIRE gauge.                                                                                          \_\_\_\_\_\_\_\_

(4)     Removed the backplate.                                                                                            \_\_\_\_\_\_\_\_

(5)     Screwed the timing adjustment nut to the left until it rested on  
the trigger bar.                                                                                                            \_\_\_\_\_\_\_\_

(6)     Pushed up on the trigger bar and attempted to fire.                                             \_\_\_\_\_\_\_\_

(7)     Rotated the timing adjustment nut to the right one notch and  
attempted to fire.                                                                                                        \_\_\_\_\_\_\_\_

                                                                                                                          GO          NO-GO

(8)     Repeated step 5h(7) and attempted to fire after each click, until the  
weapon fired.                                                                                                              \_\_\_\_\_\_\_\_

(9)     Turned the timing adjustment nut two additional notches (clicks)  
to the right.                                                                                                                 \_\_\_\_\_\_\_\_

(10)   Placed the backplate on the back of the receiver, halfway, to cover  
the drive spring and rod.                                                                                           \_\_\_\_\_\_\_\_

(11)   Retracted the bolt to remove the gauge.                                                                \_\_\_\_\_\_\_\_

(12)   Installed the backplate.                                                                                             \_\_\_\_\_\_\_\_

(13)   Charged the weapon.                                                                                                \_\_\_\_\_\_\_\_

(14)   Checked the timing (twice) to make sure it was correct, then went to  
step 6 (timing complete).                                                                                           \_\_\_\_\_\_\_\_

i.      Replaced the NO-FIRE gauge with the FIRE gauge.                                                      \_\_\_\_\_\_\_\_

j.      Depressed the trigger.                                                                                                        \_\_\_\_\_\_\_\_

k.     If the firing pin released, went to step 6 (timing complete).                                          \_\_\_\_\_\_\_\_

l.      If the firing pin did not release, went to step 5h(4) (removed the backplate).            \_\_\_\_\_\_\_\_

6.     Performed a function check (in sequence) on the M2 HB machine gun.

a.     Moved the bolt latch release lock to the unlocked position (single-shot mode).     \_\_\_\_\_\_\_\_

b.     Pulled back on the retractor slide handle and locked the bolt to the rear  
(the bolt should lock to the rear).                                                                                      \_\_\_\_\_\_\_\_

c.     Held the retractor handle, pressed the bolt latch release, and allowed the  
bolt to move forward.                                                                                                          \_\_\_\_\_\_\_\_

d.     Pressed the trigger (the weapon should have fired).                                                     \_\_\_\_\_\_\_\_

e.     Moved the bolt latch release lock to the locked position (automatic-fire mode).      \_\_\_\_\_\_\_\_

f.      Pulled the retractor slide handle to the rear and held it (the bolt should not  
have locked to the rear).                                                                                                     \_\_\_\_\_\_\_\_

g.     Released the pressure on the retractor slide handle and eased the bolt forward.     \_\_\_\_\_\_\_\_

h.     Pressed the trigger and released the firing pin.                                                               \_\_\_\_\_\_\_\_

7.     Loaded (in sequence) the M2 HB machine gun.

a.     Moved the bolt latch release lock to the unlocked position (single-shot mode).     \_\_\_\_\_\_\_\_

b.     Opened the machine gun cover.                                                                                        \_\_\_\_\_\_\_\_

c.     Lifted the extractor and removed the ammunition belt (if present)  
from the feedway.                                                                                                                \_\_\_\_\_\_\_\_

d.     Lowered the extractor, and closed the cover.                                                                  \_\_\_\_\_\_\_\_

e.     Pulled back on the retractor slide handle, and locked the bolt to the rear.                 \_\_\_\_\_\_\_\_

f.      Opened the cover.                                                                                                               \_\_\_\_\_\_\_\_

g.     Looked into both the chamber and T-slot for ammunition.                                           \_\_\_\_\_\_\_\_

h.     Maintained pressure on the retractor slide handle and depressed the bolt  
latch release, allowing the bolt to move forward.                                                           \_\_\_\_\_\_\_\_

i.      Placed the bolt latch release lock in the locked position (automatic-fire mode).       \_\_\_\_\_\_\_\_

j.      Lifted the extractor.                                                                                                             \_\_\_\_\_\_\_\_

k.     Inserted the double loop of the ammunition under the extractor and pushed  
the extractor down between the first and second rounds.                                            \_\_\_\_\_\_\_\_

                                                                                                                          GO          NO-GO

l.      Closed the cover.                                                                                                                 \_\_\_\_\_\_\_\_

WARNING

If the caliber .50 has fired 150 rounds or more within 2 minutes, it is considered a *hot gun*.  Immediate action must be applied within 10 seconds of a stoppage.

8.     Performed immediate action (in sequence) on the M2 HB machine gun (cold gun).

a.     Announced “STOPPAGE” or “MISFIRE.”                                                                      \_\_\_\_\_\_\_\_

b.     Charged the machine gun and observed the feeding and ejection.                             \_\_\_\_\_\_\_\_

c.     Attempted to fire.                                                                                                                 \_\_\_\_\_\_\_\_

d.     If the gun did not fire, announced “STOPPAGE” or “MISFIRE,” and  
cleared the weapon.                                                                                                             \_\_\_\_\_\_\_\_

9.     Performed immediate action (in sequence) on the M2 HB machine gun (hot gun).

a.     Announced “STOPPAGE” or “MISFIRE.”                                                                      \_\_\_\_\_\_\_\_

b.     Charged the machine gun and observed the feeding and ejection.                             \_\_\_\_\_\_\_\_

c.     Attempted to fire.                                                                                                                 \_\_\_\_\_\_\_\_

d.     If the gun did not fire, announced “STOPPAGE” or “MISFIRE,” and kept  
the gun pointed down range.                                                                                             \_\_\_\_\_\_\_\_

d.     Waited 5 minutes, and cleared the weapon.                                                                    \_\_\_\_\_\_\_\_

10.   Completed all performance measures within 16 minutes.                                                      \_\_\_\_\_\_\_\_

Task 6

Clear, Disassemble (Field Strip), Assemble, and Perform a Function Check, Load, and Perform Immediate Action on a MK-19 40-mm Machine Gun

TEST ADMINISTRATIVE GUIDE

**TASK:**                             Clear, disassemble (field strip), assemble, and perform a function check, load, and perform immediate action on a MK-19 40-mm machine gun.

**CONDITIONS:**              Given a MK-19 machine gun, mounted on an M3 tripod, and ten rounds of linked, dummy, 40-mm ammunition.

**STANDARDS:**              Within 8 minutes, the crewman will—

         Clear (in sequence) the MK-19 machine gun.

         Disassemble the MK-19 machine gun.

         Assemble the MK-19 machine gun.

         Perform a function check (in sequence) on the MK-19 machine gun.

         Load (in sequence) the MK-19 machine gun.

         Perform immediate action (in sequence) on the MK-19 machine gun.

**PERSONNEL, EQUIPMENT AND MATERIAL**:

         Items from list in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         MK-19 machine gun.

         Ten rounds of linked, dummy, 40-mm ammunition.

         TM 9-1010-230-10.

**PRETEST PREPARATION**:

         Make sure the equipment is operational and that the weapon is removed from the vehicle and cleared.

**TEST PLANNING TIME:**

Administrative:                 5 minutes

Test:                                   8 minutes

Total:                                13 minutes

**INSTRUCTIONS TO CREWMAN**:

*“This task will test you on your ability to clear, disassemble (field strip), assemble, perform a function check, load, and perform immediate action on a MK-19 40-mm machine gun.  You must clear, perform a function check, load, and perform immediate action in sequence.  You have 8 minutes to complete this task.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”*  (Start the time.)

If the crewman has not completed the task after 8 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 6

Clear, Disassemble (Field Strip), Assemble, and Perform a Function Check, Load, and Perform Immediate Action on a MK-19 40-mm Machine Gun

                                                                                                                          GO          NO-GO

1.     Cleared (in sequence) the MK-19 machine gun.

a.     Moved the safety switch to the S (safe) position.                                                         \_\_\_\_\_\_\_\_

b.     Charged the weapon.                                                                                                          \_\_\_\_\_\_\_\_

c.     Left the charging handles to the rear and down.                                                            \_\_\_\_\_\_\_\_

d.     Used the cleaning rod to force the live round/empty casing off the face  
of the bolt, catching the live round.                                                                                  \_\_\_\_\_\_\_\_

e.     Opened the top cover.                                                                                                        \_\_\_\_\_\_\_\_

f.      Removed the rounds from the feed tray.                                                                          \_\_\_\_\_\_\_\_

g.     Inspected the chamber and bolt face.                                                                               \_\_\_\_\_\_\_\_

h.     Moved the safety switch to the F (fire) position.                                                           \_\_\_\_\_\_\_\_

i.      Pressed the triggers and allowed the bolt to move forward.                                         \_\_\_\_\_\_\_\_

j.      Moved the safety switch to the S (safe) position.                                                         \_\_\_\_\_\_\_\_

k.     Moved the feed slide assembly to the left.                                                                      \_\_\_\_\_\_\_\_

l.      Closed the top cover.                                                                                                          \_\_\_\_\_\_\_\_

2.     Disassembled the MK-19 machine gun.

a.     Removed the bolt and backplate assembly.                                                                    \_\_\_\_\_\_\_\_

b.     Removed the secondary drive lever.                                                                                \_\_\_\_\_\_\_\_

c.     Removed the feed slide assembly.                                                                                    \_\_\_\_\_\_\_\_

d.     Removed the top cover assembly.                                                                                    \_\_\_\_\_\_\_\_

e.     Removed the feed tray.                                                                                                       \_\_\_\_\_\_\_\_

f.      Removed the primary drive lever and vertical cam.                                                        \_\_\_\_\_\_\_\_

g.     Removed the alignment guide assembly.                                                                         \_\_\_\_\_\_\_\_

h.     Removed the ogive plunger.                                                                                              \_\_\_\_\_\_\_\_

i.      Removed the round-positioning block.                                                                            \_\_\_\_\_\_\_\_

j.      Removed the left and right hand charger assemblies.                                                   \_\_\_\_\_\_\_\_

k.     Removed the sear housing assembly.                                                                              \_\_\_\_\_\_\_\_

3.     Reassembled the MK-19 machine gun.

a.     Assembled the sear housing assembly.                                                                           \_\_\_\_\_\_\_\_

b.     Assembled the left and right hand charger assemblies.                                                \_\_\_\_\_\_\_\_

c.     Assembled the round positioning block.                                                                         \_\_\_\_\_\_\_\_

d.     Inserted the ogive-plunger assembly.                                                                              \_\_\_\_\_\_\_\_

e.     Inserted the alignment guide assembly.                                                                           \_\_\_\_\_\_\_\_

f.      Attached the vertical cam.                                                                                               \_\_\_\_\_\_\_\_

g.     Attached the primary drive lever.                                                                                    \_\_\_\_\_\_\_\_

h.     Attached the feed tray.                                                                                                     \_\_\_\_\_\_\_\_

i.      Attached the feed slide assembly.                                                                                    \_\_\_\_\_\_\_\_

j.      Attached the top cover assembly.                                                                                    \_\_\_\_\_\_\_\_

                                                                                                                          GO          NO-GO

k.     Attached and engaged the secondary drive lever.                                                        \_\_\_\_\_\_\_\_

l.      Inserted the bolt and backplate assembly.                                                                      \_\_\_\_\_\_\_\_

4.     Performed a function check (in sequence) on the MK-19 machine gun.

a.     Closed the top cover.                                                                                                        \_\_\_\_\_\_\_\_

b.     Moved the safety switch to the S (safe) position.                                                         \_\_\_\_\_\_\_\_

c.     Charged the weapon.                                                                                                         \_\_\_\_\_\_\_\_

d.     Locked the charging handles forward.                                                                             \_\_\_\_\_\_\_\_

e.     Pressed the trigger (the bolt did not move forward).                                                     \_\_\_\_\_\_\_\_

f.      Moved the safety switch to the F (fire) position.                                                           \_\_\_\_\_\_\_\_

g.     Pressed the trigger (the bolt should spring forward).                                                    \_\_\_\_\_\_\_\_

h.     Moved the safety switch to the S (safe) position.                                                         \_\_\_\_\_\_\_\_

i.      Opened the top cover.                                                                                                       \_\_\_\_\_\_\_\_

j.      Made sure the firing pin was exposed.                                                                             \_\_\_\_\_\_\_\_

k.     Moved the feed slide to the left.                                                                                       \_\_\_\_\_\_\_\_

l.      Closed the top cover.                                                                                                         \_\_\_\_\_\_\_\_

m.    Pulled the bolt to the rear and opened the cover.                                                           \_\_\_\_\_\_\_\_

n.     Moved the safety switch to the F (fire) position.                                                           \_\_\_\_\_\_\_\_

o.     Rode the bolt forward.                                                                                                      \_\_\_\_\_\_\_\_

p.     Moved the safety switch to the S (safe) position.                                                         \_\_\_\_\_\_\_\_

q.     Closed the cover.                                                                                                               \_\_\_\_\_\_\_\_

5.     Loaded (in sequence) the MK-19 machine gun.

a.     Moved the safety switch to the S (safe) position.                                                         \_\_\_\_\_\_\_\_

b.     Opened the top cover.                                                                                                        \_\_\_\_\_\_\_\_

c.     Made sure the bolt was forward.                                                                                       \_\_\_\_\_\_\_\_

d.     Inserted the rounds, female link first, through the feed throat.                                    \_\_\_\_\_\_\_\_

e.     Inserted the first round into the feeder and across the first pawl.                               \_\_\_\_\_\_\_\_

f.      Moved the feed slide assembly to the left.                                                                      \_\_\_\_\_\_\_\_

g.     Closed the top cover.                                                                                                         \_\_\_\_\_\_\_\_

h.     Charged the weapon.                                                                                                         \_\_\_\_\_\_\_\_

i.      Locked the charging handles forward.                                                                             \_\_\_\_\_\_\_\_

j.      Moved the safety switch to the F (fire) position.                                                           \_\_\_\_\_\_\_\_

k.     Pressed the triggers (the bolt should spring forward).                                                  \_\_\_\_\_\_\_\_

l.      Charged the weapon.                                                                                                         \_\_\_\_\_\_\_\_

m.    Locked the charging handles forward.                                                                             \_\_\_\_\_\_\_\_

n.     Moved the safety switch to the S (safe) position.                                                         \_\_\_\_\_\_\_\_

6.     Performed immediate action (in sequence) on the MK-19 machine gun.

**Note.** Have crewman attempt to fire the MK-19.

a.     Announced “MISFIRE.”                                                                                                   \_\_\_\_\_\_\_\_

b.     Waited 10 seconds.                                                                                                           \_\_\_\_\_\_\_\_

c.     Pulled the bolt to the rear, catching the live round as it was ejected.                         \_\_\_\_\_\_\_\_

                                                                                                                          GO          NO-GO

d.     Locked the charging handles forward.                                                                             \_\_\_\_\_\_\_\_

e.     Pressed the trigger (the bolt should spring forward).  If the weapon  
failed to fire—

(1)     Moved the safety switch to the S (safe) position.                                                \_\_\_\_\_\_\_\_

(2)     Waited ten seconds.                                                                                                  \_\_\_\_\_\_\_\_

(3)     Pulled the bolt to the rear, catching the live round as it wasejected.                \_\_\_\_\_\_\_\_

(4)     Opened the cover and cleared the weapon.                                                           \_\_\_\_\_\_\_\_

7.     Completed all performance measures within 8 minutes.                                                       \_\_\_\_\_\_\_\_

Task 7

Mount, Place into Operation, and Dismount the AN/PAS-13B(V)3 Thermal Weapon Sight (Using the M2 HB Machine Gun)

TEST ADMINISTRATIVE GUIDE

**TASK:**                             Mount, place into operation, and dismount the AN/PAS-13B(V)3Thermal Weapon Sight (using the M2 HB machine gun).

**CONDITIONS:**              Given an M2 HB machine gun mounted on the MK-64/MOD-93 weapon systems mount and the M3 tripod, an AN/PAS-13B(V)3Thermal Weapon Sight (TWS) and TM 11-5855-312-10.

**STANDARDS:**              Within 10 minutes, the crewman will—

         Mount the TWS on the M2 HB.

         Place the TWS into operation.

         Take the TWS operation.

         Dismount the TWS from the M2 HB.

**PERSONNEL, EQUIPMENT AND MATERIAL**:

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         M2 HB machine gun.

         MK-64/MOD-93 mount.

         TWS M2 bracket.

         AN/PAS-13B(V)3.

         TM 11-5855-312-10.

         M3 tripod

         BA-5347 or BB2847 battery.

**PRETEST PREPARATION**:

         Make sure the equipment is operational and that the weapon is cleared and securely mounted on the tripod.

**TEST PLANNING TIME:**

Administrative:                 5 minutes

Test:                                 10 minutes

Total:                                15 minutes

**Note.**       Use the time listed in the applicable night-vision sight TM.  If no time is listed in the TM, then use the above times.

**INSTRUCTIONS TO CREWMAN**:

*“This task will test you on your ability to mount the AN/PAS-13B(V)3Thermal Weapon Sight on the M2 HB machine gun, place the thermal weapon sight into operation, take the thermal weapon sight out of operation, and dismount the thermal weapon sight from the M2 HB machine gun.  The weapon is clear.  You have 10 minutes to complete this task.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”*  (Start the time.)

If the crewman has not completed the task after 10 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 7

Mount, Place into Operation, and Dismount the AN/PAS-13B(V)3 Thermal Weapon Sight (Using the M2 HB Machine Gun)

                                                                                                                          GO          NO-GO

1.     Mounted the thermal weapon sight on the M2 HB machine gun.

a.     Installed the M2 bracket over rear sight base and engaged locking cams \_\_\_\_\_\_\_\_

b.    Swung range lever to NEAR position. \_\_\_\_\_\_\_\_

c.   Installed battery in battery compartment                                                                 \_\_\_\_\_\_\_\_

d.   Installed TWS on rail hand tighten knob on mount until 2 clicks are heard. \_\_\_\_\_\_\_\_

2.     Placed the TWS into operation.

a.   Push in and turn the BRIGHTNESS knob fully clockwise to turn on the TWS. \_\_\_\_\_\_\_\_

b.   Place eye to eyecup ensure SENSOR COOLING message is displayed. \_\_\_\_\_\_\_\_

c.  Opens objective lens cover. \_\_\_\_\_\_\_\_

d.  Adjusts CONTRAST, FOCUS and BRIGHTNESS for best picture. \_\_\_\_\_\_\_\_

e. Selects M2 RETICLE. \_\_\_\_\_\_\_\_

3.     Took the TWS out of operation.

a.    Pushed BRIGHTNESS knob in and turn counter clockwise to OFF position. \_\_\_\_\_\_\_\_

b.   Closed objective lens cover.  \_\_\_\_\_\_\_\_

4.     Dismounted the TWS from an M2 HB machine gun.

a.     Loosens knob on TWS by turning it counter clockwise. \_\_\_\_\_\_\_\_

b.    Removes TWS from M2 machine gun. \_\_\_\_\_\_\_\_

c. Removed M2 bracket. \_\_\_\_\_\_\_\_

d.    Removes battery from battery compartment. \_\_\_\_\_\_\_\_

5.     Completed all performance measures within 10 minutes.                                                     \_\_\_\_\_\_\_\_

Task 8

Mount, Place into Operation, and Dismount the AN/PAS-13B(V)3 Thermal Weapons Sight (Using the MK-19 40-mm Machine Gun)

TEST ADMINISTRATIVE GUIDE

**TASK:**                             Mount, place into operation, and dismount the AN/PAS-13B(V)3 Thermal Weapon Sight (TWS)(using the MK-19 40-mm machine gun).

**CONDITIONS:**              Given a MK-19 machine gun mounted on the MK-64/ MOD-93 weapon systems mount and the M3 tripod, an AN/PAS-13B(V)3TWS and TM 11-5855-312-10.

**STANDARDS:**              Within 10 minutes, the crewman will—

         Mount the thermal weapons sight on the MK-19.

         Place the thermal weapons sight into operation.

         Take the thermal weapons sight out of operation.

         Dismount the thermal weapons sight from the MK-19.

**PERSONNEL, EQUIPMENT AND MATERIAL**:

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         MK-19 machine gun.

         MK-64/MOD-93 weapon systems mount.

         MK-19 TWS bracket.

         AN/PAS-13B(V)3 TWS.

         TM 11-5855-312-10.

         M3 tripod.

         BA-5347 or BB-2847 battery.

**PRETEST PREPARATION**:

         Make sure the equipment is operational and that the weapon is cleared and mounted on the tripod securely.

**TEST PLANNING TIME:**

Administrative:                 5 minutes

Test:                                 10 minutes

Total:                                15 minutes

**Note.**       Use the time listed in the applicable night-vision sight TM.  If no time is listed in the TM, then use the above times.

**INSTRUCTIONS TO CREWMAN**:

*“This task will test you on your ability to mount, place into operation, take out of operation, and dismount the AN/PAS-13B(V)3 thermal weapon sight on the MK-19 40-mm machine gun.  The weapon is clear.  You have 10 minutes to complete this task.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”*  (Start the time.)

If the crewman has not completed the task after 10 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 8

Mount, Place Into Operation, and Dismount the AN/PAS-13B(V)3 Thermal Weapon Sight (Using the MK-19 40-mm Machine Gun)

                                                                                                                          GO          NO-GO

1.     Mounted the TWS on the MK-19 40-mm machine gun.

a.    Slide MK-19 TWS bracket onto MK-19 locking it in hole of mount \_\_\_\_\_\_\_\_

b.    Installed battery in TWS. \_\_\_\_\_\_\_\_

c.    Raised arm to upper most position and placed TWS on rail hand tighten knob until 2 clicks are heard \_\_\_\_\_\_\_\_

2.     Placed the TWS into operation.

a.   Push in and turn the BRIGHTNESS knob fully clockwise to turn on the TWS. \_\_\_\_\_\_\_\_

b.   Place eye to eyecup ensure SENSOR COOLING message is displayed. \_\_\_\_\_\_\_\_

c.  Opens objective lens cover. \_\_\_\_\_\_\_\_

d.  Adjusts CONTRAST, FOCUS and BRIGHTNESS for best picture. \_\_\_\_\_\_\_\_

e. Selects MK-19 RETICLE. \_\_\_\_\_\_\_\_

3.     Took the TWS out of operation.

a.    Pushed BRIGHTNESS knob in and turn counter clockwise to OFF position. \_\_\_\_\_\_\_\_

b.   Closed objective lens cover.  \_\_\_\_\_\_\_\_

4.     Dismounted the TWS from an MK-19 40-mm machine gun.

a.     Loosen locking knob and raise arm to upper most position. \_\_\_\_\_\_\_\_

b.    Remove TWS. \_\_\_\_\_\_\_\_

c.    Remove battery from battery compartment.  \_\_\_\_\_\_\_\_

d.     Pull out locking pin and slide off MK-19 TWS bracket. \_\_\_\_\_\_\_\_

5.     Completed all performance measures within 10 minutes.                                                      \_\_\_\_\_\_\_\_

Task 9

Load, Arm, and Unload an Encased TOW Missile on a HMMWV

TEST ADMINISTRATIVE GUIDE

**TASK:**                             Load, arm, and unload an encased TOW missile on a HMMWV.

**CONDITIONS:** Given a HMMWV, an assembled, vehicle-mounted TOW launcher, an encased missile (forward handling ring and electrical connector dust cover in place), and a sector of fire.

**STANDARDS:** Within 5 minutes, the crewman will—

         Load an encased TOW missile.

         Arm the TOW launcher.

         Unload the TOW missile.

**PERSONNEL, EQUIPMENT, AND MATERIAL REQUIRED:**

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         A HMMWV.

         Complete TOW system (vehicle-mounted).

         Encased TOW missile simulation round.

         TM 9-1425-923-12.

         FM 3-22.32

**PRETEST PREPARATION:**

         Make sure the equipment is operational and that the complete vehicle-mounted system is assembled.

**TEST PLANNING TIME:**

Administrative time:                              5 minutes

Test time:                                                 5 minutes

Total time:                                             10 minutes

**INSTRUCTIONS TO CREWMAN:**

*“This task will test you on your ability to load, arm, and unload an encased TOW missile on a HMMWV.  You will have 5 minutes to complete this task.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”* (Start the time.)

If the crewman has not completed this task after 5 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 9

Load, Arm, and Unload an Encased TOW Missile on a HMMWV

                                                                                                                          GO          NO-GO

1.     Loaded an encased TOW missile on a HMMWV.

a.     Inspected the missile.                                                                                                          \_\_\_\_\_\_\_\_

b.     Picked up the missile properly.                                                                                          \_\_\_\_\_\_\_\_

c.     Removed the forward handling ring and clamp.                                                             \_\_\_\_\_\_\_\_

d.     Placed the missile into the TOW launcher correctly.                                                     \_\_\_\_\_\_\_\_

e.     Lowered and locked the bridge clamp.                                                                             \_\_\_\_\_\_\_\_

2.     Armed an encased TOW missile.

a.     Made sure the backblast area was clear.                                                                          \_\_\_\_\_\_\_\_

b.     Raised the arming lever.                                                                                                      \_\_\_\_\_\_\_\_

c.     Announced “UP.”                                                                                                               \_\_\_\_\_\_\_\_

3.     Unloaded an encased TOW missile.

a.     Followed the correct procedures for unloading a fired TOW missile.

(1)     Raised the locking handle.                                                                                        \_\_\_\_\_\_\_\_

(2)     Raised the arming lever.                                                                                            \_\_\_\_\_\_\_\_

(3)     Removed the launcher container.                                                                            \_\_\_\_\_\_\_\_

(4)     Made sure the launch tube was clear of foreign matter.                                      \_\_\_\_\_\_\_\_

b.     Followed the correct procedures for unloading an unfired TOW missile.

(1)     Lowered the arming lever.                                                                                         \_\_\_\_\_\_\_\_

(2)     Raised the locking handle.                                                                                        \_\_\_\_\_\_\_\_

(3)     Opened the bridge clamp.                                                                                         \_\_\_\_\_\_\_\_

(4)     Removed the missile.                                                                                                 \_\_\_\_\_\_\_\_

(5)     Replaced the forward handling ring and clamp.                                                    \_\_\_\_\_\_\_\_

(6)     Tagged the missile (included the date, unit, and name).                                      \_\_\_\_\_\_\_\_

4.     Completed the performance measures within 5 minutes.                                                       \_\_\_\_\_\_\_\_

Task 10

Perform Immediate Action Procedures for a Hangfire and Misfire of an  
M41 ITAS TOW Missile Launcher (Mounted on an M1121 HMMWV)

TEST ADMINISTRATIVE GUIDE

**TASK:**                             Perform immediate action procedures for a hangfire or misfire of an M41 ITAS TOW missile launcher (mounted on an M1121 HMMWV).

**CONDITIONS:** Given an M41 ITAS TOW launcher (loaded and ready to fire) mounted on an M1121 HMMWV, an additional encased missile, one crew member to assist, and a sector of fire.

**STANDARDS:** Within 10 minutes, the crewman will perform immediate action procedures for a hangfire and misfire.

**PERSONNEL, EQUIPMENT, AND MATERIAL REQUIRED:**

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         An M1121 HMMWV with BII.

         Complete TOW system.

         Two encased TOW missile simulation rounds.

         TM 9-1425-923-12.

         FM 3-22.32

**PRETEST PREPARATION:**

         Make sure the equipment is operational and that the complete TOW system is installed.

**TEST PLANNING TIME:**

Administrative time:                              5 minutes

Test time:                                               10 minutes

Total time:                                             15 minutes

**INSTRUCTIONS TO CREWMAN:**

*“This task will test you on your ability to perform immediate action procedures for a hangfire and misfire of an M41 ITAS (mounted on an M1121).  You will have 10 minutes to complete this task.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”* (Start the time.)

If the crewman has not completed this task after 10 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 10

Perform Immediate Action Procedures for a Hangfire and Misfire of an  
M41 ITAS TOW Missile Launcher (Mounted on an M1121 HMMWV)

                                                                                                                          GO          NO-GO

**Note.**       Direct the crewman to attempt to fire the weapon. An UNEXPECTED delay in launch occurs.

1.     Announced “HANGFIRE”.                                                                                \_\_\_\_\_\_\_\_

2.     Continued to track the target for one minute.                                                                         \_\_\_\_\_\_\_\_

3.     Lowers the arming lever if missle fails to fire.                                                                  \_\_\_\_\_\_\_\_

4.     Lock the ITAS in the 8-degree down position.                                                                      \_\_\_\_\_\_\_\_

6.     Opened the bridge clamp.                                                              \_\_\_\_\_\_\_\_

7.     Removed the missle from the launch tube and moved it to a safe distance (100m) \_\_\_\_\_\_\_\_

8.   Reloaded the launcher.                                                                                                               \_\_\_\_\_\_\_\_

9.   Completed the performance measures within 5 minutes.                                                       \_\_\_\_\_\_\_\_

**Note.**       Direct the crewman to attempt to fire the weapon. A complete failure to fire occurs.

1.     Pull the fire trigger, announce “MISFIRE” and pulls the trigger once again.                  \_\_\_\_\_\_\_\_

2.     Continued to track the target for one minute.                                                                         \_\_\_\_\_\_\_\_

3.   Lowered the trigger protective cover.                                                                                      \_\_\_\_\_\_\_\_

4.   Lowered the arming lever.                                                                                                          \_\_\_\_\_\_\_\_

5.   Locked the elevation (eight degrees down) and azimuth.                                                     \_\_\_\_\_\_\_\_

6.   Removed the missile and placed it the correct distance away (100m).                                \_\_\_\_\_\_\_\_

7 Reloaded the launcher.                                                                                                               \_\_\_\_\_\_\_\_

8.  Completed the performance measures within 5 minutes.                                                       \_\_\_\_\_\_\_\_

Task 11

Stow an M41 ITAS TOW Launcher System in an M1121 HMMWV and  
Place an M1121 HMMWV in the Ready-to-Fire Configuration

TEST ADMINISTRATIVE GUIDE

**TASK:**                             Stow an M41 ITAS TOW launcher system in an M1121 HMMWV and place an M1121 HMMWV in the ready-to-fire configuration.

**CONDITIONS:** Given an M1121 HMMWV, a complete M41 ITAS TOW launcher system installed on the M1121 that has passed the system check-out, an encased missile simulation round, and a TOW crew.

**STANDARDS:** The crew will have 5 minutes to complete each task:

          Within 5 minutes, the crew will install and secure (with available straps) an M41 ITAS TOW launcher system in an M1121 HMMWV.

          Within 5 minutes, the crew will prepare the M1121 HMMWV and the M41 ITAS TOW launcher system for firing.

**PERSONNEL, EQUIPMENT, AND MATERIAL REQUIRED:**

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         An M1121 HMMWV with BII.

         Complete M41 ITAS TOW launcher system installed that has passed the system check-out.

         An encased TOW missile simulation round.

         TM 9-1425-923-12.

         Three-man crew.

**PRETEST PREPARATION:**

         Make sure the equipment is operational and that the complete TOW system is installed, and all equipment is removed from the M1121 HMMWV.

**TEST PLANNING TIME:**

Administrative time:                              5 minutes

Test time:                                               10 minutes

Total time:                                             15 minutes

**INSTRUCTIONS TO CREWMAN:**

*“This task will test you on your ability to stow an M41 ITAS TOW launcher system in an M1121 HMMWV and place an M1121 HMMWV in the ready-to-fire configuration.  You will have 5 minutes to install and secure (with available straps) an M41 ITAS TOW launcher system in an M1121 HMMWV and 5 minutes to prepare the M1121 HMMWV and the M41 ITAS TOW launcher system for firing.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”* (Start the time.)

If the crewman has not completed this task after 5 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 11

Stow an M41 ITAS TOW Launcher System in an M1121 HMMWV and Place an M1121 HMMWV in the Ready-to-Fire Configuration

                                                                                                                          GO          NO-GO

1.     Stowed an M41 ITAS TOW launcher system in an M1121 HMMWV.

a.     Loaded the missile and secured all latches and straps.                                                 \_\_\_\_\_\_\_\_

b.     Installed the LBB.                                                                                      \_\_\_\_\_\_\_\_

c.     Connected HIC and VMC.                                                                         \_\_\_\_\_\_\_\_

d.     Stowed TAS cleaning kit. \_\_\_\_\_\_\_\_

e.     Stowed the tripod.                                                                                          \_\_\_\_\_\_\_\_

f.     Stowed the TAS.                                                                                                     \_\_\_\_\_\_\_\_

g.     Stowed the launch tube.                                                                                                    \_\_\_\_\_\_\_\_

h. Stowed the TU. \_\_\_\_\_\_\_\_

i. Closed all covers and hatches. \_\_\_\_\_\_\_\_

j.      Stowed the FCS.                                                                            \_\_\_\_\_\_\_\_

2.     Completed the performance measures within 5 minutes.                                                       \_\_\_\_\_\_\_\_

3.     Placed an M1121 HMMWV in the ready-to-fire configuration.

a.     Released the hatch cover latches.                                                                                     \_\_\_\_\_\_\_\_

b.     Moved the FCS.                   \_\_\_\_\_\_\_\_

c.     Positioned the weapon station.                                                                                         \_\_\_\_\_\_\_\_

d.     Installed the traversing unit.                                                                                              \_\_\_\_\_\_\_\_

f.      Installed the launch tube.                                                                                                   \_\_\_\_\_\_\_\_

g.     Installed the TAS.                                                                              \_\_\_\_\_\_\_\_

h.     Mount the FCS.                                                                                                  \_\_\_\_\_\_\_\_

i.      Connected all cables.                                                                                                          \_\_\_\_\_\_\_\_

j. Loaded Missle. \_\_\_\_\_\_\_\_

k.     Performs system BIT.                                     \_\_\_\_\_\_\_\_

4.     Completed the performance measures within 5 minutes.                                                       \_\_\_\_\_\_\_\_

Task 12

Assemble the M41 ITAS TOW Launcher System

TEST ADMINISTRATIVE GUIDE

**TASK:**                             Assemble the M41 ITAS TOW launcher system.

**CONDITIONS:** Given a disassembled M41 ITAS TOW launcher system with all components.

**STANDARDS:** Within 5 minutes, the crewman will assemble the M41 ITAS TOW launcher system so it is safe to fire.

**PERSONNEL, EQUIPMENT, AND MATERIAL REQUIRED:**

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         Complete M41 ITAS TOW launcher system.

         TM 9-1425-923-12.

         FM 3-22.32.

**PRETEST PREPARATION:**

         Make sure the equipment is operational and that the ground is solid and slopes less than 30 degrees.

**TEST PLANNING TIME:**

Administrative time:                              5 minutes

Test time:                                                 5 minutes

Total time:                                             10 minutes

**INSTRUCTIONS TO CREWMAN:**

*“This task will test you on your ability to assemble the M41 ITAS TOW launcher system.  The weapon has been cleared.  You will have 5 minutes to complete this task.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”* (Start the time.)

If the crewman has not completed this task after 5 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 12

Assemble the M41 ITAS TOW Launcher System

                                                                                                                          GO          NO-GO

1.     Set up the tripod.                                                                                                                         \_\_\_\_\_\_\_\_

2.     Installed the traversing unit.                                                                                                      \_\_\_\_\_\_\_\_

3.     Installed the launch tube.                                                                                                           \_\_\_\_\_\_\_\_

4.      Mounted the TAS.     \_\_\_\_\_\_\_\_

5.     Connected the FCS. \_\_\_\_\_\_\_\_

6.       Connected the LBB. \_\_\_\_\_\_\_\_

7.     Checked all cable connections and completed BIT. \_\_\_\_\_\_\_\_

8.     Completed the performance measures within 5 minutes.                                                       \_\_\_\_\_\_\_\_

Task 13

Assemble and disassemble the AN/TAS-8 LRAS3 in the dismounted mode

TEST ADMINISTRATIVE GUIDE

**TASK**:                             Assemble, self test and disassemble an AN/TAS-8 LRAS3 in a dismounted configuration.

**CONDITIONS**:              Given a disassembled AN/TAS-8 LRAS3 system with all components.

S**TANDARDS**:               Within 10 minutes, the crewman will assemble and self test the AN/TAS-8 LRAS3 to conduct surveillance operation then disassemble it.

**PERSONNEL, EQUIPMENT AND MATERIAL:**

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         AN/TAS-8 LRAS3 complete with tripod, cables and battery box.

         Additional crewman to assist.

         6 BA-390.

         TM 11-5855-310-12&P.

**PRETEST PREPARATION:**

         Make sure the equipment is operational and that the system is removed from the vehicle.

**TEST PLANNING TIME:**

Administrative:                 5 minutes

Test:                                10 minutes

Total:                               15 minutes

**INSTRUCTIONS TO THE CREWMAN:**

*“This task will test you on your ability to assemble, power up, perform a system built in test (BIT)and disassemble the AN/TAS-8 LRAS3. You have 10 minutes to complete this task.  Do you understand these instructions?*  (Answer questions.)  *You may begin.”*  (Start the time.)

If the crewman has not completed the task after 10 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 13

Assemble, perform a self test and disassemble the AN/TAS-8 LRAS3 in the dismounted mode

                                                                                                                          GO          NO-GO

1.    Assemble the AN/TAS-8 LRAS.

a.     Released latches unfolded legs to position with 1 leg pointed to NAI. \_\_\_\_\_\_\_\_

b.     Set up Yoke.                            \_\_\_\_\_\_\_\_

c.    Make sure that the tripod/dismounted yoke is balanced and can hold sight sensor

weight without shifting position. Did not set up tripod/dismounted yoke on surfaces

with slope greater than 20 degrees. Level indicator bubble provides approximate

leveling indication.                                                    \_\_\_\_\_\_\_

d.    Locked elevation and azimuth knobs.                                                             \_\_\_\_\_\_\_\_

e.     Attached carry handles and with assistance lowered sight onto yoke.                               \_\_\_\_\_\_\_\_

f.      Installs six BA-390 in battery box.                                                            \_\_\_\_\_\_\_\_

g.     Placed battery box and connected cables.                                                                    \_\_\_\_\_\_\_\_

h.     Opened the lens cover and eyecup plug.                                                                            \_\_\_\_\_\_\_\_

i.      Turned on system and selected BIT from main menu.                                                        \_\_\_\_\_\_\_\_

2.     Completed all performance measures within 5 minutes \_\_\_\_\_\_\_\_

3.     Disassemble the AN/TAS-8 LRAS.

a. Powers down system. \_\_\_\_\_\_\_\_

b Level sight and yoke to 0-degress; locked elevation brake knob. \_\_\_\_\_\_\_\_

c Rotated hand grips, extend carry handles and lifts up. \_\_\_\_\_\_\_\_

d Places sight system on ground. \_\_\_\_\_\_\_

e Releases latches and fold yoke. \_\_\_\_\_\_\_\_

f Set tripod on its side loosens leg locks and retracts legs \_\_\_\_\_\_\_\_

g Releases latches and folds up legs to carry position \_\_\_\_\_\_\_

4.    Completed all performance measures within 5 minutes \_\_\_\_\_\_\_\_

Task 14

Mount an AN/TAS-8 LRAS3 on an M1151 HMMWV and place in the mounted surveillance configuration.

TEST ADMINISTRATIVE GUIDE

**TASK:**                             Mount an AN/TAS-8 LRAS3 in an M1151 HMMWV and place an M1151 HMMWV in the mounted surveillance configuration.

**CONDITIONS:** Given an M1151 HMMWV, a complete AN/TAS-8 LRAS3 installed on the M1151 that has passed the system check-out and a Scout crew.

**STANDARDS:**         Within 5 minutes, the crew will prepare the M1151 HMMWV and the AN/TAS-8 LRAS3 for surveillance operations.

**PERSONNEL, EQUIPMENT AND MATERIAL:**

         Items listed in [paragraph 4-10](https://atiam.train.army.mil/soldierPortal/atia/adlsc/view/restricted/12511-1/FM/3-20.8/chap4.htm#4-10#4-10).

         AN/TAS-8 LRAS3 complete with tripod, cables and battery box.

         M1151 HMMWV with BII and AN/TAS-8 LRAS3 mounted configuration kit.

         6 BA-390.

         TM 11-5855-310-12&P.

**PRETEST PREPARATION:**

         Make sure the equipment is operational and that the system is removed from the vehicle.

**TEST PLANNING TIME:**

Administrative:                 5 minutes

Test:                                 5 minutes

Total:                                10 minutes

**INSTRUCTIONS TO CREWMAN**:

*“This task will test you on your ability to mount an AN/TAS-8 LRAS3 system in an M1151 HMMWV and place an M1151 HMMWV with AN/TAS-8 LRAS in the mounted surveillance operations mode. You will have 5 minutes to prepare the M1151 HMMWV with AN/TAS-8 LRAS in the mounted surveillance operations mode. Do you understand these instructions?*  (Answer questions.)  *You may begin.”* (Start the time.)

If the crewman has not completed the task after 10 minutes, announce “STOP” loud enough for the crewman to hear.

**Note.**       If it appears that the crewman is going to damage the equipment or injure himself, announce “STOP.”

PERFORMANCE CHECKLIST FOR TASK 14

Mount an AN/TAS-8 LRAS3 on an M1151 HMMWV and place in the mounted surveillance configuration.

                                                                                                                          GO          NO-GO

1.     Mounted the AN/TAS-8.

a.   Ensured the VPC is on and the yoke is secured. \_\_\_\_\_\_\_\_

b.  On each hand grip press in on hand grip release switch and rotate hand grip to

horizontal detent position. \_\_\_\_\_\_\_\_

c. Install two carrying handles on sight sensor Using carrying handles carefully lift and

place sight sensor on vehicle. \_\_\_\_\_\_\_\_

d. Align sight sensor v-blocks with yoke elevation trunnions and carefully lower sight sensor

on mounted yoke rotate both elevation trunnions latches to close position and secure. \_\_\_\_\_\_\_\_

2.  Connected Mounted Power Cable 3W1 to Sight Sensor.

   a. Remove dust cover from sight sensor connector 1J1 remove dust cover from mounted

power cable connector connect mounted power cable connector to sight sensor connector

1J1.  \_\_\_\_\_\_\_\_

1. Remove dust cover from sight sensor connector 1J2. Remove dust cover from mounted

power cable connector. Connect mounted power cable connector to sight sensor connector

1J2. Mate dust cover with dust cover.  \_\_\_\_\_\_\_\_

3.   Power up AN/TAS-8

 a. Opened the lens cover and eyecup plug.                                                                            \_\_\_\_\_\_\_\_

b. Turned on system and selected BIT from main menu.                                                        \_\_\_\_\_\_\_\_

4.     Completed all performance measures within 5 minutes \_\_\_\_\_\_\_\_

**JAVELIN TASKS**

**PREPARING, RESTORING, AND CARRYING THE JAVELIN**

**LESSON OUTLINE**

**I. INSTRUCTIONAL INTENT:** The gunners demonstrate how to prepare a Javelin for

firing, assume a firing position, restore a Javelin to a carry configuration, remove and

replace the Battery Coolant Unit (BCU), and demonstrate the carry techniques for the

Javelin.

**II. TRAINING OBJECTIVES:**

**A. TASK 15:** Demonstrate the Javelin carry techniques.

**CONDITION:** Given a Javelin, an ALICE pack, carry bag with all components, and an

individual weapon.

**STANDARDS:** Assume each of the carry positions as follows:

1. Tactical carry within 1 minute.

2. Short distance carry within 1 minute.

3. Long distance carry within 3 minutes.

**B. TASK 16:** Prepare a Javelin for firing.

**CONDITION:** Given a Command Launch Unit (CLU), a round, carry bag with all

components in either the short-distance or long-distance carry

configuration, and an individual weapon.

**STANDARD:** Within 2 minutes, remove the CLU from the carry bag, install the BA-

5590/U battery, connect the CLU to the round, remove the forward end

cap, and open the lens covers.

**C. TASK 17:** Restore a Javelin to a carry configuration.

**CONDITION:** Given a Javelin in the ready-to-fire configuration, a CLU carry bag,

ALICE pack, individual weapon, and a designated carry configuration.

**STANDARD:** Power down the CLU**,** replace the forward end cap, remove the CLU from

the round, and assume either the short or long distance carry.

**D. TASK 18:** Assume a Javelin firing position.

**CONDITION:** Given a Javelin in the ready-to-fire configuration.

**STANDARD:** Assume each designated firing position within 60 seconds.

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**E. TASK 19:** Replace a Battery Coolant Unit (BCU).

**CONDITION:** Given a Javelin with the seeker activated but the missile has not been

launched and an unused BCU.

**STANDARD:** Remove spent BCU and reinstall a new BCU within 20 seconds.

**VI. PRACTICE EXERCISES: PREPARING, RESTORING, AND CARRING THE**

**JAVELIN**

**A. Practice Exercise 3.1 Demonstrate Javelin Carry Techniques, Prepare a Javelin for**

**Firing, and Restore a Javelin to a Carry Configuration.**

**GENERAL INSTRUCTIONS:** Practice Exercise 3.1 trains three training objectives however,each training objective can be trained separately. The instructions below provide guidance forhow to set up three stations to conduct P.E. 3.1.

**STATION 1.** Demonstrate Javelin carry techniques.

1. **Setup:** Assemble the following training aids for each gunner position: an ALICE pack, an MSR, a carry bag containing a CLU (with BB-390A/U battery) and a lens cleaning kit, and a set of MOPP gear. To begin the P.E., a BB-390A/U battery is installed in the CLU, and the CLU is in the carry bag. An MSR and an ALICE pack are placed at each practice position. The evaluation form in the Student Guide is presented below.

2. **Brief the Student**: During this P.E., practice performing the "Javelin carry techniques"

procedures as they were described and demonstrated during the lesson.

3. **Evaluation**: To receive a "T" for this P.E., the gunner must demonstrate each carry

technique correctly in accordance with the Student Guide.

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**STATION 2.** Prepare a Javelin for Firing and Restore a Javelin to a Carry Configuration.

**A.** Prepare a Javelin for Firing.

1. **Setup:** Assemble the following training aids for each gunner position: an MSR, a carry bag containing a CLU (with BB-390A/U battery) and a lens cleaning kit.

To begin the P.E., a BB-390A/U battery is installed in the CLU, and the CLU is in the carry bag. An MSR is placed at each practice position. The evaluation form in the Student Guide is presented below.

2. **Brief the Student:** During this P.E., practice performing the "Prepare the Javelin for Firing" procedures as they were described and demonstrated during the lesson.

3. **Evaluation:** To receive a "T" for this P.E., the gunner must perform all of the steps, in

sequence, within 2 minutes.

**B.** Restore Javelin to a carry configuration.

1. **Setup:** Assemble the following training aids for each gunner position: an MSR and a CLU (with BB-390A/U battery). To begin the P.E., the BB-390A/U battery is installed in the CLU, the CLU is connected to the MSR, the forward end cap is removed, and the gunner is in a Javelin firing position. The evaluation form in the Student Guide is presented below.

2. **Brief the Student:** During this P.E., practice performing the "Restore the Javelin to a Carry Configuration" procedures as they were described and demonstrated during the lesson.

3. **Evaluation:** To receive a "T" for this P.E., the gunner must correctly perform the all of the steps, in sequence, to restore a Javelin to a carry configuration within 2 minutes.

**STATION 3.** Assume a Javelin Firing Position.

1. **Setup:** Assemble the following training aids for each gunner position: an MSR, and a CLU (with BB-390A/U battery). To begin the P.E., the BB-390A/U battery is installed in the CLU, the CLU is connected to the MSR, and the forward end cap is removed. The

evaluation form in the Student Guide is presented below.

2. **Brief the Student:** During this P.E., practice performing the "Assume a Javelin Firing

Position" procedures as they were described and demonstrated during the lesson.

3. **Evaluation:** To receive a "T" for this P.E., the student must assume each firing position, in accordance with the Student Guide, within 1 minute.

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**STUDENT P.E. FORM**

STUDENT NAME

**P.E. 3.1 Demonstrate Javelin Carry Techniques, Prepare a Javelin for**

**Firing, and Restore a Javelin to a Carry Configuration.**

**PERFORMANCE MEASURES:**

**Station 1:** Demonstrate Javelin Carry Techniques **T P U**

a. Long-distance carry technique within 3 minutes. GO / NOGO

b. Short-distance carry technique within 1 minute. GO / NOGO

c. Tactical carry technique within 1 minute. GO / NOGO

**Station 2:** Prepare a Javelin for Firing, Restore a Javelin to a Carry

Configuration

**A.** Prepare a Javelin for Firing

Perform the following steps within 2 minutes. **T P U**

a. Prepare the Javelin components. GO / NOGO

b. Remove the CLU from the carry bag. GO / NOGO

c. Install the CLU battery. GO / NOGO

d. Turn power switch to NIGHT. GO / NOGO

e. Connect the CLU to the round. GO / NOGO

f. Remove the forward end cap. GO / NOGO

g. Open the lens covers. GO / NOGO

**B.** Restore a Javelin to a Carry Configuration

Perform the following steps within 2 minutes. **T P U**

a. Place the Javelin on ground. GO / NOGO

b. Turn the power switch to OFF. GO / NOGO

c. Close the CLU lens covers. GO / NOGO

d. Replace the forward end cap. GO / NOGO

e. Remove the CLU from the round. GO / NOGO

f. Replace the protective covers. GO / NOGO

g. Replace the BCU (if needed). GO / NOGO

h. Place the CLU in the carry bag. GO / NOGO

i. Configure the Javelin for either a long-or short-distance carry. GO / NOGO

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**Station 3:** Assume a Javelin Firing Position **T P U**

a. Assume a sitting position within 1 minute. GO / NOGO

b. Assume a kneeling position within 1 minute. GO / NOGO

c. Assume a standing supported position within 1 minute. GO / NOGO

d. Assume a prone position, within 1 minute. GO / NOGO

Body at 30 degree angle

Rest Javelin on forward end cap.

**NOTE**

System checkout procedures can be evaluated at the conclusion of any of

the firing positions.

e. System checkout procedure. GO / NOGO

1. Turn the power switch to NIGHT. GO / NOGO

2. Focus the CLU display to your vision level. GO / NOGO

Verify **NVS NOT COOL** and **DAY** indicators are illuminated.

Adjust focus of **NVS NOT COOL** and **DAY** indicators.

3. Adjust the NVS focus GO / NOGO

Verify **NVS NOT COOL** indicator goes out and that the **DAY**

indicator remains illuminated.

Select WFOV.

Adjust focus of NVS video.

4. Adjust the NVS contrast and brightness. GO / NOGO