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## APPENDIX A

### Gunnery Skills Test

The GST evaluates the crew member's ability to perform gunnery-related skills. It does not replace tasks in the 19D soldier's manuals.

#### Section I. ADMINISTRATION AND EVALUATION

The GST is an evaluation tool with which the unit can determine readiness to move toward crew tasks and conduct live-fire gunnery to meet the prescribed training levels.

##### Administration

As a minimum, the appropriate tasks of the GST must be administered—

- Semiannually.
- When crew members change positions.
- Before gunnery qualification, unless the crew members qualified within the past three months in current vehicle positions.

The GST is administered using tasks, conditions, and standards, as well as training evaluation guidelines and performance checklists. At no time will tasks be deleted from the GST; however, the commander may add tasks for a more comprehensive evaluation.

All members of the scout squad should take the test. The commander and gunner must achieve a GO on all tasks (appropriate for their weapon systems) to achieve an overall GO.

The GST should also be used as a diagnostic tool to determine the level and effectiveness of cross-training throughout the section.

##### Evaluation

##### EVALUATORS

The test may be evaluated by either internal or external evaluators; external evaluation is recommended.

##### EVALUATION CRITERIA

The individuals performing the test 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 individuals being tested must receive a GO on all tasks.

At the conclusion of each task, if the individual failed to meet the prescribed standards, he will be critiqued on those areas that caused him to fail the task and be directed to retake the test at a later date.

### **Scoring**

Personnel receive either a GO or a NO-GO on each task.

NO-GOs are scored for—

- Failing to complete the task.
- Incorrectly performing task steps (or performing steps out of sequence).
- Failing to meet time standards.

### **Prerequisites**

Preliminary gunnery training must be conducted before administering the GST.

### **Performance Checklists**

The performance checklists for all stations must be cross-referenced with the applicable soldier's manuals and TMs to ensure standardization in training and testing.

### **Evaluation Procedures**

**Administrative Process.** At all stations, the evaluator logs crew members in on a roster. The evaluator provides each crew member with all materials and equipment displayed in the manner outlined in this guide. The evaluator must use the criterion scoring checklist for each task. The evaluator informs the crew member of his performance on the task and directs him either to the next station or to further training. Only one crew member may be tested at a time.

**Administrative Procedures for Personnel Receiving a NO-GO.** 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.

## Section II. ADMINISTRATIVE GUIDES AND PERFORMANCE CHECKLISTS (M249 SAW)

### Station 1

**TASK:** Clear, disassemble (field strip), assemble, and perform a function check on the M249 SAW.

**CONDITIONS:** Given: An M249 SAW placed on a flat surface and cleared of ammunition.

**STANDARDS:** The crew will—

- Clear (in sequence) and disassemble the M249 SAW (4 minutes).
- Assemble the M249 SAW (3 minutes 30 seconds).
- Perform a function check on the M249 SAW (30 seconds).

#### **PERSONNEL, EQUIPMENT, AND MATERIAL:**

- Qualified corporal (CPL) or above.
- M249 SAW.
- Clipboard and pen.
- One helper, qualified E5 or below.

#### **PRETEST PREPARATION:**

Ensure that the equipment is operational and the weapon is removed from the vehicle and cleared.

#### **TEST PLANNING TIME:**

Administrative:	5 minutes
Test:	<u>8 minutes</u>
Total:	13 minutes

#### **INSTRUCTIONS TO EXAMINEE:**

**“Let me have your attention. At this station, you will be tested on your ability to clear, disassemble (field strip), assemble, and perform a function check on an M249 SAW. You must clear the M249 SAW and perform a function check in sequence. The weapon is not clear. Do you understand these instructions?”**

Pause for five seconds; ask examinee if there are any questions; then say **“You will have eight minutes to complete this test.”** Pause; then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after eight minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Clear, disassemble (field strip), assemble, and perform a function check on the M249 SAW.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Cleared and disassembled M249 SAW.		
a. Cocked weapon.	_____	_____
b. Placed safety on SAFE.	_____	_____
c. Returned cocking handle to forward position.	_____	_____
d. Raised cover, inspected tray, and removed link ammunition (belt-fed ammunition).	_____	_____
OR		
Pushed down on magazine, released tab, removed magazine, and raised cover (box-fed ammunition).	_____	_____
e. Checked to ensure no rounds were present.	_____	_____
f. Closed tray.	_____	_____
g. Placed safety on FIRE.	_____	_____
h. Pulled cocking handle to rear.	_____	_____
i. Pulled trigger; rode bolt forward.	_____	_____
j. Raised cover.	_____	_____
k. Removed operating rod.	_____	_____
l. Separated operating rod group.	_____	_____
m. Removed barrel.	_____	_____
n. Removed thermal shield.	_____	_____
o. Removed gas regulator and collar.	_____	_____
p. Removed hand guard.	_____	_____
q. Removed buttstock and shoulder assembly.	_____	_____
r. Removed trigger mechanism group.	_____	_____
s. Removed gas cylinder group.	_____	_____
t. Removed biped group.	_____	_____
u. Completed all steps within four minutes.	_____	_____

Performance Measures	GO	NO-GO
2. Assembled M249 SAW.		
a. Replaced bipod group.	_____	_____
b. Replaced gas cylinder group.	_____	_____
c. Replaced hand guard group.	_____	_____
d. Replaced gas regulator and collar.	_____	_____
e. Replaced thermal shield.	_____	_____
f. Replaced barrel group.	_____	_____
g. Replaced trigger mechanism group.	_____	_____
h. Replaced buttstock and shoulder assembly.	_____	_____
i. Joined bolt, slide, and piston assemblies.	_____	_____
j. Replaced piston, bolt, slide assemblies.	_____	_____
k. Joined operating rod and spring assembly.	_____	_____
l. Replaced buttstock and shoulder group.	_____	_____
m. Completed all steps within three minutes 30 seconds.	_____	_____
3. Performed function check on M249 SAW.		
a. Cocked weapon.	_____	_____
b. Returned cocking handle to forward position.	_____	_____
c. Placed safety on SAFE.	_____	_____
d. Pulled trigger (weapon should not fire).	_____	_____
<b>Note.</b> If weapon fires, disassemble and reassemble M249 SAW and perform a function check. If weapon still fires while on SAFE, squad leader must be notified and weapon must be turned in to maintenance.		
e. Placed safety on FIRE.	_____	_____
f. Pulled cocking handle to rear and held.	_____	_____
g. Pulled trigger; eased bolt forward.	_____	_____
h. Completed all steps in 30 seconds.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

\_\_\_\_\_

## Station 2

**TASK:** Clear, load, apply immediate action, and unload an M249 SAW.

**CONDITIONS:** Given: An M249 SAW placed on a flat surface and loaded with 10 rounds of M199 ammunition (dummy).

**STANDARDS:** Within three minutes, the crew member will—

- Clear (in sequence) the M249 SAW.
- Load the M249 SAW.
- Apply immediate action on the M249 SAW.
- Unload the M249 SAW.

### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- M249 SAW.
- Ammunition-10 rounds M199 (dummy).
- Clipboard and pen.
- One helper, qualified E5 or above.

### PRETEST PREPARATION:

Ensure the equipment is operational and the weapon is removed from the vehicle and loaded with 10 rounds of M199 ammunition (dummy).

### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>3 minutes</u>
Total:	8 minutes

### INSTRUCTIONS TO EXAMINEE:

**“Let me have your attention. At this station, you will be tested on your ability to clear, load, apply immediate action, and unload an M249 SAW. You must clear the M249 in sequence. The weapon is not clear. Do you understand these instructions?”**

Pause for five seconds; ask the examinee if there are any questions; then say **“You will have three minutes to complete this test.”** Pause; then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after three minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Clear, load, apply immediate action, and unload an M249 SAW.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Cleared M249 SAW.		
a. Cocked weapon.	_____	_____
b. Put safety on SAFE.	_____	_____
c. Returned cocking handle to forward position.	_____	_____
d. Raised cover, inspected tray, and removed link ammunition (belt-fed ammunition).	_____	_____
OR		
Pushed down on magazine, released tab, removed magazine, and raised cover (box-fed ammunition).	_____	_____
e. Checked to ensure no rounds were present.	_____	_____
f. Closed tray.	_____	_____
g. Placed safety on FIRE.	_____	_____
h. Pulled cocking handle to rear.	_____	_____
i. Pulled trigger; rode bolt forward.	_____	_____
j. Raised cover.	_____	_____
2. Loaded M249 SAW.		
a. Placed safety on FIRE.	_____	_____
b. Cocked weapon.	_____	_____
c. Returned cocking handle to its forward position.	_____	_____
d. Placed safety on SAFE.	_____	_____
e. Raised cover assembly.	_____	_____
f. Checked that receiver group and chamber were clear.	_____	_____
g. Placed first round of belt in tray groove.	_____	_____
h. Closed cover.	_____	_____

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
3. Applied immediate action on M249 SAW.		
<b>Note.</b> Have examinee attempt to fire M249 SAW.		
a. Cocked weapon; watched for ejecting rounds.	_____	_____
b. Ensured bolt remained to rear.	_____	_____
c. Returned cocking handle to forward position.	_____	_____
d. Took aim on target.	_____	_____
e. Fired weapon.	_____	_____
<b>Note.</b> If weapon fails to fire, clear it and inspect ammunition to determine cause of stoppage.		
4. Unloaded M249 SAW.		
a. Cocked weapon.	_____	_____
b. Placed safety on SAFE.	_____	_____
c. Returned cocking handle to forward position.	_____	_____
d. Raised cover; removed any ammunition or links (belt-fed ammunition).	_____	_____
OR		
Pushed down on magazine release tab; removed magazine (box-fed ammunition).	_____	_____
e. Checked that chamber was clear (belt-fed ammunition).	_____	_____
OR		
Raised cover and tray; checked that chamber was clear (box-fed ammunition).	_____	_____
5. Completed all performance measures within three minutes.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

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## Section III. ADMINISTRATIVE GUIDES AND PERFORMANCE CHECKLISTS (M60 MACHINE GUN)

### Station 1

**TASK:** Clear, disassemble (field strip), assemble, and perform a function check on an M60 machine gun.

**CONDITIONS:** Given: An M60 machine gun placed on a flat surface and cleared of ammunition.

**STANDARDS:** Within eight minutes the crew member will—

- Clear (in sequence) and disassemble the M60 machine gun (4 minutes).
- Assemble the M60 machine gun (3 minutes 30 seconds).
- Perform a function check (in sequence) on the M60 machine gun (30 seconds).

### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- M60 machine gun.
- Ammunition—10 rounds 7.62-mm (dummy).
- FM 23-67.
- Stopwatch.
- Clipboard and pen.
- One helper, qualified E5 or below.

### PRETEST PREPARATION:

Ensure the equipment is operational and the weapon is removed from the vehicle and loaded with 10 rounds of 7.62-mm dummy ammunition.

### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>8 minutes</u>
Total:	13 minutes

### INSTRUCTIONS TO EXAMINEE:

**“Let me have your attention. At this station, you will be tested on your ability to clear, disassemble (field strip), assemble, and perform a function check on an M60 machine gun. You must clear the M60 machine gun and perform the function check in sequence. The weapon is not clear. Do you understand these instructions?”**

Pause for five seconds; ask the examinee if there are any questions; then say **“You will have eight minutes to complete this test.”** Pause; then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after eight minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Clear, disassemble (field strip), assemble, and perform a function check on an M60 machine gun.

Performance Measures	GO	NO-GO
1. Cleared (in sequence) and disassembled M60 machine gun.		
a. Moved safety to FIRE.	_____	_____
b. Cocked gun.	_____	_____
c. Moved safety to SAFE; returned cocking handle to forward position.	_____	_____
d. Raised cover, inspected tray, and removed link or ammunition.	_____	_____
e. Raised tray and inspected chamber to ensure no rounds were present.	_____	_____
f. Closed cover, placed safety on FIRE, pulled cocking handle to rear, pulled trigger, and eased bolt forward.	_____	_____
g. Placed safety on SAFE and raised cover (if not disassembling gun, keep cover down).	_____	_____
h. Removed stock.	_____	_____
i. Removed buffer, operating rod assemblies, and bolt.	_____	_____
j. Separated bolt assembly from operating rod assembly.	_____	_____
k. Removed trigger mechanism group.	_____	_____
l. Removed barrel group.	_____	_____
m. Removed cover, feed tray, and hanger group.	_____	_____
n. Removed forearm assembly.	_____	_____
2. Assembled M60 machine gun.		
a. Replaced forearm assembly.	_____	_____
b. Replaced cover feed tray and hanger group.	_____	_____
c. Replaced barrel group.	_____	_____
d. Replaced trigger mechanism group.	_____	_____

Performance Measures	GO	NO-GO
e. Joined bolt to operating rod.	_____	_____
f. Replaced bolt and operating rod group.	_____	_____
g. Replaced buffer assembly.	_____	_____
h. Replaced stock.	_____	_____
3. Performed function check (in sequence) on M60 machine gun.		
a. Placed safety on FIRE.	_____	_____
b. Pulled cocking handle to rear.	_____	_____
c. Closed cover.	_____	_____
d. Placed safety on SAFE and pulled trigger.	_____	_____
e. Checked to ensure weapon would not fire.	_____	_____
f. Pulled and held cocking handle to rear.	_____	_____
g. Placed safety on FIRE; pulled trigger.	_____	_____
h. Allowed bolt to ease forward.	_____	_____
i. Placed safety on SAFE.	_____	_____
4. Completed all performance measures within eight minutes.	_____	_____

**Note.** Clearing and function checks are performed in sequence in accordance with FM 23-67.

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

\_\_\_\_\_

**Station 2**

**TASK:** Clear, load, apply immediate action, and unload an M60 machine gun.

**CONDITIONS:** Given: an M60 machine gun placed on a flat surface, and a 10-round belt of 7.62-mm dummy ammunition.

**STANDARDS:** Within three minutes, the crew member will—

- Clear (in sequence) the M60 machine gun.
- Load the M60 machine gun.
- Apply immediate action (in sequence) on the M60 machine gun.
- Unload the M60 machine gun.

**PERSONNEL, EQUIPMENT, AND MATERIAL:**

- Qualified CPL or above.
- M60 machine gun.
- Ammunition-10 rounds 7.62-mm (dummy).
- FM 23-67.
- Stopwatch.
- Clipboard and pen.

**PRETEST PREPARATION:**

Ensure the equipment is operational and the weapon is removed from the vehicle and loaded with 10 rounds of 7.62-mm dummy ammunition.

**TEST PLANNING TIME:**

Administrative:	5 minutes
Test:	<u>3 minutes</u>
Total:	8 minutes

**INSTRUCTIONS TO EXAMINEE:**

**“Let me have your attention. At this station, you will be tested on your ability to clear, load, apply immediate action, and unload an M60 machine gun. You must clear the M60 and apply immediate action in sequence. The weapon is not clear. Do you understand these instructions?”**

Pause for five seconds; ask the examinee if there are any questions; then say **“You will have three minutes to complete this test.”** Pause; then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after three minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Clear, load, apply immediate action, and unload an M60 machine gun.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Cleared M60 machine gun (in sequence).		
a. Moved safety to FIRE.	_____	_____
b. Pulled cocking handle rearward; returned cocking handle to forward position.	_____	_____
c. Moved safety to SAFE.	_____	_____
d. Raised cover, inspected tray, and removed link or ammunition.	_____	_____
e. Raised tray and inspected chamber to ensure no rounds were present.	_____	_____
f. Closed cover, placed safety on FIRE, pulled cocking handle to rear, pulled trigger, and eased bolt forward.	_____	_____
g. Moved safety to SAFE.	_____	_____
2. Loaded M60 machine gun.		
a. Moved safety to FIRE.	_____	_____
b. Pulled cocking handle rearward; returned cocking handle to forward position.	_____	_____
c. Moved safety to SAFE.	_____	_____
d. Turned latch and opened cover.	_____	_____
e. Placed ammunition on feed tray, with open side of links down and first round in feed groove.	_____	_____
f. Closed cover.	_____	_____
g. Moved safety to FIRE.	_____	_____
3. Applied immediate action (in sequence) on an M60 machine gun.		
<b>Note.</b> Have examinee attempt to fire M60.		
a. Pulled cocking handle rearward.	_____	_____
b. Checked ejection port for ejected cartridge.	_____	_____
c. Pushed cocking handle forward and attempted to fire again.	_____	_____

Performance Measures	GO	NO-GO
4. Unloaded M60 machine gun.		
a. Moved safety to FIRE.	_____	_____
b. Pulled cocking handle rearward; returned cocking handle to forward position.	_____	_____
c. Moved safety to SAFE.	_____	_____
d. Raised cover; removed ammunition and link belt.	_____	_____
e. Raised feed tray and inspected chamber.	_____	_____
f. Lowered feed tray.	_____	_____
g. Closed cover.	_____	_____
h. Moved safety to FIRE.	_____	_____
i. Pulled cocking handle rearward and held.	_____	_____
j. Pulled trigger and allowed cocking handle to move forward.	_____	_____
5. Completed all performance measures within three minutes.	_____	_____

**Note.** Clearing and immediate action are performed in sequence in accordance with FM 23-67.

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

## Section IV. ADMINISTRATIVE GUIDES AND PERFORMANCE CHECKLISTS (M2 HB CALIBER .50)

### Station 1

**TASK:** Clear, disassemble, assemble, set headspace and timing, and perform a function check on an M2 HB caliber .50 machine gun.

**CONDITIONS:** Given: An M2 HB caliber .50 machine gun placed on a flat surface and cleared of ammunition.

**STANDARDS:** Within 15 minutes, the crew member will—

- Clear (in sequence) an M2 HB caliber .50 machine gun.
- Disassemble and assemble an M2 HB caliber .50 machine gun.
- Adjust headspace (in sequence) on an M2 HB caliber .50 machine gun.
- Set timing (in sequence) on an M2 HB caliber .50 machine gun.
- Perform a function check (in sequence) on an M2 HB caliber .50 machine gun.

### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- M2 HB caliber .50 machine gun.
- Ammunition—linked caliber .50 (dummy).
- Headspace and timing gage.
- Stopwatch.
- Table.
- Clipboard and pen.
- One helper, qualified E5 or below.

### PRETEST PREPARATION:

Ensure that the equipment is operational and the weapon is removed from vehicle and cleared.

### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>15 minutes</u>
Total:	20 minutes

### INSTRUCTIONS TO EXAMINEE:

**“Let me have your attention. At this station, you will be tested on your ability to clear, disassemble, assemble, set headspace and timing, and perform a function check on an M2 HB caliber .50 machine gun. Clearing, setting headspace and timing, and performing a function check are scored in sequence. Do you understand these instructions?”**

Pause for 5 seconds; ask the examinee if there are any questions; then say, **“You will have 15 minutes to complete this test.”** Pause, then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after 15 minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Clear, disassemble, assemble, set headspace and timing, and perform a function check on the M2 HB caliber .50 machine gun.

Performance Measures	GO	NO-GO
1. Cleared (in sequence) caliber .50 machine gun.		
a. Unlocked bolt latch release.	_____	_____
b. Opened cover.	_____	_____
c. Lifted extractor and removed ammunition belt from feedway.	_____	_____
d. Pulled back on charging handle and locked bolt to rear.	_____	_____
e. Looked into both chamber and T-slot for ammunition.	_____	_____
f. Pulled back on charging handle and rode bolt forward.	_____	_____
g. Closed cover.	_____	_____
h. Pushed trigger to fire weapon.	_____	_____
<b>Note.</b> Did not close cover with bolt locked to rear.		
2. Disassembled and assembled caliber .50 machine gun.		
a. Removed barrel group.	_____	_____
b. Removed backplate group.	_____	_____
c. Removed driving spring rod assembly.	_____	_____
d. Removed bolt stud.	_____	_____
e. Removed bolt group.	_____	_____
f. Removed barrel buffer body group and barrel extension group.	_____	_____
g. Removed barrel buffer assembly.	_____	_____
h. Replaced barrel buffer assembly and barrel buffer body group.	_____	_____
i. Replaced barrel buffer group and barrel extension group.	_____	_____
j. Replaced bolt group.	_____	_____

Performance Measures	GO	NO-GO
k. Replaced bolt stud.	_____	_____
1. Replaced driving spring rod assembly.	_____	_____
m. Replaced backplate group.	_____	_____
n. Replaced barrel group.	_____	_____
3. Adjusted headspace (in sequence).		
a. Opened cover.	_____	_____
b. Retracted bolt until locking lug on barrel locking spring was centered in hole of right side plate of receiver.	_____	_____
c. Held bolt in position (as in 3b) and screwed barrel fully into barrel extension.	_____	_____
d. With bolt still retracted, unscrewed barrel two notches (clicks).	_____	_____
e. Allowed recoiling parts to go forward.	_____	_____
f. Cocked machine gun.	_____	_____
g. Rode bolt forward.	_____	_____
h. Retracted recoiling parts approximately 1/16 inch.	_____	_____
i. Raised extractor.	_____	_____
j. Inserted GO end of gage into T-slot between face of bolt and barrel.	_____	_____
k. If GO end did not enter T-slot—		
(1) Retracted bolt until locking lug on barrel locking spring was centered in hole of right side plate of receiver.	_____	_____
(2) Unscrewed barrel one notch (click).	_____	_____
(3) Allowed recoiling parts to go forward.	_____	_____
(4) Checked headspace in accordance with steps 3h through j.	_____	_____
l. If GO end entered T-slot, attempted to place NO-GO end of gage into T-slot.	_____	_____
m. If NO-GO end did not enter T-slot, went to step 4.	_____	_____
n. If NO-GO end entered T-slot—		
(1) Retracted bolt until locking lug on barrel locking spring was centered in hole of right side plate of receiver.	_____	_____
(2) Screwed barrel one notch (click).	_____	_____

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
(3) Allowed recoiling parts to go forward.	_____	_____
(4) Checked headspace in accordance with steps 3h through j.	_____	_____
4. Set timing (in sequence) (cocked weapon, if necessary).		
a. Checked headspace (cocked weapon; if necessary).	_____	_____
b. Pulled charging handle to retract recoiling parts about 1/16 inch.	_____	_____
c. Inserted NO-FIRE gage between barrel extension and trunnion lock.	_____	_____
d. Ensured NO-FIRE gage beveled edge rested against barrel notches.	_____	_____
e. Slowly released recoiling parts, allowing them to go forward.	_____	_____
f. Depressed trigger.	_____	_____
g. If firing pin did not release, went to step 4i.	_____	_____
h. If firing pin released—		
(1) Removed NO-FIRE gage.	_____	_____
(2) Retracted bolt and recocked machine gun.	_____	_____
(3) Returned bolt forward.	_____	_____
(4) Inserted FIRE gage.	_____	_____
(5) Removed backplate.	_____	_____
(6) Screwed timing adjustment nut to left until it rested on trigger bar.	_____	_____
(7) Pushed upon trigger bar and attempted to fire.	_____	_____
(8) Rotated timing adjustment nut to right one notch and attempted to fire.	_____	_____
(9) Continued step 4h (8) and attempted to fire after each click, until weapon fired.	_____	_____
(10) Turned timing adjustment nut two additional notches to right.	_____	_____
(11) Replaced backplate.	_____	_____
(12) Removed FIRE gage.	_____	_____
(13) Cocked weapon.	_____	_____
(14) Repeated steps 4c through g.	_____	_____
i. Redated NO-FIRE gage with FIRE gage.	_____	_____

Performance Measures	GO	NO-GO
j. Pressed trigger.	_____	_____
k. If firing pin released, went to step 5.	_____	_____
l. If firing pin did not release—		
(1) Removed backplate.	_____	_____
(2) Turned trigger bar stop, adjusting nut one notch to right.	_____	_____
(3) Pushed upon trigger bar.	_____	_____
(4) If weapon fired, repeated steps 4c through g.	_____	_____
(5) If weapon did not fire, repeated steps 41(2) and (3) until weapon fired.	_____	_____
(6) Checked timing twice.	_____	_____
5. Performed a function check (in sequence) on the caliber .50 machine gun.		
a. Placed weapon in single-shot mode.	_____	_____
b. Opened cover and locked bolt to rear.	_____	_____
c. Held retractor handles, pressed bolt latch release, and rode bolt forward.	_____	_____
d. Pressed down on trigger (weapon should fire).	_____	_____
e. Checked T-slot to ensure firing pin protruded.	_____	_____
f. Placed weapon in automatic-fire mode.	_____	_____
g. Pulled retractor slide handle to rear and held (bolt should not lock to rear).	_____	_____
h. Released pressure on slide handles and rode bolt forward.	_____	_____
i. Made sure firing pin did not protrude.	_____	_____
j. Pressed trigger (weapon should fire).	_____	_____
k. Made sure firing pin protruded.	_____	_____
6. Completed all performance measures within 15 minutes.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

\_\_\_\_\_

## Station 2

**TASK:** Load a caliber .50 machine gun, reduce a stoppage, and unload and clear a caliber .50 machine gun.

**CONDITIONS:** Given: An assembled and cleared caliber .50 machine gun with headspace and timing correctly set, and a belt of linked dummy ammunition.

**STANDARDS:** Within five minutes, each crew member will—

- Load a caliber .50 machine gun.
- Reduce a stoppage on a caliber .50 machine gun.
- Unload and clear a caliber .50 machine gun.

### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- M2 HB caliber .50 machine gun.
- Ammunition-linked caliber .50 (dummy).
- Table.
- Stopwatch.
- Clipboard and pen.
- One helper, qualified E5 or below.

### PRETEST PREPARATION:

Ensure the equipment is operational, the weapon is cleared, and the headspace and timing are set.

### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>5 minutes</u>
Total:	10 minutes

### INSTRUCTIONS TO EXAMINEE:

**"Let me have your attention. At this station, you will be tested on your ability to load, reduce a stoppage, unload, and clear a caliber .50 machine gun. The weapon has been cleared. Do you understand these instructions?"**

Pause for five seconds; ask the examinee if there are any questions; then say **"You will have five minutes to complete this test."** Pause, then say **"Begin."**

Begin timing when the command **"Begin"** is given. If the examinee has not completed the task after five minutes, announce **"Stop"** loud enough for the examinee to hear.

**Note.** If it appears that the examinee is going to damage the equipment or injure himself, announce **"Stop."**

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Load a caliber .50 machine gun, reduce a stoppage, and unload and clear a caliber .50 machine gun.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Loaded caliber .50 machine gun.		
a. Ensured bolt was forward.	_____	_____
b. Inserted double-loop end of belt in feedway.	_____	_____
c. Pulled bolt to rear two times.	_____	_____
2. Reduced a stoppage (performed immediate action).		
<b>Note.</b> Have examinee attempt to fire caliber .50 machine gun.		
a. Pulled bolt to rear and ejected bad round (within ten seconds).	_____	_____
b. Resumed firing.	_____	_____
3. Unloaded and cleared caliber .50 machine gun.		
a. Unlocked bolt latch release.	_____	_____
b. Raised cover.	_____	_____
c. Lifted extractor from belt.	_____	_____
d. Lifted belt from feedway.	_____	_____
e. Pulled bolt to rear and locked it.	_____	_____
f. Checked T-slot and chamber for rounds.	_____	_____
g. Rode bolt forward	_____	_____
h. Closed cover	_____	_____
i. Fired caliber.50 machine gun.	_____	_____
4. Completed all performance measures within five minutes.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

\_\_\_\_\_

## Section V. ADMINISTRATIVE GUIDES AND PERFORMANCE CHECKLISTS (MK 19 GRENADE MACHINE GUN)

### Station 1

**TASK:** Disassemble, assemble, and perform a function check on an MK 19 machine gun.

**CONDITIONS:** Given: An MK 19 machine gun placed on a flat surface and cleared of ammunition.

**STANDARDS:** Within eight minutes, the crew member will—

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

### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- MK 19 machine gun.
- Stopwatch.
- Clipboard with pen.
- One helper, qualified ES or below.

### PRETEST PREPARATION:

Ensure the equipment is operational and the weapon is removed from vehicle and cleared.

### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>8 minutes</u>
Total:	13 minutes

### INSTRUCTIONS TO EXAMINEE:

**“Let me have your attention. At this station, you will be tested on your ability to disassemble, assemble, and perform a function check on the MK 19 machine gun. The weapon has been cleared. The function check is scored in sequence. Do you understand these instructions?”**

Pause for five seconds; ask the examinee if there are any questions; then say **“You will have eight minutes to complete this test.”** Pause, then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after eight minutes, announce **“Stop”** loud enough for the examinee to hear.

**Note.** If it appears the examinee is going to damage the equipment or injure himself, announce **“Stop.”**

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

TASK Disassemble, assemble, and perform a function check on an MK 19 machine gun.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Disassembled an MK 19 machine gun.		
a. Removed bolt and backplate assembly.	_____	_____
b. Removed secondary drive lever.	_____	_____
c. Removed feed slide assembly.	_____	_____
d. Removed top cover assembly.	_____	_____
e. Removed feed tray.	_____	_____
f. Removed primary drive lever and vertical cam.	_____	_____
g. Removed alignment guide assembly.	_____	_____
h. Removed ogive plunger.	_____	_____
i. Removed round-positioning block.	_____	_____
j. Removed charger assemblies (left hand [LH], right hand [RH]).	_____	_____
k. Removed sear housing assembly.	_____	_____
2. Reassembled an MK 19 machine gun.		
a. Assembled sear housing assembly.	_____	_____
b. Assembled charger assemblies (LH, RH).	_____	_____
c. Assembled round-positioning block.	_____	_____
d. Inserted ogive-plunger assembly.	_____	_____
e. Inserted alignment guide assembly.	_____	_____
f. Attached vertical cam.	_____	_____
g. Attached primary drive lever.	_____	_____
h. Attached feed tray.	_____	_____
i. Attached feed slide assembly.	_____	_____
j. Attached top cover assembly.	_____	_____
k. Attached and engaged secondary drive lever.	_____	_____
l. Inserted bolt and backplate assembly.	_____	_____

Performance Measures	GO	NO-GO
3. Performed a function check (in sequence) on the MK19 machine gun.		
a. Closed top cover.	_____	_____
b. Moved safety to SAFE.	_____	_____
c. Charged weapon.	_____	_____
d. Locked charging handles forward.	_____	_____
e. Pressed trigger.	_____	_____
<b>Note.</b> If weapon fires, notify supervisor; if weapon does not fire, continue with 3f.		
f. Moved safety to FIRE.		_____
g. Pressed trigger (bolt should spring forward).	_____	_____
h. Moved safety to SAFE.	_____	_____
i. Opened top cover.	_____	_____
j. Checked tip of firing pin (it should be exposed).	_____	_____
k. Moved feed slide to left.	_____	_____
l. Closed top cover.	_____	_____
m. Pulled bolt to rear ensured safety was on.	_____	_____
4. Completed all performance measures within eight minutes.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

## Station 2

**TASK:** Load, apply immediate action, unload, and clear an MK 19 machine gun.

**CONDITIONS:** Given: An MK 19 machine gun placed on an M3 tripod and 10 rounds of linked ammunition (dummy).

**STANDARDS:** Within three minutes, the crew member will—

- Load the MK 19 machine gun.
- Apply immediate action on the MK 19 machine gun.
- Unload and clear the MK 19 machine gun.

### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- MK 19 machine gun.
- Ammunition-10 rounds linked 40-mm (dummy).
- Stopwatch.
- Clipboard and pen.
- One helper, qualified E5 or below.

### PRETEST PREPARATION:

Ensure the equipment is operational and the weapon is removed from the vehicle and cleared.

### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>3 minutes</u>
Total:	8 minutes

### INSTRUCTIONS TO EXAMINEE:

**“Let me have your attention. At this station, you will be tested on your ability to load, apply immediate action, and unload an MK 19 machine gun. The weapon has been cleared. Do you understand these instructions?”**

Pause for five seconds; ask the examinee if there any any questions; then say **“You will have three minutes to complete this test.”** Pause, then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after three minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

TASK: Load, apply immediate action, and unload an MK 19 machine gun.

Performance Measures	GO	NO-GO
1. Loaded MK 19 machine gun.		
a. Moved safety to SAFE.	_____	_____
b. Opened top cover.	_____	_____
c. Ensured bolt was forward.	_____	_____
d. Slid rounds, female link first, through feed throat.	_____	_____
e. Inserted first round into feeder and across first pawl.	_____	_____
f. Moved feed slide assembly to left.	_____	_____
g. Closed top cover.	_____	_____
h. Charged weapon.	_____	_____
i. Locked charger handles forward.	_____	_____
j. Moved safety to FIRE.	_____	_____
k. Pressed trigger (bolt should move forward).	_____	_____
l. Charged weapon.	_____	_____
m. Locked charger handles forward.	_____	_____
n. Moved safety to SAFE.	_____	_____
2. Applied immediate action on MK 19 machine gun.		
<b>Note.</b> Have examinee attempt to fire MK 19.		
a. Waited 10 seconds.	_____	_____
b. Pulled bolt to rear.	_____	_____
c. Caught live round as it was ejected.	_____	_____
d. Pushed charger handles forward and up.	_____	_____
e. Attempted to fire; if nothing happened—		
(1) Moved safety to SAFE.	_____	_____
(2) Waited ten seconds.	_____	_____
(3) Pulled bolt to rear.	_____	_____

Performance Measures	GO	NO-GO
(4) Caught live round as it was ejected.	_____	_____
(5) Opened cover and cleared ammunition.	_____	_____
<b>3. Unloaded and cleared MK 19 machine gun.</b>		
a. Moved safety to SAFE.	_____	_____
b. Charged weapon.	_____	_____
c. Returned charger handles to forward position.	_____	_____
d. Inserted tip of cleaning rod through receiver rail, as close as possible to bolt face.	_____	_____
e. Pushed down on live round or case; forced round off bolt face and out bottom of gun.	_____	_____
f. Caught live round as it fell out.	_____	_____
g. Opened top cover.	_____	_____
h. Removed rounds from feed tray.	_____	_____
i. Inspected chamber.	_____	_____
j. Pulled charger handles rearward.	_____	_____
k. Pressed trigger.	_____	_____
l. Rode bolt forward.	_____	_____
m. Moved safety to SAFE.	_____	_____
n. Moved feed slide assembly to left.	_____	_____
o. Closed top cover.	_____	_____
<b>4. Completed all performance measures within three minutes.</b>	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

\_\_\_\_\_

## Section VI. ADMINISTRATIVE GUIDES AND PERFORMANCE CHECKLISTS (TOW)

### Station 1

**TASK:** Assemble the M220A2 TOW 2.

**CONDITIONS:** Given: A disassembled M220A2 TOW 2 launcher with all components.

**STANDARDS:** Within five minutes, assemble the M220A2 TOW 2 launcher so it is safe to fire.

### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- M220A2 TOW 2 launcher with all components.
- Stopwatch.
- Clipboard and pen.
- One helper, qualified E5 or below

### PRETEST PREPARATION:

Ensure the equipment is operational and the ground is solid and slopes less than 30 degrees.

### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>5 minutes</u>
Total:	10 minutes

### INSTRUCTIONS TO EXAMINEE:

**“Let me have your attention. At this station, you will be tested on your ability to assemble the M220A2 TOW 2. The weapon has been cleared. Do you understand these instructions?”**

Pause for five seconds; ask the examinee if there are any questions; then say **“You will have five minutes to complete this test.”** Pause, then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after five minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

TASK: Assemble the M220A2 TOW 2.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Properly set up tripod.	_____	_____
2. Installed traversing unit.	_____	_____
3. Installed launch tube.	_____	_____
4. Properly mounted daysight tracker.	_____	_____
5. Properly mounted nightsight tracker.	_____	_____
6. Installed battery in MGS.	_____	_____
7. Connected coil to MGS.	_____	_____
8. Connected battery power conditioner to nightsight.	_____	_____
9. Completed all performance measures within five minutes.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

## Station 2

**TASK:** Determine if a target can be engaged by TOW.

**CONDITIONS:** Given: Binoculars, nightsight and daysight tracker mounted correctly on an operational TOW weapon system positioned for firing, and 10 targets.

**STANDARDS:** Within one minute using either the nightsight, binoculars, or daysight tracker, determine whether each of 10 targets is within range and can be engaged.

### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- Complete operational TOW.
- Targets—ten 1:35-scale threat armored vehicles.
- Stopwatch.
- Clipboard and pen.
- Binoculars.
- One helper, qualified E5 or below.

### PRETEST PREPARATION:

Ensure the equipment is operational and, at a minimum, two targets are out of range and two targets cannot be engaged due to obstacles.

### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>1 minute</u>
Total:	6 minutes

### INSTRUCTIONS TO EXAMINEE:

**“Let me have your attention. At this station, you will be tested on your ability to determine if a target can be engaged by TOW. Do you understand these instructions?”**

Pause for five seconds; ask the examinee if there are any questions; then say **“You will have one minute to complete this test.”** Pause, then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after one minute, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Determine if a target can be engaged by TOW.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Using either nightsight, binoculars, or daysight tracker—		
a. Correctly determined if targets were in range.	_____	_____
b. Correctly determined if targets could be engaged.	_____	_____
2. Within one minute, correctly determined if 10 targets were in range and could be engaged.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS \_\_\_\_\_

\_\_\_\_\_

### Station 3

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

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

**STANDARDS:** Within five minutes, the crew member will—

- Load an encased TOW missile.
- Arm the TOW launcher.
- Unload the TOW missile.

#### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- Complete TOW system (vehicle mounted).
- Encased missile (simulation round).
- Stopwatch.
- Clipboard and pen.
- One helper, qualified E5 or below.

#### PRETEST PREPARATION:

Ensure the equipment is operational and the complete vehicle-mounted system is assembled.

#### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>5 minutes</u>
Total:	10 minutes

#### INSTRUCTIONS TO EXAMINEE:

**“Let me have your attention. At this station, you will be tested on your ability to load, arm, and unload an encased TOW missile. The weapon has been cleared. Do you understand these instructions?”**

Pause for five seconds; ask the examinee if there are any questions; then say **“You will have five minutes to complete this test.”** Pause; then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after five minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

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

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Correctly loaded encased TOW missile.		
a. Inspected missile.	_____	_____
b. Picked up missile properly.	_____	_____
c. Removed forward handling ring and clamp.	_____	_____
d. Correctly placed missile in TOW.	_____	_____
e. Lowered and locked bridge clamp.	_____	_____
2. Properly armed TOW launcher.		
a. Ensured backblast area was clear.	_____	_____
b. Raised arming lever.	_____	_____
c. Told gunner, "UP."	_____	_____
3. Unloaded TOW launcher correctly.		
a. Fired missile.		
(1) Raised locking handle.	_____	_____
(2) Opened bridge clamp.	_____	_____
(3) Removed launch container.	_____	_____
(4) Ensured launch tube was clear of foreign matter.	_____	_____
b. Missile not fired		
(1) Lowered arming lever.	_____	_____
(2) Raised locking handle.	_____	_____
(3) Opened bridge clamp.	_____	_____
(4) Removed missile.	_____	_____
(5) Replaced forward handling ring and clamp.	_____	_____
(6) Tagged missile with date, unit, and name.	_____	_____
4. Completed all performance measures within five minutes.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

**Station 4**

**TASK:** Conduct a system check-out procedure and preoperational inspection of a TOW 2 launcher and encased TOW missile.

**CONDITIONS:** Given: An assembled (ground-mounted or vehicle-mounted) TOW 2 launcher and encased missile, and TM 9-1425-472-12.

**STANDARDS:** Within 15 minutes, the crew member will—

- Conduct the system check-out procedure to determine if launcher will function properly, and correct or report any malfunctions.
- Perform the preoperation inspection of the encased missile and report any defects.

**PERSONNEL, EQUIPMENT, AND MATERIAL:**

- Qualified CPL or above.
- Complete TOW 2 system (ground-mounted or vehicle-mounted).
- Encased missile (simulation round).
- TM 9-1425-472-12.
- Stopwatch.
- Clipboard and pen.
- One helper, qualified E5 or below

**PRETEST PREPARATION:**

Ensure the equipment is operational and the TOW system is installed or assembled.

**Note.** A missile simulation round should be used instead of an actual TOW missile.

**TEST PLANNING TIME:**

Administrative:	5 minutes
Test:	<u>15 minutes</u>
Total:	20 minutes

**INSTRUCTIONS TO EXAMINEE:**

**“Let me have your attention. At this station, you will be tested on your ability to conduct a system check-out procedure and preoperation checks on a TOW launcher and encased missile. The weapon has been cleared. Do you understand these instructions?”**

Pause for 5 seconds; ask examinee if there are any questions; then say **“You will have 15 minutes to complete this test.”** Pause; then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after 15 minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Conduct a system check-out procedure and preoperational inspection of a TOW 2 launcher and encased TOW missile.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Conducted a system check-out procedure correctly.		
a. Boresighted weapon correctly.	_____	_____
b. Correctly reported or corrected malfunctions.	_____	_____
2. Properly performed a preoperational inspection of the encased missile.		
a. Inspected humidity indicator.	_____	_____
b. Inspected indexing indicator.	_____	_____
c. Reported all deficiencies.	_____	_____
3. Completed all performance measures within 15 minutes.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

\_\_\_\_\_

## Station 5

**TASK:** Install an M220A1 or M220A2 and encased missile on an M966.

**CONDITIONS:** Given: An M966, a complete TOW system that has passed the system checkout, and a TOW crew.

**STANDARDS:** Within five minutes, install and secure (with available straps) an M220A1 or M220A2 TOW on an M966.

### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- An M966 with all modification table of organization and equipment (MTOE).
- Complete TOW system that has passed the system checkout.
- Encased missile (simulation round).
- Stopwatch.
- Clipboard and pen.
- One helper, qualified E5 or below.

### PRETEST PREPARATION:

Ensure the equipment is operational and all equipment is removed from the M966.

### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>5 minutes</u>
Total:	10 minutes

### INSTRUCTIONS TO EXAMINEE:

**“Let me have your attention. At this station, you will be tested on your ability to install an M220A1 or M220A2 TOW and encased missile on an M966. Do you understand these instructions?”**

Pause for five seconds; ask the examinee if there are any questions; then say **“You will have five minutes to complete this test.”** Pause; then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after five minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Install an M220A1 or M220A2 and encased missile on an M966.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Adjusted gunner's platform.	_____	_____
2. Installed MGS (with TOW vehicle power cable [TVPC] or battery assembly).	_____	_____
3. Installed battery or batteries.	_____	_____
4. Stowed collimator on right shelf.	_____	_____
5. Loaded missile and secured all latches and straps.	_____	_____
6. Stowed nightsight.	_____	_____
7. Stowed traversing unit.	_____	_____
8. Stowed launch tube.	_____	_____
9. Stowed optical sight.	_____	_____
10. Stowed battery power conditioner or coolant cartridge case.	_____	_____
11. Stowed AN/TAS-4 battery case or spare battery pack.	_____	_____
12. Stowed tripod.	_____	_____
13. Completed all performance measures within five minutes.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

\_\_\_\_\_

## Station 6

**TASK:** Place an M966 in the ready-to-fire configuration.

**CONDITIONS:** Given: An M966 with M220A1 or M220A2 installed and a TOW crew.

**STANDARDS:** Within five minutes, prepare the M966 and the M220A1 or M220A2 for firing.

### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- An M966 with all MTOE.
- Complete TOW system installed.
- Stopwatch.
- Clipboard and pen.
- One helper, qualified ES or below.

### PRETEST PREPARATION:

Ensure the equipment is operational and the complete TOW system is installed.

### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>5 minutes</u>
Total:	10 minutes

### INSTRUCTIONS TO EXAMINEE:

**“Let me have your attention. At this station, you will be tested on your ability to place an M966 in the ready-to-fire configuration. The weapon has been cleared. Do you understand these instructions?”**

Pause for five seconds; ask the examinee if there are any questions; then say **“You will have five minutes to complete this test.”** Pause; then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after five minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Place an M966 in the ready-to-fire configuration.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Released hatch cover latches.	_____	_____
2. Removed MGS from stowed position (removed MGS cover).	_____	_____
3. Positioned weapon station.	_____	_____
4. Installed MGS on tray.	_____	_____
5. Installed traversing unit.	_____	_____
6. Installed launch tube.	_____	_____
7. Connected coil cable to MGS.	_____	_____
8. Installed optical sight.	_____	_____
9. Installed nightsight.	_____	_____
10. Connected all cables.	_____	_____
11. Completed all performance measures within five minutes.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

\_\_\_\_\_

**Station 7**

**TASK:** Perform immediate action procedures for an M220A1 or M220A2 (hangfire or misfire) on an M966.

**CONDITIONS:** Given: An assembled and loaded M966 with mounted TOW launcher (ready-to-fire), two TOW encased missiles, and at least one other squad member to assist.

**STANDARDS:** Within five minutes, perform hangfire or misfire immediate action procedures.

**PERSONNEL, EQUIPMENT, AND MATERIAL:**

- Qualified CPL or above.
- An M966 with all MTOE.
- Complete TOW system.
- Two encased TOW missiles (simulation rounds).
- Stopwatch.
- Clipboard and pen.
- One helper, qualified E5 or below.

**PRETEST PREPARATION:**

Ensure the equipment is operational and the complete TOW system is installed.

**TEST PLANNING TIME:**

Administrative:	5 minutes
Test:	<u>5 minutes</u>
Total:	10 minutes

**INSTRUCTIONS TO EXAMINEE:**

**“Let me have your attention. At this station, you will be tested on your ability to perform immediate action procedures for M220A1 or M220A2 on an M966. Do you understand these instructions?”**

Pause for five seconds; ask the examinee if there are any questions; then say **“You will have five minutes to complete this test.”** Pause; then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after five minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Perform immediate action procedures on an M220A1 or M220A2 (hangfire or misfire) on an M966.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
<b>Note.</b> Have examinee attempt to fire weapon.		
1. Continued to track target for one minute.	_____	_____
2. Pressed trigger a second time.	_____	_____
3. Announced "Misfire" ("Hangfire").	_____	_____
4. Checked battery in MGS.	_____	_____
5. Checked MGS coil cable connection.	_____	_____
6. Checked bridge clamp.	_____	_____
7. Ensured missile was armed.	_____	_____
8. Pressed trigger.	_____	_____
9. Continued to track target for one minute.	_____	_____
10. Lowered trigger protective cover.	_____	_____
11. Lowered arming lever.	_____	_____
12. Locked elevation (eight degrees down) and azimuth.	_____	_____
13. Removed missile and placed it correct distance away.	_____	_____
14. Reloaded launcher.	_____	_____
15. Completed all performance measures within five minutes.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

\_\_\_\_\_

## Section VII. ADMINISTRATIVE GUIDES AND PERFORMANCE CHECKLISTS (ALL WEAPONS)

### Station 1

**TASK:** Prepare a range card.

**CONDITIONS:** Given: Combat equipment and individual weapon, a weapon system, a designated firing position, a sector of fire, target reference data, a standard range card, a pencil, and a compass.

**STANDARDS:** Within 15 minutes, prepare a range card that illustrates a representative sketch of the terrain including—

- Correct weapon symbol.
- Location of weapon system (series of arrows drawn from a reference point to weapon position, to include azimuth and distance).
- Sector of fire—
  - Complete boundaries (left and right sector limits).
  - All dead space.
  - Maximum engagement line (FPL or PDF).
- All prominent terrain features (natural and man-made).
- All target locations and TRPs—
  - Direction/deflection.
  - Elevation.
  - Range.
  - Ammunition.
  - Description.
  - TRP number.
- Magnetic North arrow (properly oriented).
- Marginal data or a data section that shows—
  - Correct interval between circles.
  - Unit designation (no higher than company).
  - Time and date of preparation.
  - Firing position designation (primary, alternate, supplementary).

**PERSONNEL, EQUIPMENT, AND MATERIAL:**

- Qualified CPL or above.
- Complete weapon system.
- DA Form 5517-R (Standard Range Card).
- Compass.
- Stopwatch.
- Clipboard and pen.
- One helper, qualified E5 or below.

**PRETEST PREPARATION:**

Ensure the equipment is operational.

**TEST PLANNING TIME:**

Administrative:	5 minutes
Test:	<u>15 minutes</u>
Total:	20 minutes

**INSTRUCTIONS TO EXAMINEE:**

**“Let me have your attention. At this station, you will be tested on your ability to complete a range card correctly. I will give you the following information: type of position, type of weapon system, left and right limits, and any target reference points. Do you understand these instructions?”**

Pause for 5 seconds; ask the examinee if there are any questions; then say **“You will have 15 minutes to complete this test.”** Pause, then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the task after 15 minutes, announce **“Stop”** loud enough for the examinee to hear.

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

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Prepare a range card.

<b>Performance Measures</b>	<b>GO</b>	<b>NO-GO</b>
1. Completed a range card, to include—		
a. Correct weapon symbol.	_____	_____
b. Location of weapon system (series of arrows drawn from a reference point to weapon position, to include azimuth and distance).	_____	_____
c. Sector of fire—		
(1) Complete boundaries (left and right sector limits).	_____	_____
(2) All dead space.	_____	_____
(3) Maximum engagement line (FPL or PDF for machine guns).	_____	_____
d. All prominent terrain features (natural and man-made).	_____	_____
e. All target locations and TRPs—		
(1) Direction/deflection.	_____	_____
(2) Elevation.	_____	_____
(3) Range.	_____	_____
(4) Ammunition	_____	_____
(5) Description.	_____	_____
(6) TRP number.	_____	_____
f. Magnetic North arrow (properly oriented).	_____	_____
g. Marginal data or a data section that shows—		
(1) Correct interval between circles.	_____	_____
(2) Unit designation (no higher than company).	_____	_____
(3) Time and date of preparation.	_____	_____
(4) Firing position designation (primary, alternate, supplementary).	_____	_____
<b>Note.</b> Range card must be readable and not cluttered.		
2. Completed range card within 15 minutes.	_____	_____

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

## Station 2

**TASK:** Identify combat vehicles.

**CONDITIONS:** Given a classroom with a 35-mm slide projector, screen, slide tray with 30 combat vehicle slides, stopwatch, chair, desk or clipboard, and pencil. (See the local Training Support Center for combat vehicle slides.) Views of these combat vehicles should replicate ranges between 500 and 1,200 meters. Twenty vehicles will be taken from the prescribed list and ten will be selected by the commander, based on the unit's contingency area. Twenty percent of the vehicles must be viewed through night sights.

**STANDARDS:** Within 11 minutes, the crew member must identify, by nomenclature, 27 of 30 combat vehicles from the front, side, oblique, or rear using day and night sights.

### PERSONNEL, EQUIPMENT, AND MATERIAL:

- Qualified CPL or above.
- Classroom.
- Slides of combat vehicles (30) 35-mm.
- Slide projector with screen.
- Stopwatch.
- Chair, desk or clipboard (one per crew member).
- Pencil (one per crew member).
- One helper, qualified E5 or below.

### PRETEST PREPARATION:

Ensure the slide projector is operational and the slides can be recognized from all locations in the classroom.

**Note.** Some projectors have an automatic setting for exposure of each slide; if used, this feature must be accurate.

Ensure the slides include the 20 required vehicle slides and 10 slides selected by the commander (see Table A-1).

### TEST PLANNING TIME:

Administrative:	5 minutes
Test:	<u>11 minutes</u>
Total:	16 minutes

### INSTRUCTIONS TO EXAMINEE:

**“Let me have your attention. At this station, you will be tested on your ability to identify combat vehicles. You must correctly identify twenty-seven of thirty vehicles by nomenclature. You will have twelve seconds to view each slide and ten seconds between each slide to write your answer on the performance checklist provided. Be sure you do not get out of sequence or your answers will be incorrect. Do you understand these instructions?”**

Pause 5 seconds; ask the examinee if there are any questions; then say **“You will have eleven minutes to complete this test.”** Pause, then say **“Begin.”**

Begin timing when the command **“Begin”** is given. If the examinee has not completed the test after 11 minutes, announce **“Stop”** loud enough for the examinee to hear.

Table A-1. Combat Vehicle Slides.

REQUIRED VEHICLES			
AMX40 Challenger Leopard 2 M1 Abrams Merkava	ZSU23-4 2S1 LAV-25 T62 T72	T72M1 T80 BMP1 BMP2 Bradley M2A2	BRDM2 BTR60PB M113 Marder Warrior
OPTIONAL VEHICLES			
Main Battle Tanks			
T64 T64A T64B	T64K T72 M84 Type 59	Type 62 Type 69 Type 79	Type 80 Type 90
Other Tanks			
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 M93	M728 CEV M88A1 M9 ACE	PRP-3
Light Armor (APC/IFV/Reconnaissance)			
AML AMX10 AMX10P AMX10RC BMD1 BMD 1979/3 BMD2 BMP1K BMP1KSH Bradley M2 Bradley M2A1 Bradley M3 Bradley M3A1 Bradley M3A2 BRDM1 BRDM2 AT3	BRDM2 AT5 BRDM2 RKH BRDM2 SA9 BRDM2 U BRM BRM1 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-1	NVH-1 OT64 OT65 PSZH-IV Ratel Roilkat Saxon Scimitar Scorpion Striker VAB WZ523 WZ551 YW531 YW534

**PERFORMANCE CHECKLIST**

SOLDIER'S NAME \_\_\_\_\_

GRADE \_\_\_\_\_ UNIT \_\_\_\_\_ DUTY POSITION \_\_\_\_\_

**TASK:** Identify combat vehicles.

- |           |           |
|-----------|-----------|
| 1. _____  | 16. _____ |
| 2. _____  | 17. _____ |
| 3. _____  | 18. _____ |
| 4. _____  | 19. _____ |
| 5. _____  | 20. _____ |
| 6. _____  | 21. _____ |
| 7. _____  | 22. _____ |
| 8. _____  | 23. _____ |
| 9. _____  | 24. _____ |
| 10. _____ | 25. _____ |
| 11. _____ | 26. _____ |
| 12. _____ | 27. _____ |
| 13. _____ | 28. _____ |
| 14. _____ | 29. _____ |
| 15. _____ | 30. _____ |

EVALUATOR'S NAME: \_\_\_\_\_

TEST DATE: \_\_\_\_\_

OVERALL SCORE: GO/NO-GO

REMARKS: \_\_\_\_\_

\_\_\_\_\_