

**Government Motor Vehicle Operations in Mission Oriented Protective
Posture (MOPP) Level 4**



QUALIFICATION TRAINING PACKAGE (QTP)

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Section I-OVERVIEW

1.1. Overview.

1.1.1. Send comments and suggested improvements on Department of the Air Force (DAF) Form 847, *Recommendation for Change of Publication* through Air Force Installation and Mission Support Center (AFIMSC) functional managers via e-mail at AFIMSC.A340G.GroundTrans@us.af.mil.

1.1.2. How to use this plan:

1.1.2.1. Instructor:

1.1.2.1.1. Provide an overview of training, **Section 2** and **Section 3**.

1.1.2.1.2. Instructor's lesson plan for trainee preparation, give classroom lecture, **Section 4** and **Section 5**.

1.1.2.1.3. Instructor's lesson plan for demonstration, **Section 6**.

1.1.2.1.4. Instructor's lesson plan for performance and evaluation, **Section 7**, utilizing **Attachment 2 - Performance Test**.

1.1.2.2. Trainee:

1.1.2.2.1. Reviews the entire lesson plan prior to classroom lecture.

1.1.2.2.2. Follows along with lecture using this lesson plan and its attachments.

1.1.2.2.3. Takes performance test outlined in Attachment 2 - Performance Test.

Section 2-RESPONSIBILITIES

2.1. Responsibilities.

2.1.1. The trainee shall:

2.1.1.1. Ensure the instructor explains the Qualification Training Package (QTP) process and the responsibilities.

2.1.1.2. Review the QTP with the instructor.

2.1.1.3. Ask questions if they do not understand the objectives for each unit.

2.1.2. Instructor shall:

2.1.2.1. Review the QTP with the trainee.

2.1.2.2. Conduct knowledge training with the trainee using the QTP.

2.1.2.3. Answer questions for the trainee to ensure the required task knowledge has been gained to complete the task.

2.1.2.4. Document training data within the unit's system of record.

2.1.3. The Certifier shall:

2.1.3.1. Evaluate the Airman's task performance without assistance.

2.1.3.2. Document certification within the unit's system of record and issue an AF 483, *Certificate of Competency*.

Section 3-INTRODUCTION

3.1. Objectives.

3.1.1. In accordance with (IAW) DAFI 10-2503, *Chemical, Biological, Radiological, Nuclear (CERN) Defense Program*, members must be prepared to perform functional tasks while wearing CBRN defense individual protective equipment (IPE) for extended periods of time. This includes the safe operations of government motor vehicles (GMVs) which requires a comprehensive training and certification plan. This training will be at the government's expense.

3.1.2. Given lectures, demonstrations, hands-on driving session and a performance test, trainees will be able to operate Government Motor Vehicles (GMVs), Low Speed Vehicles (LSVs), work equipment, and other common ground vehicles while in Mission Oriented Protective Posture (MOPP) Level 4 (Field gear, overgarment, footwear, mask, hood, and handwear), and while maintaining a small arms weapon (dummy rubber rifle) during day and night operations.

Note: Individual Career Fields may require further training to certify members on the operations of specialty vehicles/equipment not discussed within this QTP.

3.1.2.1. Train and qualify each trainee in the safe operation of GMVs while in MOPP Level 4, and while maintaining a small arms weapon, in a safe and professional manner.

3.2. Desired Learning Outcomes.

3.2.1. Understand the safety precautions to be followed before-, during-, and after-operation of GMVs, LSVs, and other common ground vehicles while in MOPP Level 4 and coinciding IPE.

3.2.2. Understand the purpose of operating government motor vehicles while in MOPP Level 4 and its role in the mission.

3.2.3. Safely and proficiently operate government motor vehicles while in MOPP Level 4 and coinciding IPE during day and night operations.

3.3. Lesson Duration.

3.3.1. Recommended instructional and hands on training time is 6 hours:

Figure 3.1. Recommended Training Time for Training Activities.

Training Activity	Training Time
Trainee's Preparation	1 Hour
Instructor's Lecture and Demonstration	1 Hours
Trainee's Personal Experience (to build confidence and proficiency) <ul style="list-style-type: none">▪ Day Operation (2-hrs)▪ Night Operation (2-hrs)	2 Hours

Trainee's Performance Evaluation <ul style="list-style-type: none"> ▪ Day Evaluation (2-hrs) ▪ Night Evaluation (2-hrs) (optional) 	2 Hours
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Note: This is a recommended time; training time may vary depending on how quickly a trainee learns new tasks.

3.4. Instructional References.

3.4.1. Risk Management (RM) and Safety Principles.

3.4.2. Applicable Technical Orders, Manufacturer Owner's Manual and/or Vehicle QTP.

3.4.3. AFTTP 3-4, Airman's Manual, 26 September 2022

(<https://usaf.dps.mil/teams/TTP/SitePages/Home.aspx>)

3.4.4. DAFI 10-2503, *Chemical, Biological, Radiological, Nuclear (CERN) Defense Program*

3.5. Instructional Training Aids and Equipment.

3.5.1. Vehicle(s)

3.5.2. Ground Crew Ensemble

3.5.2.1. Duty uniform

3.5.2.2. Protective mask and filters

3.5.2.3. Chemical Protective Overgarment

3.5.2.4. Protective gloves and liners

3.5.2.5. Footwear covers

3.5.3. Field Gear

3.5.3.1. Helmet

3.5.3.2. Web belt

3.5.3.3. Canteen

3.5.3.4. Load bearing vest and pouches

3.5.3.5. Body armor

3.5.4. Small Arms Weapon (i.e. "dummy" rifle)

3.5.5. AF Form 1800 (if applicable).

3.5.6. Established a driving course.

3.5.7. Traffic cones or suitable markers.

Section 4-TRAINEE PREPARATION

4.1. Prerequisites/Licensing Requirements.

- 4.1.1. Trainees must be familiar with donning and doffing the Grounds Crew Ensemble (GCE). Completion of the CBRN Defense Survival Skills (CDSS) training course is highly desired.
- 4.1.2. Must bring a reflective safety belt for night operations.
- 4.1.3. Trainee must have in his/her possession a valid state driver's license.
- 4.1.4. AF Form 2293, *US Air Force Motor Vehicle Operator Identification Card* as required IAW AFI 24-301, *Ground Transportation*, if applicable.
- 4.1.5. Applicable local licensing jurisdiction requirements.
- 4.1.6. Must utilize a "dummy" rifle (rubber weapon) to simulate vehicle operations while maintaining a weapon.

4.2. Required Reading

- 4.2.1. Read Section 5, Knowledge Lecture, prior to class.

Section 5-KNOWLEDGE LECTURE

5.1. Government Motor Vehicle Operations in MOPP Level 4.

5.1.1. While in a Chemical, Biological, Radiological, and Nuclear (CBRN) environment, units must continue to operate. A routine task of operating a vehicle, especially during night operations, becomes significantly more difficult when personnel must operate in MOPP Level

5.1.2. The degradation caused by operators driving in MOPP can be significantly reduced by conducting actual vehicle operations during field training exercises. Operators must practice driving while in MOPP Levels, as learned skills are perishable. As a warfighter, it is important to successfully perform your unique mission while in a CBRN environment driving in MOPP 4.

5.2. Physiological and Psychological Factors

5.2.1. Degradation of military operations primarily results from the physiological and psychological impact of encapsulation in MOPP Levels. Tests and lessons learned at the Combat Training Centers, from Operations DESERT SHIELD and DESERT STORM, and from the Combined Arms in a Nuclear/Chemical Environment (CANE) program have shown that operations are seriously degraded while wearing MOPP Level 4 versus the battledress uniform.

5.2.1.1. Vehicle Inspections and loading can take longer when in MOPP Level 4.

5.2.1.2. Patrols and Damage Assessment Response Teams can take longer when in MOPP Level 4.

5.2.1.3. Changing vehicle power packs can take longer when in MOPP Level 4.

5.2.1.4. Re-fueling operations take longer in MOPP Level 4.

5.2.1.5. Re-arming takes longer in MOPP Level 4.

5.2.1.6. Most activities require more time when the unit is in MOPP Level 4.

5.2.1.7. Muscle fatigue from increased load-out weight (weapon, body armor, etc.).

5.3. Heat Stress and Dehydration

5.3.1. MOPP Level 4, the highest level, provides full respiratory and contact protection against field concentrations of CBRN agents. However, it also causes the highest level of performance degradation from increased heat and mental stress, loss of visual and tactile acuity, and reduced hearing.

5.3.2. Adding layers over the OCP (for example, protective over garment, gloves, and over boots) increases the risk of heat stress, even at moderate environmental temperatures and work intensities. This increases the possibility of heat casualties and degrades performance. Hunger,

thirst, and discomfort during sustained periods of MOPP wear can also seriously degrade performance.

5.3.3. Because of higher body temperatures, personnel operating in MOPP Levels, sweat considerably more than usual. Personnel often lose more than 1.5 quarts of water every hour during work. Personnel must consume water to replace lost fluids or dehydration will follow. Even a slight degree of dehydration impairs the body's ability to regulate its temperature and nullifies the benefits of heat acclimatization and physical fitness, increases the susceptibility to heat injury, and reduces work capacity, appetite, and alertness.

5.3.4. Dehydration is a severe problem when people work at moderate or high temperatures while wearing protective gear. You need to ensure you hydrate yourself so that you can perform while in MOPP, but it will also allow you to recover more quickly after strenuous activity. Ensure you drink water regularly before donning MOPP and while in MOPP gear.

5.4. Vehicle Operation.

5.4.1. Operating a vehicle in MOPP Level 4 gear adds additional safety concerns. The personal protective gear itself can hamper your driving. You must be cautious of the bulky boots as they can affect the operation of the clutch (if equipped), brakes, and accelerator. The protective gloves are normally bulkier than ordinary gloves. This may make it difficult to operate/adjust the controls while operating the vehicle.

5.4.2. As a GMV operator, you have been trained to listen for unusual sounds, noises, erratic motions, or vibrations. The use of your senses to check for problems (look, listen, smell, feel) is now diminished. The protective equipment affects multiple senses.

5.4.2.1. Sight is reduced. You may now be required to turn your head more to ensure all is clear while driving.

5.4.2.2. Hearing is reduced. You now need to be more attentive.

5.4.2.3. Smell is eliminated. You should closely monitor vehicle gauges and regularly check rear view mirrors.

5.4.2.4. Feel is reduced. The extra layer of clothes takes away your sense of feel.

5.4.2.5. Bulky clothing provides a snag hazard. Exercise extreme care around moving parts and assure all clothing is clear of snags before jumping from running boards, cargo beds or elevated M-Series bumpers during operator inspections and while securing loads.

5.5. Safety.

5.5.1. One safe way to avoid an incident is to slow down. Take the extra time to ensure all is clear, if in doubt, stop and double check. Drive slower than the posted speed limit. Remember your sensory perception is reduced, thus your reaction time to get the vehicle under control will

take longer. As mentioned earlier, dehydration is a factor; you should stop regularly to hydrate yourself. NEVER try to hydrate yourself while operating a vehicle.

5.5.2. Nighttime Operations. If MOPP 4 operations will be required during the hours of darkness, extra caution will be required.

5.5.2.1. Drivers can be blinded for a short time by bright light and it can take several seconds to recover from glare. Even two seconds of glare blindness can be dangerous.

5.5.2.2. Less light means you will not be able to see hazards as well as in the daytime which is further compounded wearing a gas mask. Even when there are lights, the road scene can be confusing. Drive slower when lighting is poor or confusing.

5.5.2.3. It is more important at night than in the daytime to have a clean windshield and clean mirrors as bright lights at night can cause dirt to create a glare of its own, further obstructing your view.

5.6. **Weapon Manipulation.** During vehicle and equipment operations, ensure the weapon is secured safely. Some military-series vehicles will have mounts/stow areas for weapons which should be utilized. Standard operating procedures (SOPs) for vehicles that are not equipped with weapon mounts will vary depending on the asset and mission. An example of an SOP for a general purpose vehicle would be to place the rifle between the operator and the driver's door. The barrel will be pointed down (muzzle discipline) at the floorboard and butt-stock near the operator's side. This positioning will ensure the rifle does not interfere with the acceleration or braking as well as be a reminder for the operator to secure the weapon before/during egress. Muzzle discipline and security must be considered when establishing a local SOP.

Section 6-EXPLANATION AND DEMONSTRATION

6.1. Instructor's Preparation.

- 6.1.1. Establish a training location away from normal traffic flow, i.e. empty parking lot, training area if available (Do not allow trainee to interact with traffic until they have demonstrated competence in driving while in MOPP 4).
- 6.1.2. Ensure the trainee is appropriately licensed to operate the vehicle being utilized, if applicable.
- 6.1.3. Schedule/reserve a vehicle (inspect prior to class).
- 6.1.4. Schedule a certification time. **Note:** If 24-hour operations are a possibility, it is recommended to conduct the Performance Test during the hours of darkness after the Trainee has successfully completed the Performance Test during the daytime.
- 6.1.5. Ensure trainees and instructor have a reflective safety belt and flashlight if operating during the hours of darkness.
- 6.1.6. Have water on hand (canteen) so trainees can hydrate.
- 6.1.7. Ensure that trainees requiring corrective lens have the proper mask inserts.
- 6.1.8. Ensure trainees have been familiar with and received basic training on the wear of the GCE.
- 6.1.9. Ensure trainees have proper Field Gear.
- 6.1.10. Ensure trainee is equipped with a small arms rifle or a "dummy weapon".

6.2. Safety Procedures and Equipment.

- 6.2.1. The following safety items should be followed by both the instructor and trainee.
 - 6.2.1.1. Buddy system to be used at all times, instructor should be in vehicle without GCE and Field Gear (except during demonstration).
 - 6.2.1.2. Take frequent breaks to rest and hydrate.
 - 6.2.1.3. Pay particular attention to the cautions and warnings listed in the operator's manual.
 - 6.2.1.4. Ensure the transmission is always placed in neutral (vehicles equipped with automatic transmissions will have the gear selector in park) the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.
 - 6.2.1.5. Ensure a safe following distance.

- 6.2.1.6. **Slow Down**, drive slower than posted speed limits when wearing GCE and Field Gear.
- 6.2.1.7. Ensure all occupants wear seat belts (if equipped) while the vehicle is in operation.
- 6.2.1.8. Properly adjust driver's seat and all mirrors (rear and side) prior to operation.
- 6.2.1.9. Consider weather, workload, and protective clothing and equipment (e.g. IPE)

when scheduling training.

6.2.2. Practice basic RM processes during demonstration.

- 6.2.2.1. Identify hazards.
- 6.2.2.2. Assess the risks.
- 6.2.2.3. Analyze risk control measures
- 6.2.2.4. Make control decisions
- 6.2.2.5. Implement risk controls.
- 6.2.2.6. Supervise and review.

6.3. Operator Maintenance Demonstration.

6.3.1. With trainee, accomplish vehicle inspection using AF Form 1800, *Operator's Inspection Guide and Trouble Report*.

Note: Chemicals such as brake fluid, transmission fluid, oil, etc. degrade the GCE very quickly /immediately. Take care to avoid getting these on your GCE.

- 6.3.2. Document any discrepancy on AF Form 1800
- 6.3.3. Sign off AF Form 1800 to signify accomplishment of inspection
- 6.3.4. Report any safety item immediately to Vehicle Maintenance.

6.4. Instructor's Demonstration

- 6.4.1. Throughout demonstration.
 - 6.4.1.1. Allow for questions.
 - 6.4.1.2. Repeat demonstrations as needed.
- 6.4.2. Within the training area, demonstrate and explain.
 - 6.4.2.1. With GCE & Field Gear on (minus mask) show.

- 6.4.2.1.1. Bulkiness of boots can affect the operations of clutch, brake, and accelerator.
- 6.4.2.1.2. With gloves on, operating controls can be more difficult.
- 6.4.2.2. Take this time to use your senses to check for problems (look, listen, smell, feel).
- 6.4.2.2.1. Have trainees point out sounds, vibrations, and any odors with the vehicle running.

Section 7-TRAINEE PERFORMANCE AND EVALUATION

7.1. Trainee Performance.

7.1.1. Instructor will:

7.1.1.1. Ensure safety at all times.

Note: Refer to Attachment 3 - Work-Rest Cycles and Fluid Replacement Guides.

7.1.1.1.1. Take frequent breaks to rest and hydrate.

7.1.1.1.2. Wheel chock blocks (if required) are in-place when vehicle is parked.

7.1.1.1.3. Pay particular attention to the cautions and warnings listed in the operator's manual.

7.1.1.1.4. Ensure the transmission is always placed in neutral (vehicles equipped with

automatic transmissions will have the gear selector in park) the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.

7.1.1.1.5. Ensure a safe following distance.

7.1.1.1.6. **Slow Down**, drive slower than posted speed limits when wearing GCE & Field Gear.

7.1.1.1.7. Ensure all occupants wear seat belts (if equipped) while the vehicle is in operation.

7.1.1.1.8. Properly adjust drivers' seat and all mirrors (rear and side).

7.1.1.2. Instructor always riding with trainee (with no GCE & Field Gear on).

7.1.1.3. Consider weather, workload, and protective clothing and equipment when scheduling training

7.1.1.4. Explain driving techniques.

7.1.1.5. Ensure the trainee has a thorough understanding of situational awareness.

7.1.1.6. Ensure all windows are rolled up and the air conditioner is not in use.

7.1.1.7. Conduct during/after-action reviews with the trainee (demonstration may need to be re-accomplished).

7.1.2. Have trainee conduct "Mask Only Option" for 30 minutes to permit the trainee to experience restricted conditions prior to operating in MOPP 4.

7.1.3. Rest and hydrate.

- 7.1.4. Have trainee put on GCE & Field Gear, minus protective mask.
 - 7.1.5. Practice maneuvering the vehicle in designated training area.
 - 7.1.5.1. Ensure course has:
 - 7.1.5.1.1. Tums.
 - 7.1.5.1.2. Stops.
 - 7.1.5.1.3. An area for backing.
 - 7.1.5.1.3.1. Set up cones for trainees to back up to.
 - 7.1.5.1.3.2. Use a spotter.
 - 7.1.5.1.3.3. Ensure operator and spotter agree on hand signals
 - 7.1.5.2. Repeat until trainee is comfortable operating vehicle
 - 7.1.5.3. Take breaks often and hydrate
 - 7.1.6. Have trainee put on protective mask (MOPP Level 4).
 - 7.1.6.1. Have list created earlier concerning senses to check for problems (look, listen, smell, feel).
 - 7.1.6.2. Check for differences of senses.
 - 7.1.6.3. Practice maneuvering the vehicle in designated training area
 - 7.1.6.4. Repeat until trainee is comfortable operating vehicle
 - 7.1.6.5. Take breaks often and hydrate
- 7.2. Performance Evaluation.**
- 7.2.1. Trainee will perform performance evaluation found in **Attachment 2**.
 - 7.2.1.1. Instructor & Certifier and trainee will review **Attachment 2**.
 - 7.2.1.2. Instructor & Certifier will answer trainee's questions.
 - 7.2.2. Certifier will:
 - 7.2.2.1. Ensure safety at all times.
 - 7.2.2.1.1. Take frequent breaks to rest and hydrate per **Attachment 3**.
 - 7.2.2.1.2. Wheel chock blocks (if required) are in-place when vehicles are parked.
 - 7.2.2.1.3. Remove all jewelry, loose clothing and equipment prior to assuming MOPP 4; watch for dangling straps and fasteners on the protective over garment.

- 7.2.2.1.4. Pay particular attention to the cautions and warnings listed in the operator's manual
- 7.2.2.1.5. Ensure the transmission is always placed in neutral (vehicles equipped with automatic transmissions will have the gear selector in park) the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.
- 7.2.2.1.6. Ensure a safe following distance (when interacting with traffic, recommend placement of "STUDENT DRIVER" sign on front and rear of vehicle).
- 7.2.2.1.7. Slow Down, drive slower than posted speed limits when wearing GCE.
- 7.2.2.1.8. Ensure all occupants wear seat belts (if equipped) while vehicle is in operation.
- 7.2.2.1.9. Properly adjust drivers' seat and all mirrors (rear and side).
- 7.2.2.2. Explain driving techniques.
- 7.2.2.3. Establish a road course that will have the following: (if the course does not have one of the following, then the trainee should be able to explain the correct driving techniques).
 - 7.2.2.3.1. Turns.
 - 7.2.2.3.2. Intersections.
 - 7.2.2.3.3. Start/stop.
 - 7.2.2.3.4. Curves.
 - 7.2.2.3.5. Upgrades.
 - 7.2.2.3.6. Downgrades.
- 7.2.2.4. Ensure trainee has a thorough understanding of situational awareness
- 7.2.2.5. Conduct after action reviews with the trainee.
- 7.2.3. Trainee is not allowed any instructor assists to pass performance evaluation.
- 7.2.4. Evaluation checklist provided in **Attachment 2**.
- 7.2.5. Retraining for No-Go's and slow learners.
 - 7.2.5.1. Re-demonstrate "No-Go" items.
 - 7.2.5.2. Have trainee re-perform until they show proficiency in operating, critique weaknesses as observed.
 - 7.2.5.3. Re-evaluate
- 7.2.6. Trainee documentation

- 7.2.6.1. Update trainee's individual training record to reflect certification.
- 7.2.6.2. Refresher training, including completion of the Go/No-Go checklist, will be completed every 24 months. Individual career fields or units may direct shorter timelines based on mission requirements.
- 7.2.6.3. Upon completion, the trainer will issue an AF Form 483, *Certificate of Competency* with the certification date and refresher date annotated. The trainee shall maintain this AF 483 on their person when operating GMVs in MOPP 4.
- 7.2.6.4. Do not document training on the AF Form 2293, *US Air Force Motor Vehicle Operator Identification Card*.

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

DoDI 6055.04, *DoD Motor Vehicle and Traffic Safety*, 27 August 2021

DAFI 10-2503, *Chemical, Biological, Radiological, Nuclear (CBRN) Defense Program*, 6 October 2023

AFI 24-301, *Ground Transportation*, 22 October 2019

AFMAN 24-306, *Operation of Air Force Government Motor Vehicles*, 30 July 2020

Adopted Forms

AF Form 171, *Request for Driver's Training and Addition to U.S. Government Driver's License*

AF Form 1800, *Operator's Inspection Guide and Trouble Report*

DAF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AF—Air Force

AFI—Air Force Instruction

AFIMSC—Air Force Installation and Mission Support Center

AFMAN—Air Force Manual

DAF—Department of the Air Force

DAFI—Department of the Air Force Instruction

DoD—Department of Defense

DoT—Department of Transportation

GCE—Ground Crew Ensemble

IAW—In Accordance With

QTP—Qualification Training Package

RM—Risk Management

SOP—Standard Operating Procedure

SUV—Sport Utility Vehicle

TO—Technical Order

VCO—Vehicle Control Official

Attachment 2

PERFORMANCE TEST

A2.1. Desired Learning Outcome.

A2.1.1. Without accident or injury, safely and efficiently operate a GMV in MOPP Level 4, field gear, and while maintaining a small arms weapon.

A2.2. Instructions.

A2.2.1. Before you begin the road test, your Certifier will brief you on the entire route. They will explain the course you will run on. You will be given additional directions and instructions as you proceed along the route.

A2.2.2. Let your instructor know at any time if you feel the need to rest and/or hydrate.

A2.3. Scoring.

A2.3.1. Your Certifier will be scoring you on safely and effectively operating the vehicle in MOPP Level 4, your field gear, and weapons safety. The Certifier will give directions and instructions to you in sufficient time for you to execute a driving maneuver. You will not be asked to drive in an unsafe manner.

A2.3.2. Your Certifier will be making various marks on the performance test checklist. This does not necessarily mean you have done anything wrong. It is in your best interest to concentrate on operating the vehicle. Your Certifier will explain the test results to you at the conclusion of the performance test.

A2.4. Tasks to be graded.

A2.4.1. Tasks being graded are listed on the following page; you will be required to successfully pass all items. Trainee's must have zero No-Go's annotated by the Certifier during execution of the Performance Test (see Figure A2.1).

A2.4.2. The Certifier will stop the test at any time safe vehicle operations are not being followed or as deemed necessary for safety concerns.

Figure A2.1. Performance Test Checklist.

PERFORMANCE TEST			
Trainee's Name:		Date:	
Certifier's Name:		Unit:	
Event	Go	No Go	Notes
1. OPERATING WITH GROUNDS CREW ENSEMBLE & FIELD GEAR			
1.1. Operator takes extra time to ensure all clear before proceeding.			
1.2. Safely operates the controls of the vehicle.			
1.3. Drives slower than posted speed limit.			
1.4. Operator safely and securely stows weapon prior to operations.			
Event	Go	No Go	Notes
2. ON-ROAD DRIVING COURSE			
2.1. <u>General</u> - safety belt is used; obeys all traffic signs, signals, and laws; complete test without an accident or moving violation			
2.2. <u>Turns</u> - checks traffic in all directions; uses turn signals and safely gets into the lane needed for the turn; slows down smoothly, changes gears as needed to keep power; checks mirrors to ensure proper clearance; vehicle should not move into oncoming traffic			
2.3. <u>Intersections</u> - checks traffic in all directions; decelerates gently, brakes smoothly and, if necessary, changes gears; if necessary, comes to a complete stop (no coasting) behind any stop signs, signals, sidewalks, or stop lines			
2.4. <u>Urban/Rural Straight</u> - makes regular traffic checks and maintain a safe following distance; makes necessary traffic checks, uses proper signals, safely and smoothly changes lanes			
2.5. <u>Stopping</u> - decelerates smoothly, brakes evenly, changes gears as necessary; brings vehicle to a full stop without coasting.			

2.6. <u>Starting</u> - checks traffic, avoids jerky starts			
2.2. <u>Curves</u> - before entering the curve, reduces speed and is in proper gear; keeps vehicle in the lane; continues checking traffic in all directions			
2.3. <u>Railroad Crossing</u> - decelerates, brakes smoothly, and shifts gears as necessary; does not stop, changes gears, pass another vehicle, or change lanes while any part of vehicle is in the crossing. (May be simulated)			
2.4. <u>Urban/Rural Straight</u> - makes regular traffic checks and maintain a safe following distance; makes necessary traffic checks, uses proper signals, safely and smoothly changes lanes			
2.5. <u>Miscellaneous</u> - vehicle windows are rolled "up", the air conditioner is "off" and vents are closed_			

CERTIFIER COMMENTS:

Upon completion, trainer/VCO/certifier will update all applicable training documentation methods and issue an AF 483, Certificate of Competency.

Attachment 3

WORK/REST CYCLES, WORKLOAD EXAMPLES, and FLUID REPLACEMENT GUIDE

Figure A4.1. Air Force Tactics, Techniques, and Procedures 3-4, 26 September 2022

Heat Category	WBGT Index (°F)	Easy Work (250 W) Weapon maintenance, marksmanship training, drill and ceremony		Moderate Work (425 W) Patrolling with 30 lb load, low and high crawl, dig defensive position		Heavy Work (600 W) Patrolling with 45 lb load, four-person litter carry (180 lbs), jogging 4 mph		Very Heavy Work (800 W) Two-person litter carry (150 lbs), move under direct fire, obstacle course	
		Work/Rest (minutes)	Fluid Intake (quarts/hour)	Work/Rest (minutes)	Fluid Intake (quarts/hour)	Work/Rest (minutes)	Fluid Intake (quarts/hour)	Work/Rest (minutes)	Fluid Intake (quarts/hour)
1	78-81.9	NL	1/2	NL	3/4	40:20 (110)*	3/4	20:40 (45)*	1 (3/4)*
2 (GREEN)	82-84.9	NL	1/2	NL	3/4 (1)*	30:30 (70)*	1	15:45 (40)*	1
3 (YELLOW)	85-87.9	NL	3/4	NL	3/4 (1)*	30:30 (60)*	1	10:50 (25)*	1
4 (RED)	88-89.9	NL	3/4	50:10 (180)*	3/4 (1 1/4)*	20:40 (50)*	1 (1 1/4)*	10:50 (20)*	1 (1 1/4)*
5 (BLACK)	> 90	NL	1	20:40 (70)*	1 (1 1/2)*	15:45 (45)*	1 (1 1/2)*	10:50 (20)*	1 (1 1/2)*
NL, = No limit to work time per hour		*Use the amounts in parentheses for continuous work when rest breaks are not possible. Leaders should ensure several hours of rest and rehydration time after continuous work				CAUTION: Hourly fluid intake should not exceed 1.25 quarts. Daily fluid intake should not exceed 12 quarts.			
¹ This guidance will sustain performance and hydration for at least 4 hours of work in the specified heat category. ² Fluid needs can vary based on individual differences (+/-0.25 qt/hr) and exposure to full sun or full shade (+/-0.25 qt/hr). ³ Rest means minimal physical activity (sitting or standing) in the shade if possible. ⁴ Body Armor - Add 5°F to WBGT index in humid climates. ⁵ NBC (MOPP 4) - Add 10°F (Easy Work) or 20°F (Moderate or Hard Work) to WBGT index.									

Note: The difficulty of drinking in the protective mask increases the likelihood of dehydration. Thirst is not an adequate indicator of dehydration; personnel will not sense dehydration and will fail to replace body water losses, even when drinking water is readily available. The Instructor/Supervisor must take responsibility for enforcing regular and timely fluid replacement in their trainees. In addition, only consume water through the protective mask drinking tube; do not include additives such as electrolyte replacement.

Attachment 4

CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR (CBRN) OPERATIONS

General Information. Actual operations prove that response actions conducted during training are also done during warfare. A GMV operator must know what to do when driving in a CBRN environment. **(T-1)**. For additional guidance, see AFTTP 3-2.60, Chemical, Biological, Radiological and Nuclear Decontamination, AFTTP 3-4, DAFI 10-2503, and the Installation Emergency Management Plan 10-2.

Operating a Vehicle in a Contaminated Area. Personnel operating vehicles in a CBRN contaminated environment can reduce the risk of contamination through the use of contamination avoidance measures referred to in the Airman's Manual and AFTTP 3-2.60. Operating times for personnel in a CBRN contaminated area may vary depending on the use of protective clothing, temperature, nature of the contaminant, type of soil and terrain, and task to be performed. For mission critical operations in a radiological environment, the commander has the responsibility and authority to establish the minimum exposure dose to protect the Airmen. The following practices are helpful in carrying out the mission:

- Before entering CBRN contaminated areas, don protective clothing and the protective mask, as required.
- Use hard-surface roads, if available.
- Avoid puddles and unnecessary splashing if roads are muddy.
- Clean the wheels of the vehicle after crossing the area.
- Move through the area as rapidly and safely as possible.

Vehicle Operation While Wearing Protective Mask.

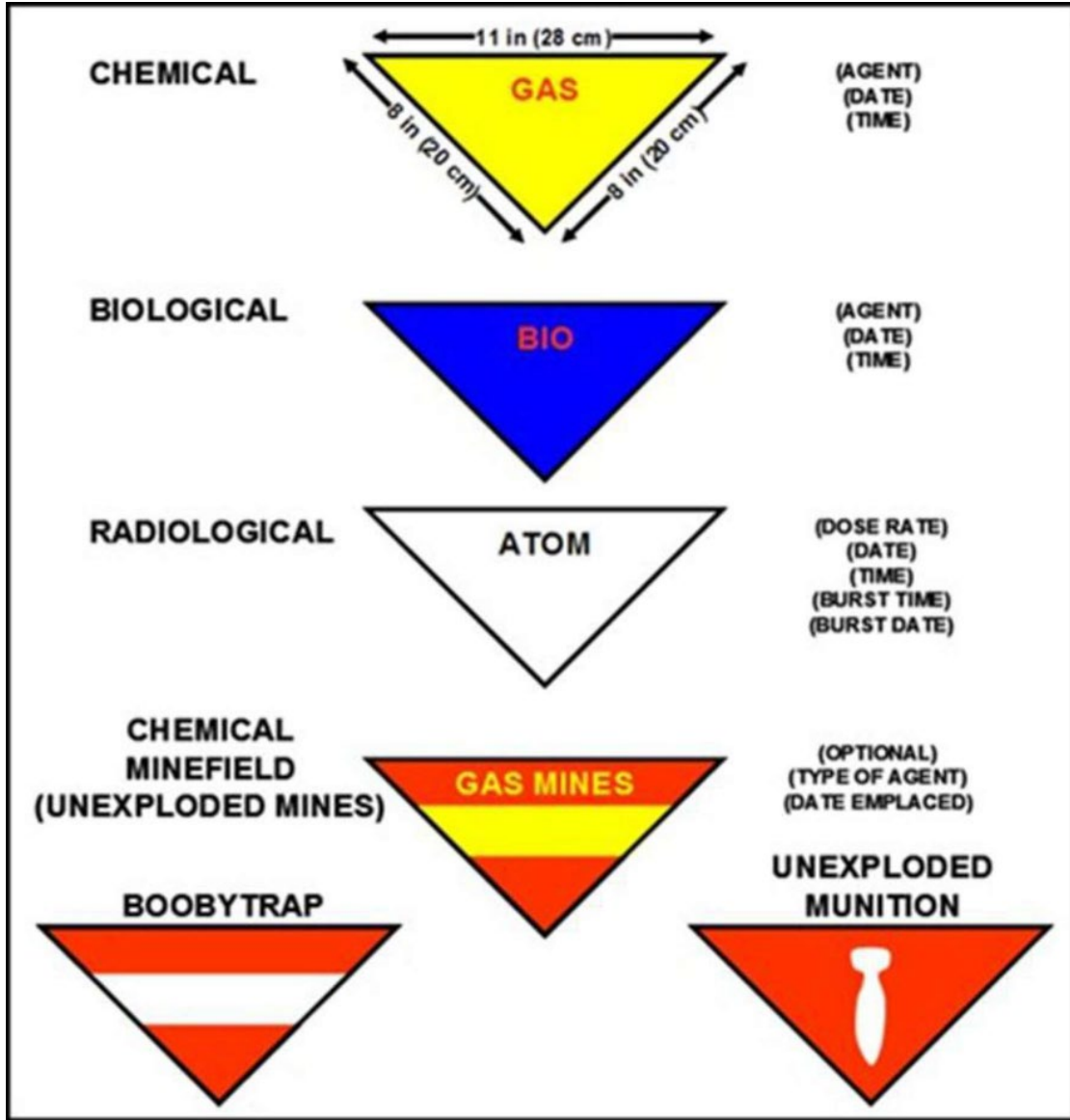
Under combat conditions, situations change. GMV operators may be moving forward, in a fighting position, or standing by in a replacement area some distance from the combat area. In any of these situations, they are subject to enemy attacks.

Additional training is required to operate vehicles in a chemical warfare defense ensemble. Unit vehicle control officers are the OPRs for unit-led training requirements to operate vehicles in chemical warfare defense ensemble. Utilize QTP 24-3-MOPP4, *Government Motor Vehicle Operation in Mission Oriented Protective Posture (MOPP) Level 4* as a training package for specific training requirements and vehicle types. Tasks that involve wearing chemical warfare defense ensembles, Individual Protective Equipment (IPE) and MOPP, are outlined in Career Field Education and Training Plan wartime tasks for certification. MOPP gear vehicle operations will be completed as part of Air Force Expeditionary Force training, such as law of war, self-aid buddy care, etc. Training is documented in personnel training records (if applicable). **(T-1)**.

Marker Descriptions

Use the triangular signs described in this chapter and DAFI 10-2503, unless the area is to be abandoned to threat forces, to mark CBRN contaminated areas, chemical minefields, booby traps, and unexploded ordnance. See **Figure A4.1**

Figure A4.1. Standard CBRN and Unexploded Ordnance Hazard Markers.



Vehicle and Equipment Decontamination. In addition to the Installation Emergency Management Plan 10-2 checklists, the following guidelines should be followed to decontaminate vehicles and equipment:

Contaminated vehicles and equipment are still serviceable. Do not abandon or stop protecting items contaminated from previous attacks. Personnel who use the proper Individual Protective Equipment and protective measures can use contaminated vehicles and equipment. As soon after contamination occurs, and as the situation permits, decontaminate unit equipment.

Operational Decontamination. The most effective time to perform operational decontamination is within one hour of contamination. Decontamination can be performed by the operator or by the whole crew. Operators use the M295 Individual Equipment Decontamination Kit (IEDK) to decontaminate the surfaces they need to touch or contact to operate the equipment. Radiological contamination in the form of dust particles may be wiped, scraped or brushed off.

Vehicle Paint Schemes. See AFTTP 3-2.60.

- Chemical Agent Resistant Coating is a supplemental coating applied to vehicles and equipment to enhance the ability of operators to decontaminate the item after a chemical attack.
 - Most non- Chemical Agent Resistant Coating painted surfaces readily absorb liquid chemical agents. However, chemical agent absorption may take up to six hours on Chemical Agent Resistant Coating painted vehicles or equipment items, as long as the assets were previously painted within

two years prior to a chemical attack.

- Due to the slower rate of absorption with Chemical Agent Resistant Coating paint, the contact and transfer hazard remains viable as long as the agent is on the surface. Additionally, the resulting vapor concentrations are at their maximum limit.
- If it is necessary to use Chemical Agent Resistant Coating painted vehicles or equipment within 6 hours of contamination, decontaminate the entire exterior in addition to those areas that may be continuously touched.
- Polyurethane Paint. The majority of vehicles and equipment on Air Force installations are painted with polyurethane compounds. Chemical agents readily absorb into this type of paint. Thus, decontamination operations may not have a significant effect unless decontamination activities take place very shortly after the time of contamination (within minutes). When the liquid agent absorbs into the paint, it reduces the residual contact hazard and may present a vapor off-gassing hazard for long periods.
- Contaminated vehicle or interior.
 - Seating area or operator. GMV operators and passengers should place plastic sheeting or other barrier materials on seats if the seat area or the individual are (or were previously) contaminated. Body heat and pressure (from sitting) increases the potential for liquid chemical agents to penetrate the ensemble.
 - Steering wheel. Consider using barrier material to cover the steering wheels. This is especially important for vehicles that have open cabs or driver's compartments.
- Vehicle and Equipment Decontamination. In addition to the Installation Emergency Management Plan 10-2 checklists, the following guidelines should be followed to decontaminate vehicles and equipment:

Pre/Post- Attack Preparation. Pre-attack actions include planning a vehicle covering strategy, protecting the vehicle fleet, and pre-positioning M8 paper on all vehicle assets. Post-attack actions include prioritizing vehicle use after an attack, conducting expedient vehicle decontamination, and performing vehicle maintenance procedures in a contaminated environment. Additional post-attack activities include providing long-term identification of contaminated vehicles and supporting open-air contamination control area (CCA) operations.

Contaminated Vehicle Identification and Marking.

- Each vehicle and equipment operator is responsible for covering and placing M8 paper on their assets prior to attacks. They are also responsible for identifying and marking contamination found after attacks.
- Upon notification from the Unit Control Center or Emergency Operations Center (EOC), check pre-positioned M8 paper on assets and each layer of barrier materials and mark contamination. When the item is contaminated, mark with the appropriate symbol. This is done to enable maintenance personnel to take the necessary protective actions and precautions when performing maintenance.
- The operator must notify their Unit Control Center of the contamination item's status. **(T-1)**.
 - The Unit Control Center consolidates unit information and passes this

information to the EOC. For vehicles, the Unit Control Center will also notify the GTOC and Vehicle Fleet Manager and include the POC information, vehicle location, contamination type, damaged or unserviceable status, and vehicle registration number. **(T-1)**.

- For vehicles, place the marker in lower center portion of the windshield. Each GMV operator will annotate the AF Form 1800 when the marker is placed. **(T-1)**. Include the date and time of the contamination, the agent type and the location of the contamination on the vehicle.
 - If the inspection form is not available or becomes contaminated, provide the same information, along with the vehicle or equipment registration or identification number, to the Unit Control Center.

Dispersal and Expedient Hardening. Vehicle dispersal is a valuable asset protection technique. The probability is high that effective dispersal may protect some vehicle assets from contamination or damage from conventional weapons effects. However, use dispersal actions with expedient hardening and overhead cover whenever possible. Additionally, personnel should guard against the tendency to park a large number of vehicles at any one location due to the ease of access.

- When identifying or constructing dispersal sites, choose a combination of features that provide the best available expedient or natural protection and support mission needs.
- Locate multiple dispersal sites in areas that are not within the effective range of adversary ground force weapons. If possible, locate sites on a concrete or asphalt surface and ensure there are at least two entry and exit routes. One of the routes should be a concrete or asphalt surface. Enhance protection by locating dispersal sites in areas that is under the direct observation or control of a security forces defensive fighting position or an owner-user security checkpoint. To simplify retrieval and post-attack reconnaissance tasks, place sites near a unit work area.
- Consider using dispersed vehicles as storage locations for alternate mission supporting materials, such as tools and equipment.

Contaminated vehicles. Use contaminated vehicles only when uncontaminated vehicles of the same type are unavailable. If possible, coordinate with the requesting unit to delay non-critical operations until the uncontaminated vehicle is available.

- As a safety precaution, always wear appropriate IPE when working with or around previously contaminated vehicles.
- Dispose of contaminated waste within a closed and marked container or in a marked plastic disposal bag at the unit contaminated waste disposal point, or in the nearest work center contaminated waste disposal point. If transporting contaminated waste from the work site to another location, place the contaminated waste inside marked plastic bags or closed containers before loading into the vehicle.
- Contaminated buses move contaminated passengers, and non-contaminated buses move non-contaminated passengers. However, there can be times when insufficient resources are available for use or mission dictates the prompt movement of personnel. During these times, use caution and place plastic barrier materials on the seats to prevent cross contamination.

- Vehicle Contamination Specifics. There is no machine, kit, team, technique or procedure presently capable of fulfilling all decontamination requirements. Depending on the vehicle surface, the agent may absorb into the surface in times ranging from less than one minute up to approximately one hour. Vehicle decontamination operations may not have a significant effect once the agent has absorbed into the surface.
- There is no need for extensive vehicle decontamination and there is no need to establish a formal vehicle decontamination team. Placing barrier materials over the item(s) and, or replacement are the best mitigation techniques.
- Vehicles should be expediently decontaminated, specifically the parts that may continuously be touched within one hour of contamination.
 - Ensure vehicles are clearly identified as containing a residual chemical hazard. The operator's or work center's accomplishment of expedient decontamination using M295 IEDK can suffice to continue operations.
 - Use M295 IEDK or a 5-percent chlorine bleach solution to decontaminate appropriate asset surfaces if more than cursory contact is necessary, i.e., leaning on hood compartment, kneeling in truck bed.
 - Ensure all personnel are wearing the appropriate MOPP level. Once cargo loading/unloading is complete, determine the type, location and degree of contamination remaining on the vehicle and ensure to transport personnel to the CCA as required. The Installation Control Center will make the final decision as to Mission Criticality Level. **(T-1)**. See **Table A4.2** below for specific levels.

Table A4.2. Mission Criticality Level Codes.

Mission Criticality Level	Definition
Critical	Property is sufficiently important that it must be transported within 4 hours, regardless of existence of contamination.
Priority	Property is sufficiently important that it must be transported within 12 hours, regardless of existence of contamination.
Accelerated	Property is sufficiently important that it must be transported within 24 hours, regardless of existence of contamination.
Routine	Mission can be delayed until contamination levels are such that MOPP 4 is not required, regardless of how long it takes the contamination to dissipate.
Negligible	Mission can be delayed until there is no measurable indication of contamination;
	property should not normally be accepted inside property movement area and save room for higher priority property.

Clean and Contaminated Cargo Movement.

- If the transport vehicle is uncontaminated, take the following precautions to keep it clean during the contaminated cargo movement process.
 - Expediently decontaminate the portions of the MHE exposed to either the cargo pallet or the transport vehicle (forklift tines and rollers on the aircraft loader). Use M295 IEDK or 5-percent chlorine bleach solution to decontaminate.
 - Place plastic or another barrier material in the bed of the transport vehicle over the area the cargo sits on.
 - The GMV operator should be the only person in the transport vehicle and must wear the appropriate level of IPE. **(T-1)**.
 - Local cargo handlers should perform the actual cargo loading. Cargo handlers should not touch or stand on or inside the vehicle unless absolutely necessary.
 - If they touch or stand on or inside the vehicle, they should use decontamination troughs containing 5-percent chlorine solutions to decontaminate their gloves and boots before they make contact.
 - Check the clean transport vehicle for evidence of cross-contamination and decontaminate with the M295 decontamination kit if contaminated.
 - Seal vehicle chocks or other transport vehicle accessories that may have come in contact with contaminated surfaces inside a plastic bag prior to loading.
 - Appropriately mark the vehicle and the cargo to clearly identify the hazard associated with the contaminated cargo.
 - Use the following guidelines when loading and transporting clean cargo after attacks with chemical or biological agents.
 - Determine the contamination status of the MHE (forklifts and aircraft loaders) and the transport vehicle or vehicles.
 - If the MHE and/or transport vehicle is contaminated, take the following precautions to prevent them from cross contaminating the 463L cargo pallet during the cargo movement process.
 - Expediently decontaminate the portions of the MHE equipment that may come in contact with the cargo.
 - Place at least two sheets of plastic or another layer of barrier material in the bed of the transport vehicle over the area the cargo or pallets sit on.
 - Ensure the cargo has at least a double wrap of barrier material.
 - The GMV operator should be the only person in the transport vehicle and must wear the appropriate level of IPE. **(T-1)**.

- Local cargo handlers should perform the actual cargo loading. Cargo handlers should not touch or stand on or inside the vehicle or vehicles unless absolutely necessary.
- If they touch or stand on or inside the vehicle, they should use decontamination troughs containing 5-percent chlorine solutions to decontaminate their gloves and boots after they make contact.
- Check the pallet or pallets for evidence of cross-contamination and decontaminate with the M295 IEDK if contamination is present.
- Appropriately mark the vehicle to clearly identify the associated hazard.