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Safety

Prevention of Motor-Vehicle Accidents

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**\*This regulation supersedes USAREUR Regulation 385-55, 26 January 2000.**

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**Summary.** This regulation prescribes motor vehicle safety policy for the Army in Europe.

**Applicability.** This regulation applies to military and civilian personnel and their family members in the European theater.

**Supplementation.** Organizations will not supplement this regulation without USAREUR G1 (AEAGA-S) approval.

**Forms.** This regulation prescribes AE Form 385-55A. AE and higher level forms are available through the Army in Europe Publishing System (AEPUBS).

**Records Management.** Records created as a result of processes prescribed by this regulation must be identified, maintained, and disposed of according to AR 25-400-2. Record titles and descriptions are available on the Army Records Information Management System website at <https://www.arims.army.mil>.

**Suggested Improvements.** The proponent of this regulation is the USAREUR G1 (AEAGA-S, DSN 370-7751/8124). Users may suggest improvements to this regulation by sending DA Form 2028 to the USAREUR G1 (AEAGA-S), Unit 29351, APO AE 09014-9351.

**Distribution.** B (AEPUBS).

## CONTENTS

### CHAPTER 1 INTRODUCTION

- 1-1 Purpose
- 1-2 References
- 1-3. Explanation of Abbreviations
- 1-4. Regulation Maintenance
- 1-5. Objectives
- 1-6. Funding

### CHAPTER 2 RESPONSIBILITIES

- 2-1. Commanders
- 2-2. Garrison Commanders
- 2-3. Deputy Chief of Staff, G1, USAREUR

### CHAPTER 3 PREVENTION OF ARMY MOTOR-VEHICLE ACCIDENTS

#### Section I SAFE DRIVER BEHAVIOR

- 3-1. General
- 3-2. Driver Selection
- 3-3. Driver Training
- 3-4. Investigating and Reporting Accidents
- 3-5. Motivating Safe Performance
- 3-6. Safe Driving

#### Section II VEHICLE SAFETY STANDARDS

- 3-7. General
- 3-8. Motor-Vehicle Safety Standards

#### Section III ENVIRONMENTAL FACTORS AND ROAD CONDITIONS

- 3-9. Adverse Environmental Conditions
- 3-10. Traffic-Control Devices

#### Section IV SAFE VEHICLE OPERATIONS

- 3-11. Fire Prevention
- 3-12. Preventing Asphyxiation
- 3-13. Convoy Operations
- 3-14. Safety Equipment
- 3-15. Movement of Personnel
- 3-16. Tactical-Vehicle Operations
- 3-17. Emergency Services: Breakdown and Accident-Site Control
- 3-18. Motor-Vehicle Operations Near Aircraft
- 3-19. Use of Ground Guides for Maneuvering Nontactical and Tactical Wheeled, Tracked, and Engineer Vehicles

## **CHAPTER 4 POV ACCIDENTS**

- 4-1. General
- 4-2. POV Accident Prevention

### **Appendixes**

- A. References
- B. Senior-Occupant Responsibilities
- C. Motor Vehicle Accident-Prevention Measures
- D. Winter Driving Orientation
- E. Special Achievement Awards for Safe Driving
- F. Tracked-Vehicle Safety
- G. Criteria for Built-Up Vehicles
- H. Inclement Weather Road-Condition Status Policy
- I. Army in Europe Military-Vehicle Conspicuity Program

### **Figures**

- D-1. Suggested Outline for WDO
- E-1. Summary of Awards
- I-1. MVD Description and Mounting Instructions

### **Tables**

- H-1. Road-Condition Status Characteristics
- I-1. Ordering Information

### **Glossary**

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## **CHAPTER 1 INTRODUCTION**

### **1-1. PURPOSE**

This regulation—

- a. Establishes responsibilities and procedures for motor vehicle accident-prevention efforts.
- b. Establishes senior-occupant responsibilities.
- c. Provides an outline for conducting a winter driving orientation.
- d. Lists Army in Europe safe driving awards.
- e. Provides tracked vehicle safety guidelines.
- f. Provides criteria for built-up vehicles.
- g. Establishes the Army in Europe Military-Vehicle Conspicuity Program.

### **1-2. REFERENCES**

Appendix A lists references.

### **1-3. EXPLANATION OF ABBREVIATIONS**

The glossary defines abbreviations.

### **1-4. REGULATION MAINTENANCE**

The USAREUR G1 (AEAGA-S) is responsible for maintaining this regulation.

## **1-5. OBJECTIVES**

a. The Army motor vehicle (AMV) safety objective is to provide information and guidance to operators of AMVs, Army combat vehicles (ACVs), and materials handling equipment (MHE). This information and guidance will enable operators to transport personnel and property with the least possible risk.

b. The privately owned vehicle (POV) safety objective is to provide licensed personnel with information and guidance to reduce the risk of death or injury from POV accidents.

## **1-6. FUNDING**

Commanders will program funds to implement this regulation into annual budget requests.

## **CHAPTER 2 RESPONSIBILITIES**

### **2-1. COMMANDERS**

Commanders at all levels will—

a. Ensure the senior occupant in a military vehicle is aware of and satisfactorily discharges his or her responsibilities (app B).

b. Prescribe and enforce procedures for the safe operation of AMVs, ACVs, MHE, and POVs in the European theater.

c. Ensure vehicle operations and maintenance are carried out according to DA and Army in Europe policy and equipment manuals.

d. Collect, analyze, and evaluate motor-vehicle exposure and accident data to identify where accident prevention countermeasures must be directed.

e. Supervise drivers.

f. Develop and administer education, motivation, and training programs for AMV and POV drivers.

### **2-2. GARRISON COMMANDERS**

Garrison commanders will conduct driver orientation for POV and AMV license applicants as a prerequisite to driver testing and licensing. U.S. Forces driver testing station personnel will not accept applications from Soldiers, U.S. civilian employees, or family members without proof they attended driver orientation.

### **2-3. DEPUTY CHIEF OF STAFF, G1, USAREUR**

The Deputy Chief of Staff, G1, USAREUR, will—

a. Develop policy for operating motor vehicles safely.

b. Develop data analysis and countermeasure programs to support accident-prevention efforts for motor vehicles.

c. Monitor the Army in Europe Driver Awards Program.

d. Integrate motor-vehicle safety issues from policy developed by other HQ USAREUR/7A staff offices.

## **CHAPTER 3 PREVENTION OF ARMY MOTOR-VEHICLE ACCIDENTS**

### **SECTION I SAFE DRIVER BEHAVIOR**

#### **3-1. GENERAL**

Accidents waste resources and hinder mission accomplishment. Commanders will establish and conduct aggressive motor-vehicle safety programs at all levels to prevent loss of personnel and equipment. Appendix C provides motor vehicle accident-prevention measures.

### **3-2. DRIVER SELECTION**

- a. Drivers of AMVs must be selected, trained, tested, and licensed according to AR 600-55, FM 55-30, AE Regulation 190-1, and AE Regulation 600-55.
- b. Commanders will review the records of prospective operators and personally interview them before operators are licensed to operate AMVs. Operators must demonstrate the correct ability, judgment, and behavior to be competent drivers.
- c. Drivers who transport hazardous material (HAZMAT) must be certified as required by AE Regulation 55-4.
- d. Persons assigned to operate buses will not be less than 21 years old.

### **3-3. DRIVER TRAINING**

- a. Applicants for AE Form 190-1F, known throughout this regulation as the U.S. Forces Certificate of License, and OF 346 will attend driver orientation (para 2-2) as a prerequisite to testing and licensing. Attendance is mandatory for all applicants, including U.S. civilians and family members, even if applicants have previously been stationed in the European theater.
- b. Commanders will ensure topics are presented to enable POV operators to improve driving skills and learn about changes in procedures (AE Pam 190-34).
- c. Winter driving training must be conducted annually during October and November. Training personnel will annotate OF 346 and DA Form 348 to indicate the date the training was performed. Appendix D provides guidance for conducting winter driving training.
- d. Driver instruction must include safety aspects of maintenance duties.

### **3-4. INVESTIGATING AND REPORTING ACCIDENTS**

- a. Commanders will—
  - (1) Investigate and report AMV accidents. The local provost marshal office, criminal investigation division, and safety office personnel must coordinate to ensure accident reports are complete and avoid duplication of effort.
  - (2) Conduct a collateral investigation for POV accidents as required by AR 385-40, paragraph 1-8.
  - (3) Conduct an installation-level accident investigation for on-duty class A and B accidents.
- b. Commanders responsible for motor vehicle operations will ensure—
  - (1) Investigative procedures detail human errors, management or supervisory errors, equipment failures, and environmental factors causing or contributing to accidents. Commanders responsible for motor vehicle operations will also ensure SF 91 is available to drivers as an aid to AMV accident investigations.
  - (2) System defects causing or contributing to errors are identified.
  - (3) Problems are identified concerning nonuse or failure of installed restraint systems contributing to injuries to Army personnel in AMV accidents.
  - (4) Army medical authorities determine whether use of alcohol or drugs contributed to class A and B accidents (AR 385-40).
- c. Commanders will prepare reports according to AR 385-40 and, if an AMV accident is caused by design or component failure, as required by DA Pamphlet 738-751.

### 3-5. MOTIVATING SAFE PERFORMANCE

a. Commanders will—

(1) Normally assign a designated driver and an alternate driver to vehicles.

(2) Recognize vehicle operators and units each year for maintaining outstanding safe driving performance.

(3) Ensure awards and badges issued to drivers are annotated in section III of DA Form 348. Incentives for safe driving performance include but are not limited to—

(a) The Driver and Mechanic Badge for military and civilian personnel (AR 600-8-22).

(b) Recognition for suggestions, superior accomplishments, and honorary awards (AR 672-74) related to AMV operation.

(4) Recognize company-level units that have no convictions for driving an AMV or POV while intoxicated within 1 fiscal year. Commanders will prepare requests for the Army in Europe Unit Safe Driving Award according to appendix E.

b. Supervisors of AMV operations will—

(1) Ensure personnel are trained, qualified, and properly licensed according to AE Regulation 600-55 before being allowed to operate vehicles.

(2) Set clear standards of performance to ensure the consistent safety of vehicle operations. Drivers must be aware of and understand their responsibilities.

(3) Assess driver performance periodically and use incentives to reward drivers who have good driving records.

### 3-6. SAFE DRIVING

a. Commanders will ensure a risk assessment is done for each wheeled and tracked vehicle before each mission. Some areas of the assessment include the following:

(1) The vehicle operator's experience and training.

(2) The vehicle operator's rest requirements (b(2) below).

(3) The availability of assistant drivers.

(4) Expected seasonal and environmental factors (for example, dust, mud, rain, snow).

(5) Expected physical factors (for example, rest areas, routes, times) and other driving difficulties that may occur.

(6) Route selection (for example, bridges, grades, hills, road surfaces).

(7) Enemy actions and the likelihood of contact with the enemy.

b. The following guidance applies to wheeled- and tracked-vehicle nontactical operations:

**(1) Assistant Driver Scheduling Guide.** If more than 10 hours are needed to complete operations, commanders will ensure a qualified assistant driver is assigned to each vehicle. The unit-level chain of command must develop, approve, and enforce a unit assistant-driver scheduling policy. In addition to the 10-hour rule, assistant drivers must be assigned when—

(a) More than 6 driving hours are required to accomplish the mission during any 24-hour period.

(b) More than 4 hours of the mission are expected to be during darkness.

(c) The need to wear mission-oriented protective posture (MOPP) equipment is anticipated.

- (d) Unfamiliar terrain requires detailed navigation throughout the travel.
- (e) Hazardous cargo must be transported as specified in AE Regulation 55-4.
- (f) Extensive use of a ground guide is anticipated.
- (g) Deteriorating weather or road conditions are expected.
- (h) There is a high probability of encountering hostile fire.
- (i) High-value or mission-critical equipment or weapons systems are being transported.
- (j) Other unusually difficult mission conditions are expected.
- (k) Other factors determined through the premission risk assessment process (a above) require an assistant driver.

**(2) Crew Rest Standards.** The unit-level chain of command must develop, approve, and enforce a unit crew rest policy (sleep plan) that meets the standards in AR 385-55, paragraph 2-6, and the following:

- (a) The 12-hour period preceding a prolonged work or sleep-loss period should be kept as free of duties as possible and, ideally, should be spent in sleep.
- (b) After 36 to 48 hours of continuous work without sleep, 6 hours (or less) of sleep is inadequate to return performance to normal levels. Recovery is generally complete after 12 hours of sleep or rest.
- (c) Sleep loss of 72 to 96 hours requires more than 1 recovery night of sleep before performance recovery is complete.
- (d) If a person normally works 8 hours a day and suddenly must work a 36- to 48-hour shift, that person needs 12 hours of rest after the extended shift to regain performance level. If a person normally works a 12- to 16-hour shift and suddenly must work 36 to 48 hours straight, that person needs 24 hours of rest to regain performance level.
- (e) After enduring a stressful period of sleep loss and having gone to sleep, personnel will not be awakened for duty until they have obtained adequate sleep.
- (f) Up to 5 days of adequate performance can be maintained by using work schedules of 2 days on and 2 days off, 4 days on and 2 days off, 4 days on and 4 days off, 6 days on and 2 days off, 6 days on and 6 days off, 8 days on and 4 days off, and 8 days on and 8 days off.
- (g) Up to 14 days of adequate performance can be maintained by using work schedules of 4 days on and 4 days off and 16 days on and 8 days off.
- (h) Total adaptation of biological rhythms to an atypical work and rest schedule requires an average of 3 to 4 weeks.
- (i) Sleep between the hours of 2400 and 0600 or 0600 to 1200 is more restorative than sleep obtained between 1200 and 2400.
- (j) Under tactical conditions, general maintenance of 4 hours of uninterrupted sleep in each 24-hour period provides minimum satisfactory performance.

c. Drivers will not use headphones or earphones while operating or riding in AMVs. This does not negate the requirement for wearing hearing protection under certain conditions (DA Pam 40-501).

d. Drivers, senior occupants, and assistant drivers will not drink intoxicating beverages for at least 8 hours before scheduled duty or during their normal duty shift.

e. Drivers will not eat or drink while the vehicle is in motion. Drivers and occupants will not smoke in the vehicle at any time.

f. Drivers will not wear MOPP masks while operating a vehicle on public roads. When approved by a battalion commander or above, drivers wearing MOPP masks may take part in supervised driver training at local driver-training sites on U.S.-controlled property. The driver-training supervisor will remain unmasked at all times.

g. Commanders will enforce the following safety guidelines:

(1) Glass areas on AMVs must not be discolored or cracked or have placards, posters, stickers, or nontransparent materials that impair the driver's vision or create a hazard.

(2) Operators of wheeled and tracked vehicles and trucks with trailers will use ground guides when operating in confined spaces and when backing. Wheeled- and tracked-vehicle parks or bivouac areas where troops are sleeping are of special concern. Blackout operations are prohibited in these areas. Ground guides will use the hand-and-arm signals in FM 21-60. Guides will remain clear of the vehicle path and will be visible to the driver at all times during the movement. If the driver loses sight of the guide, the driver will stop immediately. Appendix F provides additional information on tracked-vehicle safety.

(3) Operators of vehicles equipped with radio antennas will be given special instruction on the hazards of fire and electrocution from antennas contacting overhead powerlines. Antennas on tracked and wheeled vehicles must be tied down to a height between 8 feet (ft) (2.5 meters (m)) and 13 ft (4 m). The ends of the antennas must be blunted with an antenna tip assembly (antenna ball, national stock number (NSN) 5920-00-437-2353; tiedown kit, NSN 5820-00-908-6416).

(4) Antennas must be removed and stored inside the vehicle before the vehicle enters a rail-loading site and is loaded onto a railcar. Antennas must not be reinstalled until unloading has been completed and the vehicle is clear of overhead powerlines and out of the rail-loading site.

(5) Antennas must be clipped in and under the antenna retaining clip when vehicles operate in garrison or on improved roads. Antennas must be snapped into the tiedown assembly in unimproved areas.

h. Bus drivers of military buses will ensure—

(1) All seats are occupied before allowing additional passengers to stand.

(2) The total number of passengers standing does not exceed half the designated seating capacity of the bus.

(3) Those standing do not interfere with the driver's vision.

## **SECTION II VEHICLE SAFETY STANDARDS**

### **3-7. GENERAL**

a. Before vehicle dispatch, commanders or their representatives will ensure drivers—

(1) Perform appropriate preventive maintenance checks and services on vehicles before use.

(2) Are briefed to perform checks at each rest halt and after operation to prevent the following conditions:

(a) Improper functioning or adjustment of horns, lights, restraint systems, side or rearview mirrors, steering, warning signals, windshield wipers, and other safety devices.

(b) Lights, mirrors, reflectors, windows, windshields, or other safety devices that are broken, cracked, discolored, or covered with dirt, frost, grime, ice, mud, or snow.

(c) Defective, inoperable, or out-of-adjustment parking brakes. Vehicles with defective brakes, including parking brakes, are considered not mission capable (NMC) until repaired. When vehicles with brake problems are moved for maintenance, they must be towed with a tow bar.

(d) Leaky vehicles. Vehicles that have a brake fluid, gasoline, or class 3 diesel leak are NMC until repaired.

(e) Any condition likely to cause injuries or damage because of component failure. Examples include cracked wheel hubs, damaged or missing exhaust-pipe shields, leaks from exhaust systems, loose or missing wheel lugnuts, spare wheels improperly secured, tires that are excessively worn or deeply cut or have exposed cords, torn sheet metal with exposed sharp edges, and worn or frayed tiedown straps or personnel restraint systems.

(f) Improperly secured loads.

(g) Vehicles loaded beyond design load limits.

(3) Have first-aid kits and warning triangles in their vehicles.

b. Operators are responsible for bringing any vehicle defect to the supervisor's attention.

c. No vehicle may be operated with a condition described in a(2)(a) through (g) above unless the unit commander gives written authorization.

### **3-8. MOTOR-VEHICLE SAFETY STANDARDS**

a. Commercial-type, passenger-carrying vehicles built to manufacturer specifications and leased, purchased, or rented by the Army must meet Federal motor-vehicle safety standards.

b. Foreign-built commercial vehicles purchased for use outside the continental United States must meet applicable safety requirements of the country where they are registered or assigned.

c. If the normal structure of an AMV will not protect the driver and passengers during a rollover, the vehicle must be equipped with a rollover protective structure that conforms to Society of Automotive Engineers standards. Waivers to this requirement must be obtained from the United States Army Safety Center through the USAREUR G1 (AEAGA-S), Unit 29351, APO AE 09014-9351.

d. Built-up vehicles must meet the requirements in appendix G. Unit commanders who wish to use built-up vehicles will obtain permission from commanders two levels higher in the chain of command. Requests for use of built-up vehicles must include justification, a load plan (if shelves are to be installed), and drawings of installation plans (if heaters or lights are to be installed).

## **SECTION III ENVIRONMENTAL FACTORS AND ROAD CONDITIONS**

### **3-9. ADVERSE ENVIRONMENTAL CONDITIONS**

a. Garrison commanders and commanders of USAREUR major subordinate and specialized commands (AE Reg 10-5, app A) will use—

(1) Appendix H to determine road conditions.

(2) Public media to announce the status of travel conditions.

b. Garrison commanders will set road conditions for their geographic areas according to the guidance in appendix H.

c. Unit commanders will assess the risks for the determined road conditions (b above) and assign missions and dispatch vehicles accordingly. Unit commanders will—

(1) Ensure vehicles are equipped (chains, good tires, lights, wipers) and maintained to handle expected adverse conditions.

(2) Ensure drivers know and follow established emergency procedures.

(3) Establish procedures for announcing adverse road conditions.

(4) Limit traffic to mission-essential business during adverse weather conditions.

(5) Publish unit standing operating procedures (SOPs) for operating in normal and adverse environmental conditions.

### **3-10. TRAFFIC-CONTROL DEVICES**

Commanders will comply with uniform traffic-control devices (for example, stoplights) used by their host nation. The standards for host-nation traffic devices are located at the garrison safety office and facility engineer office.

## **SECTION IV**

### **SAFE VEHICLE OPERATIONS**

#### **3-11. FIRE PREVENTION**

The following guidelines are precautions against AMV fires:

a. An AMV may be operated only if it is entirely free from gasoline leaks and class 3 diesel leaks. Class 3 diesel leaks are diesel fuel droplets that fall from the item being inspected or checked.

b. Electric lamps used to examine or repair vehicles must meet the standards of the National Electric Codes or host-nation electric codes.

c. Open flames, smoking, and spark-producing devices are prohibited—

(1) In shops, garages, and motor-pool parking areas, except in areas specifically designated by authorities as smoking areas.

(2) Within 50 ft (15 m) of vehicles loaded with explosives, combustible or flammable liquids with a flashpoint below 200 °F (93 °C), and flammable gases.

(3) In the presence of flammable vapors such as those present when examining or repairing engines or fuel systems and when fueling vehicles. “No Smoking” signs must be posted conspicuously.

(4) By vehicle occupants at any time the engine is running.

d. When fueling vehicles or when leaving vehicles unattended to be fueled, drivers will—

(1) Turn off the engine.

(2) Confirm the fuel shutoff switch or cable is in the “off” position.

(3) Put standard transmissions in the “neutral” position and automatic transmissions in the “park” position.

(4) Use chock blocks or parking brakes. When low temperatures prevent setting parking brakes, the wheels must be chocked firmly to prevent movement. At least one wheel must be chocked during refueling.

(5) Discontinue fueling if a lightning storm is visible.

e. Trucks loaded with combustible waste must be unloaded before being parked for the night.

f. Vehicles transporting HAZMAT must be equipped with extra fire extinguishers according to AE Regulation 55-4.

g. To reduce the danger of fire or explosion caused by static sparks, the driver will—

(1) Make a positive bonding connection between the fuel-tank truck and the source being filled or offloaded.

(2) Ground and bond fuel-tank trucks before refueling or defueling.

#### **3-12. PREVENTING ASPHYXIATION**

a. Vehicles must be inspected to verify there are no leaks in the exhaust system.

b. Garages, shops, and other enclosed areas used for vehicles must be ventilated adequately at all times to prevent overexposure to exhaust gases from space heaters or vehicle engines.

(1) Carbon-monoxide detection devices must be installed in enclosed areas involved in vehicle operations.

(2) Vehicle engines may not be run in a garage or shop longer than needed to move the vehicle in or out. The only exception is if open windows, open doors, or ventilation systems that have been tested and approved are adequate for removing engine exhaust.

c. Personnel will ensure there is adequate ventilation while articulating exhaust systems seal. Articulating exhaust systems have welded and sliding joints with ball-and-socket type joints on the main exhaust tube. As the system becomes heated, the joints seal themselves. Before complete expansion, some exhaust gas escapes around the joints.

(1) When the cooling, exhaust, and power train systems are separated from the crew by engine access panels (as in the M113 family), the operator will ensure the panels seal properly to prevent carbon monoxide from entering the crew compartment.

(2) Commanders will ensure preventive medicine activity personnel conduct periodic tests under full working conditions to determine whether or not carbon monoxide is present.

d. Sleeping at any time in Army wheeled or tracked vehicles with the engine or heater running is prohibited. Exhaust fumes may cause asphyxiation.

e. The engine of a parked or standing vehicle may not be operated solely to warm personnel. If the engine of such a vehicle must be operated, at least two main windows must be opened completely.

f. Catalytic heaters must not be used to warm personnel in or around a vehicle.

### **3-13. CONVOY OPERATIONS**

a. Proper planning and control of Army motor columns on public roads are required to prevent traffic congestion and accidents. Commanders will make movement plans according to AE Regulation 55-1 and USAREUR major subordinate and specialized command (AE Reg 10-5, app A) directives when convoy movements are smaller than those described in AE Regulation 55-1.

b. Additional information on planning, operating, and controlling motor marches and convoys is in AR 600-55, FM 9-20, FM 55-30, AE Pamphlet 385-15, and AE Pamphlet 385-15-1.

c. Routes for convoys, especially for oversized vehicles, must be inspected and approved in advance. Special attention must be given to low bridges and tunnels, maximum weights allowed, narrow streets, overhead electric wires, and tight turns.

d. When convoys must travel on public roads, commanders will place a 2½-ton or larger truck as the trail escort vehicle (TEV). When a 2½-ton truck is not available, commanders will use a 1-ton or larger truck as the TEV. Vehicles with HAZMAT cargo and tracked vehicles must not be used as TEVs.

e. As an additional warning to civilian motorists, the lead escort vehicle in the convoy must have a sign in the front that reads "CONVOY FOLLOWS." The TEV must have a sign on the rear that reads "CONVOY AHEAD." Signs must be in English and in the language of the host nation. The sign must be white with black letters at least 4 inches high. The size of the sign depends on the size of the vehicle. Signs must not obscure lights, placards, reflectors, or vehicle conspicuity markings.

f. Vehicles must maintain the following driving intervals from each other:

(1) At least a 2-second interval during normal driving conditions.

(2) At least a 3-second interval—

(a) During inclement weather driving conditions.

(b) When transporting HAZMAT.

(3) At least a 6-second interval when driving on the autobahn.

g. Vehicle interval spaces must close up at halts and vehicles must be completely off the pavement and clear of intersections. Drivers will use caution when moving onto the road to resume travel. Personnel in the TEV will post a guard with a proper warning device to alert approaching traffic. Guards may warn but will not direct nonmilitary traffic.

### **3-14. SAFETY EQUIPMENT**

a. All persons operating or riding as passengers in an AMV will wear seatbelts when sitting in seats with safety belts installed. No one will ride in a seat from which occupant restraints have been removed or made inoperative.

b. Vehicle commanders, drivers, and assistant drivers will wear eye protection (goggles) when combat vehicles are not equipped with a windshield or when the windshield is down. Crewmembers and passengers will wear head protection (helmets or the combat vehicle crewman helmet) at all times while combat vehicles are being operated.

c. Trailers must be equipped with safety chains or similar devices to prevent accidents from breakaways. Trailer brakes, brakelights, taillights, and turn signals must be in operating condition.

d. All AMVs must be equipped with fire extinguishers, first-aid kits, a reflective vest, and warning triangles. Commanders will publish an SOP for the use of warning triangles and ensure a copy of the SOP is carried in the vehicle.

e. Rotating or flashing blue lights must be used for emergency vehicles.

f. A 360-degree rotating amber warning light (RAWL) must be installed on repair vehicles, utility servicing vehicles, vehicles hauling oversized loads, wreckers, and other vehicles that frequently deviate from or obstruct normal traffic patterns.

g. The first and last vehicle in a convoy must be equipped with and use a RAWL (except in the Netherlands). RAWLs must be mounted so as not to be a hazard or nuisance to the driver or other drivers and must have 360-degree visibility. If 360 degrees cannot be obtained on a RAWL, an additional RAWL must be used for this purpose. No more than two RAWLs may be used on one vehicle. Other vehicles in the convoy may use RAWLs only when directed by the convoy commander.

h. Military vehicles must be equipped with chock blocks for use when parked on inclines or while maintenance is being performed.

i. Tactical wheeled and tracked AMVs operating in the European theater must be marked at the rear with retroreflective red and yellow military vehicle delineators (MVDs) to reduce the chance of nighttime rear-end collisions (app I). No other retroreflective markings may be used on the rear of AMVs in the European theater. Tracked vehicles operating on public roads must have a RAWL turned on.

j. Commanders are encouraged to develop and use other devices that increase the safety of operations. The installation of safety devices on motor vehicles requires approval according to AR 750-10. New safety devices must not violate host-nation laws.

k. A reflective vest must be accessible to the vehicle crew and occupants and used as required by host-nation traffic law. All vehicles transporting HAZMAT according to AE Regulation 55-4 must have reflective vests accessible to each crewmember.

### **3-15. MOVEMENT OF PERSONNEL**

a. Transporting Soldiers in cargo compartments during peacetime road movements outside training areas is forbidden. In training areas, the following limitations apply:

(1) Soldiers riding in cargo areas will sit on seating platforms or individual seats.

(2) Soldiers being transported in cabins or cargo areas of wheeled vehicles will wear seatbelts, if installed.

(3) Soldiers will remain seated when the vehicle is moving.

(4) Soldiers will not ride in the same compartment as cargo unless the cargo is fully restrained in all directions. Passengers will not ride on top of cargo.

(5) When personnel are transported in cargo-truck convoys, the TEV must not be used to carry passengers.

(6) Passengers (non-crewmembers) are not permitted at any time in orange-plated vehicles transporting HAZMAT (AE Reg 55-4).

b. The only semitrailer authorized for personnel transport is the 80-passenger personnel carrier van (line-item number S-74901, NSN 2330-01-090-7846). No other semitrailers are considered safe to transport personnel; their use for this purpose requires an HQDA waiver.

c. When more than one passenger is transported in a cargo truck, adequate fixed seating must be available. Occupants will be seated when the vehicle is in motion.

d. The number of passengers transported in buses or converted cargo vehicles in “over-the-road” service is restricted to the designed seating capacity.

e. The driver, assistant driver, or senior occupant of cargo trucks transporting personnel will—

(1) Walk to the rear of the truck to ensure the safety device, safety strap, or tailgate is in place and that all passengers are seated. Before permitting passengers to dismount, the driver will walk to the rear of the vehicle and release the safety device or lower the tailgate.

(2) Warn personnel not to jump from cargo beds and to move away from the roadway after dismounting.

(3) Refuse to move a motor vehicle when any person outside the vehicle is in an unsafe position. An unsafe position includes attempting to ride between the cab and body; extending arms or legs outside the truck body; hanging on the sides, running boards, or fenders; sitting on tailgates or sides of the truck; or standing.

(4) Place the vehicle in first gear or, if the vehicle has automatic transmission, place the vehicle in park and set the handbrake before starting the engine.

f. Additional guidance on the safe transportation of personnel is in FM 21-305.

### **3-16. TACTICAL-VEHICLE OPERATIONS**

a. Adverse environmental factors (dust, mud, rain, and snow), blackout operations, and fatigue put special demands on vehicle operators during tactical operations.

b. Commanders responsible for conducting tactical operations (actual or training) that involve AMVs and equipment will apply safety standards (for example, passenger transportation standards, speed limits, vehicle maintenance). In actual situations, deviations are allowable only when necessary to accomplish a mission. In training situations, only the commander may authorize deviations by signing the vehicle dispatch. Commanders will evaluate the significance of the assumed risk compared to the training benefit.

c. Commanders will—

(1) Include safety procedures in SOPs for training related to vehicle operations.

(2) Ensure military vehicles are not dispatched singly or in convoys without a noncommissioned officer in charge (NCOIC). Dispatching military vehicles without an NCOIC requires the personal approval of the commander, who will base the decision on a mission risk assessment. When dispatching vehicles assigned to administrative units such as staff offices or when dispatching nontactical vehicles, the commander is authorized to dispatch the vehicle without an NCOIC, but only after conducting a risk assessment.

### **3-17. EMERGENCY SERVICES: BREAKDOWN AND ACCIDENT-SITE CONTROL**

Commanders will ensure procedures are in place to—

a. Detect and respond to traffic accidents or incidents promptly.

b. Sustain and prolong life through proper first-aid measures.

c. Provide prompt medical evacuation of injured personnel to the nearest medical facility.

d. Secure and preserve the accident site until the need for centralized accident investigation, ground (CAIG), has been determined. While accident-site preservation must not compromise local highway safety, preservation of physical evidence is essential. If the accident site cannot be secured, unit or local safety personnel will take color photographs (other than self-developing) and measurements and make diagrams before the wreckage is removed.

e. Ensure rapid, orderly, and safe removal of accident debris, spills, and wreckage from roads. When appropriate, Army personnel will work with local authorities to remove debris safely from off-post accidents that involve Army equipment.

(1) Disabled vehicles must be moved off the roadway as far to the side as possible until they can be repaired or towed away.

(2) Disabled wheeled vehicles may be towed only according to applicable technical directives. The towing vehicle operator will travel at speeds that take into consideration the size and condition of the disabled vehicle and the condition of the road and weather.

f. In peacetime on public roads, towing vehicles long distances presents unacceptable risk. Local repair and lowboy recovery are possible alternatives to long-distance towing.

(1) Only a wrecker truck or vehicle with a towbar designed for use between vehicles may be used for towing. Recovery personnel will use tow chains only when a wrecker truck or towbar is not available and then only after assessing the risk posed by the skill levels of the individuals involved, terrain, and traffic. Use of tow chains is limited to towing vehicles short distances to clear roadways. No more than one vehicle may be towed behind a motor vehicle on public highways.

(2) The towing vehicle must be suitable for that purpose and may tow only a vehicle of smaller or equal size and weight. Drivers will not use vehicles transporting ammunition or hazardous cargo to tow other vehicles.

(3) Tow operations should be conducted during daylight hours. Because of the danger of a rear-end collision, vehicles may not be towed during darkness unless necessary to clear roadways. Towed vehicles that cannot be lighted properly or safeguarded by reflective materials must be followed closely by a TEV.

(4) Personnel will not ride in a towed vehicle. If it is absolutely necessary to control the towed vehicle using brakes or steering, a licensed driver may occupy the operator position of the towed vehicle, but only after the recovery operation is risk-assessed and both operators have been briefed on and understand the means of communication to be used, the hazards, mission, and route. A towed-vehicle operator will not be allowed if the vehicle is damaged to the point where the existing restraint system or its attachment points are damaged, or the condition of the operator position poses physical risk.

### **3-18. MOTOR-VEHICLE OPERATIONS NEAR AIRCRAFT**

The flightline safety officer or airfield manager will—

a. Give a special briefing to AMV drivers who are assigned in or near aircraft operating or parking areas for the first time.

b. Give a special briefing each following year.

c. Annotate each briefing on the driver's OF 346 and DA Form 348. Only drivers with an annotated OF 346 may be admitted into aircraft areas. As a minimum, the briefing must include the following:

(1) Personnel may approach operating aircraft only with clearance from the aircraft commander.

(2) Personnel will stow vehicle radio antennas before entering aircraft operating or parking areas.

(3) Personnel will not drive vehicles directly toward aircraft.

(4) Vehicles must maintain a minimum distance of 10 ft (3 m). Vehicles equipped with catalytic converters must maintain a clearance of 50 ft (15 m).

(5) Personnel will not attempt to back a vehicle into position near an aircraft without a ground guide. To back a vehicle in or around aircraft, the driver must completely stop the vehicle 20 ft (7 m) from the aircraft or helicopter rotor blades, and a ground guide must direct the driver.

(6) Personnel will not leave unattended vehicles close to aircraft unless the vehicle engine is off, the transmission is placed in low or park, the parking brake is set, and the wheels are chocked.

(7) Personnel will refuel according to FM 10-67-1.

### **3-19. USE OF GROUND GUIDES FOR MANEUVERING NONTACTICAL AND TACTICAL WHEELED, TRACKED, AND ENGINEER VEHICLES**

**a. General.** This section outlines the procedures and numbers of ground guides needed to move vehicles (with or without trailers) safely for short distances in motor pools, assembly areas, and other areas.

**b. Procedures for Guiding Vehicles Through Assembly Areas.** Forward and rear ground guides will guide vehicles being moved through an assembly area. The forward ground guide must be positioned out of the forward path of the vehicle and not closer than 10 ft (3 m) to the front of the vehicle. The rear ground guide must be positioned to maintain visual contact with the forward ground guide.

**c. Ground Guides.** The number of ground guides required by vehicle type is as follows:

**(1) Nontactical Vehicles.** At least one ground guide is required for a bus carrying passengers, for a truck weighing 2½ tons or more, or if rear visibility is blocked by cargo or otherwise limited.

**(2) Tactical Wheeled Vehicles.** At least one ground guide is required if rear visibility is blocked by cargo or otherwise limited. The ground guide must be positioned in view of the driver and with a clear view of the area to be traveled.

**NOTE:** In emergencies where a ground guide is not available (for example, outside of the military installation), drivers of tactical and nontactical wheeled vehicles will—

- Dismount.
- Walk completely around the vehicle to verify clearance.
- Determine visual clear distance with a ground reference point visible from the cab of the vehicle.
- Mount the vehicle.
- Sound the horn.
- Back to the preselected ground reference point.
- Stop.
- Repeat the process as necessary until the vehicle is in the desired position.

**(3) Tracked Vehicles.** Two ground guides are required to guide tracked vehicles backward and forward. If only one ground guide is available, a tracked vehicle may only be moved and guided forward.

**(4) Engineer Vehicles Operating at Supervised or Controlled Access Construction Sites.** Before starting vehicle engines, drivers of bulldozers, graders, and other engineer vehicles will walk around the vehicles to ensure the area is free of obstructions. Ground guides are not required to back engineer equipment operating at supervised or controlled-access construction sites. Drivers of engineer vehicles, however, will sound vehicle horns before backing while operating at supervised or controlled-access construction sites. Engineer vehicles operating outside of supervised or controlled-access construction sites must use the standards and number of ground guides indicated in subparagraphs (2) and (3) above.

#### **d. Ground Guide Standards and Procedures.**

(1) Drivers and ground guides will coordinate signals before ground-guide operations. The signals to control vehicle drivers are shown in FM 21-60.

(2) The driver must be able to see assigned ground guides at all times. If the driver loses sight of a ground guide, the driver will stop the vehicle.

(3) Before backing in nontactical areas, drivers of all types of vehicles will sound the horn.

(4) Only one ground guide will provide signals to the driver.

(5) Ground guides will not walk or run backward. If ground guides are observed walking or running backward, the vehicle operator will stop and make an on-the-spot correction.

(6) Ground guides on railcars will not stand on the same railcar as the vehicle being guided.

(7) When appropriate to the mission, ground guides will be equipped with a retroreflective vest and flashlights.

**NOTE:** Ground guides will not position themselves between the vehicle being guided and another object where an inadvertent engine surge or momentary loss of vehicle control could cause injury or death. Drivers of vehicles will stop their vehicles immediately if they lose sight of a ground guide or note that the guide is dangerously positioned between the vehicle and another object. Drivers of vehicles in such cases will secure their vehicle, dismount, and make an on-the-spot correction before continuing operations.

## **CHAPTER 4 POV ACCIDENTS**

### **4-1. GENERAL**

a. POV accidents in Europe most often occur while drivers are off duty and off post, away from Army supervision. Commanders will educate drivers directly through guidance, information, and motivation before drivers leave Army control.

b. Soldiers have a duty to avoid unnecessary injury by using safety devices and equipment. When a safety violation occurs, commanders should consider a full range of actions to deal with the violation. Such actions may include loss or suspension of driving privileges, additional training in the particular aspect of the violation, and revocation of the U.S. Forces certificate of license.

c. Research has shown that the consistent use of restraint systems can reduce the chance of death or serious injury in an automobile accident and can prevent injury during sudden braking. Using a restraint system can prevent accidents by helping the driver maintain control of the automobile.

### **4-2. POV ACCIDENT PREVENTION**

Most Army personnel killed or injured in POV accidents in Europe are involved in single-vehicle accidents at night on secondary roads. Factors contributing to accidents are often the use of alcohol or drugs, excessive speed, failure to use a restraint system, or fatigue. Commanders will identify other factors in accidents that apply to their communities or units and will implement POV accident-prevention programs using these factors. Programs must include the following:

**a. Indoctrination.** Commanders will ensure their Soldiers, civilians, and family members know the main causes of POV accidents. Briefings should cover four-wheeled vehicles and motorcycles.

**(1) Four-Wheeled Motor Vehicles.** Major topics to be covered include the following:

- (a) Causes of accidents (including emotional causes).
- (b) Speeding.
- (c) How to avoid a collision with another vehicle.
- (d) The effects of drugs and alcohol on driving skills.
- (e) How to control fatigue when driving.
- (f) Pedestrian safety precautions.
- (g) A driver's view of motorcyclists.

**(2) Motorcycles.**

(a) In Germany, drivers are required to pass a written and performance test to obtain a U.S. Forces certificate of license. If drivers fail the performance test, they must attend and satisfactorily complete a German driving school (*Fahrschule*) course at their own expense.

(b) In Germany, novice drivers who do not have a U.S. motorcycle license must attend and pass a *Fahrschule* driver training course before they are licensed.

(c) Motorcycle drivers stationed outside of Germany must complete an Army-approved motorcycle safety course. The course must consist of classroom instruction, hands-on training, and a written test.

**b. Safety Restraints.**

(1) Occupants of U.S. Forces-registered vehicles will use a restraint system while driving or riding in a POV originally equipped with a restraint system. Removal of the restraint system from a POV does not excuse the vehicle owner or occupant from the requirement to use a restraint system.

(2) Installation commanders should—

(a) Conduct random gate checks for compliance and develop procedures to reward compliance and punish offenders.

(b) Provide followup education programs to encourage the use of restraint systems, especially for children.

(c) Use media (for example, bulletin boards, daily or weekly bulletins, newspapers) to publicize the restraint system requirement.

**c. Counseling Traffic Law Offenders.** Commanders will provide professional or supervisory counseling to drivers who have been determined by competent legal authorities to be at fault in traffic accidents or who have committed major traffic offenses. AE Regulation 190-1 provides detailed requirements.

**d. Enforcement.** Commanders will request host-nation police assistance to increase patrols on weekend nights. AE Regulation 190-1 provides disciplinary and administrative actions for traffic accidents or violations.

**e. Inspection and Registration of POVs.** Commanders will ensure their units meet the inspection and registration requirements in AE Regulation 190-1.

**f. Other Prevention Programs.** Measures likely to be effective against POV accidents include—

(1) Conducting visual checks of POVs, especially those 10 years old or older (these vehicles are involved more often in fatal accidents).

(2) Giving safety talks during formations.

(3) Emphasizing personnel safety while traveling on pass or leave, particularly during holiday periods.

(4) Encouraging the use of public transportation.

(5) Implementing campaigns, enforcement efforts, promotional activities, training programs, and related programs.

(6) Publicizing host-nation vacation times and encouraging travel during daylight and hours of least congestion.

(7) Stressing the effects of alcohol, drugs, and fatigue on the driver's ability to operate a vehicle safely.

**g. Headphones and Earphones.** Wearing headphones or earphones (except for earphones that are part of a "hands-free" system for a cell phone (h below) is prohibited when operating a motorcycle, a POV, a U.S. Government vehicle, or self-propelled vehicles and sports equipment (for example, bicycles, scooters, skateboards, skates), and while jogging or walking. Hearing-protection devices may be worn when conditions or good judgment dictate their use or when prescribed by safety regulations.

**h. Cell Phones.** The use of hand-held cell phones when driving a vehicle or riding a bicycle is prohibited. Hands-free systems may be used if they do not force drivers to take their eyes off the road or their hands off the steering wheel. Hand-held cell phones may be used only when the vehicle is stationary and the motor is turned off.

## **APPENDIX A REFERENCES**

### **SECTION I PUBLICATIONS**

AR 25-400-2, The Army Records Information Management System (ARIMS)

AR 385-40, Accident Reporting and Records

AR 385-55, Prevention of Motor Vehicle Accidents

AR 600-8-22, Military Awards

AR 600-55, The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing)

AR 672-20, Incentive Awards

AR 672-74, Army Accident Prevention Awards Program

AR 750-10, Army Modification Program

DA Pamphlet 40-501, Hearing Conservation Program

DA Pamphlet 738-751, Functional Users Manual for the Army Maintenance Management System— Aviation (TAMMS-A)

FM 9-20, Technical Escort Operations

FM 10-67-1, Concepts and Equipment of Petroleum Operations

FM 21-60, Visual Signals

FM 21-305, Manual for the Wheeled Vehicle Driver

FM 55-30, Army Motor Transport Units and Operations

Training Circular 21-306, Tracked Combat Vehicle Training

AE Regulation 10-5, HQ USAREUR/7A and Select Commands

AE Regulation 55-1, United States Army Motor Vehicle Operations on Public Roads

AE Regulation 55-4, Safe Movement of Hazardous Goods by Surface Modes

AE Regulation 190-1/USNAVEUR Instruction 11240.6P/USAFE Instruction 31-202, Registering and Operating Privately Owned Motor Vehicles in Germany

AE Regulation 600-55, Driver- and Operator-Standardization Program

AE Pamphlet 190-34/USAFE Pamphlet 31-206, Drivers Handbook and Examination Manual for Germany

AE Pamphlet 385-15, Leader's Operational Accident-Prevention Guide

AE Pamphlet 385-15-1, Commander's Convoy Checklist and Risk Assessment

## **SECTION II FORMS**

SF 91, Motor Vehicle Accident Report

OF 346, U.S. Government Motor Vehicle Operator's Identification Card

DA Form 348, Equipment Operator's Qualification Record (Except Aircraft)

DA Form 1256, Incentive Award Nomination and Approval

DA Form 2028, Recommended Changes to Publications and Blank Forms

AE Form 190-1F, U.S. Forces Certificate of License/The United States Forces in Germany

AE Form 385-55A, Certificate of Merit for Safety

## **APPENDIX B SENIOR-OCCUPANT RESPONSIBILITIES**

### **B-1. PURPOSE**

This appendix explains the responsibilities of the senior occupant of military vehicles. The senior occupant of a military vehicle may be the operator or a passenger.

### **B-2. RESPONSIBILITIES**

a. The senior occupant must be a responsible person who has exhibited mature judgment. The senior occupant will assist drivers and ensure they—

- (1) Have an assigned assistant driver when required.
- (2) Are licensed and qualified to operate the vehicles dispatched.
- (3) Have had at least 8 consecutive hours of rest before combined duty (driving and nondriving) periods exceeding 12 hours in any 24-hour period.
- (4) Have not consumed intoxicating beverages during the 8 hours before scheduled duty or during their duty shift.
- (5) Do not operate an Army motor vehicle more than 4 hours under adverse conditions or 10 hours under normal conditions in 1 duty day. The battalion commander must approve, in writing, driving more than 8 hours. Time for rest breaks and meals is not included in driving time.
- (6) Take 15-minute rest breaks every 2 hours. During these breaks, drivers will inspect their vehicles and check that equipment and cargo are secure. Drivers also will take 1-hour meal breaks.
- (7) Take additional rest periods, if needed, when adverse weather, hazardous cargo, or difficult field exercises are involved.
- (8) Do not operate a vehicle if they appear fatigued or emotionally, mentally, or physically impaired.
- (9) Do not drive without wearing seatbelts, if installed. This applies to all vehicle occupants while the vehicle is in motion.
- (10) Do not exceed the authorized seating capacity of the vehicle.
- (11) Do not drink, eat, or smoke while driving.
- (12) Do not wear headphones or earphones while driving, except when hearing protection is required.
- (13) Recognize unsafe mechanical conditions of the vehicle.
- (14) Have help backing or performing difficult maneuvers when an assistant driver is not available.
- (15) Do not interrupt the flow of off-post traffic by making sudden halts, unauthorized U-turns, or other unauthorized driving maneuvers.
- (16) Comply with road signs and speed limits as dictated by road conditions.
- (17) Properly display highway warning devices when the vehicle stops on or beside the roadway.
- (18) Post personnel and warning triangles to warn approaching traffic when the vehicle is disabled or stopped in a location that obstructs traffic.
- (19) Maintain a safe interval between vehicles.
- (20) Use tire chains when needed.

(21) Have no vision obstructions, such as dirt, ice, or snow; or distractions such as personal radios or other items in the vehicle.

(22) Enforce antenna tiedown requirements.

(23) Comply with convoy march discipline when vehicles are halted.

(24) Have serviceable vehicle safety items and use the safety items as required.

(25) Comply with traffic laws and unit standing operating procedures.

(26) Execute provisions of AE Regulation 190-1, paragraph 4-7, in the event of an accident.

b. The senior occupant may replace the driver or assistant driver to execute any responsibility listed in subparagraph a above. The senior occupant must be licensed to operate the vehicle if driving is deemed necessary.

### **B-3. LIABILITY**

If the senior occupant of a military vehicle fails to provide adequate supervision, he or she may be subject to disciplinary action and monetary liability for vehicle damage.

## **APPENDIX C**

### **MOTOR VEHICLE ACCIDENT-PREVENTION MEASURES**

#### **C-1. PURPOSE**

This appendix describes motor vehicle accident-prevention measures and suggests several ways for unit commanders and assigned personnel to publicize safety programs.

#### **C-2. CREATING INTEREST**

- a. Erect a sign at the entrance of each installation or motor pool showing the number of accident-free days or miles for that activity. These signs may compare current and past accident statistics.
- b. Obtain and distribute handouts, pamphlets, and magazine articles (authorized for reprinting) about weather and traffic problems.
- c. Post photographs of local accidents or accidents that have occurred in the unit. Local military and civilian law enforcement agencies may be able to provide photographs.
- d. Promote bicycle-skill events that involve family members and enhance child and youth education.
- e. Provide hands-on programs involving accident scene reconstruction, seatbelt convincers, and advanced driver training (under expert instruction).
- f. Publish articles regarding local safety problems in unit newspapers.
- g. Present traffic safety programs built around parodies of current musical hits. Use slides between skits to present information about the local safety problem. Assemble groups in theaters to reach large audiences. Limit programs to 1 hour or less.
- h. Establish a safe-driving week each quarter. Include safety talks and films with special command emphasis on having no Army motor vehicle (AMV) or privately owned vehicle (POV) accidents during that week.
- i. Conduct a search for the unit's safest driver. Publicize the search and let all personnel in the unit nominate their choices, stating in writing why their nominees are the safest drivers. Check the provost marshal record closely before publicizing winners.
- j. Photograph every available Soldier in the unit whose past 12 months of driving have been free of accidents and arrests. Publicize this group as Soldiers who have safely met the hazards of driving in the European theater. Credit these Soldiers for causing no insurance losses and have the commander acknowledge their positive contributions to the Army image.
- k. Place Soldiers' photographs or names in a unit "Hall of Fame" for Soldiers who remain free of POV accidents and arrests.
- l. Motivate personnel to keep their POVs in safe operating condition by—
  - (1) Establishing motor vehicle hobby shops. Permit personnel to use the facilities to maintain their vehicles according to vehicle registration standards.
  - (2) Ensuring unit personnel buying used cars have the opportunity for qualified motor-pool personnel to inspect the cars for safety.

#### **C-3. EDUCATION PROGRAMS**

- a. Conduct education and professional-development sessions with local emergency services and roadside assistance organizations concerning their duties and the real-life hazards they see on the job.
- b. Conduct special classes on traffic safety before holidays and extended weekends.
- c. Conduct winter driving classes before winter and repeat them as necessary. A suggested outline for a 2-hour winter driving orientation is in appendix D.

- d. Identify and publicize hazardous driving areas near the unit.
- e. Obtain films and prepared safety-talk kits (flannel board) from supporting audiovisual centers.
- f. Provide child safety-seat education and assistance.

#### **C-4. INCENTIVES AND AWARD PROGRAMS**

- a. Establish a competitive program between units for the best traffic safety program. Give appropriate awards to winners.
- b. Conduct safety contests (for example, poster, slogan, suggestion contests) and award prizes to winners.
- c. Identify and publicize Soldiers who drive without accidents during their tours (2 to 3 years) in the command. Contact the public affairs office and ask that these Soldiers be interviewed on radio or television for the American Forces Network and for feature articles in local papers.
- d. Prepare letters from the unit commander to drivers who have completed their tours of duty in the command without traffic accidents or moving traffic violations. These letters can serve as proof of the Soldier's driving abilities under adverse driving conditions.
- e. Provide incentives for safe driving performance by presenting awards as prescribed in AR 600-8-22 or in this regulation, appendix E.
- f. Publicize accounts of traffic violations by unit personnel, including punitive actions taken by civil or military authorities, in unit newspapers. However, do not publicize traffic violations until after civil and military authorities have completed their actions. Consult the servicing judge advocate office in questionable cases.
- g. Send letters of congratulation to commanders whose units have no accidents during holidays.

#### **C-5. OTHER ACTIONS**

- a. Post extracts of host-nation traffic laws on bulletin boards to inform drivers of current traffic regulations.
- b. Use symbols or phrases on trip tickets to encourage safe driving (for example, stamp the trip ticket "Safe Driver" or "No Accidents").
- c. Support host-nation and military safety campaigns. Contact local host-nation and military officials and ask to be advised about local safety efforts.
- d. Inform personnel through bulletin notices, newspaper articles, and posters of the requirement to use seatbelts in their POVs.
- e. Ensure the safety of personnel traveling on passes or leave. Check whether persons applying for passes or leave are in good physical condition and their POVs are in safe operating condition. When necessary, individuals can be refused passes or leave to prevent unsafe travel. Pass or leave slips may be annotated to show these checks were made.
- f. Establish a procedure to assist drivers who do not consider themselves in proper physical condition to reach their destination safely.
- g. Establish a plan for obtaining and distributing information about weather and road conditions. Encourage limited driving during hazardous driving conditions.
- h. Provide drivers with foldout or strip maps of any areas to be traveled outside the local area.
- i. Remind officers and noncommissioned officers (NCOs) through daily or weekly bulletins, unit newspapers, or other media to report unsafe driving behavior by AMV drivers.
- j. Establish roadway spot checks for drivers who are not directly supervised. Stop drivers who are driving unsafely and require them to return the vehicle to the motor pool. Do not stop drivers if it may create a hazard to other drivers.

k. Provide swift and appropriate corrective action as authorized in AE Regulation 190-1.

l. Consider the unit's safety effort when preparing officer evaluation reports and recommendations for promotion of enlisted personnel.

#### **C-6. ACCIDENTS**

If a unit military vehicle has been involved in an accident—

a. Establish an AMV accident review board, when appropriate. The board must—

(1) Consist of assigned drivers and a representative from the local works council under the direction of the officer in charge or noncommissioned officer in charge of the motor pool.

(2) Analyze AMV accidents involving assigned or other drivers and recommend methods for preventing similar accidents. If possible, the board should interview the drivers of vehicles involved in accidents.

b. Require for a specified time that an NCO be an assistant driver in military vehicles dispatched off post.

c. Require that company or battalion commanders counsel persons who are cited for moving traffic violations or are involved in traffic accidents. This counseling and assessment of traffic points must be noted on the driver's DA Form 348.

## **APPENDIX D WINTER DRIVING ORIENTATION**

### **D-1. PURPOSE**

This appendix provides guidance for conducting winter driving orientation (WDO).

### **D-2. GENERAL**

**a. Task.** The task is to familiarize military and civilian personnel licensed to operate Army motor vehicles (AMVs) with the hazards of winter driving and safe driving principles and techniques.

**b. Conditions.** WDO must be conducted as an oral presentation by instructors under supervised conditions.

**c. Standard.** Attendees will identify and describe techniques necessary for safe driving under adverse conditions (for example, fewer daylight hours, fog, ice, rain, freezing rain, snow).

### **D-3. INTERMEDIATE TRAINING OBJECTIVES**

There are no intermediate training objectives.

### **D-4. ADMINISTRATIVE INSTRUCTIONS**

**a. Training Time.** The garrison or unit commander will designate a date and time for training.

**b. Training Location.** WDO must be conducted in a classroom.

**c. Training Type.** WDO must be conducted in conference style.

**d. Trainees.** Personnel licensed to operate AMVs must be trained. WDO must also be available for personnel licensed to operate privately owned vehicles (POVs).

**e. Principal and Assistant Instructors.** Garrison or unit commanders or their representative will assign instructors.

**f. Training Aids and Equipment.** WDO presentations may include various training aids, such as computers, films, an overhead projector, slides, television, and videos.

**g. References.** Appendix A lists references.

### **D-5. SEQUENCE OF EVENTS**

**a. Introduction.** State the objective and purpose.

**b. Explanation.** Explain and discuss techniques used for safe driving under adverse conditions. A suggested outline is in figure D-1.

**c. Review.** Summarize main points, answer questions, and give a closing statement. Request feedback and ask for suggestions on ways to improve WDO.

### **D-6. SAFETY RESTRICTIONS**

There are no safety restrictions.

### **D-7. ADDITIONAL COMMENTS AND INFORMATION**

The instructor will annotate the operator's OF 346 and DA Form 348 with a stamp or with the statement "Winter Driving Orientation, (Year)" to indicate training was received.

Subject	Discussion
<b>1. Introduction</b>	<ul style="list-style-type: none"> <li>a. Army in Europe accident statistics show an increase in motor vehicle accidents during winter months.</li> <li>b. Winter brings bad weather and hazardous driving conditions (for example, fewer daylight hours, fog, ice, rain, snow).</li> <li>c. Compensating for winter weather hazards.</li> </ul>
<b>2. Driver and Supervisor Responsibilities</b>	<ul style="list-style-type: none"> <li>a. If road conditions are unsatisfactory, reconsider the need for the trip.</li> <li>b. If the trip is essential, consider transportation other than an AMV or POV.</li> <li>c. The driver must be well rested and not have consumed alcoholic beverages 8 hours before driving or while driving.</li> <li>d. The driver and passengers will wear seatbelts.</li> <li>e. The driver will use techniques to compensate for other drivers and for weather and road conditions.</li> </ul>
<b>3. Driver Attitude and Preparation</b>	<ul style="list-style-type: none"> <li>a. Drivers should refresh their memories about past winter-driving experiences.</li> <li>b. Get the feel of the road. Try the brakes occasionally or gently depress the accelerator while driving. Rising temperatures increase the slipperiness of ice and snow. Drivers should adjust speed accordingly.</li> <li>c. See and be seen. Do not be a "peephole" driver. Make sure all lights and windows are clean.</li> <li>d. Increase following distance. Winter surfaces require stopping distances 3 to 12 times longer than dry surfaces. Trucks require longer stopping distances than smaller vehicles.</li> </ul>
<b>4. Winterizing Cars</b>	<p>For safe winter driving, a vehicle must be in excellent mechanical condition.</p> <ul style="list-style-type: none"> <li><b>a. Brakes.</b> Brakes must be properly adjusted and inspected before the winter season.</li> <li><b>b. Tires.</b> Winter tires should be mounted before the first snowfall. Unevenly worn tires may result in skids. Each tire should have an even tread of the required amount. Tires should be inflated to the proper pressure; low pressure may increase the tendency of the vehicle to skid or slide.</li> <li><b>c. Tire Chains.</b> <ul style="list-style-type: none"> <li>(1) Tire chains offer increased traction, reduced stopping distance, more protection from skids than any other device, and a general feeling of security.</li> <li>(2) The life and performance of tire chains are improved by proper application. Twice the mileage may be obtained by applying them snugly according to mounting instructions.</li> </ul> </li> <li><b>d. Windshield Wipers.</b> Wiper blades should operate with enough pressure to remove rain, sleet, and snow from the windshield without streaking. The windshield spray bottle should be full and protected from freezing.</li> <li><b>e. Lights.</b> Headlights should be adjusted properly. Lights, mirrors, and reflectors must function and be as clean as possible.</li> <li><b>f. Heater and Defroster.</b> This equipment must be able to keep the windshield and windows clear.</li> <li><b>g. Muffler and Exhaust System.</b> These systems must be free from leaks to protect against carbon monoxide poisoning. Running vehicle engines in confined spaces or sitting in closed, parked cars with the engine running can be fatal. Always ensure fresh air enters the passenger compartment while the engine is operating.</li> <li><b>h. Antifreeze.</b> The cooling system should be flushed, all connections tightened, and antifreeze added. The radiator and hoses should be checked for leaks.</li> <li><b>i. Winter Tuneup.</b> A winter tuneup is essential for cold-weather starting and preventing stalls.</li> <li><b>j. Battery.</b> The battery must be in excellent condition (properly charged, cells filled, terminals clean and tight, free from cracks and corrosion).</li> </ul>
<b>5. Typical Road Condition and Safe Driving Tips</b>	<ul style="list-style-type: none"> <li>a. Accidents may not be blamed solely on the weather. The driver can usually avoid getting into trouble.</li> <li>b. The driver should not let winter clothing interfere with driving ability.</li> <li>c. Too many people may crowd into the warm cab of an AMV. Limit the number of riders to ensure the driver has enough room to operate the vehicle controls.</li> <li>d. Check fuel, oil, and coolant levels before starting on a trip. Keep the gas tank at least half full to prevent condensation and freezing of the gasoline.</li> <li>e. Call ahead to your destination to check road conditions before starting on a trip outside your area.</li> <li>f. Many highway surfaces are dangerous, even when cleared of ice and snow. Patches of ice may form on elevated road surfaces at freezing or near freezing temperatures. Icy patches may remain on shaded sections of the roadway long after the open roadway is dry and clear.</li> <li>g. Glare ice forms easily on expressways where gently graded surfaces allow only slow runoff of water. Acceleration, deceleration, or even a slight turn can make a car go out of control. Drivers who find unexpected icy patches on roadways should maintain a constant speed and avoid braking, accelerating, or turning, when possible.</li> <li>h. Steering and braking require great care on slippery surfaces. Change direction slowly and smoothly. When the pavement is slippery because of frost, ice, snow, or wet leaves, a quick turn of the steering wheel may result in a skid. Approach a turn at reduced speed and turn the wheel as gradually as possible.</li> <li>i. The broad lanes, gradual curves, and relatively mild grades of European expressways (autobahns, autostradas) do not lessen the chance of skids and crashes on slippery road surfaces. Speed reduction is important. Adverse road conditions can lead to emergency situations on high-speed roads.</li> </ul>
<b>6. Skids and Skid Control</b>	<ul style="list-style-type: none"> <li>a. Skids result from sliding or spinning wheels and centrifugal force acting on the vehicle when driving into a curve. Steer in the direction of the rear-wheel skid, but only enough to correct the skid and put the vehicle back on course. Overcorrections result in "fishtailing."</li> <li>b. Front-end skids can result from locked wheels or a highly crowned road pavement. Front-end skids can often be corrected by releasing the brakes and letting the front wheels roll to regain traction and steering control.</li> <li>c. Prevention is the best cure for skids. Reduce speed before shifting to a lower gear, since the shift in weight on the wheels can lead to a skid. Slow down before entering a curve, maintain a constant speed within the curve, and accelerate only at the exit of the curve.</li> <li>d. Practicing skid recovery in a safe area is also a good accident-prevention method, but only with a qualified instructor under controlled conditions.</li> </ul>

**Figure D-1. Suggested Outline for WDO**

**APPENDIX E**  
**SPECIAL ACHIEVEMENT AWARDS FOR SAFE DRIVING**

**E-1. PURPOSE**

This appendix provides policy and procedures for unit-level special achievement awards (SAAs) for safe driving.

**E-2. APPLICABILITY**

This appendix applies to any Department of the Army civilian (DAC) or local national (LN) employee in the Army in Europe who—

- a. Operates Army motor vehicles (AMVs) in the course of official duty.
- b. Is eligible to receive cash awards according to AR 672-20.

**E-3. GENERAL**

- a. Unit-level SAAs provide a safe-driving incentive by rewarding outstanding safe performance. Safe drivers conserve resources in AMV operations.
- b. The cash award program for safe driving must conform to AR 672-20 to ensure personnel receive equitable treatment.

**E-4. AWARD CRITERIA**

- a. To be eligible for an award, the driver must drive at least 10,000 miles without—
  - (1) A preventable traffic accident (an accident in which the operator did everything a reasonable person would have done to avoid difficulties).
  - (2) A finding by the commander, supervisor, or a court that the nominee committed a moving traffic violation.
  - (3) An assessment of traffic points for violations listed in AE Regulation 190-1.
- b. The base of 10,000 miles is a requirement for award eligibility. Additional accident-free performance exceeds the standard for satisfactory performance and may be rewarded as special achievement.
- c. After attaining the accident-free base of 10,000 miles, the driver's additional safe driving mileage may be rewarded each year in cash. The applicable standard rate for distance is \$3 per 1,000 miles (\$.003 per mile). This standard rate may be increased for continuous periods of accident- or incident-free driving performance or both during complex operations.
- d. The safe operation of certain kinds of AMVs, a continuous record of accident- or incident-free mileage, or both deserve increased special achievement awards. The standard rate in subparagraph c above may be increased as follows:
  - (1) By 50 percent (an additional \$1.50 per 1,000 miles) for the following complex vehicle operations:
    - (a) Heavy truck (5-ton or more).
    - (b) Multi-axle vehicle (three or more axles) or any type of trailer.
    - (c) Bus with nine or more passengers (including schoolbuses).
    - (d) Dangerous cargo (for example, ammunition, explosives, flammables).
    - (e) Emergency vehicle (for example, ambulance, fire).
  - (2) By an additional 50 percent (an additional \$1.50 per 1,000 miles) for a continuous safe driving record of between 110,000 and 510,000 consecutive miles, including the required accident-free base.
  - (3) By an additional 100 percent (an additional \$3 per 1,000 miles) for a continuous safe driving record of over 510,000 consecutive miles, including the required accident-free base.

- e. The total distances driven may be compiled from daily trip tickets or other reliable sources, such as daily logs. The mileage must be maintained on permanent individual logs and records certified by the responsible supervisor or commander.
- f. An individual's safe-driving record for AMVs may be broken by any incident in subparagraph a above.
- g. Following the incident that breaks the safe-driving record (a above), the driver must compile a new base of 10,000 accident-free miles.
- h. Figure E-1 lists potential awards.

<b>Awards</b>	<b>Criteria</b>
\$3 per 1,000 miles	Additional safe-driving mileage may be awarded each year in cash increments of not less than \$25 after the required accident-free base is attained.
Additional \$1.50 per 1,000 miles (total of \$4.50 per 1,000 miles)	Awarded for the following complex vehicle operations after the required accident-free base is attained. <ul style="list-style-type: none"> <li>a. Heavy truck (5-ton or more).</li> <li>b. Multi-axle vehicle (three or more axles) or any type of trailer.</li> <li>c. Bus with nine or more passengers (including schoolbuses).</li> <li>d. Dangerous cargo (for example, ammunition, explosives, flammables).</li> <li>e. Emergency vehicle (for example, ambulance, firetruck).</li> </ul>
Additional \$1.50 per 1,000 miles (total of \$6 per 1,000 miles)	Awarded for a continuous record between 110,000 and 510,000 consecutive miles of accident-free driving, including the required accident-free base.
<b>Bonuses</b>	<b>Criteria</b>
Additional \$3 per 1,000 miles (total of \$9 per 1,000 miles)	Awarded for continuous record of accident-free driving over 510,000 consecutive miles, including the required accident-free base.
\$200 bonus and plaque presented by the commander of a major subordinate command	Awarded to each driver who drives 500,000 continuous accident-free miles.
\$500 bonus and trophy presented by the CG, USAREUR/7A	Awarded to each driver who drives 1 million continuous accident-free miles.

**Figure E-1. Summary of Awards**

**E-5. SPECIAL AWARDS**

- a. A \$200 bonus in addition to the regular awards (para E-4 and fig E-1) may be awarded to each driver who drives 500,000 accident-free miles.
- b. A \$500 bonus in addition to the regular awards may be awarded to each driver who drives 1 million accident-free miles.

**E-6. NOMINATION FOR CASH AWARDS**

- a. Nominations for safe-driving cash awards for DAC and LN employees must be submitted and processed according to AR 672-20, chapter 4. Nominations should be supported by reliable data. When acceptable to the paying finance office or Office of Defense Cost, commanders may attach a list of eligible personnel to one copy of DA Form 1256 to simplify nominations. The list must provide the necessary information for each person nominated for an award, including name, mileage accrued, and the amount of the recommended cash award.
- b. To confirm eligibility, nominating commanders will verify DA Form 1256 after verifying the driving record of each person nominated.
- c. Cash awards made according to AR 672-20 may be given only for safe driving by Army in Europe personnel in Army in Europe AMVs. Safe-driving records compiled outside of the Army in Europe (for example, another major Army command, Government agency, industry) may not be considered for eligibility under this regulation.

**E-7. CERTIFICATE OF MERIT FOR SAFETY**

AE Form 385-55A may be awarded to any company-size unit (including battery, troop, headquarters and headquarters detachment) that successfully completes a fiscal year (FY) without a Soldier convicted of, or administratively determined to have been, driving while intoxicated (DWI) or driving under the influence (DUI) of intoxicating beverages or drugs.

a. Commanders will verify that Soldiers under their command who have U.S. Forces-registered privately owned vehicles were not convicted of, or administratively determined to have been, DWI or DUI for the entire FY (that is, from 1 October of the preceding year through 30 September of the year applying). This authority may not be delegated.

b. Memorandum requests must be sent to the USAREUR G1 (AEAGA-S), Unit 29351, APO AE 09014-9351, to arrive no later than 30 December. The request must clearly state the complete name and address of the requesting unit and the FY without an alcohol-related incident.

## **APPENDIX F TRACKED-VEHICLE SAFETY**

### **F-1. PURPOSE**

This appendix provides safety guidelines for operating tracked vehicles.

### **F-2. SAFETY GUIDELINES**

Tracked vehicles must be operated as follows:

- a. Each tracked vehicle must have a track commander (TC) riding in the commander's hatch. The TC should be experienced, competent, mature, and licensed to operate the vehicle.
- b. Operators will not start tracked vehicles unless the portable and fixed fire extinguishers are present and in operating condition.
- c. The intercom must be operational and in use. The movement of a tracked vehicle without a TC and a working intercom or dismounted guide is prohibited.
- d. Before lowering or raising ramps, the operator will check the rear area for clearance and sound the horn twice. Defective ramps must be marked "Free Fall Ramp" on the ramp and on the sides of the vehicle. Ramps must be secured using the vehicle tow chain.
- e. Operators will fasten open hatch covers securely with the positive safety pin to avoid accidental closing during movement of the track.
- f. Personnel should not wear bracelets, rings, or watches.
- g. Personnel in tracked vehicles will wear protective headgear. The crew will wear combat vehicle crewman (CVC) helmets.
- h. Persons exposed to eye hazards will wear eye protection.
- i. Personnel in tracked vehicles, except those wearing a CVC helmet, will wear ear protection.
- j. Drivers, ground guides, and TCs will be proficient in the use of hand and arm signals.
- k. Personnel will not position themselves between a track and another track or fixed object while the engine is running or being slaved (started with jumper cables).
- l. The longitudinal distance between tracks when engines are idling must not be less than 20 feet (ft) (6 meters (m)).
- m. Personnel riding in tracked vehicles will be cautioned to remain inside the vehicle if it starts to roll over.
- n. Personnel will ride with their bodies completely inside the vehicle. Personnel in hatches will not expose more than their head and shoulders.
- o. Smoking in tracked vehicles, or within 52.5 ft (16 m) of tracked vehicles, is prohibited.
- p. Riding on top of tracked vehicles is prohibited.
- q. Seated persons will wear seatbelts, when available.
- r. When vehicles and troops on foot are training together during darkness, drivers, foot troops, and TCs will be notified about the moving vehicles in the area and cautioned about the dangers.
- s. Personnel will not rest or sleep under tracked vehicles or within 52.5 ft (16 m) of tracked vehicles.
- t. Drivers will move tracked vehicles in vehicle parks or bivouac areas only when a ground guide assists. When visibility is reduced, ground guides will have a portable light. The vehicle commander, driver, and ground guide will maintain visual contact at all times.

u. Drivers of tracked vehicles will stop at railroad crossings without electric signal lights or road guards and check the clearance in both directions before crossing.

v. Radio-equipped tracked vehicles operating near powerlines must have the antenna tied down to ensure 10 ft (3 m) of clearance from powerlines.

### **F-3. TRAINING NEW DRIVERS**

a. Commanders will adhere to the guidelines in AE Regulation 600-55 and Training Circular 21-306 when selecting and training tracked-vehicle drivers.

b. Students will not attempt convoy operations until they have demonstrated driving competency.

### **F-4. TRACKED-VEHICLE LIGHTS AND MARKINGS**

Tracked vehicles operating singly (with escort) or in a convoy on public roads in Germany must be—

a. Equipped with rotating or flashing amber lights.

b. Marked appropriately with retroreflective tape to identify the corners of the vehicle according to AE Regulation 55-1.

## **APPENDIX G**

### **CRITERIA FOR BUILT-UP VEHICLES**

#### **G-1. PURPOSE**

This appendix establishes criteria for constructing and using built-up vehicles.

#### **G-2. POLICY**

Built-up vehicles may be used only to secure, store, and transport high-value items, repair parts, supplies, and tools. Only the following vehicles may be built up:

- a. 2½-ton and 5-ton cargo trucks.
- b. High mobility, multiwheeled vehicles.
- c. Commercial utility cargo vehicles.
- d. 1½-ton trailers.

#### **G-3. CONSTRUCTION**

- a. Shelters for 2½-ton and 5-ton cargo trucks must not be higher than 7 feet (ft) (2 meters (m)) above the cargo bed of the truck.
- b. Shelters for 1½-ton trailers must not be higher than 6 ft (1.8 m) above the bed of the trailer.
- c. The weight of a shelter plus the loaded cargo must not exceed the authorized cross-country weight of the vehicle.
- d. The authorized cross-country weight of each axle must not be exceeded.
- e. The weight on the trailer tongue should be approximately 10 percent of the gross vehicle weight.
- f. Shelters must—
  - (1) Be constructed of plywood or sheet metal.
  - (2) Fit inside the cargo bed of the truck or trailer and not extend over the vehicle cab.
  - (3) Not hinder the opening and closing of tailgates.
  - (4) Be securely fastened to trucks or trailers.
- g. Drilling through cross members or vehicle frames to install or anchor shelters is prohibited.
- h. If shelves are installed in a built-up vehicle, a load plan must be included to ensure the center of gravity is not significantly altered.
- i. Plans for the installation of heaters or lights must be included with requests for approval of built-up vehicles.
- j. Shelters must be painted to meet the color and pattern (camouflage) of the vehicle.

#### **G-4. USE**

- a. Personnel will not ride or sleep inside the built-up portion of vehicles.
- b. Logistics transportation personnel will inspect built-up vehicles for compliance with this regulation before they are put into service and during scheduled maintenance.
- c. Logistics transportation personnel will file records of approval for use of built-up vehicles and inspections with the vehicle records.
- d. Technical assistance with the construction of built-up vehicles may be obtained from the local logistics-assistance representative of the United States Army Tank-Automotive Command.

**APPENDIX H  
INCLEMENT WEATHER ROAD-CONDITION STATUS POLICY**

**SECTION I  
ROAD CONDITION STANDARDS**

**H-1. GREEN**

Unrestricted vehicle dispatches are authorized. Ideal road, temperature, and visibility conditions exist. Drivers will observe normal precautions and speed limits (table H-1).

<b>Table H-1 Road-Condition Status Characteristics</b>						
<b>Road Condition</b>	<b>Road Surface</b>	<b>Snow</b>	<b>Ice</b>	<b>Snow Depth</b>	<b>Visibility</b>	<b>Temperature</b>
Green	Dry	None or blowing powder	None	None	More than 164 ft (50 m)	Above 35 °F (+2 °C)
Amber	Wet	*Packed *Slush	*Patches *Black ice *Slush	*Less than 4 in (10 cm)	*Between 65.5-164 ft (20-50 m)	Between 30 °F (-1 °C) and 35 °F (+2 °C)
Red	*Flooded	*Drifting	*Sheet ice	*Between 4-8 in (10-20 cm)	*Between 50-65.5 ft (15-20 m)	Between 10 °F (-12 °C) and 30 °F (-1 °C)
Black	*Heavily flooded	*Heavy drifting	*Extreme sheet ice	*More than 8 in (20 cm)	*Less than 50 ft (15 m)	Less than 10 °F (-12 °C)

\*When one or more of the road conditions marked with an asterisk are noted, the corresponding road-condition status must be declared.

**H-2. AMBER**

Ideal road, temperature, and visibility conditions do not exist (table H-1). If a road condition marked with an asterisk in the Amber category is reported, commanders (para 3-9) will declare Amber road conditions. Increased driving times, hazardous road conditions, and driver experience must be considered in dispatching vehicles under Amber conditions. Under Amber conditions, unit commanders (captains and above) may authorize dispatches for their vehicles and garrison directors of public works (DPWs) or primary staff (S1, S2, S3, and S4) may authorize their vehicle dispatches.

**H-3. RED**

Only mission-essential and emergency-essential vehicle dispatches are authorized. Road, temperature, and visibility conditions are equal to or worse than those noted in table H-1. If one or more of the conditions marked with an asterisk in the Red category are reported, commanders (para 3-9) will declare road conditions Red. The dispatch record for mission- and emergency-essential vehicles must be marked “mission- and emergency-essential.” Garrison commanders and battalion-level commanders may authorize dispatches of mission-essential vehicles. DPWs and chiefs of building and grounds and operation maintenance may approve mission-essential dispatches during Red road conditions to provide emergency support and for snow and ice removal. A risk assessment must be completed before dispatch.

**NOTE:** Drivers of military vehicles passing through areas that have declared Red road conditions should contact their chain of command and evaluate the risk of continuing the mission. Weather and road conditions must be part of all mission risk-management decisions.

**H-4. BLACK**

Only emergency-essential vehicle dispatches are authorized. Road, temperature, and visibility conditions are equal to or worse than those noted in table H-1. If one or more of the conditions marked with an asterisk in the Black category are reported, commanders (para 3-9) must declare road conditions Black. The dispatch record for emergency-essential vehicles (for example, ambulances, emergency engineer, fire, police) must be marked “emergency-essential.” Chiefs of appropriate offices (for example, DPW, fire, medical activity, provost marshal) may authorize dispatches of emergency vehicles. Garrison and brigade-level commanders and above may authorize dispatches of their emergency vehicles. A risk assessment must be completed before dispatch.

**NOTE:** Drivers of military vehicles passing through garrisons that have declared Black road conditions should contact their chain of command and evaluate the risk of continuing the mission. Weather and road conditions must be part of all mission risk-management decisions.

## SECTION II WEATHER AND ROAD CONDITION DEFINITIONS

### H-5. ROAD SURFACES

**a. Dry.** Road surfaces are not wet or damp from residual moisture caused by overnight accumulations of dew or ground fog, drizzle, or light rain.

**b. Wet.** A significant amount of moisture is standing on the roadway. The moisture is caused by moderate to heavy rain or melting snow. Wet conditions are characterized by the presence of puddles that require caution by vehicle operators.

**c. Flooded.** Flooded conditions are characterized by significant volumes of water on the road surface. The water is a result of rain or melting snow. Normal runoff capabilities are exceeded and cause a hazard to vehicle traffic.

**d. Heavily Flooded.** Heavily flooded conditions are characterized by excessive volumes of water on the road surface. Normal runoff capabilities are exceeded and some roads are closed, either by civilian or military authorities, to all vehicle traffic.

### H-6. SNOW

**a. Blowing Powder.** Blowing powder is light snow that blows across the roadway. Blowing powder conditions are characterized by minor accumulations of snow during a light snowfall or in the early stages of a heavy snowfall.

**b. Packed.** Packed snow is characterized by major portions of the road being covered by a hard-packed snow surface. The road surface has been plowed but not enough to remove snow completely, or vehicle traffic has compacted snow to form a hard surface on which vehicles can still be driven. Packed snow is a surface on which vehicle movement can be controlled by low speeds and proper caution.

**c. Slush.** Slush is a mixture of melting snow and water. Slush conditions are characterized by periods of rising temperatures or road-salting operations following a snow accumulation. When slush is present, road surfaces are mostly free of significant accumulations of sheet ice or ice patches. Slush is a road condition factor when enough slush exists to require operators to exercise increased caution.

**d. Drifting.** Drifting is large accumulations of blowing snow cross road surfaces. Drifts or piles of snow completely block portions of the road that are sheltered from the wind while unsheltered portions are covered with less snow or may be completely free of snow.

**e. Heavy Drifting.** Heavy drifting conditions exist when drifts or piles of snow completely block roads and thoroughfares.

### H-7. ICE

**a. Patches.** Ice patches are small areas of ice on otherwise ice-free roads. The ice requires operators to exercise increased caution. Ice patches usually accumulate in low-lying areas, on bridges, or under overpasses.

**b. Slush.** Icy slush generally is defined the same as snow slush (para H-6c). Slush usually freezes overnight when temperatures drop, causing a crystallized icy surface. Icy slush can cause steering difficulties.

**c. Black Ice.** Black ice covers the road surface with a thin coat of ice that greatly reduces tire traction over major portions of the road. Black ice is difficult to see because of its dull appearance. Black ice accumulates in shady spots, on bridge surfaces, and in low-lying areas.

**d. Sheet Ice.** Sheet ice is a solid ice accumulation covering large areas of the road. Vehicle tires do not make contact with the road surface on sheet ice. Traction on sheet ice is lost for 50 to 75 percent of the linear distance traveled in the area observed. Sheet-ice conditions generally follow periods of freezing rain and cause significant hazards to traffic.

**e. Extreme Sheet Ice.** Extreme sheet ice is a solid ice accumulation covering all areas of the road. Traction on extreme sheet ice is lost for more than 75 percent of the linear distance traveled in the area observed.

**H-8. SNOW DEPTH**

Snow depth should be measured in areas of the road not affected by the clearing or drifting actions of the wind.

**H-9. VISIBILITY**

Fog, haze, heavy rain, or heavy snow can affect a driver's range of vision. Choice of a condition status in table H-1 depends on a driver's ability to distinguish objects clearly (such as obstructions, parked vehicles, pedestrians, road-edge markers) using only natural light or the vehicle lighting systems. At night, visibility is the ability to determine the identity, direction of travel, and rate of travel of observed light sources at the distances indicated. German law (50/50 Law) states that if visibility is reduced to 50 meters (164 feet) or less, the maximum speed limit is 50 kilometers (30 miles) per hour.

**H-10. TEMPERATURES**

Temperatures are used to determine the likelihood for observed conditions to stay the same, improve, or get worse.

**APPENDIX I  
ARMY IN EUROPE MILITARY-VEHICLE CONSPICUITY PROGRAM**

**I-1. PURPOSE**

This appendix explains how to use military vehicle delineators (MVDs). Use of MVDs help prevent rear-end collisions by making military vehicles conspicuous.

**I-2. APPLICATION**

The policy in this appendix applies to every tactical tracked, wheeled, and trailer vehicle in the Army in Europe. Only the retroreflective markings specified this appendix may be used on the rear of vehicles operating in the Army in Europe.

**I-3. REQUIREMENTS**

**a. Policy.** Each tactical tracked, wheeled, and trailer vehicle must have at least two 15.75-inch (in) square MVDs affixed to the rear of the vehicle, regardless of the size of the vehicle.

**b. Other Retroreflection Requirements.** Oversized and special-use vehicles must have military conspicuity stripes (MCSs) affixed to the entire width of the rear of the vehicle. These MCSs must be made from diamond-shaped, prismatic-lens, retroreflective sheeting. Convoy safety-escort vans and tractors operating without trailers are examples of special-use vehicles.

**I-4. MVD DESCRIPTION**

a. The MVD is a type 3900G diamond-shaped, prismatic-lens, retroreflective sheeting that makes vehicles conspicuous, both during the day and at night. This sheeting causes the lights from a following vehicle to reflect back to the trailing driver efficiently. This allows the rear motorist to clearly delineate the boundaries of the vehicle in front.

b. Since red is the universal color for danger, the normal driver reaction is to drive either to the left or right, rather than straight ahead. This tendency is reinforced by the arrow shape of the red design, which points the following driver away from the center of the military vehicle. Yellow, the caution color, is used to contrast with the red and catch the following driver’s attention well in advance.

**I-5. ORDERING**

MVDs and military vehicle delineator plates (MVDPs) are in the supply system and can be ordered by using the information in table I-1.

<b>Table I-1 Ordering Information</b>	
<b>NSN</b>	<b>Description</b>
9390-01-382-8308	Item: SHEETING, REFLECTIVE Description: (MVD) 25 each 7.87-in square red/yellow delineator, self adhesive, no backing plate
9390-01-382-8369	Item: SHEETING, REFLECTIVE Description: (MVD) 25 each 15.75-in square red/yellow delineator, self adhesive, no backing plate
9390-01-382-8325	Item: SHEETING, REFLECTIVE Description: (MVDP) 25 each 7.87-in square red/yellow delineator, self adhesive, mounted on a polycarbonate backing plate
9390-01-382-8460	Item: SHEETING, REFLECTIVE Description: (MVDP) 25 each 15.75-in square red/yellow delineator, self adhesive, mounted on a polycarbonate backing plate

**I-6. PLACEMENT**

Specific placement locations for the more common Army tactical vehicles are shown in figure I-1.

a. Two MVDs must be mounted on the rear of each vehicle, as close to the outside corners as possible, with the red portion to the inside, preferably within 6.5 feet (ft) (2 meters (m)) above the ground. The absence of fenders may require mounting the MVD on the back of the cab. Mudflap mounting is possible only with the use of plate-mounted MVDs and bolts.

b. MVDs that adhere directly to vehicle surfaces may not be removed for repositioning. The vehicle surface where the MVDs are to be affixed must be clean and dry and free of any surface contaminants (such as grease or oil).

c. Plate-mounted MVDs can be affixed to vehicle surfaces by using sheet-metal screws, bolts, or rivets. Nylon washers should be used to prevent damage to the sheeting.

d. If quick removability is needed, type SJ3531 dual-lock 400 fasteners can be used to secure the plates to the vehicles. These fasteners have an acrylic pressure-sensitive adhesive for adherence to surfaces treated with military polyurethane paint. The SJ3531 dual-lock 400s must be affixed to a vehicle surface that is clean, dry, and free of surface contaminants (such as oil or grease).

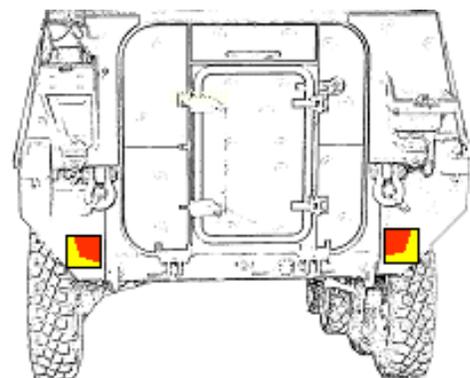
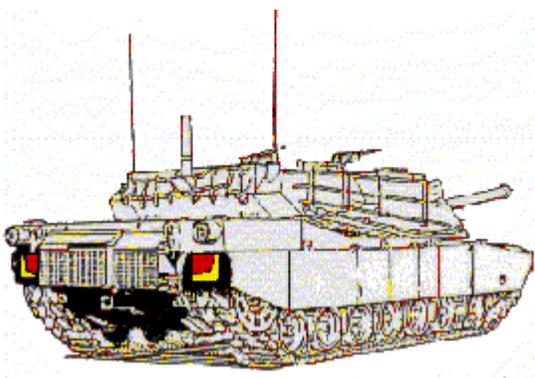
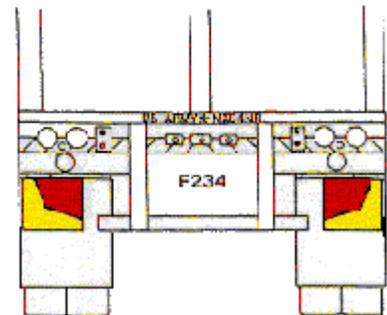
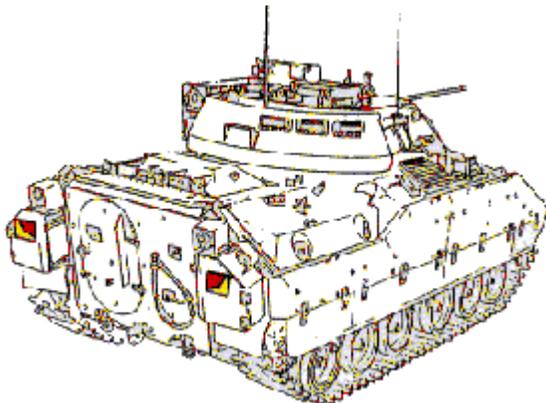
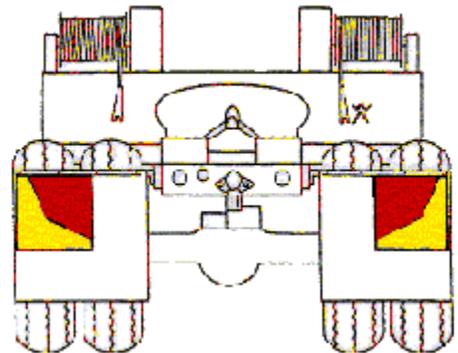
#### **I-7. MAINTENANCE**

Delineators and other vehicle reflective systems must be cleaned with clear water before vehicles depart an installation or encampment. Vehicle maintenance rest-stop instructions to drivers of tactical wheeled and tracked vehicles must include a requirement to wipe dirt and mud from delineators and other lighting and reflective devices.

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## MVD Description and Mounting Instructions

1. Apply MVDs to the rear of the vehicle only.
2. When viewing the vehicle or trailer from the rear, choose mounting locations no more than 6.5 ft (2 m) from the ground, as close as possible to the outside edges of the vehicle, and as vertical as possible.
3. When viewed from the rear, the outside corner of the yellow reflective portion of the MVD always points down and outward, as shown below.
4. The standard (large) MVD size is 15.75-in square. When it is impossible to apply MVDs that size, 7.87-in (small) square decals or plates may be used.



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Figure I-1. MVD Description and Mounting Instructions

## GLOSSARY

ACV	Army combat vehicle
AE	Army in Europe
AMV	Army motor vehicle
AR	Army regulation
CG, USAREUR/7A	Commanding General, United States Army, Europe, and Seventh Army
cm	centimeters
CVC	combat vehicle crewman
DA	Department of the Army
DAC	Department of the Army civilian
DPW	director of public works
DUI	driving under the influence
DWI	driving while intoxicated
FM	field manual
ft	feet
FY	fiscal year
HAZMAT	hazardous material
HQ USAREUR/7A	Headquarters, United States Army, Europe, and Seventh Army
HQDA	Headquarters, Department of the Army
in	inches
LN	local national
m	meters
MCS	military conspicuity stripe
MHE	materials handling equipment
MOPP	mission-oriented protective posture
MVD	military vehicle delineator
MVDP	military vehicle delineator plate
NCO	noncommissioned officer
NCOIC	noncommissioned officer in charge
NMC	not mission capable
NSN	national stock number
OF	optional form
POV	privately owned vehicle
RAWL	rotating amber warning light
SAA	special achievement award
SF	standard form
SOP	standing operating procedure
TC	track commander
TEV	trail escort vehicle
U.S.	United States
USAREUR	United States Army, Europe
WDO	winter driving orientation