

Summary Report for Individual Task
551-88M-1361
Operate Vehicle Under Adverse Conditions
Status: Approved

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD5 - This product/publication has been reviewed by the product developers in coordination with the Fort Lee, VA foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

Condition: In an operational environment, your unit is moving through an area that is undergoing significant adverse weather conditions that range from extreme heat (desert), extreme cold mountainous terrain (32 degrees F to -24 degrees F), heavy rain, blowing sand, or snow in which vehicle performance is considered to be under "unusual" conditions (as defined in the vehicle TM). You are given mission-ready tactical wheeled vehicle with radiator cover, goggles, face mask, gloves, seasonal uniform and mission requirement to travel under these conditions as part of a convoy movement.

Standard: Operate the vehicle using cold weather starting and operating procedures according to the appropriate vehicle TM. Operate the vehicle while complying with all extreme hot weather operating procedures/precautions. Control the vehicle at all times following traffic regulations and rules of the road. If vehicle is so equipped, use the applicable Central Tire Inflation System (CTIS) setting to enable safe vehicle operations. All driving maneuvers must be made under these extreme conditions without becoming mired or succumbing to a conditionally-related mechanical failure.

Special Condition: Proper conduct of this task implies varied extreme conditions in which most training locations cannot replicate. To this end and for training this task to standard, the unit or institution may use a simulator such as the Common Driver Trainer (vehicle driver training simulator) to inject the various seasonal / terrain conditions for this task. If the task is conducted under actual adverse conditions using an MRAP series vehicle, extra precautions should be taken with respect to reduced visibility and the use of a gunner to relay route and condition information to the driver. Additionally extra care should be exercised as a precaution against vehicle rollover under adverse weather and terrain conditions.

Safety Risk: High

MOPP 4:

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| Task Statements |
|------------------------|

Cue: Your mission is requiring you to maneuver across uneven terrain and must occur in any type weather conditions.

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|---------------|
| DANGER |
| None |

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|---|
| WARNING |
| WARNING: Wear hearing protection while operating vehicle. Wear seat belts while operating vehicle. |
| WARNING: Operation in sand and around sand dunes may cause front wheels to be violently jerked to one side or another. As a precaution vehicle operator should steer the vehicle by placing hands only on outside rim. Placing hands or fingers on a steering wheel spoke when the steering wheel is violently jerked to one side or the other may cause serious personal injury. |
| WARNING: When operating vehicle over gullies, ravines or ditches, vehicle operator should grasp steering wheel only by the outside rim. Grasping by a spoke in steering wheel may cause personnel injury when front wheels encounter a large rock, rut, or other obstacle and spins steering wheel. |

CAUTION

Road surfaces are especially slick just after the rain or drizzle begins. Loosened grease and oil mixes with raindrops, quickly covering the surface with a slippery film.

Remarks: None

Notes: None

CAUTION

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Road surfaces are especially slick just after a rain or drizzle begins. Loosened grease and oil mixes with raindrops, quickly covering the surface with a slippery film.

1. Operate vehicle in heavy rain.

a. If CTIS equipped, select mode for this type of weather or terrain (as necessary). Watch for indicator lamp showing correct mode selection on CTIS panel and adhere to speed restrictions.

Note: Recognizes that the M1078/1083 series vehicle CTIS starts automatically when engine is started and adjusts pressure to highway mode.

b. Accelerate moderately.

c. Reduce speed as necessary for conditions.

d. Moderately apply the brakes when slowing down.

e. Make no quick turns.

f. Allow at least twice the normal following distance.

g. Do not pump the brakes (ABS only).

h. Hold the brake pedal down and let the ABS system work.

i. During emergencies, steer and brake at the same time (ABS only).

j. Release enough pressure on the brakes to get the vehicle rolling again to regain steering (front ABS only).

k. Recover from skid by:

(1) Staying off the brakes.

(2) Turning quickly. Turn the steering wheel in the direction you want the vehicle to go. This lines the front of the vehicle up with the back.

(3) Countersteer-turn back the other way. As soon as the vehicle begins to straighten out, turn the wheel back the other way so that the vehicle will not turn too far.

(4) Continue to correct your steering left and right until you recover from the skid.

(5) Turn back to straight ahead.

Safety: Every Soldier must always make a conscious effort to assess the risk and hazards associated with their operations and implement control measures to mitigate the risk to acceptable levels.

Cue: None

Environmental: Every effort should be made by vehicle drivers to prevent any hazardous fluid spillage. Whenever vehicle is parked for an extended period use drip pans. Always travel on improved roads whenever possible to reduce any adverse affects on the environment. Every member of the US Armed Forces are stewards of the environment and should make every effort to prevent damage to the environment whenever possible during training or combat operations.

2. Operate vehicle in extremely hot, dusty, desert environment.

Note: As a general rule vehicles in a convoy should not follow directly behind one another due to high concentrations of dust in the air. Visibility may be reduced to zero facilitating a vehicle accident.

a. Don protective goggles and other facial protection if available.

b. If CTIS equipped, select mode for this type of terrain, watch for indicator showing correct mode selection on CTIS panel and adhere to speed restrictions.

c. Select a gear or range that will start you with a minimum of, or no clutch slippage (manual transmission) and wheel spinning.

d. Use rear wheel drive if possible due to the front wheels tendency to dig into the sand.

e. Accelerate slowly.

f. Check instrument panel gauges more frequently while operating vehicle to prevent a mechanical failure due to extremely hot temperatures.

g. Maintain a steady and even rate of movement.

h. Avoid unnecessary shifting of gears (manual transmission).

i. Anticipate difficult spots and bypass if possible.

j. Approach a dune from the windward side slope at a 90-degree angle.

k. Follow the track of preceding vehicle or break a new path depending on conditions.

l. Make wide turns.

m. Let your vehicle roll to a halt as practicable.

n. Attempt to stop on a downhill slope.

3. Operate vehicle through streams.

a. If CTIS equipped, select mode for this type of terrain; watch for indicator showing correct mode selection on CTIS panel and adhere to speed restrictions.

b. Follow the applicable steps provided in the vehicle TM for fording streams.

c. Check the bottom to see how firm a support can be expected.

d. Keep the cab door open when crossing frozen streams.

e. After reaching dry land, test brakes at a reduced speed by:

(1) Lightly applying and releasing brakes until normal braking is restored (Non ABS only).

(2) Apply light steady pressure on brakes until normal braking is restored (ABS only).

4. Operate vehicle in extreme cold weather (32 degrees F to -24 degrees F) and blowing snow.

a. Start the vehicle using cold weather starting procedures referenced in the applicable vehicle TM.

b. Turn on vehicle cab heater and adjust to defrost position to clear windows while engine is warming up.

c. Remove ice and snow from windows.

d. If CTIS equipped, select mode for this type of terrain; watch for indicator showing correct mode selection on CTIS panel and adhere to speed restrictions.

e. Place vehicle into motion by following general operating procedures in the applicable vehicle TM under "operation under unusual conditions."

f. Begin movement in second or third gear (manual transmission) rather than first or low. Engage clutch gradually to prevent wheel spin.

g. For automatic-transmission-vehicles use D2 range and gradually apply throttle.

h. Avoid quick acceleration.

i. Drive at reduced speed for better control and safer stops.

j. Display turn signals earlier than usual (if tactical situation permits).

k. Maintain at least double the normal following distance from the vehicle ahead.

l. Pump brakes to give early warning to those following of your intention to stop (Non ABS).

m. Apply steady brake pressure earlier when stopping to warn others of your intentions (ABS only).

n. Descend moderate grades in the gear normally used to climb the same grade.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If any performance measure is failed, tell the soldier what was done wrong and how to do it correctly.

Evaluation Preparation: Setup: Provide the Soldier with a briefing on expectation and procedures to perform, a vehicle appropriately equipped in an environment in which this process must be exercised to operate, or a Common Driver Trainer variant capable of providing scenario-driven situations in which these conditions exist.

| PERFORMANCE MEASURES | GO | NO-GO | N/A |
|---|----|-------|-----|
| 1. Operated vehicle in rain. | | | |
| 2. Operated vehicle in extremely hot, dusty, desert environment. | | | |
| 3. Operated vehicle through streams. | | | |
| 4. Operated vehicle in extreme cold weather (32 degrees F to -24 degrees F) and blowing snow. | | | |

Supporting Reference(s):

| Step Number | Reference ID | Reference Name | Required | Primary |
|-------------|--------------------|--|----------|---------|
| | FM 90-3 | Desert Operations | No | No |
| | TC 21-305-20 | Manual for the Wheeled Vehicle Operator {AFMAN 24-306(I)} | Yes | No |
| | TM 9-2320-392-10-1 | OPERATORS MANUAL FOR THE M1083A1 SERIES 5 TON, 6X6 MEDIUM TACTICAL VEHICLES (MTV) VOLUME NO. 1 OF 2 MODEL TRK., CAR., M1083A1 W/WN (2320-01-447-3884) (EIC BUL);W/O WN (2320-01-447-3890) (EIC BUL);W/O WN | Yes | Yes |
| | TM 9-2320-392-10-2 | OPERATORS MANUAL FOR THE M1083A1 SERIES 5 TON, 6X6 MEDIUM TACTICAL VEHICLE (MTV) VOLUME NO. 2 OF 2. MODEL TRK, CAR., MTV, M1083A1 W/WN (NSN 2320-01-447-3884) (EIC BUL);W/O WN (2320-01-447-3890) (EIC BT9 | No | Yes |
| | TM 9-2320-392-10-3 | OPERATOR'S MANUAL FOR THE M1083A1 SERIES 5 TON, 6X6 MEDIUM TACTICAL VEHICLE (MTV) VOLUME NO. 3 OF 3 | No | Yes |

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT. Every effort should be made by all vehicle operators to take an existing route over terrain. If this is not possible, care should be taken to take the route of least resistance. This will reduce or eliminate damage to surrounding area of travel.

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. Instructors must ensure that operators of tactical wheeled vehicles are trained IAW AR 600-55, AR 385-10 Chapter 11, and TC 21-305-20. When training on a specific vehicle the instruction will include all safety hazards and risks of operating or working with the vehicle.

Prerequisite Individual Tasks :

| Task Number | Title | Proponent | Status |
|--------------|---|-----------------------------------|------------|
| 551-88M-1364 | Operate Vehicle with Standard, Automatic/Semiautomatic Transmission | 551 - Transportation (Individual) | Approved |
| 551-88M-1364 | Operate Vehicle With Standard or Automatic/Semiautomatic Transmission | 551 - Transportation (Individual) | Superseded |
| 551-88M-1352 | Perform Preventive Maintenance Checks | 551 - Transportation (Individual) | Approved |

Supporting Individual Tasks : None

Supported Individual Tasks :

| Task Number | Title | Proponent | Status |
|--------------|--|-----------------------------------|----------|
| 551-88M-3700 | Manage Transportation of Hazardous/Sensitive Cargo | 551 - Transportation (Individual) | Analysis |

Supported Collective Tasks : None