

Hazards of the M9 Armored Combat Earthmover (ACE)

By Ms. Vicki Hall

Combat engineers are accustomed to finding themselves in precarious positions. However, many do not know that operating the ACE might be one of those instances. From the beginning of their training, operators are cautioned about the unique characteristics that make the ACE difficult to maneuver on most terrain and roadways. Additionally, recent cutbacks in equipment or personnel have decreased the amount of “throttle time.” In actuality, students’ behind-the-wheel experience may be no more than an hour or two, not nearly enough time to gain full operational knowledge.

When soldiers receive their first permanent duty assignment, the gaining commanders sometimes make the assumption that the soldiers know how to drive the ACE because they recently completed their formal school training. Nothing could be further from the truth. Soldiers are familiar with the vehicle’s inner workings, how to properly perform preventive maintenance checks and services, how to spot a defective track, and how to troubleshoot some of the systems. However, training must continue at the first duty station and throughout the soldiers’ tenure with their unit. Ongoing proficiency training and testing must also be a part of the soldiers’ everyday routine.

A key element in training is ensuring that visibility or the lack thereof is explained to the new operators. When properly seated, they are at a disadvantage—they cannot clearly see obstacles directly adjacent to the vehicle. On level ground, with the operators seated, the “blind” spots range from 13 feet to the rear to 46 feet to the right (see figure). If the vehicle is on an incline, the distances of blind spots change dramatically. This factor is often not stressed during prebriefings, risk assessments, and after-action briefings. Soldiers must remain aware of their position in relation to everyone and everything else in the area in which the vehicle is operated.

Operators must be thoroughly familiar with the capabilities of the vehicle. They must know, instinctively, where the vehicle is located in relation to the surroundings. This cannot be taught in school; it comes from hands-on experience. Commanders at all levels must ensure that operators are given ample opportunity to train before being placed in a dangerous situation with an unfamiliar vehicle. A dangerous situation can be nothing more than a roadway with a drop-off. For example, some drivers have driven the ACE off the road surface and down an incline because they could not see the edge of the roadway.

The ACE is designed to function as a bulldozer in combat conditions. However, the majority of the accidents have involved the vehicle being operated in either training or convoy scenarios. Engineer branch accident experience began in 1990 when two Army reservists (both E7s) were killed while riding on the outside of the operator’s compartment. The driver lost control while driving at an excessive speed for the conditions, causing the vehicle to overturn, killing both persons outside the protection of the cab.

From this dramatic beginning, causes of accidents have stabilized and now range from operator error to track failure, which causes the vehicle to overturn. If operators are properly secured in the cab—properly seated and restrained with belts—they can survive a rollover. Rollover drills are a vital part of the training process and must be diligently conducted. The senior person on the vehicle is responsible for ensuring that all safety measures are enforced.

More complex missions and austere resources have become a way of life in the military. Loss prevention for both equipment and personnel is paramount to an effective fighting force. This means that accident prevention is everyone’s business. We must all keep a watchful eye on daily routines, identifying potential problem areas before they become problems, and

changing the way we do business. The blind spots on the ACE are just one example of hazards that are present. If you, as an operator or leader, make sure your soldiers know of this hazard and teach them how to operate within its constraints, you can prevent future accidents.

For additional information on this or any other safety subject, refer to the MANSCEN Safety Web site at <http://www.wood.army.mil/safety/>.



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