

**m i s h a p**

LESSONS LEARNED

MISHAP SUMMARY

Mishap

7-ton (MK25) Rollover

Damage

\$265,149.12

Injury

One (1) Fatality

Operation

CONUS Training, 29 Palms,
California

DISCLAIMER

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Seven Ton (MK25) Rollover

BOTTOM LINE UP FRONT

The Vehicle Commander failed to enforce the rules and regulations set by the Convoy Commander and in Base and Marine Corps Orders - he allowed the vehicle to operate at excessive speeds and did not ensure that seat-belts were worn. The lack of proper supervision by the Vehicle Commander led to the ejection of the Vehicle Commander from the vehicle and the partial ejection of the Driver which ultimately resulting in the fatal crushing of the Driver.



SUMMARY

A motor transport unit was conducting an eight vehicle resupply convoy during Enhanced Mojave Viper. The posted speed limit was 30 mph. The convoy commander briefed that the travel speed would be 25 mph with a catch up speed of 30 mph and a dispersion of 75-100 meters between vehicles. The wind was out of the north, which reduced visibility to 15-20 meters. The seventh vehicle (towing an up-armored HMMWV) in the convoy fell back to 150 meters during the movement causing the driver of the seventh vehicle to speed up to between 35 to 40 mph while attempting to negotiate a slight downhill curve. While negotiating the downhill curve the driver hit a berm/mound (approximately 2 feet high) on the left side of the road and lost control of the vehicle causing it to roll over; ejecting the A-driver and partially ejecting the driver. The vehicle then rolled on top of the driver and fatally injured him. Neither of the Marines were wearing seat-belts at the time of the mishap.

DISCUSSION

- The direct cause of this mishap was excessive speed.

- The mishap driver had limited experience in flat-towing an up-armored HMMWV. The combination of excess speed and loss of situational awareness caused the mishap driver to over correct when he hit the berm on the left side of the road. The over correction allowed the up-armored HMMWV to pull the rear of the 7-ton into a fishtail and exacerbated the loss of control that led to the 7-ton rolling over.
- The mishap driver and assistant driver were not wearing seat-belts. As a result, they were ejected from the 7-ton and the mishap driver was fatally injured.
- The assistant driver was senior to the mishap driver and was assigned as the vehicle commander, however at no point did he enforce the rules and regulations regarding seatbelt use and excessive speed in the training area.
- Vehicle number 6 had no communications equipment and vehicle number 8 (assistant convoy vehicle commander) lost communications capability shortly after the convoy started; therefore the convoy commander was unaware that mishap vehicle number 7 and vehicle number 8 had fallen back. As a result, the convoy commander did not adjust speed to maintain proper dispersion. Mishap vehicle number 7 was falling back (approximately 50 meters beyond briefed dispersion) just prior to the mishap and may have had perceived pressure to speed up in order to maintain proper dispersion. The no/lost communications procedures were inadequate and/or not properly executed. The downgraded communications capability within the convoy required personnel immediately on site to rely on another unit to call for medical support.

CONSIDERATIONS

- The Convoy Commander is responsible for maintaining convoy dispersion and to ensure pre-combat checks and inspections are completed- especially during short halts.
- The Vehicle Commander is responsible for the safe operation of the vehicle, and the safety of his passengers (seat-belts).
- Complacency can set in when performing the same task multiple times.
- Leaders must ensure their Marines are properly trained in the challenges of conducting flat-towing operations on all road surfaces and through various weather conditions. Executing tactics, techniques, and procedures are essential to safely conducting convoy operation.
- The enforcement and supervision of seatbelt use is essential to ensure Marines survive a rollover and other mishap situations (regardless of the type of vehicle). Research shows that seatbelt use reduces the risk of fatal injury by 45 percent and moderate/critical injury by 50 percent.
- The lack of a reliable communications suite in the 7-ton family of vehicles takes focus away from the driver and assistant driver's primary responsibilities and does not allow the convoy commander to maintain constant communication with each vehicle in his/her convoy.
- Educating and empowering vehicle commanders to make appropriate risk decisions and enforce regulations is essential to ensure safe and efficient convoy operations.
- The potential for significant damage and injury exists when 7 tons are involved in rollover mishaps since the vehicle cab lacks structural reinforcement (i.e. rollover bar/cage).