

MRAP

(Mine-Resistant Ambush Protected)

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Vehicle Information

- Since their fielding in 2007, MRAP vehicles have provided a significant increase in force protection and boosted the confidence of Warfighters engaging the enemy. In many documented cases, Warfighters have survived attacks that would have otherwise completely destroyed another armored vehicle.
- The MRAP vehicle is not a “silver bullet.” Units that successfully employ these vehicles against the enemy do so by understanding the vehicle’s capabilities and limitations while integrating its protection with training to standard, detailed planning, smart tactics, and well-rehearsed drills.
- November 2007- February 2011 resulted in 972 recorded mishaps, 409 (42%) due to rollover. Rollovers recorded 23 U.S fatalities, 10 drowning, 13 blunt force trauma. These figures are for the MRAP MAXXPRO and does not include other MRAP models.
- The MRAP total weight is approximately 24 tons (42,000lbs) without additional armor plated conversion kits.
- Equipped with run-flat tires and anti-lock brakes.

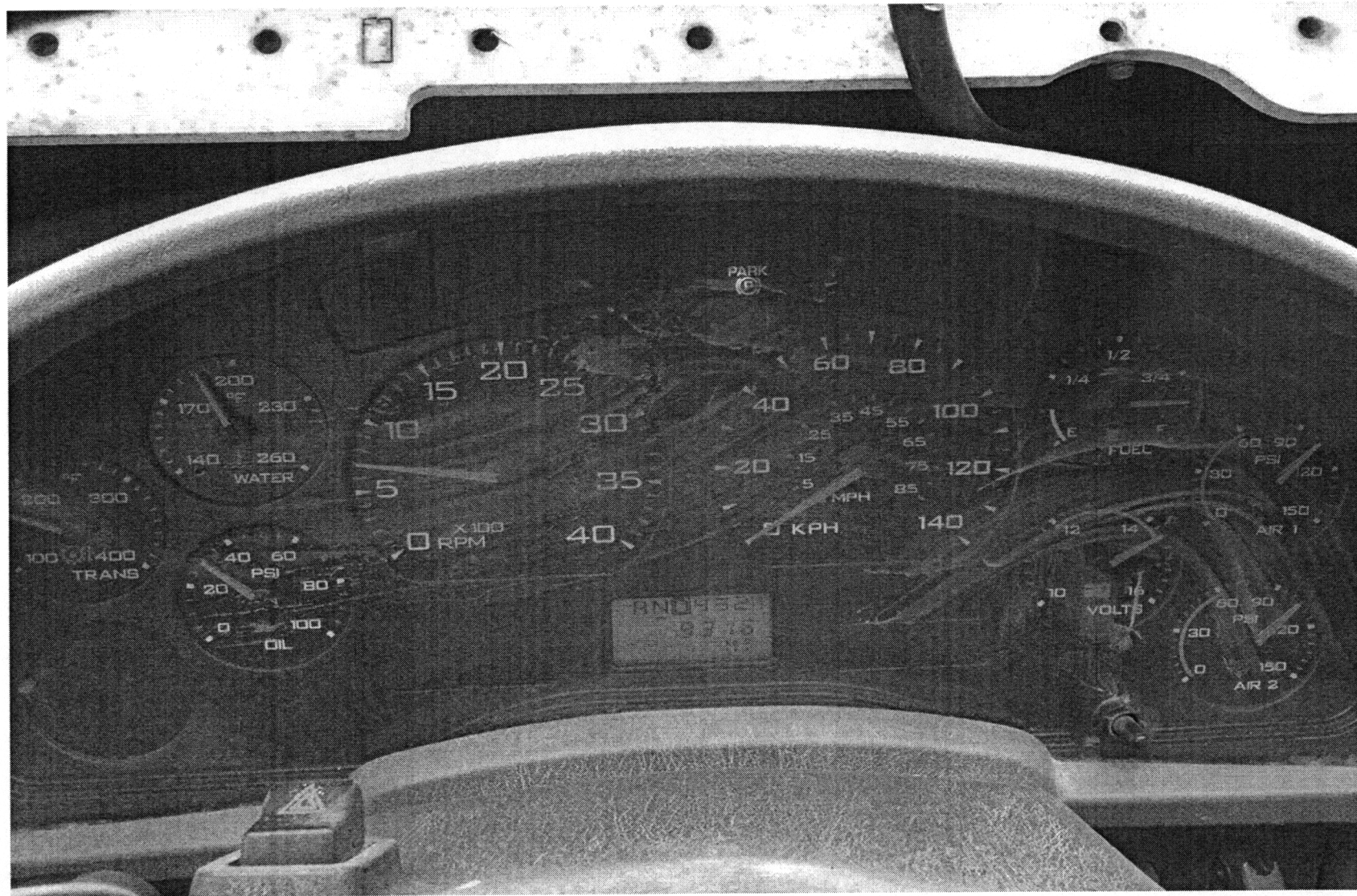
Vehicle Exterior

- Willimantic SWAT MRAP is approximately 13' tall (including turret).
- 10' wide (doors closed and nothing strapped to exterior)
- 22' in length (back hatch closed)
- MRAP operates in 4x4 at all times.
- 375 Horsepower, 1,250'lbs torque
- Unless being utilized, all hatches and doors must be closed and secure at all times.

Vehicle Interior

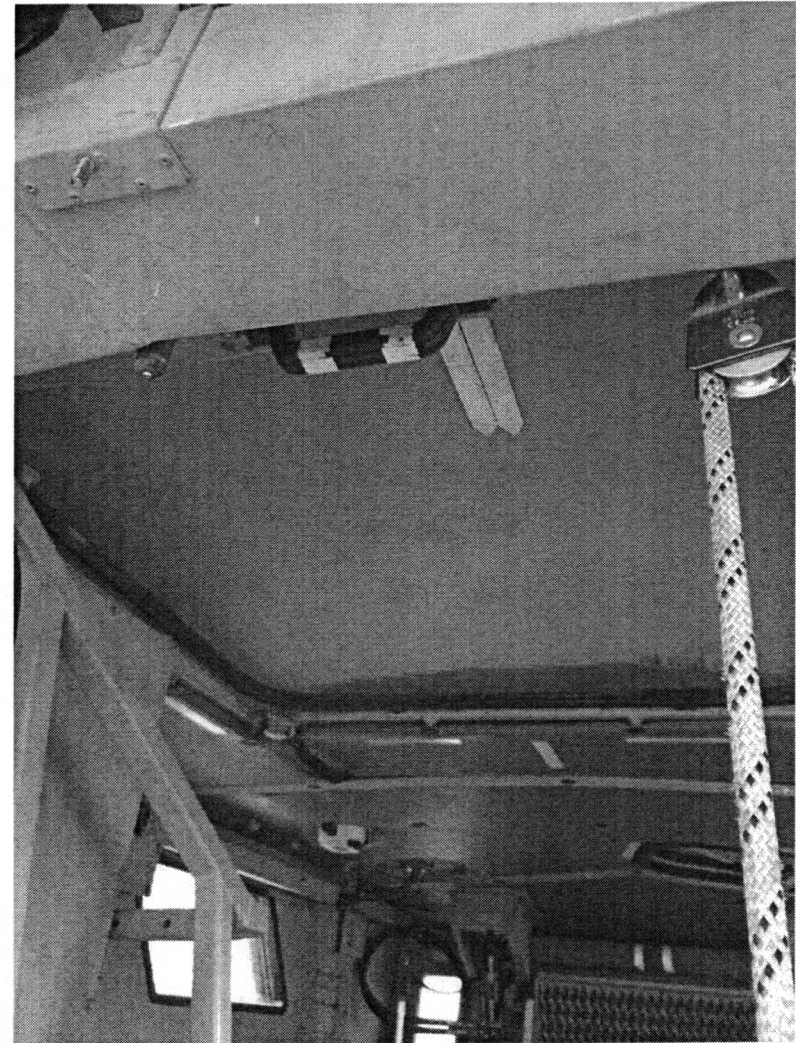
- MRAP vehicles are fire team-size vehicles designed to hold up to seven occupants, including the driver, vehicle commander, and gunner.
- The Willimantic SWAT MRAP rear seats and have been removed. These seats will be replaced by metal benches on both sides to allow for more dismount personnel.
- MRAP is equipped with air conditioning, heat, and fire suppression system.

Systems check explained



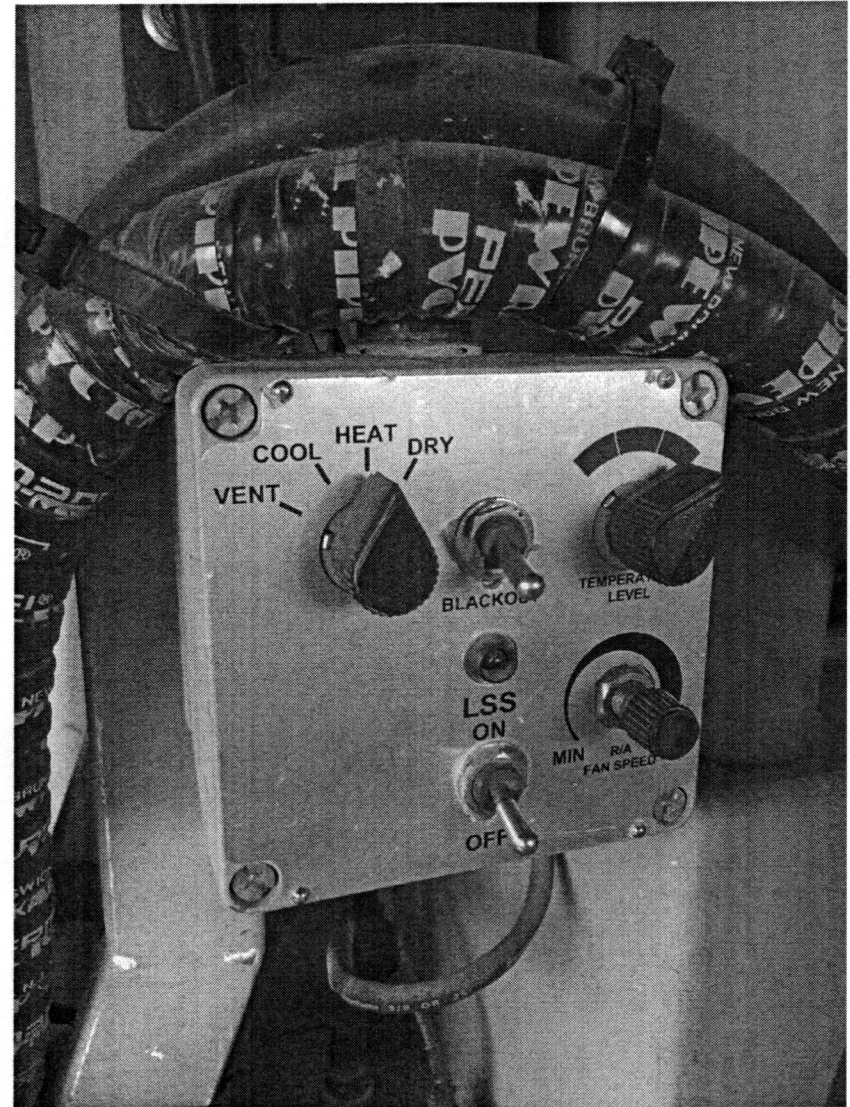
Gunners Hatch

- The gunners hatch needs should be locked and closed when not in use. When open and being used, it needs to be in the locked/open position.

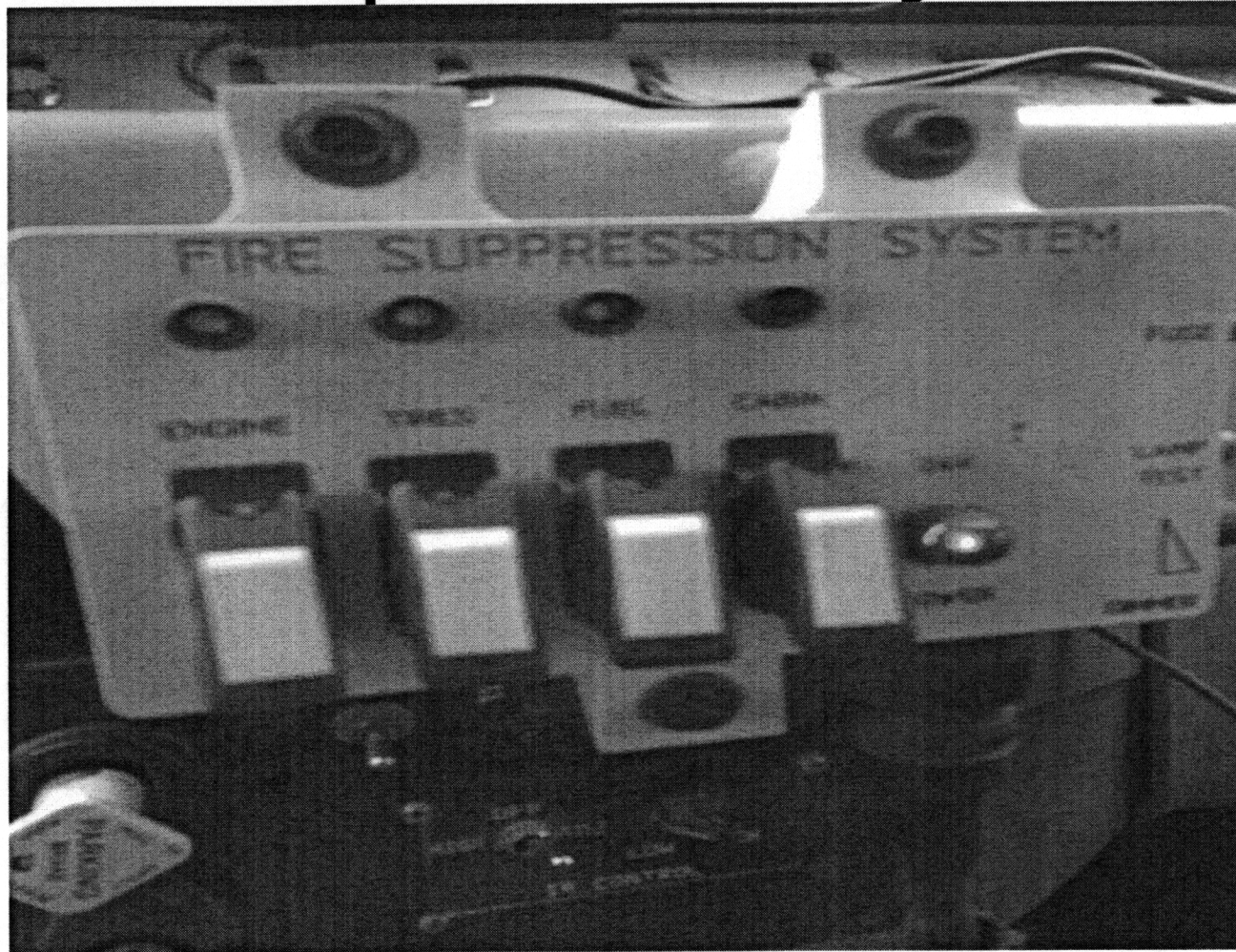


Air supply system

- Very self explanatory.



Fire Suppression System.



DON'T TOUCH IT!!

Vehicle Prep/Check List

- Driver dispatched to MRAP
- PMCS performed (check battery/fuel/lights/fire suppression/first aid/radio)
- Mission Plan (route recon, number of operators, mission essential equipment i.e weapon systems, binos, nvg, ammo, robot and negotiator drop phone, extra food/water/fuel)
- All equipment loaded into MRAP must be properly secured prior to deployment.

Operator PPE

- All operators should have all personal protective equipment on prior to loading into the MRAP.
- Operators should check each other for all essential safety gear and final PPE check should be conducted by Team Leader.
- Seat belts should be worn at all times.

Regularly practiced drills

- Dismount drill
- Casualty drill
- Fire drill (compartment/engine)
- React to contact/break contact
- Tow Drill
- Rollover

Dismount drill

- All operators should routinely practice how to dismount from the back hatch of the MRAP.
- All operators should be proficient in operating the back hatch.
- Personnel assigned as vehicle dismounts should coordinate with each other prior to vehicle loading to avoid confusion in dismounting. Operators should sit according to their position in the stack.
- Once the last operator is out of the MRAP they need to loudly announce "Clear" so the driver knows the back hatch can be raised and secured.
- The height and steepness of the dropdown stairs at the rear of the MRAP can make exiting the vehicle dangerous.

Casualty Drill

- In the event of a casualty it is the responsibility of the Medic to designate individuals to assist with securing the casualty and safely loading that person into the back of the MRAP for emergency evacuation.

Fire Drill

- In the event of a Fire whether it be an exterior engine compartment fire or an interior fire. It needs to be announced immediately, and echoed by all operators to immediately alert the driver. The vehicle needs to be stopped immediately to allow emergency evacuation.

React to contact / Break contact

- If all operators are still inside the truck and it is being shot at, the team leader will determine if the MRAP should continue on with the mission or if we will break contact by leaving the area.
- The MRAP armor is extremely resistant to small arms fire and can be safely used as cover.

Tow Drill

- In the event the MRAP breaks down or gets stuck. It is important that individuals understand that the only safe and efficient way to tow an MRAP is with a wrecker capable of towing a minimum of 30 tons.

Rollover Drill

- Due to the height of the MRAP, it has a very high center of gravity.
- Because of this, the MRAP will rollover very easily especially if it is operated on an uneven slope or road. When making turns in the MRAP it should be slowed down to under 10mph.
- All operators should be familiar with exiting the vehicle through the front doors or gunners hatch in the event that the back hatch is rendered inoperable due to rollover or other emergency conditions.

Crew

- Operators will be assigned positions in the crew.
- Driver, Truck Commander (front passenger), Gunner, and dismounts.
- Truck Commander will ensure all personnel and sensitive items are ready and equipped prior to deployment.
- Dismounts are responsible for ensuring equipment is loaded and secured.

Summary

- MRAP's are known for their massive size and menacing appearance.
- MRAP's are equipped with many safety features which if used properly can protect individuals inside and outside of the truck.
- MRAP can be incorporated into many different missions styles such as: hostage rescue, active shooter, and civilian rescue during emergency situations.