

Removable Armour for Land Vehicles (RAV) CTD 2006-5

SEAL SOLUTIONS

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Aim.

The aim of the Removable Armour for Land Vehicles (RAV) CTD was to demonstrate an inexpensive, expedient removable appliqué armour system which required no permanent modifications to the base vehicle, such as welding, and provided significant protection from fragmentation threats such as Improvised Explosive Devices (IED).

Background.

Light Armoured Vehicles (LAVs) currently deployed by many defence organisations in low intensity, unconventional operations such as those in Iraq and Afghanistan are vulnerable to threats such as roadside bombs or Improvised Explosive Devices (IEDs).

The CTD successfully delivered an Appliqué Armour Solution, tested on a Bushmaster, which provided significant protection against fragmentation threats and can be easily adapted to suit any LAV. The RAV solution is depicted in the following schematic:

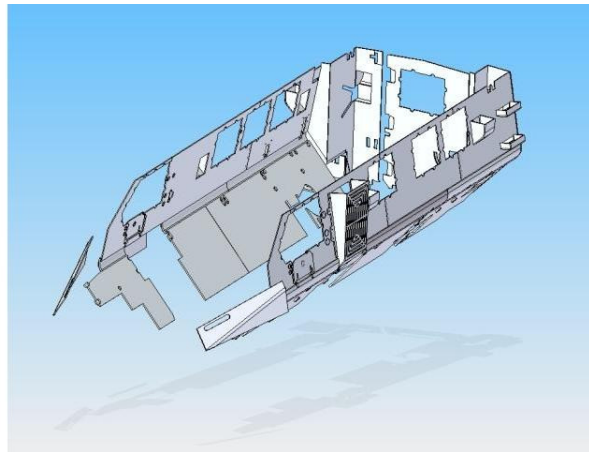


Figure 1 - Bushmaster with RAV System Fitted (left), CAD Model of Appliqué Armour (right)

RAV System Specifications.

- Suit any LAV or structure that requires increased occupant protection.
- Additional weight depends on material used.
- Armour configuration and type can be customised to the threat level required including the use of advanced ceramic materials.
- Low Cost: Uses off the shelf inexpensive materials with short lead times.

- Expedient Solution: Easy and quick to apply with no requirement for permanent modifications to the base vehicle such as welding.

Testing Performed under CTD.

Due to information sensitivity, specific details of the performance specifications cannot be publically announced; however, the RAV system was subjected to considerable testing during the CTD programme and successfully achieved all target performance measures when tested against:

- Fragment Simulating Projectiles (FSP);
- Representative IEDs; and
- Vehicle Mobility Trials against mission profiles.

In addition SEAL Solutions has tested a modified version of the system utilising composite materials against STANAG KE threats with excellent results.



Figure 2 - Bushmaster with RAV System Fitted.