

I/ITSEC 2009 marks importance of using MRAPs for training

■ BY GILES EBBUTT

KEY POINTS

- SAIC and FAAC have expanded the Common Driver Trainer to include MRAP Cougar, RG33L, RG31, Caiman and MaxxPro vehicles
- BAE Systems also displayed an MRAP crew trainer technology demonstrator at the exhibition

The importance of the Mine Resistant Ambush Protected (MRAP) vehicle in current operations and its increasing ubiquity and variation was emphasised at the Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) 2009 in Orlando, where a number of new and upgraded MRAP driver and crew trainers were displayed.

The Common Driver Trainer (CDT) product line has now been expanded by prime contractor SAIC together with FAAC to include an MRAP Cougar Variant (MCV), which can also represent four other vehicles: the RG33L, RG31, Caiman and MaxxPro.

The CDT/MCV uses interchangeable dash panels to provide the physical interface of each different vehicle.

The CDT system consists of a vehicle cab on a six-degree-of-freedom (6-DoF) motion platform with a video display unit, an instructor station and an after-action review station. The vehicle cab can be changed to support different types of vehicle: the MCV is an addition to the original Stryker variant and seven have been delivered to the US Army. An M1 Abrams version is also in production and first deliveries will take place in 2010.

The team has also developed a mobile CDT version in a 16 m trailer with expandable sides, 13 of which have been produced for the US Army. The trailer contains a 6-DoF platform and two vehicle cab variants that can be ready for use within four hours of arrival on site.

FAAC was also showcasing a new dual-seat Buffalo MRAP route-clearance vehicle full-motion simulator. Mounted on a 6-DoF platform, this enables both the driver and the robotic boom operator to conduct realistic training simultaneously. FAAC has drawn on the technology in the trailer-mounted Buffalo Operator Driving Simulator which it developed for the US Marine Corps.

Meanwhile, BAE Systems has teamed up with FAAC to produce a private venture MRAP driver trainer demonstrator, which it hopes will attract UK Ministry of Defence interest, according to a company representative. Industry sources said there are no MRAP simulators available to train British drivers.

The demonstrator included FAAC's interchangeable dash panels system for Buffalo and Mastiff, a display system and a motion seat. The latter provides some movement experience, particularly acceleration and deceleration, for the trainee, while maintaining a small footprint and being relatively inexpensive.

BAE Systems also showed an MRAP crew trainer technology demonstrator, with driver, commander and gunner positions, with a four-window image-generation display using Presagis VegaPrime. The commander's position includes a C2 display, which in the demonstrator version was for the US Army's FBCB2 system. The unmanned turret gunner position was representative and a company official observed that other weapon or sensor operators could easily be substituted. A simple tabletop version consisting of laptops and a COTS steering wheel has also been developed.

To complete the MRAP training spectrum, the US Army is now fielding MRAP Egress Trainers (MET) so that escape drills, in the event of a rollover, can be taught. Seven vehicle variants over 126 MET installations are being produced by the Red River Army Depot.

Antycip reveals enhanced aerial systems software package

Antycip Simulation has launched a second toolkit for its MyModels model-generation software, writes *Huw Williams*.

The latest toolkit builds on the Fixed Wing Fighter (FWF) package that was launched at the ITEC exhibition in Brussels in May 2009. The new package is able to model fixed-wing unmanned aerial vehicles, transport aircraft, aircraft sensor systems, and guided missiles.

MyModels enables the rapid creation of high-fidelity, physics-based computer-generated forces (CGFs). The software is designed to be integrated with other CGF systems and has pre-loaded samples and validated algorithms to reduce the time taken to create models, as configurable parameters such as the aircraft's electro-optic (EO) and radio-frequency (RF) signatures are pre-installed

for each model. These can then be altered by the customer to meet specific requirements: for example, the infrared signature of an aircraft can be adjusted or the range of a missile extended.

The primary use of the software is to create models for evaluating systems, but it can also be used in simulations for training purposes.

Gael Ramaen, Antycip Simulation European marketing development manager, told *Jane's* that the company already has the capability to model both rotary-wing aircraft and land-based vehicles, but these toolkits will not be commercially available until the second quarter of 2010. He added that the company is also developing a toolkit for naval systems.

Aircraft modelled by the FWF toolkit include the F-16, Mirage 2000, Eurofighter Typhoon and MiG-29.

German Army to test improved soldier system in 2011

The German Army will receive the first pre-production *Infanterist der Zukunft Erweitertes System (IdZ-ES)* soldier system at the beginning of 2011, according to Rheinmetall Defence, writes *Andrew White*.

Under a contract thought to be worth more than EUR10 million (USD14 million), Rheinmetall will supply the system, which comprises 10 future soldier ensembles, to the Federal Agency for Defence Technology and Procurement (BWB) as part of an evaluation and test programme.

A Rheinmetall spokesperson told *Jane's* that the test programme has been scheduled to run throughout 2011, although specific tests and dates have yet to be finalised.

Rheinmetall won the order to design an 'Expanded System' in mid-2006 on the back of the earlier EADS IdZ-BS (Basissystem) product. The new version is intended to eliminate "certain deficiencies" identified in the earlier system, according to the spokesperson.

The company had already supplied a system demonstrator to the BWB in 2008, which was used for troop trials in the United States.

The prototype IdZ-ES system was criticised for lacking modularity, leading to calls for a less highly integrated ensemble.

Jane's has also learnt that the requirement for a total of 438 IdZ-ES systems remains "valid", although the spokesperson added: "The overall requirement is even higher, at more than 900, but the time schedule may be stretched due to financial restrictions."

IdZ-ES comprises a 'core' ensemble, including headset, computer, battery pack, GPS and inertial navigation system, helmet display or night-vision goggles, control unit, group radio (either Thales' AN/PRC-148 handheld Multi-band Inter/Intra Team Radio or Rohde & Schwarz's MR3000P software-defined multiband handheld radio), helmet, combat dress and carrying systems.

There is also a reconnaissance element comprising a Vectronix Moskito laser rangefinder and image intensifier; a spotter scope; and weapon accessories that include a fire-control unit, rifle scope, thermal weapon sight and image intensification look-through device.

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