

FOCUS on training: integrated approach is yielding positive results for US Army

BY HUW WILLIAMS

KEY POINTS

- US Warfighter FOCUS programme is well under way after early delays
- The new programme encompasses a wide range of training activities

Established to integrate the live, virtual and constructive (LVC) training services at permanent and temporary installations worldwide, the US Army's Warfighter FOCUS (Field Operations Customer Support) contract programme is designed to offer a high degree of flexibility in the training provided to US personnel and coalition partners.

The programme has had to deal with a number of demanding requirements from its customers during its first year of going live.

The Warfighter FOCUS programme, worth a total of USD11.2 billion over 10 years, officially commenced in June 2008, eight months later than intended, with the Warrior Training Alliance (WTA) taking responsibility for the now-integrated approach to the provision of US Army training.

The WTA is led by Raytheon and co-partner Computer Sciences Corporation (CSC), and comprises a total of 67 companies, around 45 of which are classified as small businesses. WTA was initially awarded the Warfighter FOCUS contract by the US Army's Program Executive Office for Simulation, Training and Instrumentation (PEO STRI) in June 2007.

The programme was scheduled to begin with a phase-in period in November 2007, but was delayed when the leader of the rival Warfighter FOCUS Alliance, General Dynamics Information Technology (GDIT), submitted a protest to the Government Accountability Office. This delay lasted until the scheduled start month, when PEO STRI announced that GDIT would join the WTA, solving the issue.

Areas supported under the programme include: all three of the US Army's Combat Training Centers (CTCs); ranges; tactical engagement systems; engagement skills



AAI Corporation: 1308997

AAI's TADSS suite encompasses all aspects of the operation and maintenance of the Shadow UAV, a key part of the US Army's battlefield surveillance capability.



US Army: 1116015

Cultural awareness training, such as how to interact with local officials, is an important aspect of pre-deployment training.

trainers; close combat tactical trainers; flight simulators; and the Battle Command Training Centers.

To date the total number of subcontractors has increased to about 100 – including Boeing, CAE, Cubic and L-3 Link – and due to the open business model of the programme, this number is likely to increase.

Rick Yuse, the chief executive of Raytheon Technical Services, points to this large number of subcontractors and open business model as key factors in the programme.

"[The subcontractors] were all very carefully selected; these have multiple different capabilities so we can easily and quickly provide the expertise that our customers need on short notice. Because we have so many we can make sure we are always getting for our cus-

tomers the best value for money," Yuse explains.

PEO STRI estimates that in excess of USD600 million will be saved throughout the duration of the programme.

Yuse adds: "We've taken the three basic training venues of live, virtual and constructive training and brought those all together under one contract vehicle so they can be managed as a system of training."

Train as you fight

"That allows us to tailor very carefully how the warfighter is trained in a variety of different situations – whether as a single soldier or at the battlefield level – and get through the coursework in a realistic manner that gives him real world experience in a training environment ... We want the deployed warfighter to

be able to stand up and say 'I've seen this all before in training!'"

One of the biggest challenges facing the US Army at present is the need to concurrently provide near-term pre-deployment training while maintaining core skills and identifying training needs for the future battlespace.

Fresh challenges

This challenge is being addressed at the National Training Center (NTC) at Fort Irwin, California. As one of the US Army's three CTCs, the NTC is used to provide rehearsal exercises prior to deployment. It also maintains a number of other training responsibilities, including the validation of new training methods and doctrines.

The US Army has extensive facilities available for its pre-deployment work-up training, with the desert location of the NTC offering soldiers a good facsimile of Iraq and its generally high elevation – some areas reach 10,000 ft above sea level – proving a good simulacrum of conditions in Afghanistan.

Raytheon has been providing support to live-fire training at the NTC since 1994, and since May 2008 the company has led WTA's involvement across all training domains. The task of supporting training at the NTC is significant, and ranges from the instrumentation of the centre and fabrication of structures to the provision of role players to simulate indigenous populations.

The core facilities are centred on 12 separate urban areas, seven cave complexes and eight forward-operating bases. The 11th Armored Cavalry Regiment (ACR) provides around 1,500 personnel to act as the opposing force (OPFOR) for the centre as a whole. The civilian populous is represented by about 500 role players, 250 of whom are Iraqi-Americans, and there are also 50 role players acting as insurgents.

Pre-deployment training at the NTC encompasses a wide range of activities. Typical rotations there last 30 days and involve between 4,000 and 6,000 personnel from brigade combat teams. Around

50,000 personnel are trained at the centre each year.

Due to the intensity of the training, one day at the NTC is representative of one week in theatre. Training undertaken includes interaction with the indigenous population and the media; intelligence-driven operations; battalion-level kinetic operations; detention operations; evidence collection and exploitation; non-kinetic operations; escalation of force; improvised explosive device (IED) defeat training; counter sniper training; air and ground integration and airspace command and control; personnel recovery; and medical training.

The NTC houses a Joint Improvised Explosive Device Defeat Organization-sponsored Army Center of Excellence, for which the WTA provides the instructors. More than 1,900 personnel can be trained there over a period of four days. In 2008, 38,732 personnel passed through the centre, where training included the use of the 'Duke' device, which is employed to jam radio frequencies that are used to control the detonation of IEDs. Around 140 simulated IEDs can be planted throughout the training area, of which typically 90 are used during a training scenario.

Media role

The role of the media in the modern battlespace is simulated by a WTA-supplied media team: the INN News Crew. For exercises the 'reporters' will speak in the indigenous language only. The news coverage that the INN crew provides is available to both the soldiers and populous of the simulated towns, and this can then be used to fuel unrest. Units are also able to use the news generated by the INN crew to gather information about insurgent groups.

The WTA alliance also maintains and supports the operation of the US Army's Multiple Integrated Laser Engagement System (MILES) tactical engagement system, which is supplied by Cubic. Around 8,000 MILES kits are available for training scenarios at the NTC.

It is widely accepted that one of the most beneficial aspects of training is debrief and post training analysis. At the NTC the WTA provides and supports the operation of the systems that collect and manage data from the training events, including both video footage and recordings of communications traffic. This can then be played back.

While the provision of pre-deployment training is the most

pressing concern for the US Army at present, it also recently undertook a validation exercise to assess the hybrid warfare threat that US forces may face in the future, where regular forces and their assets may combine with insurgency tactics.

As such, one of the 11th ACR's OPFOR roles is to provide a group known as the Mechanized Infantry Battalion (MIBN). Its core components are two troops from the 11th ACR's 1st Squadron, which replicate armour and infantry assets and are equipped with modified US Army vehicles that are representative of OPFOR assets. These core units are provided with support elements that include air defence capabilities, heavy mortars, engi-



US Army: 1347315

Weapons simulations at the NTC at Fort Irwin, California, include high-fidelity pyrotechnics that create a realistic battle environment for the soldiers to encounter.



US Army: 1347313

Modified US Army vehicles, in this case an M113, are used to add to the realism of a credible OPFOR engaging in hybrid warfare.

neers and intelligence personnel and assets. The MIBN is made up of three mechanised infantry companies, which have 10 armoured vehicles each.

Before the validation period commenced the MIBN elements undertook a one-month training period that included combat skills and lessons on the hybrid threats that they were to represent. Both platoon and company level manoeuvres were conducted, with training in tank and infantry fighting vehicle gunnery skills, as well as the integration of the support elements.

The validation exercise consisted of three force-on-force scenarios, with the mechanised infantry companies rotating between offensive and defensive roles.

Intelligence skills

At Fort Huachuca, Arizona, the WTA is involved in providing both intelligence training and unmanned aerial systems (UAS) training.

Fort Huachuca is home to the US Army intelligence centre and here the WTA supports training across all career fields, from basic to advanced level. The WTA's role includes supporting the US Army in writing training doctrine and courseware.

Also located at Fort Huachuca is the 1st Battalion, 210th Aviation Regiment, part of the 1st Aviation Brigade, which is based at Fort Rucker, Alabama. The battalion oversees the US Army's principle UAS training centre, which is also the largest in the world. It features two runways and four aircraft hangars; 1,300 personnel are trained there annually.

The WTA is heavily involved at the centre, providing more than 90 per cent of UAS training, encompassing the US Army's Shadow, Hunter, Warrior (the US Army's variant of the US Air Force's Predator) and Sky Warrior Extended Range Multi-purpose systems.

Maintenance, operation and reconnaissance and surveillance systems training is provided across all four platforms; additionally the US Army's Warrant Officer UAS, UAS leader and UAS advanced leader courses are carried out at the centre.

Mike Edwards, Raytheon Technical Services Company vice president and programme manager for Warfighter FOCUS, told *Jane's* that "UAS training [at Fort Huachuca] includes LVC components blended in classroom instruction, simulation training and field-training exercises".

A combination of simulators and embedded training systems are used, including AAI's Shadow Training Aids, Devices, Simulators, and Simulations (TADSS) suite. This is designed to provide individual, collective and crew training for operators of the Shadow unmanned aerial vehicle (UAV), including the air vehicle and mission payload operators, launch and recovery personnel and mission commanders.

The UAS schoolhouse at Fort Huachuca houses the Institutional Mission Simulator. This facility is made up of a number of high-fidelity replicas of the UAS ground control stations. One software package that is used throughout the training centre, both in simulators and embedded, is Meta VR's Virtual Reality Scene Generator (VRSG).

VRSG can be configured to simulate a UAS in a variety of ways. These configurations range from using VRSG's internal camera payload model in which the telemetry of the simulated UAV is provided by a DIS or HLA entity, to fully integrated applications such as the Multiple Unified Simulation Environment (MUSE) tactical trainer. The MUSE system is the primary UAS training system used within the Department of Defense for command- and staff-level training for the Joint Services.

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