



Romania's RIFS system moves toward real-life trials

Major Tiberious Tomoiaga, Programme Manager, Romanian Individual Fighting System at the Military Equipments and Technologies Research Agency discusses testing of the programme's functional demonstrator

Romania's soldier modernisation programme (SMP), the Romanian Individual Fighting System (RIFS) will move onto prototyping with a functional demonstrator stage during 2009, according to Major Tiberious Tomoiaga, RIFS Programme Manager at the country's Military Equipments and Technologies Research Agency.

"Right now our programme is in the refining phase. We are now are trying operational capabilities and concept refining. We developed our models, based on results from a number of connected projects," explained Major Tomoiaga.

At a concept level, Romania is working with two variants. The first – Variant A – is the most complex and comprises six subsystems: Weapon, Integrated Helmet, Computer and Communication, Carriage and Protection and Power and a further Support Subsystem, which provided virtual support providing input for UAVs, UGVs and other off board information, considered integral to future operations.



Romania's plans call for an initial 500 systems to be acquired

"Then we came up with another concept [Variant B]. Probably, it would be easier and cheaper to buy," explained Major Tomoiaga. This consists of a simpler package with Weapon, C4I and Power subsystems and "soldier equipment". The virtual reality support subsystem remains in place. Major Tomoiaga said, "It will help us to develop our conclusions regarding the C4I system, weapon system, and personal protection and interoperability issues."

The Support subsystem uses Quantum 3D's ExpeditionDI, based around the Thermite tactical computer. "Right now, we have developed a software application for this subsystem to train the full squad of nine members. The system actually looks similar to the future soldier system – a computer with motion sensors on the head, body, arms and weapon." Romania is collaborating with Bohemia Interactive Australia to provide the virtual trainer's software to simulate various missions, sensors and different urban environments.

A functional demonstrator will be used in the prototyping phase. The system is typical, with integrated helmet subsystem with night vision and micro-display, 2.4GHZ 802.11G communications for voice and data, with the computer based around a Transmeta Crusoe, 1GHz processor and Windows XP Pro operating system. The Demonstrator's weapon system is described as a 5.56mm 'AK-47' system, with red dot, laser pointer and image intensification and thermal sensor.

To develop a better idea of the future capabilities required, the RIFS programme developed its own thermal sight for this phase. Weighing 1.5kg, the InSb based, 320x240 pixel sensor offers detection at 750m, recognition at 250m and 100m identification.

Training poses atypical challenges. While most SMP programmes can count on their recruits being drawn, almost without exception, from Generation X-Box, not so in the case of RIFS. Major Tomoiaga explained, "Right

now we have people who join the Army, who two months ago were breeding goats. I can't immediately give such a system to that type of soldier."

The first systems, Major Tomoiaga opined, would initially be for soldiers deployed on operations in Iraq and Afghanistan. Ultimately however, that will change. "At the end – I don't know when – we would like to have all the soldiers equipped with the system but the priority are troops in Iraq and Afghanistan and Special Forces."

In 2009–13 RIFS will begin its prototyping, test and evaluation and continuing research and development. In 2013 the programme is scheduled to switch to a risk reduction phase and procurement phase from 2013 with the plan being to field 500 systems.

CHALLENGES

"Right now we have lot of challenges," explained Major Tomoiaga. "We are changing our weapon system. It is not enough just to buy a new one; we need to buy a weapon that can be fitted with our system, even if our system isn't finalised now."

"We need to change, the body armour is good but we must change the design: how the load is on the man – human factors. We want to change the camouflage. We need to fully integrate the system for network based operations. Each soldier must have a radio. Power is another problem. Right now the armoured fighting vehicle is a fighting vehicle but that will have to move to become a supporting vehicle."

Asked the question, 'What keeps you up at night?', Major Tomoiaga answers 'simply', "Trying to offer a safe and good system that is interoperable with other system and as cheap as possible." He emphasises however, that 'cheap' is not the main goal of RIFS. ■

Major Tomoiaga was speaking at Soldier Technology Global.