



# Voják 21 looks to new weapons following trial reports

Following the conclusion of Winter trials and submission of the results, the Czech Defence Ministry has opted to pursue several linked procurement packages to meet its soldier modernisation requirements

*In November, the seven Voják 21 (V21) demonstrators, comprising riflemen systems, squad leader system and host mechanised platform, developed by VOP-026 for the Czech Ministry of Defence, undertook a week long trial in the south of the country. This followed technical assessment at the Czech Defence University in Brno followed by acceptance testing by the Czech Army.*

The systems were injected into a regular army unit as part of normal field training for a reconnaissance battalion, part of the formation's routine annual exercise at the Army's site at Libaba in Moravia.

"The first and most important lesson for us was that the system complies," explained Libor Marcik, Head of Special Reconnaissance at VOP-026 and responsible for future soldier activities at the company. "Not only the system the soldier carries on himself but also the vehicle interface. Both are compliant."

The overall V21 project has consisted of two research projects, the first one addressing all the capabilities of the future soldier systems started in 2004 and completed in 2006, providing a single demonstrator known as 'Vojbud'. After a brief hiatus VOP-026 were awarded a follow on contract; 'Sesedák' which ran from 2007 until March 2009, addressing the needs of dismounted troops and their integration with mechanised platforms, which for the purposes of trials was the BAE Systems Hagglands BvS10. It was under 'Sesedák' that the seven systems, collectively entitled 'Modular Combat System of V21' or MBK21 were tested at Libaba.

"We got various ideas and impressions on how to improve the system," Marcik commented. "First of all it concerned software; software focused on the reconnaissance battalion. Then there were other findings,



A number of Unmanned Vehicle prototypes, which could integrate into the Voják 21 software are also in development by the Defence University © AJB

particularly on the ergonomic direction of the system. Based upon these and lessons learned, the software has been finalised to version 2.01."

The software was developed with the Ministry's Defence University. Marcik said, "From the Army point of view, the project was completed in March. We were

► required to create, according to the requirements of the Army of the Czech Republic, seven systems and to test them and we have done that. The Army then received a 370 page study plus 425 pages of annexes. This document describes all the lessons learned from the research and testing phases.”

While Sedadak has come to a close, VOP-26 have submitted proposals for further work on Voják 21 to develop the software further. The offer was made immediately after the submission of the test reports. Marcik said, “We have made a proposal to continue to test this version of the software with different types of unit; mechanised, light and paratroops. Following these tests, we will make other adjustments to the system’s software.”

Marcik believes that while software will be locally developed, hardware will be procured in conjunction with overseas suppliers.

Marcik explains that it was up to the Czech Republic’s Ministry of Defence as to the role VOP-26 would play as V21 begins its transition from research project to an acquisition programme.

“VOP 26 is a hundred percent state owned company. It would be entirely up to the MoD to decide whether they requested us to supply the system,

whether they issue a public tender or whether they requested us to participate in the programme. If we want to team with another company, we have to get permission for that project from the MoD or they have to direct us. It is entirely up to them.”

Work on Voják 21 is also continuing at the country’s Defence University. In terms of computing power the University is also testing alternative computing architectures. The original systems used an AMD x86 chip. Alternatives are now being explored including Power PC, Intel ATOM and Texas Instruments OMAP processors. In terms of software, work is going to more closely tie in the existing software with higher echelon battle management systems.

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These include the Black Spirit small Unmanned Aerial Vehicle (UAV), based on a Raptor 60 remote control helicopter and which carries a 2Kg load. A larger delta wing UAV, the TCX-A1 is also flying. An unmanned ground vehicle based on a Yamaha YFM 400 quad bike is also in prototype form and has been integrated with the CZ805 assault rifle.

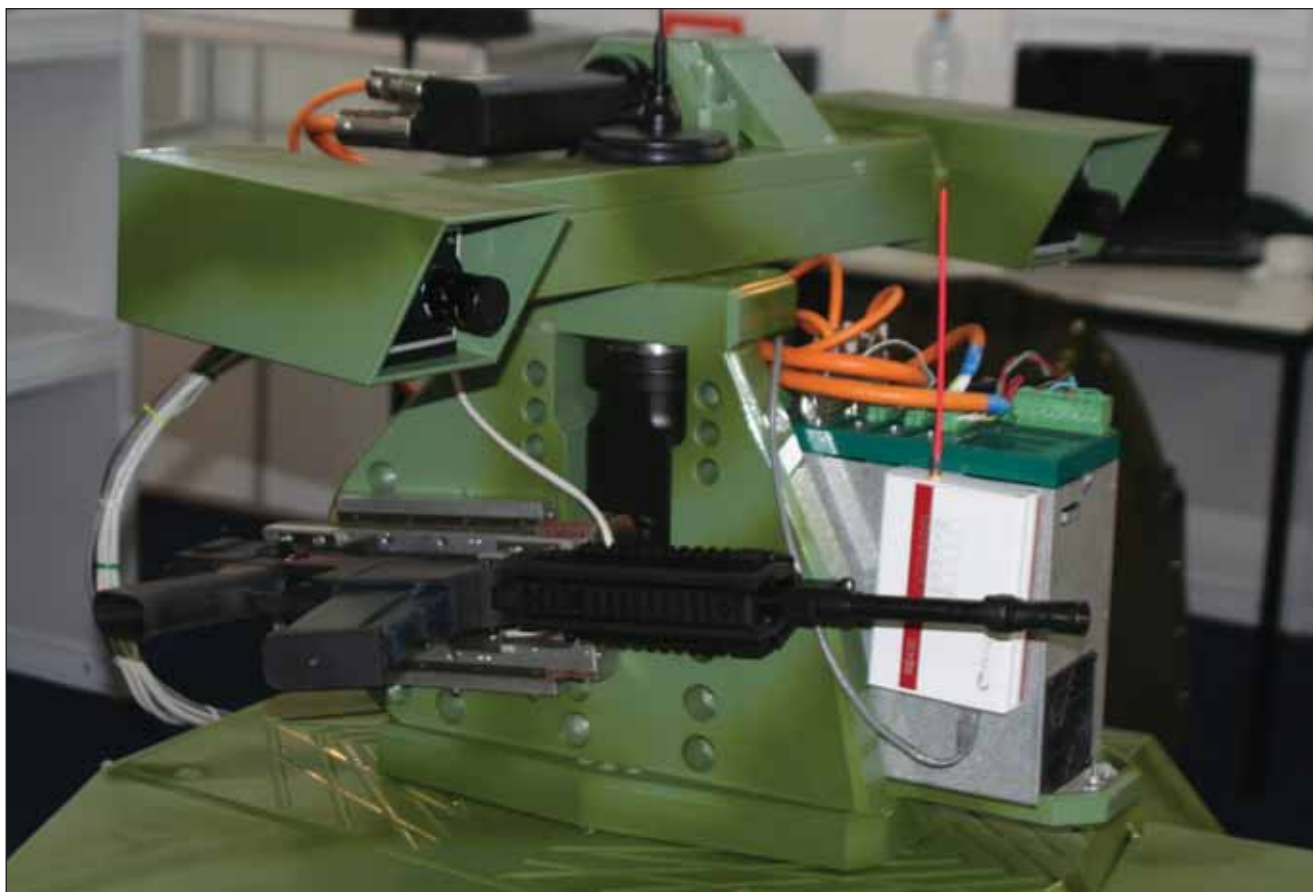
#### NEXT STEPS

Industry is now preparing for an incremental strategy for Voják 21 in which the overall requirement has been broken down into smaller packages. The first of these packages will look at a complete replacement of weapons with the tender expected to be issued no later than the end of 2009.

The requirement is for an assault rifle and light machine gun in 5.56mm, three categories of sniper rifles in .308, .338 and .50, rocket propelled grenade launcher and under-barrel 40mm device.

As part of the weapon requirement, new sights are being acquired. To meet this requirement local firm Meopta have developed their new Modular Sighting Systems for Assault Rifles which are due for testing by the Czech Army in July, ready to meet potential orders by 2010. The System consists of laser marker, red dot sight and day and night sights with up to four times magnification which are designed to be used in combination.

The Czech Republic is already addressing the replacement of its ageing RPG-75 antitank recoilless weapon and is considering a second, improved version with a thermobaric warhead for deployment in Afghanistan. ■



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