

# Scion of CBRN

In any stock-take of what the old Warsaw Pact countries have brought to Nato, the Czech Republic contribution to CBRN defence would have to be close to the top of the list. At a time when many other nations were running down their CBRN capability the Czech Republic managed to maintain it, and when it was compared to other Nato countries it was found to surpass it. It has been generally accepted that the Czech Republic has maintained the capability while others have caught up. Now, however, just as other nations are approaching parity an increase in focus and funding is set to take it to another level again.

## Time out to train

Lieutenant Colonel Osvad is uniquely placed to observe the improvements in the Czech capability, having been the first Commander of the Multinational CBRN Battalion and also the Commander of the CBRN JAT (Joint Assessment Team). One of the areas in which the Czech capability was always based, and which has been part of the first wave of improvement, is education and training. Much like the Germans, the Czech army has a dedicated branch given over to CBRN, so while there might be movement within the branch it stops the skill fade caused by rotation that affects other nations, where a soldier or officer might find himself doing something radically different. The Czech forces also provide a specialist CBRN degree and post-graduate degree in CBRN, where the student will gain a qualification in CBRN that focuses on a range of skills and knowledge. The Czech army, however, splits C, R and N

away from the bio side, which is the domain of the medical units; this does make the training burden a little easier to swallow.

This tradition has been built on with a general improvement in facilities as well as the opening of a new CBRN training area in Tisa. Lieutenant Colonel Osvad explained. "Our army has spent a lot of money on building the new training area in Tisa which is a CBRN training area only," he said. "We have also spent a lot of money on the live agent training area in Vyskov; we built new labs for the training of lab personnel and invested a lot of money on the open live agent training area – even if it is more psychological training than real training, it saves lives. We have built a great training facility in which we can train all CBRN personnel in a range of different tasks, such as sampling, detection and decon, and we also spent money on the simulation centre in Vyskov. Our focus is to start with basic training in Liberec, which is the most important centre for our CBRN community, then we will provide special training for decon and recce specialisms. Then we train units like the decon/recce platoon, which is why we built Tisa; it was suitable for training up to company level. Then we need special live agent training and lab training, which is what we have in Vyskov, where we can also produce the live agents – but only the small amount needed for training and research purpose.

"During that whole time we need to train up commanders," he continued. "We need trained commanders up to the battalion level, and CBRN advisors and staff officers up to brigade, Joint Force Command

and strategic levels, which is why we have the new simulation centre where we can simulate whatever you want – all possible situations – and see how trainees react and plan missions. The training is complex, with the live agent part being very expensive, though the simulation centre is less expensive. In the future we will tend towards simulation rather than field training, which is always expensive, but we cannot exclude live agent because of the psychological benefits; we need it at least once a year."

The demands on CBRN officers are increasing, with their skills in chemical detection being of potential use in both counter-explosive and counter-narcotics roles, and all of this needing to be offered in a light, mobile package. Much like the British and the Germans, the Czech army is also looking at light role teams (LRTs), but while the UK's capability, for example, is based on detection and sampling, the Czech army concept will be a lot broader. "Right now the LRTs in the UK are partially detection and partially sampling – they can provide both as they have good equipment like Hapsite, which allows detection at a higher level," said Lieutenant Colonel Osvad. "In the Czech army we have changes within the Czech Chemical Corps; we have already got two laboratory components, within which are four completely equipped sampling teams. Moving on from that we will develop recce and decon light capabilities, which means we will be able to move our decon unit by air to react quickly. This will only be with light equipment, portable decon machines and solutions; everything will be possible to move by C130 or by

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helicopter – MI17, CH-47, etc.”

The UK and US light teams also include a degree of bio detection in their mix; this has not traditionally been the role of the Czech Chemical Corp, and Colonel Osvald admitted that it would stay that way. “At that moment we focus on C and R(N), but within our Central Medical Institute, which is collocated with the Central Military Hospital, we can set up one detection company – it was attached to NRF8, for example,” he said. “This has equipment similar to the UK’s Integrated Biological Detection System (IBDS). It is not as capable as IBDS, but it is portable and can be deployed throughout an area, so in one place we might have good information and coverage of what happens in the assembly area, for example, as that seems to be the best place to choose. IBDS is a great piece of kit but it needs 8-10 people, as it is not so much a detection system as a lab. We will have the Company with two labs where you can deploy BAWS (Biological Aerosol Warning System); each lab has two sampling teams with BAWS, so when something happens a warning signal will be sent to the lab and the sampling team goes out to provide the sampling from BAWS; they can take samples and the lab does the identification. We have three tiers of identification: what was detected (Provisional result); a confirmatory analysis from the lab, which says ‘this is anthrax’; and then a forensic (Unambiguous) lab, which says this is ‘anthrax from X country’, for example.”

#### Weighing the capability

Lieutenant Colonel Osvald denied the suggestion that this move towards the LRT formula was the typical military precedent of preparing for the last war. He pointed to the fact that countries such as Britain and Germany maintained both light and heavy protected recce assets, and stated this would be the same in the

Czech Army. “We are working on a new heavy recce vehicle, based on a Pandur chassis,” he said. “It will also be equipped with a robot for detection and sampling, as sometimes you cannot send sampling teams as the area could be mined, or the concentration of agent could be too much. If I don’t send personnel into the area, there is a chance the robot will not come back.

“So we will have the robot and some completely new equipment,” he continued. “A gamma spectrometer rather than a radiometer, for example, which is many steps forward; an improved mass spectrometer and other detectors. Stand-off detectors will be deployed whenever they are developed, and each vehicle could take up to five such detectors. Our Tech Institute has worked on stand-off detection for more than five years, but then the research was stopped because of technical problems. I know that even in the US they have had technical problem with chemical stand off. False alarms in stand-off are a big problem, as it might cost us more, in terms of lost time, than they deliver. But right now it is all in development.”

As opposed to most other nations, which either develop technology in partnership with industry or buy military off-the-shelf equipment for CBRN detection, the Czech Chemical Corp has all of its equipment built for it by the Technical Institute – there is little or no industrial involvement. Colonel Osvald suggested they were able to achieve parity in terms of cost, equipment is designed especially for their needs and is free from the economic concerns that other governments have over contractors.

One area where other nations, such as the Belgians and Portuguese, still retain an advantage over the Czech Chemical Corps is in dealing with CBR IEDs. Currently they use traditional Engineer EOD assets, but

they will move towards a CBRNe capability. “The Portuguese and Belgian teams are the best at EOD at this time within NRF missions – but we have no experience of the US and UK who also have well equipped and trained teams,” said Lieutenant Colonel Osvald. “Italy also has good EOD teams, and there are EOD teams in all nations; they are not CBRN EOD, but with some determination they could be used as such. Other nations such as Germany, Poland, and the Czech Republic will develop such capability, and we expect, in approximately five years, to have one Czech CBRN EOD team. One would be all we need as we don’t expect that many missions within the Czech Republic and for missions abroad that will be enough. The primary mission for dealing with all devices in the Czech Republic will be a first responder one; we would only be in support. I would prefer – and this is a personal opinion – that we would have EOD experts trained in the CBR community, rather than the other way around, as what we need are EOD experts; then we can train them with basic and advanced CBRN training.”

The Czech Chemical Corps has a close relationship with its first responders. In contrast with other nations that have decided the military can only have a support role – thus wasting a fine CBRN defence capability – the Czech army has a defined role in a CBRN emergency. “The military is part of the civilian rescue system,” said Lieutenant Colonel Osvald. “There are joint operations with fire, police and the integrated rescue system. We have a special national military law – Law 219/1999 – which states and clearly describes our role in the national rescue system. We also have a military law that gives clear guidance on how the army can support the civilian rescue system as a second responder. This means we have six



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rescue battalions within the Czech Republic. Each battalion belongs to the region – it is part of the regional rescue plan – and then we have one brigade that provides support to all regions in the Czech Republic. Then we have other military units that provide special support such as air movement, casualty transportation, helicopters for fire representatives/ units if required, thermal vision – everything depends on the requirement of Ministry of Internal Affairs.”

## Unique response

While a lot of the capability is based on support, the CBRN forces have specific roles that are not duplicated by the first responder community. The army has two CBRN battalions, and are only expecting one to be on deployment at any one time, meaning the battalions are able to contribute to both the “home” and “away” games at all times. Another element that straddles both military and civilian life is the CBRN JAT, which employs civilian experts in a military support and advisory role. CBRN JAT is a tool for the commander, and provides senior academic support – including epidemiologists and meteorologists – that are able to provide strategic or theatre-level prognostications for the commander. The fact that they are civilians has both strengths and weaknesses, however: while they are allowed to specialise in a way that many militaries could neither afford nor provide, it does mean they are not always able to adjust to the demands of military life – such as being able to provide militarily useful information in short order and be deployed quickly if necessary.

There is also the problem of academic rivalry; experts often defend their findings rigorously, and there is the chance the military might want scientists to put past history behind them and work

together. Colonel Osvald agreed this is a problem, as is the fact that the scientist you wanted might not be prepared to be involved in the military deployment schedule. He suggested the lack of military understanding was not such a problem, however, as the military commander of the JAT was there to provide the lens for such knowledge.

“The commander of this team would give the operational part, and he is backed up by the Ops and Intel officers and also the warning and reporting cell,” he said. “They have the expertise and we have to translate it from civilian to military language and say what impact it will have. We have to translate it to the commander in a simple and short way – what has to be done and what is the timeline.”

Yet the JAT concept would seem to be compromised by the fact that a Company commander in the Czech Chemical Corps is expected to have an MSc in CBRN – as would officers seconded to Joint Force Command, etc. Wouldn't such a formal education rather erode the need for the talents of the JAT? Colonel Osvald suggested not, and that the skills of these individuals were far in advance of an MSc. “The JAT is not to provide advice at the tactical level; it provides operational and strategic advice. So while the Company commander will provide the calculation for decon on a tank battalion, the JAT provides the operational advice – what disease could be expected, what release can be expected, whether it is persistent or non-persistent. A Company commander doesn't care, he just focuses on the decon of his tank battalion. For the JAT persistence is important; if it is not you just wait 5-6 hours and it will disappear because of the weather, but the atmosphere at night when it cools might spread it hundreds of kilometres away, and that needs to be taken into account.”

Colonel Osvald admitted that the Czech developments were, in part, made possible by some of the developments that had come out of the NRF, whereby not only had some nations learned from the Czechs, but also vice versa. “What is happening is the original NRF concept whereby you have a multi-national battalion. That can be a synonym for big problems but, on the other hand, it can bring great capability together as each nation is the best at some things: the UK with bio detection, the US with bio detection, decon, and labs, Germany with decon and recce, the Czechs with recce, decon, labs and air monitoring, for example. We all have different capabilities, and when you put them together you can get the full spectrum of capabilities that would be impossible for one nation. While the Czechs are good at CBRN, other nations are building capability in certain areas. Spain is many steps forward from where they were, as are Italy, Romania and Slovenia. I was really impressed with the dynamic presentation of the Slovenian decon platoon at Tisa last year; they brought new and sophisticated kit.”

Perhaps the biggest difference between the situation now and ten years ago is that then CBRN was an area to be avoided; now many of the new Nato nations are looking to improve their capability, as a niche they can offer to Nato. The competition is fiercer, and while there are some nations such as the French, Germans, British and Americans that have excellent CBRN defence capabilities, they have other strings to their bow which is not always the case with some of the newer Nato members. CBRN is the capability *de jour*, and while there will undoubtedly be other nations pushing to wrest the CBRN crown from the Czech Republic, for now it remains in good hands.

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