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New Chief of General Staff Czech Armed Forces
Lieutenant-General Petr Pavel:

**Equation Staggering
too much**

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Lieutenant-General Petr Pavel

newly appointed the Chief of General Staff of the Armed Forces of the Czech Republic

On Friday June 29, 2012, the President of the Czech Republic Václav Klaus appointed the new Chief of General Staff of the Armed Forces of the Czech Republic. Replacing General Vlastimil Pícek, Lieutenant-General Petr Pavel took over as the new CHOD at July 1, 2012.

The President congratulated both Generals, and thanked General Pícek for his achievements in the highest military post. "I had the chance to watch his performance for a number of years, not only as the Chief of Military Office of the President, but also in this assignment, and I have to admit he proved excellent. It is our duty to thank General Pícek for his endeavour of many years' standing," President Klaus said and awarded General Pícek with the Golden Plaque on that occasion. "It is a sort of personal award that I, as the President of the Republic, bestow on those who have excelled in their branch, became publicly recognised personalities, and enriched me personally," the head of state explained.

The President also wished the new Chief of General Staff Lieutenant-General Petr Pavel the very best of luck in his new assignment, that he remained unchanged and would not yield to external pressures. "I fully realise the complexity of your position in the situation of current cutting of defence expenditures and I trust you will be able to cope with it successfully. I am always ready to be of assistance to you in this respect," President Klaus added.

General Pícek thanked to the President on behalf of the whole Czech Armed Forces. "Today is a very important day for me. Not only I am ending my term as the Chief of General Staff, but my service career that lasted over forty years concludes as well. I have seen good times and bad times too and I would like to accentuate that perhaps the most enjoyable moments I experienced in my military life involved working by

your side," general Pícek said to the President. The period of time when he served as the Chief of the Military Office of the President gave him an extensive experience that he sought to use in his assignment as the Chief of Defence.

Lieutenant-General Petr Pavel noted that this day could be for him the proverb come true of "marshal's baton in the knapsack of a simple soldier". But he rather underscored he was at the beginning of a journey, that would not involve lustre only, but surely also hard work, often with uncertain outcomes. "In addition to pride, I also increasingly realise the responsibility, which is and will be obliging, and will be greater than that I have ever been faced with in my service career," General Petr Pavel said. By the way of conclusion, General Pavel thanked the President for the support the President has shown and emphasised he would do his best for the armed forces to be responsible and continuously able to provide national defence.

On the same day, the National Memorial's Courtyard of Honour was the venue to a muster ceremony involving the servicemembers of the Armed Forces of the Czech Republic on the occasion of the armed forces day and handover/takeover in the post of the Chief of General Staff.



The ceremony started by laying a joint wreath in the Courtyard of Honour of the National Memorial by the top MoD and Armed Forces officials and continued with a minute of silence in honour of those who died in the line of duty.

"The Czech Armed Forces may be rightly proud of its legionnaire traditions that are worthy of honouring and following on. I have no doubt that the Armed Forces of the Czech Republic thoroughly protects the legacy of the founding fathers of our armed forces and of our statehood," Defence Minister Alexandr Vondra accentuated in his remarks and thanked to General Vlastimil Pícek, who ended his five-year term in the position of the Chief of General Staff of the Czech Armed Forces for everything he has done for the Czech Armed Forces. "He navigated the Armed Forces through a highly difficult period and led it successfully," Minister Vondra underscored.



"I am a soldier, so let me be brief. Thank you very much for the years of diligent, effortful and meaningful work," General Pícek said.

The newly appointed Chief of General Staff, Lieutenant-General Petr Pavel, mentioned in his remarks: "The coordinated and sustained effort to penetrate the most senior levels of government and political parties with unbiased and complete information about the true condition of the armed forces and its readiness to ensure national defence is beginning to yield the expected outcome in the form of an increased awareness that the defence department may no longer serve as a readily available auxiliary resource to fill public spending deficits."

After the order of the Minister of Defence was pronounced on his appointment as the Chief of General Staff, Lieutenant-General Pavel took over the banner of the Czech Armed Forces General Staff from the hands of Minister Vondra. Exactly at 12:00 hours, Minister Vondra, General Pícek and General Pavel signed a document in the foyer of the National Memorial on handover and takeover of the office of the Chief of General Staff of the Armed Forces of the Czech Republic.

by Olga Haladová and Pavel Lang
Photos by Marie Křížová and Radko Janata



An Equation Staggering Too Much

On July 1, 2012, Lieutenant-General Petr Pavel was appointed the new Chief of General Staff of the Armed Forces of the Czech Republic.

One of our colleague editors served with your father in the military. He recalled your father as a man with huge natural authority and a soldier with big S. Were you reared military style even before enrolling at the Military Grammar School in Opava?

Exactly. My dad was a true soldier in his heart and soul. Although I probably did not admit it at that time, I perhaps grew up as a sort of a little soldier. Not that he would force me to follow a military regimen, but the military spirit was always there. He had sort of strictness and high demands for me and tried to motivate me for a higher notch than I thought I would be able to attain.

You served a tour abroad in 2007-2011, and the last three years at SHAPE, which is understood by some as a farewell post in military career. Did it occur to you then that you would be offered the most senior post in the Czech Armed Forces?

I do not think that posting in SHAPE would be something given on farewell.

But there were cases in the past that this posting was given as if before honourable discharge...

But that was a mistake. Some posts may have been given as a reward prior to retirement. But I am confident that SHAPE should contrarily be the doorway to the highest armed forces command echelons. It is a place where one has opportunities to gain much experience and contacts. First and foremost, however, one gains a different perspective on various issues to be judged. People learn, for instance, how problems are solved in multinational environment. Both me and especially General Maleninský brought a body of experience from there, which we today find very useful in our day-to-day work.

When you gave us an interview then, you said that you reached certain horizon, but the horizon afterwards moved much farther again...

Just that I served at SHAPE and was promoted Major-General was much more than I ever hoped to achieve. I have had many objectives in my military life. One of the first ones was to get to Prostějov and become a member of airborne forces. That came true for me, I lived through loads of good things and worse things

too and when I returned there after years as the commander, I felt like in military heaven. All the rest that I achieved afterwards just kept me surprised. Every new post gave me the pleasure that I got as far as there. I have overcome my horizons quite frequently and I was happy with every one of them.

When General Štefka was taking over as CHOD in 2002, he called his people the winning team. Your team is rather referred to as a team of daredevils. You will be the most senior military leader in a very difficult period. Do you fully realise the challenges you will be facing?

Sure. The more the takeover was drawing closer, the more the feeling of responsibility pressed on me. But I seek to take it as not tying me down, but rather obliging me. It will definitely be hard, but I always maintained the opinion that unless the situation is completely hopeless, people should do their best to achieve maximum. I believe the team of people here are capable enough that we will be able to fight problems somehow. From my perspective, the biggest problem is that most of the tools for solutions are not in our hands. That is what I am afraid of most. What you can influence is mostly manageable. But if those are matters outside our purview, it is naturally worse. Things have huge inertia at the highest echelons of command and senior MoD level, and potential success only come out in the long run. If some things do not materialise straightaway, I do not lose hope. Even minor achievements fill me with optimism, at least in part. Then I start to trust that things are going to move forward.

There are not many service personnel sharing this optimism. What sort of advice would you offer to them?

I believe we are living some kind of reality and there is nowhere to hide. Of course, we have the option to throw the towel in, retire from the military and hope for a brighter future elsewhere. But there are problems in all sectors these days. Unless people have professions that are in high demand and low density in the civilian sector, which is unfortunately not the case with most of military service personnel, we have no choice than to try and fight what there is. It is our life, our time, and although it is hard, we have to cope.

How numerous will be the team you are going to bring along with you, and do you consider replacing some of the deputy chiefs of general staff?

I have not brought any team; I am going to take over the people serving here. When one is in a managerial post, especially the most senior one, the qualification should be their ability to work in team. If that is a problem, then the individual is probably not in the right position.

I stand ready to work with the team that I have. I do not mean to say at all that I would take over people lacking in quality. But that does not apply to this component nevertheless. There will be just one change, with another general officer moving to my position.

Who will be that person?

Brigadier-General Bohuslav Dvořák.

You are one of the authors of the White paper on Defence, but it now shows that there will not be enough funding allocated to bring it into reality. Do you think nevertheless that it be fulfilled?

The White Paper is not a set of tasks with specifically defined timing. We simply cannot say now the White Paper no longer applies, that we may calmly archive it for the generations to come, as a memory of an effort made. The White Paper is rather an evaluation of certain condition, which we made in given time and is also a policy. And that has not changed a bit. It remains equally valid as it was twelve months ago. Some conclusions that have the nature of assignments are likely to be accomplished at a later stage, but that is the destiny plans have. I think that the concept of the White Paper, the appraisal of identified issues and solutions to problems are generally right.

People wrote on the Facebook that finally a true soldier comes to this post. Does it flatter you that soldiers take you that way?

Of course it does. I should underscore on the other hand that people should be cautious about having too high expectations. There are many soldiers with big S in the armed forces and yet they are unable to push things forward. They simply do not have the necessary tools. Although I will be in the position of the Chief of General Staff, I will not have the complete toolbox. And that will restrict me in performance of essential changes. Although we all know what should probably be done, we may nevertheless be able to push forward some things only. Sadly, not everything can be realised for the time being.

Does it not annoy you that you have a reform package at hand and yet you do not know what the defence appropriation will be next year?

We do have a funding allocation for the next year already, although it has not been authorised by the Government yet. We are making calculations observing the limits we have been given. We naturally are aware that a number of very real problems will emerge already next year, and we will have to solve them in a very short period of time. The force structure and the way the forces operate will naturally need to reflect on that, but not fully yet in 2013. In that timeframe, we only plan to realise a part of the changes we have prepared on paper. On top of that, everything must

be authorised by the Government. We were tasked to prepare a defence policy document for the Government by the end of August, which will replace the 2008 National Military Strategy and elaborate on the National Security Strategy endorsed last year. It should redefine our level of ambition and provide a clear assignment. That will provide the basis for another other document covering the force structure and size corresponding to the assignment. Only when all of that is approved by the Government, some sort of realisation comes in question.

But General Pícek said the final shape of defence reform would be made public at June 30. Does it mean this deadline is postponed?

Yes, this is postponed. We attended a session of the National Defence Council, where we delivered a briefing on the condition of the armed forces and the ability to perform missions, but, first and foremost, we made it clear to the National Security Council that the current equation comprising the tasks, human and financial resources is completely out of balance. This status is simply not sustainable down the road. We simply must bring these three principal parameters back into balance. While the defence appropriation is constant according to the Government, i.e. that we will get no increase, and we say at the same time that we do not want to eat our budget out in personnel cost, then we have no choice but to adjust the other two quantities in the equation. That is either to reduce the tasks, or dip into the personnel strength. Or possibly do both. The Government must first approve our assignments, then the force structure and size, and only after that we may realise some changes.

The servicemembers are definitely interested what course their life will take. Could you give a specific timing for the prepared changes at this time?

I do not think we would leave soldiers in some unhealthy expectation or information vacuum. On the CHOD handover/takeover, we made a tour of all major command headquarters, had discussions with commanders at all echelons, sergeant majors, and we informed them in-depth about how things stood. Through their commanders and sergeant majors, all service personnel should have an awareness what changes may be expected. In case the Government approves in September the proposals we are going to submit, then reorganisation of the operational level command headquarters and building of agencies could take place sometime in the middle of the next year. Reorganisation of units would most probably be on the agenda only at the point the amendment to the Act No221 on Career Soldiers and the new Act on Remuneration of Service Personnel will be becoming effective, i.e. at January 1, 2014. We would do it at the same time and according to single standards.



The new remuneration bill is conceived quite generously. Do you think it will win support in the Chamber of Deputies?

Although I am optimistic by nature, I will not trust that until the bill is passed and promulgated as an Act. There have already been all sorts of various efforts and hopes. We do everything we can for this bill to enter into force at the beginning of 2014. We met the deadline for the bill to complete the intra-MoD staffing procedure. Now it is ready for staffing by other Ministries and governmental departments. Then it will be contingent on what shape and form it comes out of the process and how it will be judged in the Government's Legislation Council and the Parliament. Naturally, there might be a gamut of bottlenecks and snags we find difficult to foresee. That is also why I would be cautious to speak about January 1, 2014. But all measures we have taken so far are directed at that timeframe.

You made a mention about meeting with soldiers and sergeant majors; what was their response to the changes at hand?

Certain degree of frustration is understandable. What we are conveying to them is not really pleasing news. At the same time, we perceived a certain feeling of relief with them as they are finally told something. I am confident that people much better cope with bad news, in case they are told early and bluntly. The worst thing is when something is covered up or continuously procrastinated. So it came as a surprise to some extent that sergeant majors received the news with certain relief. The point is that they know what they are up to and will be better able to get ready for it.

Preparing reorganisation for the next year, do you work on the military budget amounting to CZK 38 billion, which was there according to the MoD midterm development plan, or is it 41 billion spoken of at the moment?

It is 41.9 billion, which is virtually the same as the 2012 allocation, after 1.4 billion has been frozen. It is naturally the nicer figure. But it is not the solution to the problem as such. Even when we restructure the armed forces, huge gaps in O&M expenditures will persist, not allowing us to operate fully. That primarily involves individual equipment, ammunition, POL and spares expenditures. Those are items involved directly or indirectly in quality and scope of training. The next year will see our training expenditures curtailed. And that is alarming. First of all, we will seek to ensure training of forces assigned for deployment in Afghanistan. Consequently, we have to restrict the training of others. Which is exactly the other way round than we would have wanted it – to maintain the armed forces' capabilities in its primary functions. This will naturally be reflected in the paper for the Government, Parliament and the National Security Council, because we are of the opinion that this situation is manageable in the short-term, but it would mean some of the national defence capabilities would be lost in the long run.

Are you ready for what we are already facing, including the economic downturn, a low tax revenue, which has lead the Government to freeze spending and the MoD could possibly end up without the promised billions in the end?

We do realise that. Already when we were developing documents for the worse scenario, we cautioned that the force structure does not allow cuts across the board. In case there would be another round of cuts, we would have no choice but again initiate a session of the Government, the National Security Council and submit a new equation: for given sum of money, we are only able to deliver this amount of tasks. If we get lesser money, we are only able to perform accordingly. Only then we can present to the Government the way we are able to support performance of the reduced set of tasks, in case it would

still be feasible. It is our aim for the policies to incorporate a much more specific definition of the threshold minimum for us to be able to still speak about a defence posture.

But we have some NATO commitments ...

That is the point. While we define our national defence solely in NATO context in all policy documents, the contribution we make to NATO's collective defence equals to the defence of this country. If we fail to meet those criteria, we would lose the right to collective defence and therefore defence as such. On standalone basis, solely on our own, we lost the ability to perform that assignment a long time ago.

A reform of the active reserve component has recently been prepared. If things get worse in the years ahead, do you think that savings could still be achieved by building up the reserve component while reducing some units to framework units?

It is naturally one of the ways ahead, but an option that entails a set of risks at the same time. The active reserve component is much frequented at this time, as if it would be a magic cure. With due respect for the existing reserve component, I have to admit that a lot of water will flow under the bridge before we attain the condition allowing us to make up for some shortfalls in the Armed Forces' size and capabilities using the reserve component. Not only considering their size, but their training and equipment in particular. Those are indeed matters that require both time and relevant resourcing. In order for us to achieve a higher number of reservists, and I am not speaking about the compulsory reserve component, it is essential to motivate people appropriately. One of the options would be incentives for employers to let people off for training. We naturally try to seek solutions to that, but it is challenging with the limited resources we have available. In case there will be further reductions, the incentives for employers will be the limiting factor for the size of the reserve component. It goes without saying that we are unable to make this happen using the defence budget only. National defence is not a task just for the MoD, it is indeed primarily the Government's responsibility. The Government should probably try and find resources outside the MoD to cover some activities. For example, incentives for employers in the form of tax reliefs would be an appropriate measure. The current strength of the active reserve component oscillates around eleven hundred members and the number does not increase despite all effort the Armed Forces is making. We are authorised to have three thousand active reserve component personnel. But efforts to man the units have failed so far.

Slovakia already dipped into staffs of individual arms' brigades. They do not have an artillery brigade anymore, but just an artillery battalion embedded with a mechanised brigade. Are savings still possible in the staffs at that echelon in the Czech Armed Forces?

The objective force structure we have tabled also includes an option of abolishing brigades in individual arms such as artillery, CBRN and GBAD, and replace it with regimental system. That would save us certain volume of staff and

support functions, but naturally at the expense of slight reduction in capabilities. We have considered all options available. We plan to assign those units of those arms to mechanised brigades to jointly create what we used to name combined-arms formations and now we call brigade task forces. Regimental staffs would then be earmarked for task force staffs. But it is all just in planning stage. We plan for this to happen at January 1, 2014. Naturally, provided that such change will be necessary. In case it turns out over the next year that we are able to perform our assignments with the current force structure, then we will not push such a change at any cost. We definitely do not mean to destroy something that works well.

When the Rapid Deployment Brigade was formed, it had the strength of three and half thousand personnel, including own artillery, engineers and other combat support components. Have you not considered that you would reassign those arms directly under the command of mechanised brigades?

The idea of combined-arms brigades, or brigade task forces, has already been tabled on several occasions. The premise we work on is that a country sized like ours is much more likely to deploy contingents smaller than brigade task forces. Our objective is to achieve maximum "freedom of movement" and flexibility in forming them. We will always try to tailor the deployments to the specific situation. By preserving a degree of autonomy for the units of those arms, we are going to have a greater flexibility in building task forces according specific needs. If we would place them into combined-arms brigades, it would be more difficult.

Asked about what he would recommend for you to be careful about, General Pícek said you should be more assertive than him. Do you realise you will have to resist some political pressures?

I perceive it with a smile that the outgoing CHOD advises me to be more assertive.



I naturally accept that and realise this time will demand that we be pushing more. While we are getting into serious difficulties, we have no choice but to abandon diplomatic language communicating some messages and address things the way they stand. I have lowered on diplomatic language over the last twelve months. In addition to pushing energetically, we also have to be much clearer in formulating the positions of the Armed Forces as an organisation. The recommendations by the Armed Forces to its political leadership must be communicated clearly. The decisions then are naturally up to politicians to make. The Armed Forces must build on clear positions and criterions.

You have nevertheless surprised many with your outspokenness; people are rather not used to it here. Some say such senior functionary should be more diplomatic. Do you think you will hold out, that it will not wear you out?

I may not say something and act differently, just because I would obviously need to tell lies. Since I came back from the tour abroad, we have actually been doing nothing else than communicating reality. Veiling our conclusions and recommendations into a blank package would appear ridiculous to me. On top of that, it would definitely take the Minister, Government and Parliament by surprise. We have told them the naked truth on several occasions already.

You have been known for driving a motorbike to work. Tomorrow you will be appointed the Chief of General Staff. Will you go to work in a Skoda Superb, or on your motorbike?

The weather should be nice on Monday, so I will go on my bike. I suppose I will make some reasonable arrangements with the security guys and if possible, I will continue to ride my bike to work.

by Vladimír Marek a Jan Procházka
Photos: Marie Křížová, Radko Janata and Archives



Fifty-year-old Lieutenant-General Petr Pavel started his military career at the Military Grammar School in Opava. Then he studied reconnaissance program at the Army College in Vyškov. In 1983, he was assigned to Special Regiment in Prostějov. Later he served as a military intelligence officer. In the beginning of 1990s, he participated in UNPROFOR mission in the territory of former Yugoslavia. During that deployment, he volunteered with his unit to go and rescue French soldiers trapped between warring factions, for which he was eventually decorated with the French Cross of War with Bronze Star and later also the Order of the Legion of Merit. "None of us contemplated whether we would go or not. The situation was quite unclear and called for a quick solution. We followed basic human and military instincts. It was soldiers, our colleagues, who were in danger. We could easily find ourselves in similar situation a week later," General Pavel commented his decision afterwards. In 1994, General Pavel was appointed as the Deputy Military and Air Attaché in Belgium and studied the King's College in the UK. Then he was appointed the commander of the 6th Special Brigade in Prostějov. After eighteen months, he went to serve as coordination officer and later aide-de-camp to the Director of Operations Planning at the Regional Headquarters Allied Forces North in Brunssum. He was appointed the Deputy Commander 1st Mechanised Division in Brno in July 2002 and then the Commander of Specialised Forces in December that year. In 2003-2005, he was the Deputy Joint Force Commander and then Deputy Director of MoD Operations Division – Director of Operations Branch. Then he served another tour abroad, first as the Deputy Czech Military Representative in the EU in Brussels and then as the Czech national military representative in SHAPE. General Pavel was appointed Deputy Chief of General Staff – Chief of Staff in July 2011. Then he also became involved in development of a strategic policy document, the White Paper on Defence. He was promoted Lieutenant-General in May 2012. General Pavel's hobbies include travelling, diving, skiing, photographs and books.

Never step into the same river twice



Servicemembers of the Czech Armed Forces 9th Provincial Reconstruction Team Logar with commanding officer Colonel Antonín Genser, Deputy Commander 4th Rapid Deployment Brigade, took over the operational assignment from their predecessors on Tuesday, February 14, 2012, following upon what had been nearly four years of intensive effort of Czechs in Logar. Many of them indeed came back to the place they had known very well, but it holds true for Afghanistan perhaps more than anywhere else, that you never enter the same river twice.

The core of the 9th PRT Logar deployment is formed by the personnel of the 42nd Mechanised Battalion "Saint Wenceslas" of the 4th

The mountain range that rises into the Azra district reaches as high as 2,700 metres above sea level and that is where the Czech soldiers headed together with civilian experts to discuss and survey another development project designed to strengthen local security.

For the final ascent, soldiers picked four MRAP MAXXPRO vehicles and a Pandur wheeled armoured personnel carrier from the convoy. The choice was not coincidental at all. MAXXPRO and Pandur are the most powerful machines the Czech deployment has. In addition to its advanced monitoring systems and effective weapon station, the Pandur has the best offroad mobility of all the machines in the motor pool available to Czech forces in Afghanistan



Rapid Deployment Brigade. The 42nd Mechanised Battalion returned to man the Provincial Reconstruction Team for the second time as the very first unit and indeed the only unit to have done so to date, because the 42 MechBn personnel comprised the core of the 4th rotation, then with Colonel Milan Schulc as the commanding officer. The unit with roughly two hundred personnel of the 42nd MechBn is complemented by additional specialists from twenty-one military units and components across the Armed Forces of the Czech Republic to make the total strength of 293 personnel.

Pandur or chamois?

The Logar province consists of a central plain roughly 2,000 metres above sea level surrounded by high rocky ridges reaching as high as 3,000 metres, with some peaks being close to 4,000 metres above sea level.

Their journey into the Khoshi district towards ANA observation posts on the Jerowbay ridge was an example of the many patrols off the base involving vehicle movements truly high in the mountains, which the Czech forces carry out.

– exactly what the forces needed then, besides a high payload capacity.

The last several hundred metres of elevation difference were to be negotiated on a narrow and very steep stony road rather suitable for walking or for caravan of mules than for heavy military vehicles. But the vehicles managed. Although slightly heavier than MAXXPRO vehicles, Pandur clearly capitalised on its lower centre of gravity and 8x8 wheel configuration, thanks to which long steep climbs in the terrain posed no major problem.

Viewing photos taken from the narrow ridge, it seems close to incredible where vehicles may go through thanks to superior skills of the drivers. Just for illustration: the Czech warriors drove their heavy duty vehicles on this mission at elevations just under 2,700 metres above sea level. In the forbidding terrain, the Pandur proved its Alpine descent and figuratively conquered the Czech Republic's highest peak, Mount Sněžka, reaching 1,602 metres above sea level, by more than 1,000 metres.

CIMIC aiding schools and hospitals

A small CIMIC group operating as a part of the Czech Provincial Reconstruction Team in Logar does a tremendous job. Realising the so-called quick impact projects, particularly in the sphere of education and medical care, they aid people in need, and also practically help win the hearts of people in local communities. But the CIMIC effort cannot do without the assistance of others, because their activities are financially dependent on help from sponsors and humanitarian organisations.

The Centipede – On Own Feet children's movement, headed by Ms. Běla Gran Jensen, ranks among traditional partners the Czech Armed Forces cooperate with. The cooperation started already during the war in the Balkans, where the centipede movement delivered aid side by side with the Czech troops, for example in Bosnia and Herzegovina and in Kosovo. For humanitarian



Minister Vondra visited Czech deployments in Afghanistan

At the end of May earlier this year, Minister Defence Alexandr Vondra, 1st Deputy Chief of General Staff Major-General Žižka and Czech Parliamentarians visited Czech forces operating as part of ISAF in Afghanistan.

On their arrival to Kabul, the delegation was welcomed by Colonel Ján Kožiak, the Commander 4th Czech Armed Forces Task Force ISAF, accompanied by the commanding officers of his subordinate units stationed at KAIA, including the National Support Element, Field Surgical team, Air Adviser Team and the CBRN defence unit.

"I arrived to Afghanistan after some time to express my support to the Czech men and women in uniform, who are doing an excellent job here. Their effort is also highly valued by our Allies. In addition, I came in time when the decision is to be made about the mandate the Czech Armed Forces will have for operational deployments. The mandate has been endorsed by the Government and now it will go through the Czech Parliament. Afghanistan remains a dangerous place and the more pleased I am, touching wood, that this year has seen no fatalities among the Czech warriors," Minister Vondra said.

"You have just a couple of days to go before you hand over your operational assignment. It is vital not to slacken on the regimen, make sure all responsibilities are handed over properly to the deployment coming to relieve you and bring all people safely back home," General Žižka underscored.

Minister Vondra with his delegation visited the 9th PRT deployment in Logar, the 4th OMLT in Wardak and also met with 3rd Military Police team at ITC camp in Wardak



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projects realised by the CIMIC team of the 9th PRT Logar deployment, the Centipede donated US\$ 10,000 for procurement of textbooks and other teaching aids for selected basic and secondary schools in the region, painting aids for local children and education courses for women with focus on housework skills and to counter illiteracy. Like the Centipede, military chaplains and their charity collections organised in individual parishes back in the Czech Republic are also an important source of aid for CIMIC.

In addition to aiding girls' and boys' schools, especially in Puli Alam, Muhammad Aghah and Khoshi districts, the Czech CIMICers work with local radio stations to hold various quizzes for children.

As to helath care, CIMIC delivers aid in co-operation with the Ministry of Health Care of the Logar province especially by distributing essential medical materiel for local hospitals and clinics. This aid has also partially benefited Afghan soldiers and police officers in Logar and Wardak, including personal first aid kits. Soldiers received bandages and additional materiel from Czech children involved in collecting old car first aid kits.

Dobanday: the most beautiful valley in Logar

Some of water management projects run by the PRT's civilian component are situated in one of the most beautiful corners of the province – the Dobanday river valley. The 2nd mechanised platoon augmented with two Pandur wheeled fighting vehicles plus additional essential assets from the unit took up the task to inspect the Abtak weir, a feeding concrete channel and the small hydroelectric power station nearby.

Major part of the journey leading to the Koshi district in this direction is on main paved roads, and so the physically most demanding task awaited the warfighters only when they dismounted from the vehicles on the edge above the valley. The descent leads among steep slopes that soldiers have to negotiate on foot. With the subsequent movement to the locations where individual projects had been realised, they were up to a fairly good mountain hike. The point of departure was about 2,500 metres above sea level. First they had to get several hundred metres down into the valley, go on to individual places of interest and then return back to vehicles. The planned route was not too long, just about six kilometres, but the overall height difference nevertheless made it really demanding. On top of that, soldiers must always wear full body armour, carry weapons, observation and communication devices off base. So, each individual carries the load of roughly 25 kilos.

Down and through the valley, the warfighters were going through a landscape dotted with standalone qalats. Qalat is a typical Afghan dwelling structure with square or rectangular yard encircled with high earthen walls built for defence purposes. One qalat usually houses multiple mutually related families. Surrounding fields and orchards watered by the Dobanday stream provide subsistence to the locals. As opposed to the plain without vegetation above the steep slopes, this place is a true green oasis.

To keep the oasis alive, the Czechs helped renovate the Abtak weir to withstand spring flooding, and built a connecting channel to the power station cut deep into the rocky mountainsides in some places. The channel bed may both bring water to the power station, but also to the fields worked by the locals. The Czech trace in the Dobanday valley is therefore quite tangible, but living in there is not and will not be easy for a long time down the road. The beauty of its scenery can be admired in photos, but seeing it on own eyes however costs much sweat.

Czech – Afghan cooperation through mortars

A completely new activity that Czechs started in Logar was the cooperation on training mortar crews of the 1st Kandak 4th Brigade the Afghan National Army at Camp Altimur. Members of the mortar battery of the 42nd Mechanised Battalion with commanding officer Captain Viktor P serving on the 9th PRT took up the challenge.

As the first one weapon, the Afghan soldiers provided to the Czech servicemembers calibre 82mm M69 mortars for testing and the cooperation therefore developed based on that type of weapon. “The first Kandak lacks trained crews plus there is not any piece of information available on this weapon, similarly as is the case with other mortars. Therefore, we had to start from scratch,” Captain Viktor P. explains and goes on to say: “We were lucky to have received valuable assistance from our colleagues back in Výchov, who also have experience with mentoring Afghan soldiers in Wardak. We made a reach-back request and they managed to get hold of an English manual for the weapon.” The mortar guys of the 42nd MechBn were able to use the manual as a basis for their training effort.

According to Captain Viktor P., the M69 mortar is a very good weapon in its class: “It has a standard range of 3,000 metres, and up to 5.5 kilometres with special rocket-powered munitions. An experienced crew is able to fire as many as 20 shots per minute,” he comments what are fairly good parameters for calibre 82mm weapons and adds that Afghans also have newly manufactured modern Bulgarian ammunition to fire with the weapon.”

Once a thorough inspection of the weapon and shells was completed, the Czechs could hit the road to the shooting range. They selected a gorge some 800 metres away. Using optical sight, aiming the mortar laterally posed no problem. The more difficult part was to set the right elevation, because there were no firing tables for the weapon and ammunition. “We had no choice but to try and calculate the firing parameters using the limited and incomplete technical data available,” Captain Viktor P. explains.

An explosion of the first round just a couple dozen metres over the target confirmed that the specialists from Tábor do their job excellently. The second round was so-called shortened shot, before the target, to verify the calculation both for shortening and lengthening the distance. After this “framing”, the third HEF shell went straight down the middle of the target area to the satisfaction of all.

With successful hits and good calculations, the Czech servicepeople won respect of the



locals, and proved that they will be competent and able mentors in the training done already jointly with assigned personnel of the 1st Kandak.

Back at home, the personnel of the mortar battery of the 42nd Mechanised Battalion use towed Czech-made calibre 120mm Model 82 mortars with range up to eight kilometres that fire Czech or Soviet-made high-explosive fragmentation shells.

Mentoring Afghan Police

Relatively less known fact in the history of the Czech Provincial Reconstruction Team is that they started in 2009, with the 4th PRT

contingent serving the tour, a formal training program for the ground component of the Afghan National Security Forces, specifically performing basic courses to train the Afghan National Police officers. It was the personnel of the 42nd Mechanised Battalion, who launched the lecturing and training, and Military Police service personnel took over and have carried on to date.

The 9th PRT deployment order of battle also includes a Military Police training and mentoring team comprised of the members of the Military Police Headquarters Tábor and Stará Boleslav. The situation developed



markedly as the Czechs managed over time to progressively train instructors recruited from the ranks of Afghan police officers. The Czech Military Police were therefore able to transition from actually doing the training themselves to mentoring – providing supervision and methodology oversight of lectures led by Afghans themselves.

The job has nevertheless become any easier and involves everyday practical assistance to Afghan instructors, especially with preparing the lectures and leading individual sessions. That Czechs perform very well is best proven by the statement of the commander of the Afghan police school at Camp Shank, First-Lieutenant Mohammad Bassir Stanekzi, who has been leading the academy for eighteen months already: “I enjoy working with Czech police officers and we have no issues between us whatsoever. I am proud of what we have jointly achieved here so far. After all, when lecturing started a couple of years ago Czechs had to lead

all training sessions, but now we have our own instructors, whom you helped to train. Today, those instructors are in charge of preparing our new police officers and the Czech instructors only mentor and assist. Words are not enough to thank you for everything you have done.”

In the basic patrolling course, the new Afghan police officers gain familiarity with what they will need in practical performance of police service in the field and at police stations. The commander of the Military Police team the 9th PRT Logar deployment Major Luboš Š., explains: “In addition to essential physical preparation and basic drills, the practical subjects include apprehension procedures and techniques, safe personal search methodology or vehicle check as well as rudiments of practical investigation and crime detection. Given the security situation, a high premium is placed on shooting and medical training and, with a view to the low literacy rate among Afghans on reading and writing.” Furthermore, the course also teaches Afghan

factsheet

Since taking over their operational assignment in mid-February earlier this year till the end of May 2012, in other words over three months, the service personnel of the 9th PRT Logar completed 150 aeromobile, vehicle-borne, combined and foot patrols and 11 rotations of teams assigned for permanent protection and defence of the forward operating base in Puli Alam. On top of that, PRT personnel have also been involved in five coalition security operations in the Logar province, continuously assigned EOD specialists for permanent duty and assistance on route clearance patrols (RCP) and also performed roughly 40 flights of the RAVEN unmanned surveillance vehicle. The ninth deployment for PRT Logar is also continuously involved in security and defence of Camp Shank and also provides forces and assets to the quick reaction team. The Military Police team mentored two runs of the basic course for members of the Afghan National Police and the CIMIC team realised or launched eighteen Quick Impact Projects. The 9th PRT also newly renders cooperation on training mortar crews of the 1st Kandak of the 4th Brigade the Afghan National Army. The primary equipment used to perform the operational assignment are IVECO and Dingo light armoured vehicles, Pandur armoured fighting vehicles and US MRAP MAXXPRO vehicles. Small arms used by the Czech PRT include modernised Mod. 58 assault rifles, Mk. 48 MINIMI machineguns, Sako TRG-22 and Falcon sniper rifles, Benelli shotguns, Glock G17 pistols and CZ 75 SP-01 Phantom, RPG-7 and AGS grenade launchers. The 9th PRT Logar service personnel are the very first Czech Armed Force's foreign deployment to be completely equipped with the new calibre 5.56 NATO CZ 805 BREN assault rifles with accessories and CZ 805 G1 attachable grenade launchers.

law and essentials of traffic service and traffic control.

Major Luboš Š. concludes: “The training is now led by six Afghan instructors, who have already achieved certification authorising to lead lecturing under supervision.” The objective of the Czech instructors is therefore not only to help them with lecturing, but also to carry on educating them in afternoon hours to prepare them for future exams that will qualify them to lead lectures and sessions completely on their own. Some of them are already so experienced that they are highly likely to achieve that qualification already during the tour of the 9th Provincial Reconstruction Team deployment.

by MAJ Jan Šulc,
9th PRT Logar deployment
Press and Information Officer

The Armed Forces of the Czech Republic has operated in Afghanistan for a decade already

MEDICS Were the First



When the fighting for Shahi Kot valley was coming to a head in the east of the country, the first Czech soldiers arrived to Afghanistan. The Surgical Team of the 6th Field Hospital had serve from March 17, 2002, with the British 34th Field Hospital in Bagram for several weeks. By mid-May 2002, they were replaced by the 6th Field Hospital. A couple of days later, the medical facility was ready to deliver medical care to full ROLE 3 standards for both ISAF forces and for the locals.

The Czech 6th Field Hospital with commanding officer Colonel Jindřich Sitta had huge body of experience at that time already. It was formed in 1998 based on a commitment the Czech Republic had undertaken even prior to its accession to NATO. As early as 1999, the 6th Field Hospital deployed in the territory of Albania and in Turkey following a disastrous earthquake. In Afghanistan, the 6FH operated as a part of coalition mission FINGAL.

Over one thousand tons of materiel, including thirty-nine vehicles and forty-two special container shelters, were transported by air. The Czech Armed Forces hired thirteen flights of the An-124 cargo airplane. The field hospital comprised an HQ, staff, signal team, logistic element and specialist medical component.

It was augmented with a force protection platoon and a Military Police team. The medical component included an ICU, surgery ward, inpatient ward, operating rooms, dentist ambulance and a medical evacuation team.

The staff comprised of seventeen doctors, twenty-three nurses and medics, two pharmacists and five lab specialists. Besides the field hospital facility, the medical component had available two POP-2 casualty aid stations, three regular ambulances, three offroad ambulance cars, special OT-64 armoured ambulance vehicle, a mobile dentist surgery and the PHEL-2 mobile hygienic lab.

Alcatraz uptown Kabul

The field hospital was set up in the outskirts of Kabul city, covering a narrow rectangular area of 60 by 300m. Most of one hundred and thirty-two Czech service personnel spent close to six months on what was a little less than two hundred thousand square feet. Practically all warhorses concurred on the point that this state of isolation was probably the most demanding factor. Throughout their tour, nobody was permitted to leave the base except for the guard unit members and the mobile medical teams. And so it was nicknamed after the notorious American jail, the Alcatraz. A twenty-seven strong force protection platoon, comprising of airborne and reconnaissance troops, was responsible for security of the base and of the mobile medical teams. Those soldiers got into contact with the locals most frequently.

Over their five months' tour, most of them learned quite many words of Pashto, the official language spoken by more than fifty per cent of Afghan population. Bakshish was the most frequented word, meaning both a demand for bribe and a request for a gift.

It was strictly prohibited for the Czech servicemembers to consume any local food or beverages. Practically all food the cooks used to prepare meal on the base was imported by a German contractor. The base was completely independent of its environs. The Czech Armed Forces' field hospital had there an AQUAOZON 32 mobile water treatment plant, power generators, mobile refrigerators, field laundry, own

cookhouse and special engineer vehicles and equipment. The logistic support was to produce over five thousand cubic metres of drinkable water, deliver over 300,000 kW-hr, dispose of three thousand cubic metres of liquid waste and wash roughly eighteen thousand tons of laundry.

The alarm was at seven o'clock. There were two hours off after the lunch. The working hours ended at six p.m. and there were six working days in a week. Only Sundays were free, regardless of the fact that Afghans do not work on Fridays. In the medical facilities on the base, the Czech medical personnel were able to provide treatment to as many as one hundred and sixty injured and ill persons a day. Five surgical teams had a capacity of up to fifty surgeries a day.

Reaching out to deliver care

One of the missions the Czech medical personnel had was to cooperate with local hospitals and medical facilities, including a Kabul hospital financed by the International Committee of the Red Cross. That had 224 beds and specialised in surgeries. Majority of patients were men and children with war injuries. Limb amputations caused by landmines were very frequent.

The principal, Doctor Abu Saeed, had nothing but praise for cooperation with the Czech medics. "They come to our place quite frequently. They would choose five or six cases they are able to help us with. They would take those patients to their field hospital for operations and return them to us for post-operation treatment," Doctor Saeed said. Ten years ago, we had a chance to go with doctor Lieutenant-Colonel Igor Krivosucký to the Hood Kheil district. They were going out three times a week to provide treatment primarily to children there. Indeed, population aged under eighteen accounted for half the Afghan population. Average life expectancy in this country was forty years. Apart from heavy injuries caused by hostilities, the occurrence of infectious diseases was quite high. "All education is useless when, just after you have once again explained the essentials of hygiene, you see a child drinking water straight from an irrigation duct while waiting for treatment," LTC Krivosucký explained. Thankfulness of the smallest patients was most rewarding for the medics.

Three Afghan girls, who had been for treatment in our field hospital as inpatients, learned a Czech song, which they sang for the Czech medical personnel in the end of their stay as an expression of their gratitude. One of the boys, who were treated in the hospital, was adopted and brought to the Czech Republic by the then MoD spokesman, Mr. Milan Repka.

Attended for the first time

The 6th Field Hospital also performed comprehensive examination of the personnel forming several Kandaks of the newly built Afghan National Army and provided medical aid to them on continuous basis. "It was interesting to see how our work boosted their self-confidence," microbiologist Captain Karel Kovářik said. "It was for the first time in their life that someone seriously cared for them."

Ten years ago, we were also able to go, with a heavy security, to one of the six districts at the outskirts of Kabul our doctors regularly visited delivering aid to outpatients. Our escort had a Rottweiler with them. We learned it commanded even higher respect than an armed man. There were nearly no dogs in Kabul at that time. Rabies spread out, and so dogs were destroyed. In October 2002, the 6th Field Hospital was relieved by the 11th Field Hospital that operated in Afghanistan till the end of 2002. A ten-member Czech surgical team then continued afterwards to serve in the country for some time. Thanks to delivering aid to local inhabitants suffering from the hardships of war, the field hospital won some sympathy among Afghans. The Czech Field Hospital returned to Kabul in 2007 to stay there for nearly two years. Dozens of medical doctors and nurses have served tours at KAIA in five rotations altogether.

At present, there is a French military medical facility at KAIA housed in permanent buildings. And a Czech surgical team operates as a part of it.

by Vladimír Marek
Photos by Vladimír Marek and the CZE
6th Field Hospital



Interactivities Green-Lit

With about six thousand inhabitants, the town of Oberammergau mostly reminds of a woman that gets pregnant in regular intervals. Every year in winter, the community grows by ten thousands visitors attracted by skiing opportunities in the Bavarian Alps. Many more people from across Germany come here every ten years (last in 2010) to see the Oberammergau Passion Play.

Oberammergau nevertheless has one more magnet that attracts people, indeed soldiers, not only from Europe, which is the NATO School Oberammergau (NSO). The Armed Forces of the Czech Republic is represented in this NATO facility. In addition to Lieutenant-Colonel Jiří Havel, who has been here for over a year in his capacity of a CBRN defence expert, the former

Czech Armed Forces Command Sergeant Major SWO Miroslav Švadlena joined the NSO staff last year.

A bit of history

A military compound was built at the town outskirts in 1935. When construction of mountain troop barracks was completed, the 54th

Mountain Signals Company was based here from 16 October 1937 as part of the 1st German Mountain Division. The unit was ordered to the Balkans during World War II and the facility was lent to the Messerschmitt company. In addition to other operations, the development was underway there of the first jet airplane ever, the Me 262, and V2 rockets. A cave

complex was dug in nearby mountains at that time, and critical parts of production were moved in there. At the end of WWII, the barracks were occupied by the U.S. Army that later established the Army Information Education Staff School there, which progressively underwent a series of reorganisations. Military police personnel and intelligence officers were over here for training. The Special Weapons School was established in Oberammergau after 1960. Over time, the school gained an increasingly Allied nature. It was integrated directly under the Supreme Allied Commander Europe and renamed the NATO School in 1975. From the beginning of 1990s, students from non-NATO nations were also accepted for courses. Apart from the Partnership for Peace countries, that currently involves countries of the Mediterranean Dialogue and the Istanbul Cooperation

Initiative. A new building was constructed in 2005 to house a self-service mess hall for students. In 2011, the NSO premises were expanded with new lecture rooms equipped with all state-of-the-art learning process prerequisites.

Ten thousand a year

Throughout its existence, the NSO has built on the basis of bilateral cooperation between the U.S. and Germany. These two countries provide facilities and logistic support for the NSO. But its budget is dependent on student fees, so the School is quite self-reliant to a large extent. The predominant type of training is one-week courses, but there are also courses lasting fourteen weeks. The courses are continuously revised and updated to reflect newest developments. Roughly three hundred students are here for courses on weekly basis, but the NSO accommodation

facility only has forty-five beds. The School arranges accommodation for the rest of students in guest houses and hotels that are found in dozens in Oberammergau. It is an interesting source of funds for the town.

The NATO School courses were attended by 10,487 students from 67 countries in 2010, with most of them coming from France. In the first half of 2011, about three students attended the facility a month, but recently the number grew up five or six individuals a week. Majority of Czech military professionals interested in training courses however recruit from those serving in NATO structures. They are sent to Oberammergau from individual NATO command headquarters.

While the school started with two courses in 1953, it holds over a hundred of them at present, including information about NATO, multinational forces, electronic warfare, command and control, psychological operations, logistic operations, force mobilisation, weapons of mass destruction, peacekeeping missions, crisis management and public diplomacy. The NATO School employs approximately two hundred people from twenty-three countries. Most of them are Americans and Germans. The NSO organisational structure comprises the command and logistic support components.

But the most important is the teaching staff, who are divided into six sections; the posts are manned with service personnel from NATO as well as non-NATO nations. They are headed by a dean.

Best qualified experts

Lieutenant-Colonel Jiří Havel graduated from the Army College in Vyškov in 1982 following the successful completion of a CBRN defence program. He is the Czech National Representative and leads and has responsibility for two courses in the NATO School Oberammergau. The first course is designed for experienced soldiers in senior ranks or their civilian equivalents, as it comprises lectures by renowned experts from universities and schools or military professionals or civilian staff from higher NATO command headquarters, specialised organisations and various agencies. In a single week, those lecturers offer a broad spectrum of latest trends and perspectives on political developments and doctrines, non-proliferation as well as latest lessons from operational deployments worldwide. Students mostly appreciate the opportunities to actively join discussions and share their observations and experience in this subject-matter area. The other course covers CBRN reporting and warning and leaks of hazardous industrial contaminants.

"These posts should be filled with individuals having a record of experience. Both students with minimum subject-matter knowledge come here as well as those dealing with the specialism full time. Those individuals are interested in highly sophisticated matters and apply for courses to maintain their currency," LTC Havel explains. "The alert and warning system course comprises academic lectures and a practical part, which is held in dedicated lecture rooms suited for practical exercises. We introduce a situation involving a type of threat, and they have to respond somehow. That way, we verify in practice





whether the students have mastered the subject. We have to be real experts and we may not afford to fail. That would discredit both the course and the whole school. Having said that, there are relatively few people specialising in these subjects though. If someone goes out, we have problems replacing them."

Senior Warrant Officer Švadlena is responsible for two weekly courses. The NATO Academic Instructor Course is open for officers, senior NCOs and civilian employees alike. He focuses on didactical models. "Our goal is to bring lecturing in NATO to the same standards. Every nation has indigenous instructor training system and we would like to see them work along the same lines. We focus on the structure of lectures. Plainly speaking, we teach people to teach," SWO Švadlena elaborates. "I am the course lead, which means in practice that my responsibility is to develop the course structure and get in touch with all the lecturers. We invite external lecturers, but we also make use of own contacts and experience. I am able to identify the best students already during the course. I may contact them later and ask whether they would be willing to come back to give lectures. In addition, you have to book the lecture rooms, develop the timetable and prepare the technical support, including computers, Internet access etc. There are plans for me in the future to give lectures as well. I am also an instructor here." In addition, he is responsible for the NATO Instructors course, which is only open to sergeants. "In our section, we chose ten subjects we deem important. Just from the top of my head, they include NATO's history, strategy and so forth. We train instructors, whose mission will be to train other senior NCOs in NATO. Those are mostly instructors from various schools. This course came into being pursuant to their requirement," SWO Švadlena says. "At the beginning of this process, there was a NATO document signed by both Supreme Allied Commander Transformation and the Supreme Allied Commander Operations in 2010 containing NATO recommendations for the nations how to shape development of their respective NCO corps. That is why focus on this specific area."

The Netherlands and Belgium Leading the Way

In September last year, the originally two-member section expanded with SWO Švadlena and his Hungarian colleague. One more U.S. Sergeant is to come later on this year.

Maximum twenty-four people may apply for this course, but demand exceeds supply in general. The procedure is such that individual nations claim certain posts and the School is to decide in the end. It often happens that they send just one student instead of two.

"When one joins such an organisation coming from the General Staff, it is a major change. First of all, you have to gain familiarity with the workings and get settled here. We therefore try to get every individual involved in the learning process. Everything is much more interactive here than back home, otherwise we would have students falling asleep in lectures. Practical lectures are valued most. Everybody is able to try out what it is like to give a lecture on their own," SWO Švadlena explains. "We prepare the courses and lecture plus we evaluate them as well. This process in particular is highly accentuated. Students evaluate every single lesson using a scale from one to five. First the lecturers evaluate themselves, then their fellow students evaluate them and then us, the instructors."

When instructors divide the students into smaller groups, it is always interesting to see who is going to stand out as the leader. Native speakers have an advantage in this respect, but it does not apply universally. Moreover, the leads seek to make them backgrounded in order to leave room for others. "My post here is not administrative; I work with people and give lectures. It is an excellent opportunity for NCOs. I do the same job here as senior officers. But it is challenging though. Nobody orders students to come here. You have to develop lectures interesting enough for them to show interest and apply themselves. When I prepared my first course, no one applied initially. Naturally, that makes you nervous. But with about a month to go, the course got full very quickly," SWO Švadlena smiles. "In my view, senior NCO academic training system is best developed in the Netherlands and in

Belgium. I am relying on senior NCOs mostly from those countries, as they help me organise the courses."

Feeding back

The spirit of complete academic freedom prevails here. Students may not offend anybody, but otherwise they can show any opinions. They have the option of evaluating the courses in the conclusion, for which they use a prepared form for them to fill in. That mostly involves subject-matter comments, but there is space for the sense of humour as well. For example, one of the students complained he was accommodated downtown Oberammergau close to the church and did not have much sleep as the bells were chiming all the night. "This feedback represents an important input to what we do. The evaluation informs me whether I prepared the course well or not. I am confident that satisfied students will do good promotion in their countries not only for my course but indeed to the whole NATO School," LTC Havel explains.

But it is not about the contents of individual courses only. Military professionals also benefit from the international environment as people share their observations and lessons. They expand their awareness of how business is done elsewhere. "Our contribution also has its representative value. Other countries appreciate that the Czech Republic is making such a substantial contribution. Indeed, we have also held so-called country briefings for the NSO staff to learn interesting facts about the Czech Republic and the Czech Armed Forces," LTC Jiří Havel adds.

Lectures at the school are scheduled from eight in the morning till five in the afternoon, followed by self-study in some cases. The course includes a joint dinner for all students and a visit to the Neuschwanstein fairytale castle located nearby, which Ludwig II of Bavaria had built in the second half of the nineteenth century. In case there is some free time left for students in their busy schedule, they may opt for going into the mountains as the environs offer innumerable hiking opportunities.

by Vladimír Marek
photos by Vladimír Marek and the NATO School



Facing new challenges

The year 2011 saw the Armed Forces of the Czech Republic sustaining its largest deployments ever with units operating in Kosovo and Afghanistan, as well as many other locations. Deputy Chief of General Staff – Director MoD Joint Operations Centre, Major-General Aleš Opata, elaborates.

What is your appraisal of the Czech Armed Forces foreign operational deployments in the last year?

The Czech Republic took part in five foreign operations in 2011 with deployments in Kosovo, Afghanistan, Bosnia and Herzegovina, the United Kingdom and Egypt. Nearly 3,000 personnel served tours in those missions.

To what extent was your assessment affected by the fact that two servicemembers were lost in Afghanistan?

Indeed, we lost two warriors in 2011, who suffered fatal injuries in combat operations. It is an immense loss for their families, fellow soldiers and for the Czech Armed Forces. In spite of that, I regard our endeavour in Afghanistan and in other foreign operations successful, primarily in terms of mission performance and delivering on our commitments.

After eleven years, we have accomplished our endeavour in the Balkans, but the security situation in Kosovo has recently deteriorated again. Was it not a bit premature?

I do not think it was premature. After eleven years, the mission has come to an end for the Czech Republic. The Czech Armed Forces did

their best in Kosovo to contribute to a safe and secure future of Kosovo and its democratic development. Kosovo must learn to stand on own feet and be able to tackle problems the environment of nascent democracies brings about. The mission in Kosovo was a success story for us. For eleven years, we were involved practically in everything that historically took place as a part of the process of stabilising the country. But in the very last years, we were not providing any significant value added in purely military terms.

Was it challenging for us to leave the country after so long?

It claimed a considerable effort. The last deployment with commanding officer Major Nejedlý was tasked to withdraw all materiel back into Czech Republic and make sure the area we had been stationed in for eleven years was revitalised. They put everything back into the original condition, i.e. the way the place had looked like before we arrived Kosovo. Those nearly hundred personnel involved successfully readied six full trains carrying eighteen thousand tons of materiel for redeployment. One hundred and ten vehicles were transported, roughly the same number of containers, seventy portacabins and

loads of other materiel. In addition, the deployment dispatched two road convoys and some air transfers. Moving such an amount of materiel over a long distance was definitely not easy at all. Moreover, everything went without any problems and without any major damage or loss. It was an exemplary proof of a well-functioning logistic support system and overall coordination in the Czech Armed Forces on national and international level.

Kosovo was better accessible than Afghanistan. Considering our somewhat limited strategic airlift capabilities, is it not more challenging for us to sustain that effort in terms of logistic support?

That is not accurate. I regard claims that we have minor strategic airlift capability as a persistent cliché, which is no longer correct. We have been in Afghanistan since 2002. We have learnt many lessons over those ten years. But our Armed Forces has changed in a major way too. Both in terms of equipment, mindset, experience and the way they approach mission performance. The logistic support in Afghanistan has also grown completely different. When we were starting up in Afghanistan, we had not owned aircraft capable of transporting



essential materiel into that country. We had to rely on our Allied for that capability. It changed in the fundamental way in 2007. We began operating the Czech Air Force Airbus A-319 aircraft, focused our efforts on the ground into a single area of operations in 2008, created an integrated task force system with National Support Element (NSE) providing direct support. The whole system got more stable as the Czech Armed Forces' engagement grew in Afghanistan. Currently we do not face any major issues resupplying our deployments using the Czech Air Force assets. The Airbus aircraft completed 608 flight hours having transported 4,751 personnel and 162 tons of materiel between Prague and Afghanistan just in 2012. In addition, we have prepaid the SALIS program flights for strategic airlift. We have been firmly integrated in the system, but we have also reserved additional coalition flights, and we have built an operational STRATEVAC system.

We are insourcing airlift to resupply our deployments in Afghanistan for around eighty percent, which is definitely not a marginal figure. Logistic support in Operation ISAF has grown into a completely new dimension as we work with all coalition actors in the theatre and have additional links in place for effective cooperation as part of operational logistic support. We have learned to use both national and Allied assets. We have also tried out the so-called Northern Rail Route earlier this year. So far we only sent two containers with materiel that way into Afghanistan in a test. This option also proved viable, but not as flexible as the air; it takes roughly two months for the materiel to pass all the instances.

The Czech heli unit completed their deployment in Afghanistan last year. Did they perform the way you expected them?

Our helicopter unit accomplished a two-year deployment that I am confident was highly successful. The helicopters had deployed downrange right after their modernisation and operated there for two years without any major issues and showing full reliability. That the modernisation was performed to excellent standards was proven by its operational use in Afghanistan. The helicopter unit performed over five thousand flights during their tour and spent 2,750 hours airborne. They transported over nine thousand personnel and over 330 tons of materiel. Those are impressive figures.

It was the first time for a Czech helicopter unit to deploy for such type of operation. Helicopter pilots and gunners, as well as technical and support personnel proved to be trained to very high standards. We can manage even in the extreme environment of Afghanistan. We did not have a single casualty, single hit by opposing forces or any serious problem over those twenty-four months our helicopters were deployed for. The unit nevertheless did not operate only in more secure places but also in high-risk areas, including the province of Wardak, where it was often the last resort for our OMLT to have air mobility into or out of the area of combat operations. I believe this mission has brought our helicopter service among the leading nations that have such capability deployed in Afghanistan, including because our coalition partners have recently begun to adopt the tactics the Czech pilots chose for Afghanistan.

The helicopter unit's mission was previously said to be only suspended for twelve months to resume in 2013. Does it still hold true, the foreseen budgetary restrictions notwithstanding?

We are in the process of developing the mandate for the unit for 2013-14. We had to suspend the mission; we are not a military with hundreds of helicopters and pilots. Our helicopter capabilities are limited, as are those of the like-sized countries. Both personnel and helicopters demand a sort of break to renew their combat readiness. Rotary-wing aircraft are absolutely crucial for supporting Czech land deployments in Afghanistan. Helicopters provide up to eighty percent of personnel movements on operations. Nations having deployed the machines downrange primarily use them in support of their land units. The withdrawal of the heli unit has complicated our mobility to an extent. We have to rely on coalition helicopter effort.

We have deployed the newest equipment in Afghanistan, including Dingo, Iveco and Pandur armoured personnel carriers; plus now the CZ 805 Bren assault rifles have been delivered there as well. How much does the equipment prove well in the demanding conditions in Afghanistan?

The forces that went from the Czech Republic to perform their assignments to Afghanistan back in 2002 were what I would call a predominantly Russian type of military riding UAZ trucks and BMP-2s, equipped with Russian, or indeed Soviet made equipment. From 2007-2011, our forces were completely rearmed with weapons and materiel compatible with NATO nations' armed forces. The last piece of the puzzle was the handguns. Not only were our forces rearmed in such a short time interval, but it was moreover done literally on the move and directly in operation, naturally with all associated risks. The effort exerted by those involved in introducing the materiel, adjusting it to specific conditions of operations in Afghanistan and naturally in force training can hardly be appreciated. It was all performed at such a speed that we really did not notice our weapons and equipment in Operation ISAF changed radically. I must admit it was not always easy, but I feel very strong about that we are self-sustainable and not reliant on our partners in terms of delivering our operational

assignment, and that we finally stopped operating in the we-give-you-the-manpower-you-give-us-the-equipment-we-will-already-eat-on-our-own style at last. But back to your question: Afghanistan is an extreme environment, in which every type of equipment has its pros and cons, but also its limits. Having monitored serviceability of equipment and weapon systems over a longer specific period of time, we may fairly say it never fell under ninety percent benchmark. That definitely attests to some quality. I am confident that we are better off in this respect than some of our partners are. The quality of our equipment and the speed at which our servicemembers learned to operate it have largely contributed to the fact that our losses in Afghanistan have been minimal. In addition, what we achieved is that our commanders in Afghanistan have available quite a broad spectrum of land equipment, so that they are able to select vehicles matching the terrain profile and mission to be performed.

I was surprised in Afghanistan how quickly our service personnel were able to learn to operate the borrowed U.S. hardware, such as MRAP vehicles. Is it truly our national advantage that we are able to quickly settle with circumstances and improvise?

It is not a benefit of improvisation, but rather an outcome of the effort by our commanders and individual soldiers alike. They are very well trained and, thanks to skills they gained both at home and in Afghanistan, they are able to acclimate themselves and stand up to new challenges. But what it builds on is a high-quality training and preparation on tactical subunit level. Improvising does not substitute quality training and preparation, although the art of improvising has been intrinsic to Czechs for decades.



Perhaps least is known about the Czech Special Forces' mission in Jalalabad. What is their role there?

Our Special Forces have been integrated into the ISAF special forces chain of command as a standalone task force. I would hate to speculate about what strand their operations pursue. Their mandate defines for them to perform missions in the full spectrum of special operations, which I believe is telling enough. In addition, the special forces task force is involved in mentoring a special unit of the Afghani National Police (the PRC – Provincial Response Company). In the Czech Republic, the PRC compares to the regional police SWAT units.

The Czech 601st Special Forces Group in Prostějov have traditionally performed to excellent standards and that is reflected in their assessment by the Allies.

We are told the year 2014 will be decisive in the context of terminating operations in Afghanistan. Coalition forces are to withdraw in that timeframe. To what extent will that apply to the Czech Armed Forces?

2014 is really meant to be the turning point in the operation. But it would be naive to think that Operation ISAF would close down completely in 2014 and everybody would go out of Afghanistan. The process began last year of transitioning responsibility into the hands of the Afghani government and the Afghani National Security Forces. President Karzai has a very selective procedure in place to identify provinces, towns and areas to transition into direct Afghan responsibility. As a part of the process, operations by coalition forces are being restricted in selected areas. This transition is to come to head sometime around 2014, but I do not think all areas would already be under Afghan administration in that timeframe, particularly in security terms. The developments down the road however remain to be seen. I would rather regard 2014 as a time of a sort of operational climax. But that does not mean we would leave Afghanistan for good. We are likely to remain engaged in that

country in terms of mentoring, partnerships and security consultancy.

Presently we have our foreign deployments almost exclusively under NATO command. Is it conceivable for you that sometime in the future we would operate as part EU military structures or UN forces?

I do not think the European Union would mean something new, something ground-breaking for us. We assigned a CZE/SVK European Union Battle Group for standby in the past, and we have preparations now underway for another one. So, we have a good degree of familiarity with the European Union system. Moreover, the

EU forces usually deploy for lower intensity conflicts than those under NATO command. In the role of observers, we also operate as a part of UN missions. Likewise, we have been through deployment of whole units under UN command. We took part in operation UNPROFOR in the 1990s. Something like that cannot be ruled out down the line, but no requirement of the kind has been voiced. However, should anything like that happen, it is certainly the kind of effort we would manage to deliver. The peak of Czech forces' operational activity is at the level of NATO-led operations.

by Vladimír Marek
photos by Vladimír Marek and MoD JOC



Forces and assets of the Czech Ministry of Defence to be deployed for foreign operations in 2013-14

The plan of deploying Czech MoD forces and assets for foreign operations in 2013–2014 with outlook to 2015 keeps ISAF as the highest operational priority.

The Government of the Czech Republic mandates the deployment of up to 539 Czech military professionals in Afghanistan in 2013, and maximum 340 personnel in the following year. In 2015, with Afghan authorities already fully responsible for security in the country, the Czech forces operating there will predominantly have the assignment to perform missions associated with training, mentoring and assistance to the Afghan National Security Forces, with total authorised strength of 150 personnel. Up to twenty special forces operators will be assigned to provide security to the Czech Embassy in Kabul.

In 2013-14, up to ten Czech military professionals will serve tours in KFOR in Kosovo. Maximum three service personnel will be assigned for the EU Operation ALTHEA in Bosnia and Herzegovina. The Czech Republic will also continue its involvement in the counter-piracy EU Operation ATALANTA – up to three personnel, and the same number will be involved in the Multinational Force and Observers mission in Sinai.

The plan also includes deployment of a Czech air component for the Icelandic Air Policing mission in 2014. The Czech Republic will continue to assign forces and assets to the NATO Response Force (NRF) and the UN Standby Arrangement System (UNSAS).

Approximately twenty five thousand Czech Armed Forces service personnel have served tours abroad since 1990s. Over eight thousand served in Kosovo, roughly three thousand were for operations in Iraq. Since 2002, close to eight thousand Czech men and women in uniform have deployed for operations in Afghanistan.

Czech Aid for Afghans

An exclusive look behind the scenes of Mi-17 and Mi-24 helicopter expert teams in the 5th Air Adviser Team at the Kabul International Airport.

The 5th Air Adviser Team (AAT) led by Lieutenant-Colonel Petr Kratochvíl took over its operational assignment on 4 December 2011. For most of the AAT personnel, this has not been their first deployment. The unit is deployed at the Kabul International Airport (KAIA) and comprises two expert groups. The first team focuses on training for Mi-17 Hip air mobility helicopters and includes two instructor pilots, a systems engineer-instructor, a gunner and three maintenance specialists. Except for the gunner, all the air force personnel are members of the 24th Air Force Base Prague-Kbely. The mission of the second team is to train Afghans on Mi-24/35 gunships. The Hind team also comprises two instructor pilots, two system engineers and seven maintenance specialists. In addition, the AAT also includes a senior officer-assistant commander. The Mi-24/35 team's permanent station is the 22nd Air Force Base Náměšť nad Oslavou.

Flying in non-standard conditions

Every day is different and specific at the same time in the mission in Kabul, although the AAT also has to develop monthly and weekly plans. The squadron however is tasked to respond to instant requirements of the Afghan National Army (ANA) or to the needs of coalition forces. When forces deployed at forward operating bases or combat outposts high in mountains cannot be resupplied otherwise than by air, training is rescheduled or cancelled.

As a matter of fact, helicopter flights are performed over hostile territory. They are engaged quite often because the slow-moving and low-flying helicopters represent an easier target as opposed to fighters or commercial airliners that fly faster and at much higher altitudes. All helicopter crewmembers are aware of the threat, and adjust the flight tactics to the mission and the area they are flying or indeed to the location they are going to land in. "Fear of being shot at must remain outside the cockpit. The pilot and other aircrew members only dedicate their effort and thinking to flight performance. Fear must stay outside the cockpit," Czech helicopter personnel concur.

There are many factors directly influencing flight performance, such as high elevation and flight altitudes, maximum take-off weight, sharp

changes of the weather, unpredictable turbulent streams over mountain ridges, brown-out or white-out landings. The current training scheme comprises four to six-week blocks, when a pair of helicopter with two advisers and four "students" perform the training and transportation missions outside KAIA. When flying into areas with possible hostilities, a pair of Mi-17 Hips is escorted by pair of fully armed Mi-35 gunships.

The aircrew of these helicopters comprises a Czech adviser-pilot, Afghan trainee pilot and Czech systems engineer. In one of these joint missions performed to resupply an ANA forward operating base in Ajristan, a helicopter formation had to fly over a mountain range reaching roughly 3,900 metres above sea level. "Piloting at such altitudes is already quite demanding. The interval between maximum and minimum flight speed is narrow. The maximum flight speed decreases due to altitude, air density and payload. That makes calculating the maximum take-off weight critical," systems engineer Warrant Officer Vlastimil K. concludes. A team of Czech Mi-35 advisers escorted Afghan Mi-17 machines on a resupplying mission into the Kunar Valley, regarded one of the most dangerous places in Afghanistan.

The Czechs have been involved in providing ground training to Afghani pilots, including a flight simulator, where the U.S. command of the Air Expeditionary Advisory Squadron sent them based on their achievements in mentoring members of the Afghan National Army Air Force, to practical flight training. The training involves piloting techniques flights and inspection flights transporting materiel and personnel into locations hardly accessible by land and with very restricted size of mountain landing zones. The 5th AAT personnel are also responsible for providing assistance on mission planning as well as on after-flight debriefings. "As to Afghans, they are generally evaluated as very highly experienced pilots. Some of them flew already in the Soviet forces operated down here. An overwhelming majority of them had a Lieutenant-Colonel and Colonel rank. Our squadron comprises close to eighty Mi-17 pilots and two dozen Mi-24/35 Hind pilots," the Czech instructors explain and go on to say: "As to their professionalism, that very much differs. Some of them have an extensive log, some only gather experience. Relations between the Czech team and their Afghan



counterparts are very friendly. Afghan pilots and maintainers highly value the attitude that Czech Armed Forces personnel have showed in performance of missions in the combined team and the particularly value the time they spend together, when many issues get settled while drinking tea in a friendly atmosphere."

The deployment of the 5th AAT in Afghanistan has been partially affected by the weather. In terms of temperatures, amount of snow and duration, the winter was extreme this year. According to the data available, there has not been such tough winter over the last fifteen years!

Over the two and half months of their tour, the Czech Mi-17 adviser pilots completed 48 flight hours in 17 flight days and transported 8.6 tons of materiel and 123 servicemembers of the Afghan National Army as a part of rotations in the forward operating bases. It should be noted that eight flight days had to be cancelled for inadequate weather conditions. In addition, they completed fifteen hours' training on a flight simulator to practise circuit flying, emergency procedures (engine failure, hydraulic system failure) and instrument approach. The 24/35 helicopter team completed thirty-nine flight hours in ten flight days in the same period of time.

An FOB resupplying mission

In the first half of February, the 5th AAT members performed transportation mission flying the Mi-17 in support of the 203rd Corps the Afghan National Army. On the first day, a pair of Hips with Czech-Afghan aircrews transferred into the city of Ghazni in the province bearing the same name in central Afghanistan. The Czechs were represented by two pilots, a systems engineer, three maintainers and a door gunner. Afghani personnel included two pilots, a systems engineer, three gunners, five maintainers and, essentially, a translator, whose service were mostly used by the Croatian ground air requirement coordinator. "In the Afghan National Army Camp Vulcan at Ghazni, we loaded two tons of diverse materiel, including food, power generators and

timber plus eleven ANA soldiers, whom we were to lift to another Afghan base called Giro on a mountain plateau with elevation 2,200 metres above sea level approximately fifty kilometres south of Ghazni," the team commander Lieutenant-Colonel Petr Kratochvíl explains and goes on to say that the spot may hardly be accessed in summertime, not to speak about winter.

Having accomplished the mission, the helicopters transferred into the city of Gardez some eighty kilometres away for the night. Necessary technical maintenance however needed to be performed first.

The tasks on the second day again included transportation of materiel and personnel to ANA forward operating bases not accessible on land. Thirty Afghan military personnel had already been waiting on the flightline to transfer into a location just six kilometres from Pakistani border at 2,300 metres above sea level. "Transporting troops was without problems. We have been lucky with the weather so far," Mi-17 team commander Major Peter S. concluded. At FOB Barmal, the helicopters loaded food for FOB Curry situated in Gowmel valley amidst high mountains about forty kilometres inland, where all access roads are snow-blocked in wintertime.

"In transfer flight to FOB Curry, named after a U.S. soldier killed in the valley in 2007, the helicopters flew over a mountain range at three thousand metres above sea level in strong wind and turbulences," Lieutenant-Colonel Kratochvíl describes the mission. After unloading thirteen service personnel and two tons of materiel, the machines continued with additional ANA members back to Camp Lightning at the city of Gardez. "But the job was definitely not over for us on that day," the commander adds. "Our technicians carried on maintaining the helicopters till late night to keep the machines serviceable and in reliable condition," LTC Kratochvíl speaks highly of his team. The weather aggravated substantially on the following day. A strong wind was blowing and caused turbulence. The Czech helicopter



team continued their mission nevertheless. The choppers transported additional twenty Afghan soldiers from Gardez to a camp in the city of Orgun and then transferred to FOB Zirok and Lwara located just three kilometres from the Pakistani border, where Hips joined the training of Afghan soldiers for escorting prisoners taken in an attempt to cross the state border illegally. Upon returning to Orgun, helicopters carried on to Barmal, where they loaded other two tons of materiel and flew into Gardez via Camp Gowmel. There they loaded a wounded U.S. soldier with a complex leg fracture and transported him to KAIA, where he instantly went for a surgery.

Over those three days, helicopter aircrews from Kbely AFB logged eleven flight hours and transported a high number of soldiers and materiel. Upon completion of the mission, the Czech Air Advisory team awarded two certificates to the pilots of the Afghan Air Force. One of the pilots is now authorised to lead group training on his own and perform personnel and materiel transportation missions as

a helicopter formation commander. Another pilot was certified as a helicopter captain on the second aircraft.

Upon returning to their home station, the Czech pilots were welcomed by the U.S. commanding officer of the 438th Air Expeditionary Advisory Squadron, Lieutenant-Colonel John P. Conmy, who thanked them for a job well done in completing the various tasks in the mission. The Czech team made another step in increasing the Afghan National Army capabilities to perform air transportation missions on their own and contributed to enhancing skills and training standards of Afghan pilots.

Developed by Pavel Lang, courtesy of the Press and Information Officer 4th Czech Armed Forces Task Forces in ISAF CAPT Jiří Zedníček and members of the 5th AAT, LTC Petr Kratochvíl and MAJ P.S.

*Prepared by Pavel Lang
Images: Czech Air Adviser Team*

Czech mentors awarded with U.S. decorations for their merit in training Afghan pilots and maintainers

Four Czech Years in Kabul

Twenty-three Czech Armed Forces military professionals are standing lined up face-to-face with the US Army Attaché in the Czech Republic, Colonel Charles H. Wilson. Although they are assigned to different units, they have something in common – operational tours served in the International Security Assistance Force (ISAF) in the territory of Afghanistan, specifically as a part of the Air Mentoring Team. On the first Tuesday of March, they were decorated with the U.S. Army Commendation Medal and U.S. Army Achievement Medal.

The Czechs have trained the members of the Afghan Air Force (AAF) for four years already. Since April 2008, a group of helicopter specialists from Přerov AFB led by Colonel (Ret.) Ivan Pospíchal started to operate at the Kabul International Airport.

Subsequently, serving four-month tours, Czech Air Force personnel rotated in the Czech Air Operational Mentoring and Liaison Teams (OMLT) and later the Air Mentoring Team

(AMT). At the moment, the fifth Air Adviser Team (AAT) comprising expert groups for Mi-17 transport helicopters and Mi-24/35 gunships operates at the Kabul International Airport (KAIA). The commanding officer of the Czech instructor pilots, systems engineers, door gunners and maintainers of the 24th Air Force Base Prague-Kbely and the 22nd Air Force Base Náměšť nad Oslavou is Lieutenant-Colonel Petr Kratochvíl. "I highly value the excellent job you

are doing training the military pilots and ground technical personnel of the Afghan National Army. The Czech support is extremely important for us to achieve our common goal: to have a self-reliant and well-trained Afghan National Army," Colonel Wilson said in a ceremony decorating the second, third and fourth Czech Armed Forces ISAF AMT deployment. The airmen were also commended by Major-General Aleš Opata, Deputy Chief of General Staff – Director MoD Joint Operation Centre: "I know this job is very demanding and often frustrating, because you are starting from scratch with every new course trained by the AAT. You have done your job with honour and this day is a proof of that."

Commanding officer two times in two rotations

For Lieutenant-Colonel Rudolf Straka, currently acting Deputy Commander 22nd Wing of the Náměšť Air Force Base, the 3rd AAT deployment was a rerun of his previous tour in Afghanistan. He served his premiere tour downrange at the beginning of 2010, when he was the commanding officer of an eleven-member group comprising Náměšť AFB personnel, whose mission at KAIA was to train and mentor Afghan flight and ground personnel on the gunships. "The tours were completely different. From security situation in the area of operations to climatic conditions in which flight training was

done," LTC Straka recalls and elaborates: "The violent death of nine US colleagues claimed enhanced security measures at KAIA and made the atmosphere grow denser, which affected each member of my team. It was a double challenge for me as the commanding officer. I felt a huge responsibility for their security."

You keep on wishing for all your subordinates you have known personally for a number of years that they returned home safely. That is the highest priority of any foreign deployment." He adds at the same time that he lived out both a tough winter, and a hot summer. "The Hinds are very sensitive both to elevation and temperature. Just as a matter of interest, the Kabul International Airport is situated eighteen hundred metres above sea level and that brings about some specificity to flight personnel training."

The machine performs worse in summertime than in winter. That naturally affects the way Mi-24 helicopters are maintained in serviceable condition." Although he has logged over two thousand hours flying Hinds, he states the AAT job is not only about sharing experience with Afghans, but also about learning new lessons.

Flying in mountains and extreme climatic conditions is another step forward in your professional qualification. "Plus you have to count in the fact that you operate in a crisis area where engagement is probable to a certain degree. The more you have to work with intelligence, the more precisely you have to plan missions in

given specific locations. You cannot underestimate even apparent trivialities," the military pilots argues and describes what both operational tours in Afghanistan have given to him. "Extreme limits. Mine and those of the Mi-24. I have shifted my notional pain threshold and the Mi-24 helicopter again reinforced my conviction that it is a very good machine in its category."

For LTC Straka, Afghans themselves are an unforgettable experience, more specifically the military pilots whom he worked with in the cockpit. They were predominantly experienced pilots, who had been for training in the former Soviet Union and logged hundreds of flight hours. But they have been absent from practical flying for a long time. Aviation novices were no exception either. "They repeatedly showed to us how high they valued our assistance. Emotions culminated in the end of our tour. When a veteran Afghan pilot comes up to you and says a sincere farewell with tears in his face, it is really an intense experience," LTC Straka concludes.

Experience for both

Colonel Charles H. Wilson also bestowed the US Army Achievement Medal on Major Miloš Synek of the Helicopter and Transport Section the Air Force Branch of the MoD Force Development – Operations Division, who served as a mentor at KAIA from March till August last year. "It is never easy to start something new, which is also the lesson I learned with the AMT

ISAF," MAJ Synek says and gives an example: "Contrarily to the missions at home, you get into the cockpit with people you do not know much about and they are in fact strangers to you, while onboard it is vital that you may rely on your colleagues one hundred per cent in any situation. It is about mutual trust and confidence in particular. It aroused with me a special feeling initially. Later on it became a daily routine."

MAJ Synek trained Afghan pilots on the Mi-17 Hip. In the notional stick-and-carrot methodology, he rather preferred the second type of attitude. "I always tried to help them with kind words. When I saw they were trying really hard, I did not hesitate to commend. In case they performed with shortcomings, I told the individual to go aside and I discussed the issue with him in depth. Criticism before the others would be counterproductive. The Afghans find such situations difficult to bear; they take it too personally. When you discuss the performance just between you and him, they are able to draw lessons for future missions," MAJ Synek adds.

The former Czech AMT ISAF mentor also speaks openly about the level of threat present. "Concentration on piloting itself forces certain feeling of fear out of your mind. Performing a mission, you only perceive your professional activities in the cockpit. The fact that you could be in danger will only come to you later on, perhaps in the evening or on the next day while you are doing the debriefing. The flight must be performed strictly according to given methodology. Coincidence of various albeit unforeseen circumstances may substantially affect the flight performance. In other words, every little detail matters. This applies permanently in aviation. Therefore, you cannot tell that today you go for an easy mission and tomorrow it will be difficult. You still have to perform one hundred per cent," Major Synek argues.

An air incident happened while he served his tour in Afghanistan. In a brown-out landing, the dust impaired orientation for an Mi-17 aircrew. "After completing a transport mission, we were on approach for landing with an Mi-17. Behind the stick was a Croatian colleague as the captain and I was in the right seat as the second pilot."

We were surrounded by a cloud of dust and our rotor blades got into contact with an object while we were performing the escape manoeuvre. We were lucky to get away without any major injuries. I just had several swellings on my hands and legs and a couple of bruises in my face. A short stay in the Kabul military medical facility put me together again," MAJ Synek explains.

Every cloud has a silver lining. In this case, the incident became one the driving factors for Czechs and Croats to start joint training activities, as they have worked together in Afghanistan for quite some time. Bringing their preparation to the same standards already ahead of their deployment for AAT will undoubtedly help attain a higher effectiveness of training but also enhance air traffic safety in particular.





Cadets Attained the JAGUAR



The annual participation of two students from – members of the University of Defence Commandos Team – in survival course in the middle of jungle of the French Guiana is a prestigious affair. This year the opportunity was furnished even to four students who underwent a two-week jungle survival training course in March-April timeframe.

The training course is organised by the French Foreign Legion 3rd Infantry Regiment base (3rd REI) at Kourou. The Foreign Regiment has thirty instructors assigned to the Equatorial Forest Training Centre (CEFE) with a camp located in Amazonian forest close to the town of Regina, as the point of departure for training missions. That is also where the course participants prepare in an intensive training over the first ten days after their arrival before the four-week marathon through the tropical jungle begins.

The alarm started training at four thirty. A physical examination followed to reveal fitness of individual trainees. Instructions on conduct

in the jungle and information about the local flora and fauna were complemented with practical demonstrations. There is a little ZOO right on the base with majority of local animals, ranging from spiders and snakes to a jaguar.

In the jungle, the Defence University students – Master Sergeant Daniel Buršík, Sergeant Petr Topinka, Sergeant Jakub Rozsypal and Sergeant Lukáš Chroumal – were accompanied with humidity all around, plus sometimes hunger and thirst. But the greatest threat were insects, as gnats carry malaria there. Biting by snakes, spiders or scorpions or contact with poisonous frogs may be dangerous. "Several days on, you get the danger out of your mind and just concentrate on the training," says Lukáš Chroumal, who encountered two venomous snakes in the forest, but fortunately nothing happened to him.

Practical training primarily seeks for the soldiers to acquire habits necessary for surviving in local forbidding conditions. The famous Devil Islands are indeed a part of the French Guiana. The course participants learn how to orient in the jungle, sail on pirogues, obtain basic skills using the machete, practise building improvised

shelters and rafts and learn how to survive on locally available resources.

They are continuously supervised by instructors throughout the course and have to repeatedly go through the feared local system of four obstacle courses built in the jungle, which are the icing on the Foreign Legion cake. The Pig Trail represents a system of obstacles leading through a muddy blind channel. Negotiating the trail, soldiers practise crawling, balancing, creeping, climbing, jumping, diving and swimming. The Liana trail was nicknamed the monkey trail by the trainees. It comprises of ropes, nets, trees and wooden structures and trains climbing, shimmying, jumps and balancing.

The Team Trail takes longest, normally over two hours. The course comprises nine obstacles requiring cooperative effort by the whole group, at least seven individuals. Again, the team trail features mud, trees and a giant slick wall. The last test involves carrying a casualty by a group of at least seven people. The "injured" is tied to a long log as tight as possible and the other soldiers have to carry him over the muddy terrain with sharp changes in elevation.

Infinite movements on foot and obstacle courses in water, mud and on the trees, those are the lesser pleasing parts of the survival course, because you are permanently soaking wet and dirty with mud. The only chance of having at least one dry set of clothes for night is to carry it in a watertight barrel, as air humidity reaches up to 98 percent in the jungle. "All days were tough," Sergeant Lukáš Chroumal recalls. "Bruises, rash, hands burnt from ropes were commonplace. We slept in expedient shelters we built ourselves from trees and palm leaves. We used to go to sleep early, because the dusk was around seven and fire provided the only light. It was raining through most of the nights we spent there. Day temperatures fluctuated between thirty and thirty-five degrees Celsius."

The demanding course came to a head with a four-day mission, whose principal objective was to survive. But before that, there was a preparation led by indigenous Indian named Narcisus employed by the local Foreign Legion unit. He showed to the soldiers the fruits to eat and how they should prepare them, how they can obtain food by hunting, how to prepare fishpots and traps to catch animals.



“Military instructors dropped us in the jungle without food and water. We only had a shotgun with ten cartridges for self-protection, water purification tablets, salt, simple fishing equipment, barrels, compass and a whistle. They even took away our T-shirts and shoelaces,” Sergeant Rozsypal and Sergeant Chroumal describe. They were to live on what they caught on their own. The team with Sergeant Rozsypal caught a monkey, which cannot be eaten because of parasites, but they exchanged for it for three quarters kilo of rice for twenty people! “We were lucky enough to have a lad on our team, who grew up in a similar environment. He knew the fruit of the jungle and taught us what to eat,” Sergeant Rozsypal says. The team with Lukáš Chroumal only caught a couple of tiny marsh crabs. “We made a soup from them. It was close to inedible. There was perhaps no meat in it. It was fatty and salty, so we just replenished minerals,” Sergeant Chroumal describes the unusual menu.

But it was not much easier with water either. “We took it from the river, but although purified with the tablets, it remained brownish. We also bathed in the river, washed our rifles, field uniforms and shaved,” Sergeant Rozsypal recalls.

Simulated attacks on an armed camp of illegal gold miners or drug mafia were also an interesting experience. “We just simulated the attack on a prepared camp, but the whole action was nevertheless quite challenging owing to difficult movement in the forest,” Sergeant Chroumal says and goes on to specify that it takes nearly two hours to cut a kilometre-long path in the jungle with full gear on.

Commander of the 3rd Regiment the Foreign Legion Colonel Lardet was happy with the performance of Czech soldiers and he also highly valued their good physical fitness and mental resilience. At the same time, he expressed his wish that the students of the Czech University of Defence took part in the survival course in Guiana in the next year as well. Back in the camp, our soldiers met legionnaires with Czech origin, who were very friendly and sought to help them.

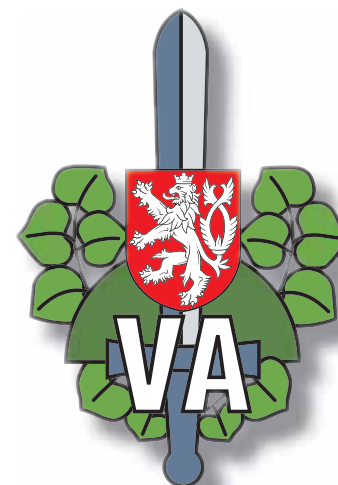
Sergeant Topinka sadly did not finish the course due to an injury. “Moving through the jungle, it does not take much to suffer an injury and the body reacts differently in these conditions than it would normally do. It was the case with me, and a leg injury coupled with an infection put me out till the end of the course. But still I gained much valuable experience for my future career,” Sergeant Topinka says.

Defence University students and cadets from the l'Ecole Spéciale Militaire de Saint-Cyr, who went through the course, passed the final exam. Now they are entitled to wear a badge with Jaguar on their uniforms, which they obtained upon completing the course in French Guiana. And they may also recall the feelings of relief, happiness and victory, which came to all of them once they were through the demanding survival training course.

by Pavel Pazdera
Photos by CEFF



The Training Command – Military Academy in Vyškov is coming up with a new interactive course of leadership for team and platoon leaders



Managing oneself

Every month, training courses start or end at the Training Command – Military Academy in Vyškov, Czech Republic. However, the one held in the second week of February 2012 was nevertheless different. Following a pilot edition, the Career Training Branch already organised a regular run of the basic leadership/managerial skills course.

“Obviously, this training course focuses on the lowest level of management, the Czech Armed Forces commanders on team and platoon level, which comprise the basis of the command, leadership and management pyramid,” says Captain Darina Záchová, the Chief of Psychological Service Group at the Training Command – Military Academy. “We have pondered the reason and contents of the course extensively. In the end, we have built it all on the assumption that the key for effective work with people is



not only academic knowledge in the sphere of management and leadership, that are commonly found in various lectures, leadership/management training courses, not even mere backing of the command hierarchy. The decisive factors are social and psychosocial aspects of working with people at large. In our opinion, the art of working with people, influencing and motivating them effectively is an essential precondition of the competence military commanders should have, same as with managers in the civilian sector.”

Focusing on authentic experience

The training course is designed to expand team and platoon leaders' familiarity with basic principles, methods and techniques of working with subordinates, psychological aspects of commanding, leading and managing people in the military and with the ways to develop these so-called soft skills. Naturally, this begs the question, why this type of training has not

been included in career courses, or why should it be held on separate basis. According to CAPT Záchová, the answer consists, among other matters, in what is somewhat unique lecturing method: “In the beginning, we naturally thought how to make most attractive and effective the lecturing that the psychological services group provides in support of career courses. But we have repeatedly struggled with the time allocated and some other issues. What is completely natural and justified with career courses, that is capacity and no differentiation based on years of service and post the individuals serve in, is contrarily an impediment for us in principle. But I do not mean to say that the subjects featured on our course would substantially differ from what comprises the essence of in-career courses: motivation, communication, teamwork, stress management and so forth. But method is the crucial difference.”

So, this training course differs from the others in terms of its overall concept. It is designed as a one-week course dedicated to personal development of managerial skills with individuals who



have already gained some experience leading their subordinates. It is neither a lecturing course nor a powerpoint storm coupled with tiresome monologs.

Experience learning

"Having properly considered the matter, we selected a method somewhat unconventional for the military: interactive experience learning that uses practical sessions, model situations, role playing, self-testing, discussions and working in small teams. This method works with authentic experience and counts on their ability to learn from the consequences of own conduct, identify innovative solutions, and accomplishing tasks and facing up challenges jointly," CAPT Záchová elaborates. "To be a successful commander, one has to be able to develop oneself, not only to hope in one's talents, but consciously pursue personal development. Experts in this branch exercise a similar approach.

If you want to work with people successfully, as a commander, boss or colleague, this applies doubly. Successful commanders should be able to respect all of the above factors. So, they would manage to work with people in a much more natural fashion, be able to motivate them, increase their performance, appraise and appreciate their work, manage conflicts and put the potential of their subordinates to a maximum use."

The subject is delivered to trainees in doses, but completely in context at any one time.

From the learning experience, the course trainees choose lessons important to themselves according to their own service and life experience as well as their abilities. Everything takes place under careful supervision of qualified specialist lecturers who also correct the conclusions drawn. This method has proven highly successful especially where it is vital for people to actually realise the mistakes that they frequently do working with people and that they have already acquired before as a part of their individual's managerial style. The specificity of this method also represents its disadvantage to an extent, because it is essential to proceed in small teams,

with maximum fifteen persons. But benefits are clearly predominant in this case. The follow-on putting into context and rehearsing different, more appropriate leadership/management techniques helps identify new effective procedures for working with people, offers possibilities and ways for practical application of acquired skills into everyday professional life and the line of duty. It also opens up the potential for further self-development.

Not on order

Coincidentally, at the time when the idea matured in Vyškov to develop an integrated learning product for commander at lowest levels, the MoD Personnel Management Division required that the Defence University to prepare a management/leadership training course for audiences recruiting from battalion and brigade level. Of course, we were strongly motivated by that. In November 2011, the Commander of the Training Command – Military Academy received a proposal of course on effective working with people with a full learning documentation. Colonel Ján Kožiak approved the documents for inclusion into the MoD training activities bulletin already for the Training Year 2012 to be held at least on quarterly basis. Already in December 2011, a pilot edition of this training course took place with attendance by selected commanders and command sergeant majors from the 7th Mechanised Brigade, 102nd Reconnaissance Battalion and 101st Signal Battalion. The course has been fine-tuned to the current form using their feedback.

"This training course is indeed an outcome of several years' effort practical efforts by military psychologists and builds on the experience we have gathered leading similar types of academic training including outsider the Czech Armed Forces. This was not a case of a precisely defined order or hard requirement. We always seek to be ahead in order to be able to early respond to the needs of in-career personnel development. The important factor for us has also been the increasing number of requests and requirements

for delivering dedicated training sessions to cover basic managerial skills, communication and management of conflict in workplaces and units as well as many other subjects that commanders, colleague psychologists and sergeant majors of Czech Armed Forces units address our psychological services group with," Captain Záchová describes. "I would dare to say the course came into existence based on the needs and requirements of the Czech Armed Forces units. It is very much like with building the consulting point here at Vyškov, which the psychological service, or the psychological services group runs in support of servicemembers, defence civilians and their families. Realisation of that project also did not ensue from orders by our superiors, but our realisation of the need and respecting the requirement for providing this type of service not only for the permanent staff but also for trainees attending individual courses."

The form of lecturing successful

Based on preliminary nominations, the demand for the basic course of working with people exceeds the capacity four times. The course periodicity, four times a year, is also a limiting factor. The military psychologists from Vyškov strive to keep quality standards of the training course and be able at the same time to fulfil the other tasks and commitments they have. "Based on the response we solicited I dare to say that this training course ranks among successful products. In the feedback from the trainees, the course is appraised very well, including in terms of support, contents, systemic sequence, integrated format, and practical usefulness. The form of lecturing was also evaluated successful. For the second time already, the course attendees required that the course had a follow-up or some kind of workshop elaborating on practical application of the acquired knowledge," CAPT Záchová says. "We have realised from the very start that it was impossible to get beyond the basics in a week's time, so we have included the

word basic in the course name. The capacity of our staff does not allow us to do more at the moment. Again, to work effectively with people, first you have to manage yourself and your relation to others. And that is the keynote idea of the course. "Know thyself" is the initial step in cultivating managerial skills and competencies. Knowing their own managerial style, its strengths and weaknesses, enables acute commanders to better foresee, resolve and manage difficult and challenging situations occurring in scores in performance of commanders' everyday duties and in working with people.

That could provide solid foundations for possible follow-up or extension the way the course trainees suggested."

The military psychologists in Vyškov always seek to be a step ahead to be able to respond to the needs of personnel development in time. They do regular polls to establish the interests that people have and seek to fill the gaps they identify. "This way we are creating products covering those particular aspects both needed and making their job easier in what may sometimes be a labyrinthine jungle of interpersonal relations. We realise very well that our mission is to serve for preparation and training of military professionals in its whole extensiveness," Captain Záchová explains. "The more we want to assist training instructors in obtaining psychosocial, psychological and pedagogical skills. They are those who really have to be with their soldiers twenty-four hours a day. Enhancing their competence in these subject-matter areas should rationalise preparation of military professionals serving in the present and those to enlist in the future, but also to make life easier for their instructors. Interactive education has proven well for us and, provided that our product is found useful, we would like to follow this path in the years ahead."

by Vladimír Marek
Photos by Vladimír Marek, Ivana Vávrů,
Vladimír Bezděk Jr. and Pavel Kočvara

The Czech Republic offers to the NATO Partners its rich experience from operating Mi family of helicopters as well as the lessons it has learnt forming multinational efforts to build training capabilities.

A unique helicopter project

Czechs are coming up with another contribution to multinational capability development projects that NATO strives for, the type answering the demands the Smart Defence initiative, or the European Union's Pooling and Sharing program. The specific contribution is the Multinational Aviation Training Centre (MATC) for Mi helicopter flight and ground personnel. For NATO partners, the project was presented by the Czech Defence Minister Alexandr Vondra: "In this regard, the Czech Republic has both training capabilities available and a long-standing experience that it seeks to develop jointly and consistently in favour of nations that will be directly involved in building the MATC, but also for training air force personnel of the partners showing interest in this capability."

The joint training program with Croatian Air Force is regarded the springboard for the establishment of MATC. The program will be realised based on a bilateral agreement. The head of the MATC project team, Mr. Václav Čejka of the MoD Defence Policy and Strategy Division regards as the vital precondition for successful realisation the political support the project received in bilateral defence ministerial meetings involving Alexandr Vondra of the Czech Republic and Ante Kotromanović of Croatia.

It is no secret that Czech and Croatian Mi-17 pilots have closely worked together in Afghanistan, specifically at the Kabul International Airport as a part of an Air Advisor Team (AAT), whose mission is to provide training, advising and mentoring flight and ground personnel of the Afghan Air Force (AAF). The joint Czech-Croat activities met with a positive response. The program enjoys support by the NATC-A command, which is responsible for training AAF in general, and is also directly supported by the U.S., which have made the largest investments. It comes as no surprise then that the support the U.S. has provided to the concept of the training program is critical and the Czech Republic and Croatia regard it a key prerequisite for successful development of the Multinational Air Training Centre (MATC).

"Harmonising training of Czech and Croat aircrews is an optimal step to achieve progress. Standardising our preparation, we will achieve substantially higher effectiveness in helicopter

flight operations and, most importantly, it will enhance the standards of working with AAF personnel. It is also vital that this cooperation will help us significantly strengthen air traffic safety and eliminate differences in procedures used in possible emergencies," says Lieutenant-Colonel Petr Čepelka of the Air Force Helicopter and Transportation Section, Air Force Branch the MoD Force Development – Operations Division and accentuates the emphasis on standardising the methodologies used by experts of both nations, who are sent to the AAT. "We have to be on the same sheet of music before deploying to Afghanistan. To get to know each other both in terms of personalities and professionally in the area of deployment is too late in my view. Harmonisation of operating procedures in domestic conditions will then enable us to instantly perform full basic and lead-in pilot training missions and ground specialists training of the Afghan Air Force," LTC Čepelka emphasises and states that the cooperation planned between the Czech and Croat Hip pilots is just the first step. The good thing is that words soon turned into reality. Cooperation of Czech and Croatian Mi-17 pilots Mi-17 has already gained a specific shape. "A flight simulator course was held in the Czech Republic on April 16-21, 2012, and subsequently, from April 30th till May 15, practical flight training will take place in the Croatian airspace. Hilly terrain in the Zadar area offers the conditions that may quite well simulate those down-range in terms of combining air temperatures

and dust in high fidelity. The joint training over a couple of weeks is indeed a predeployment rehearsal for the mentoring team. We want to build on integrated training in the years ahead. We are confident our project is right, from experience sharing to the coordination of flight effort in support of Afghans. NATO partners declare over a hundred of Mi type helicopters. The existing practice definitely proved the Mi family of helicopters plays an important role in Afghanistan," LTC Čepelka underscores.

Comprehensive training in MATC

"The Multinational Aviation Training Centre's primary mission will be to provide a comprehensive training to flight and ground personnel from NATO and Partner armed forces on Mi family of helicopters," Lieutenant-Colonel Čepelka specifies. What does he mean? Ground and flight preparation for day and night flights, including NVG (Night Vision Goggles) training, plus preparing pilots for instructor training. Besides standard training, there are also plans for running training packages tailored to specific needs, be they formulated by the nations involved in developing the MATC or the so-called "third countries". From the very outset, MATC is conceived as purely international project to use and combine the existing capabilities and assets of nations willing to becoming involved. The Czech Republic stands ready to lead the

effort for such international platform to be established, while the NATO Summit in Chicago furnished an opportunity for additional countries to indicate their readiness to get involved in the project.

Development of the "Czech contribution" to MATC will not start from scratch; it will lean on the capability of the Czech Aviation Training Centre (CLV) in Pardubice. "The CLV Pardubice has trained military helicopter pilots for several years. We intend to develop flight training curriculum and then certify it to become a standard in NATO environment. Most of the nations operating Mi type of helicopters struggle with restrictive measures. Integrating the capabilities available in involved nations and developing them consistently will decrease the aggregate costs the nations would otherwise spend on individual basis. At the same time, it will enhance training standards and interoperability, which will substantially benefit future joint operations led by NATO, EU or other international organisations," LTC Čepelka elaborates and specifies that the MATC will provide a full spectrum of training opportunities (basic, lead-in and combat training, or possibly specific training packages) also to other countries, if interested.

Insiders know the CLV Pardubice was not selected by coincidence. The CLV has an extensive subject-matter expertise. The potential of instructor pilots is enhanced with their operational experience gained in the countries of the territory of former Yugoslavia and Afghanistan. Their

professional skills grow over time, undoubtedly thanks to their training in the United States, where they will focus on NVG flying. The reason is obvious. Most of the operations nowadays in crisis areas take place at night. The erudite CLV personnel will have available a sufficient quantity of Mi-17 transport helicopters and the CLV Pardubice is ready to respond to the growth of international customers. "The initial response solicited by our initiative, which has major political-military significance for the Czech Republic, sound appreciatively. The demand for Mi-17 training has a longterm future prospect and that is a good message. We believe the Czech contribution to the MATC arrangement will get rooted and prove that a multinational approach to air and ground personnel training is a more effective and at the same time a more affordable option for the NATO and Partner nations involved," LTC Čepelka comments. What if not? It should be noted on this account that the Mi-type training interoperability platform is not designed just for Afghanistan. As a matter of fact, the Pardubice based CLV center will be primarily used in support of building helicopter capabilities for AAF in the short term, but it will surely be useful in other locations worldwide in the years ahead. There are currently intensive policy-making efforts underway to prepare all that is needed to gain international support for forming and operating a training centre, starting with legal issues, air worthiness, certification, funding, logistic and materiel support to the MATC structure.

"My personal estimation is that roughly by the end of the next year the international project team could finalise the necessary documentation, including a Memorandum of Understanding, which will, upon its signature, bring the MATC project into its implementation phase scheduled for completion by the end of the next year. In the meantime, individual national and international training programs will continue, which will be transferred under the MATC when the time is right," Lieutenant-Colonel Čepelka says.

The available information is that the training will cover both ground and flight parts by the means of repeating courses lasting several weeks. The schedule of individual phases of MATC training programs will be dependent on training opportunities and possibilities the participating nations will come up with, and the subsequent optimising the structure, which will be subject to international discussions. To date, Croatia has joined the MATC project, and the Czech Republic therefore plans to make use of advanced domestically produced simulator technology and performing a larger part of flight training in the Czech airspace, but selected parts of training will take place in Croatia, because Croatia offers better conditions for specific flight training missions – flying in mountains, in dusty environment and over water.



Minimi

machinegun

One of the newest arrivals in the Czech Armed Forces' infantry's inventory are the Minimi machine guns, presently comprising a part of weaponry used by our units abroad as well as on operational deployments in Afghanistan.

The Minimi (Mini Mitrailleuse) machinegun was developed in the first half of 1970s by the FN (Fabrique Nationale) arms factory located in Herstal, Belgium. According to available yet unconfirmed information, the first demonstration presentation was held in 1974, but serial production only started in 1982. Minimi became the first European machinegun to use the new calibre 5.56mm (5.56x45 mm NATO cartridge) introduced in 1960s, initially by U.S. armed forces. The Minimi has been progressively introduced to inventories by 34 countries.

In some of the countries, it replaced the well-proven older cal 7.62mm FN MAG

machinegun (cal 7.62x51 mm NATO cartridge). Some of the users however demanded that more efficient ammunition was kept so the development was actually completed of a Minimi MG prototype that used cal 7.62mm NATO munitions. Licensed manufacturing takes place in the U.S. at two FN subsidiaries, plus in Australia, Italy, Japan, Greece and Sweden. The variant for the U.S. armed forces has denomination M249, but the derivatives for the U.S. special forces use denomination Mk46 for calibre 5.56mm and Mk48 for cal 7.62mm. Chinese copy is denominated XY 5.56x45. As a standard, the manufacturer markets three basic versions of Minimi: Standard with fixed stock and long barrel, Para with shorter barrel and folding stock and SPW (Special Purpose Weapon) with a barrel slightly longer than that on the Para variant, with new

type of the lower handgrip and heat protection above the barrel.

There are additional derivatives, particularly the U.S. M249 SAW (Squad Automatic Weapon) with metal collapsible stock and Mk46/48 that have a fixed butt, but modified railed handguards for additional accessories.

The first delivery of Minimi machine guns for the Czech military was contracted via the Czech CB Servis Centrum company. There are plans to procure additional units in 2012 by the means of the NATO Maintenance and Supply Agency (NAMSA).

Description

According to official Czech Armed Forces technical specification, the FN Minimi is a fully automatic long gun, a calibre 5.56mm or 7.62mm machine gun. In the Czech Armed Forces, the Minimi is a primary team (platoon) fire support weapon carried and operated by single rifleman, but it can also be mounted if needed (on a tripod or in vehicle mount) and serve as a general-purpose machine gun to a limited extent. The weapon is currently in inventories of all NATO nations, especially the United Kingdom, Canada and the U.S. (U.S. denomination M-249 SAW).

The weapon is fed with a disintegrating-link type M-27 NATO standard ammunition belt for calibre 5.56mm cartridges (M-13 for 7.62mm cartridges) from the left-hand side. The belt can theoretically be endless.

Polymer or fabric box with capacity of 200 or 250 rounds for 5.56mm cartridges (or two hundred calibre 7.62mm cartridges) linked in a belt can be connected to the weapon, or an unsupported loose belt. On the left-hand side, the cal 5.56mm weapon also has a magazine port at 45° angle, which can use any magazines fitting the AR-15/M-16/M-4 family of rifles.

The Minimi fires from an open bolt. The barrel is locked with a rotary bolt forced into the battery by helical camming guide, and it is driven to the rear by expanding propellant gas



Key tactical data

	FN Minimi 7.62 Mk48	FN Minimi 5.56 Para
Empty weight	8.5 kg	6.56 kg
Length overall	1,015 mm	914 mm
Width	128 mm	128 mm
Barrel length	465 mm	349 mm
Theoretical rate of fire	max 800 rds/min	1,150 rds/min
Muzzle velocity	925 m/s	866 m/s
Effective range	1,000 m	1,000 m



bled through a port in the barrel. The gas block is equipped with a valve to possibly increase gas pressure when heavy fouling is present or less effective munitions used.

Upon lifting the feed tray cover, the rotary bolt mechanism is exposed. The weapon is loaded by inserting the first cartridge on the belt into the feed tray. After closing the cover, the bolt has to be manually moved into the rear position using the lever, where it is locked. Moving the bolt backwards extracts the first cartridge from the belt, and its link is released beneath the weapon. The cartridge is caught by the extractor and carried to the rear by the bolt, where it is lowered and inserted under the feed tray in the axis of the barrel and the bolt. As a result of the feed tray movement forced by rear movement of the bolt, the ammunition belt is shifted by one cartridge, which is fed instead of the first extracted cartridge. The bolt must be returned to the front position manually. The weapon is then ready to fire. Above the pistol grip, there is a manual safety push button enabling safe or burst fire. The weapon is not designed to fire individual rounds. When the trigger is pulled, the bolt is released and forced forward by the recoil spring. The cartridge is inserted into the chamber and is fired upon locking the bolt with the barrel by the cam. The bullet is driven through the barrel and once it passes the gas bleed port, the gas enters the

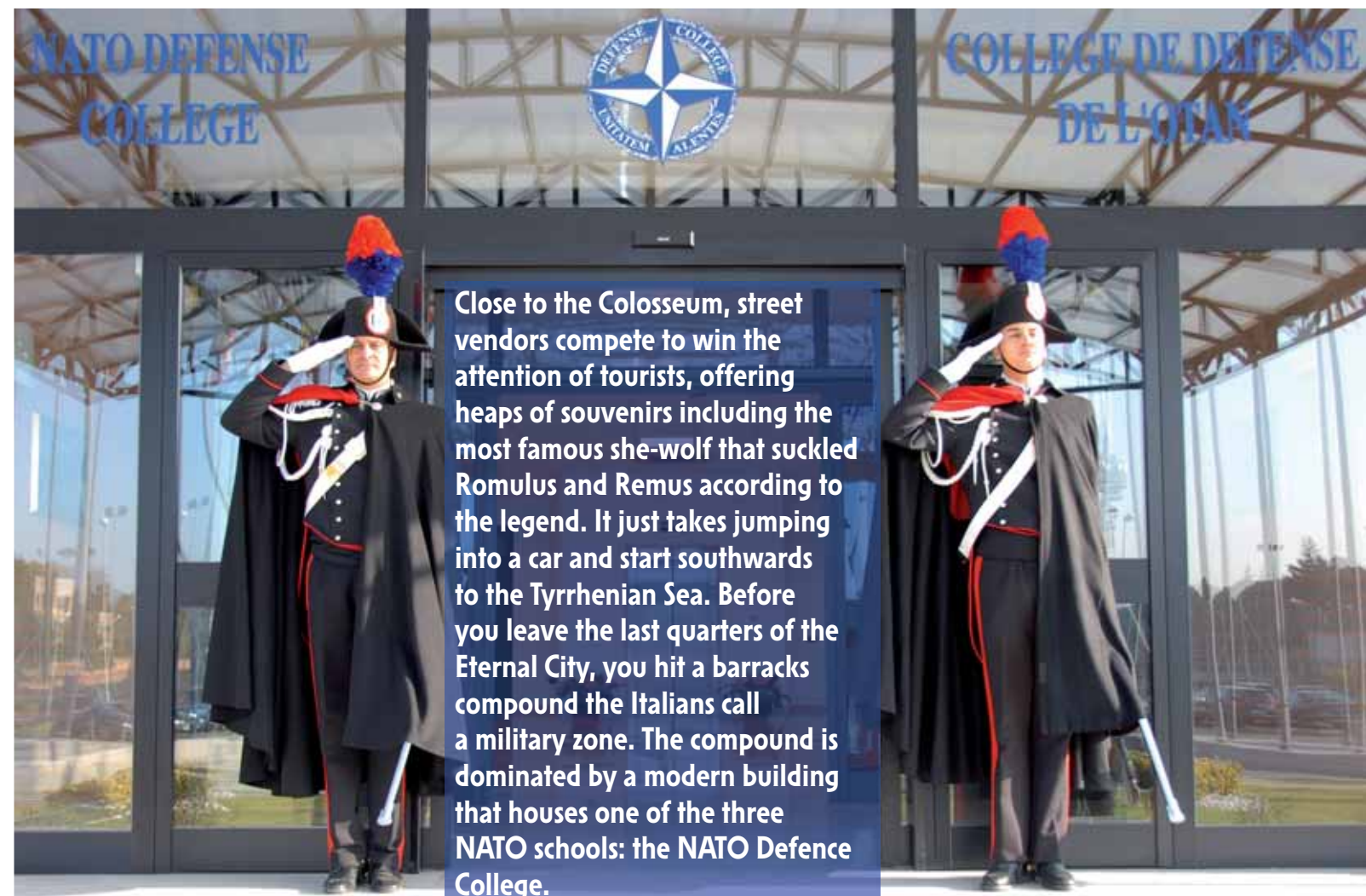
gas block. The gas pressure pushes on the piston that in turn drives the carrier bolt to the rear. As bolt carrier moves back, the bolt unlocks, as it is forced to rotate by the helical cam. Once the bolt gets unlocked from the barrel, it is still driven back against the pressure of the recoil spring. The extractor removes the empty cartridge casing from the bolt and the ejector flings it to the right beneath the weapon. At the same time, another cartridge gets into the feed tray, is extracted and the whole cycle repeats until all the ammunition has been exhausted or until the trigger is released. In case needed, it is also possible

to use the M-16 rifle magazines holding 30 rds or any other mags used with AR-15/M-16/M-4 rifle family (for the cal 5.56 weapon).

No modification needs to be made for changing this function; the feeding mechanism turns upon inserting the magazine into the port and changes from belt feed to magazine feed. Ammunition belt cannot be inserted while the weapon is fed from a magazine.

by Martin Koller

Photos by Marie Křížová and Jan Kouba



Close to the Colosseum, street vendors compete to win the attention of tourists, offering heaps of souvenirs including the most famous she-wolf that suckled Romulus and Remus according to the legend. It just takes jumping into a car and start southwards to the Tyrrhenian Sea. Before you leave the last quarters of the Eternal City, you hit a barracks compound the Italians call a military zone. The compound is dominated by a modern building that houses one of the three NATO schools: the NATO Defence College.

There is a Czech representation at the highest Allied academic training institution, the NATO Defence College in Rome

A School with no teachers

The Czech footprint can be found at NDC as Over forty Czechs have studied here in the past. The golden plate identifying most famous NDC Course Members bears the names of two Czech Generals – Miroslav Kostelka and Jaroslav Kolbus. At the moment, Czech Armed Forces Colonel Rostislav Jaroš is posted at NDC as the national representative and a head of one of the study groups. The only Czech Course Member at this time is Colonel Zdeněk Čížek.

The NDC celebrated its sixtieth anniversary in 2011. The legendary World War II allied forces commander and the first commander of NATO powers in Europe General Dwight D.

Eisenhower came up with the idea that NATO should have its own educational facility as early as 1951. NATO had its second anniversary at that time. In November 1951, the NDC Course 1 was opened in Paris. When France withdrew from the NATO integrated military structure in 1966, the College moved to Rome. A new NDC building, twice the size of the old one, was inaugurated in September 1999 to provide all necessary facilities. The building houses a large auditorium, room for study groups, library with a vast collection of books and media, a mess hall and conference room, a gymnasium plus facilities for outdoor sport activities.

Steered by the North Atlantic Council

The NDC is NATO's highest educational institution, it is a part of the NATO chain of command and it reports to the supreme Allied authorities. The curriculum is approved by the North Atlantic Council, which funds the NDC using a dedicated budget.

The NATO Defence College comprises four divisions providing the whole educational and research process plus all support. The backbone of the education is the six-month Senior Course for high-ranking NATO military officers as well



as for foreign ministry officials. Representatives of the armed forces from PfP, EU, Mediterranean Dialogue and Contact Countries are increasingly found among course members.

The course members therefore include students from Arab countries, including Iraq, as well as Japan, South Korea and Australia. There are currently students from thirty-seven countries attending the courses. In the ongoing course, seventy-six students are divided into seven groups. "For example, my group comprises a female Norwegian Colonel, who has recently served as a contingent commander in Afghanistan, plus two Frenchmen, an Italian, Turk, German, American and a Brit; PfP countries are represented by a Serb and an Algerian represents the Mediterranean Dialogue. Those are mostly military professionals and defence civilians, plus members of diplomatic corps. Many individuals have served foreign operational and staff tours," COL Čížek explains. "The education has a strategic nature. We review the security environment, defence and operation of international of international organisations. We had the Head of NATO's Financing Unit over here for a lecture earlier this week.

The speaker offered a range of information that we would not learn anywhere else. He discussed possible future developments in NATO's funding. He outlined the way for the current funds to be used for providing vital capabilities. Only the highest level is pursued here, that is how to secure the necessary funding. How to invest the budget is already up to other authorities to decide.

Lectures on the current developments in Northern Africa and the relating lessons learnt were also absorbing. The discussion was about interdependence of systems that worked until

recently, and what impact it can have on future developments. For Central Europeans, these may be very interesting topics as there is no great awareness of Northern Africa back at home." According to COL Čížek, every beginning is difficult, including in school education. One has to settle with the study system. This is where it applies twice as much. Every morning, there is an English lesson to improve language skills. French and Italian courses are prepared for the course members who already achieved STANAG 4 English language proficiency. Then there is an hour's discussion in committees on the subject that will be lectured. Study documents of twenty to fifty pages are submitted in advance and then are subject to discussion. Then there is the lecture and the Q&A block. In the afternoon, there is time for evaluating the lecture, its contents and lecturer, subject-matter debate and development of group projects and presentations. The so-called Study Project is the most important.

"Each of the groups selects one of the proposed subjects and decides the extent they will work the proposed subject into. That mostly involves clarification of certain problems having historical roots, spanning the present and generating future-oriented visions. Then there is a teamwork to develop the Study Project to be defended at the end of the course. Everybody on the course pulls at the same rope. No one is judged on individual merits only. There is no competition among the course members. The reason for this to be done in teamwork is primarily that people learned to negotiate, achieve consensus and find common ways ahead," Colonel Jaroš explains. "This ethos also prevails outside school. Joint dinners and events learning about the history of the country hosting the NDC are quite frequent. It is not just about lectures, but also trips in free time. That includes the so-called Papal Audience, an official public audience with his Holiness the Pope. Attendance in in this event ranks among regular activities of the College. The Course Members have the opportunity to see the Holy Father from quite a short distance."

Top-notch speakers

NATO Defence College has a very flexible structure. There is just a handful of staff taking care of management and logistic support. There are no teachers. The NDC invites external lecturers coming from the highest structures. Thanks to the prestige the College enjoys, people are highly interested to give a lecture there. Students always evaluate the lecturer. In case the result is negative, the College does not invite the individual anymore. "It is a very good system. I am confident that if the Defence University in Brno invited brigade commanders and specialists from command headquarters, Ministry of Defence, the General Staff and governmental agencies more often, it would only do good to the school," Colonel Jaroš says. "But there is a different work style here than back home. Everything is exactly planned. And that is observed. There are virtually no ad hoc tasks, thanks to which everything is much calmer. There is more time to think about various doctrine and policy related matters."

Each of the groups has a leader from a NATO nation and that is the function that COL Jaroš

performs. He is indeed a tutor attending individual discussion sessions, offering opinions and recommendations, updating students on actual situation at the school. He is indeed a sort of link between the students and the NDC leadership.

"There is no problem communicating with Europeans on the group. But sometimes it may be challenging to understand an Algerian for instance. Cultural and historical differences play a role in those instances. It is a slightly different way of thinking. Discussions with Turks may be quite sensitive. In such case we need to avoid some delicate topics, or present them in a way acceptable to the Turkish side. But some sort of consensus is eventually reached in the end," Colonel Čížek describes. "Individual lectures also cover security issues. Guest speakers have in-depth knowledge of the Middle East and North Africa and other regions as well. Discussions also cover issues relating to states such as China, India or Brazil, and their future global influence. Students on individual committees also developed the vision 2035, i.e. how the world is going to look like in about a quarter of century. In this document, they described potential powers, tried and guessed the role individual states would be playing and identify those who may be backgrounded."

Study tours

NATO Defence College is known for its business trips. Each Senior Course includes a study tour with three trips as a part of field studies. The first trip focuses on European security, the second on the transatlantic relations and last one targets a selected region. "Our first field study trip focused on how international organisations and institutions work. We visited a number of European countries, including the UN in Vienna. Study tour leading to Switzerland and Austria with specific focus on their neutrality was an interesting one. We travelled through countries from Slovenia to Germany," Colonel Čížek describes. "I recall one idea mentioned during lectures and questions and answers in Switzerland. Neutrality demands not to be a member of political or military groupings, but it does mean no contributions or engagement in the interest of security. So, there are limitations to neutrality too. That I am not a member of a military organisation still does not mean I would not be willing to participate and help under certain conditions."

At the time we visited the NDC, detailed preparations had already been completed for the second field study trip to take the course members into the U.S. This trip was even more demanding for organisational support than the previous one.

Students planned to visit the UN in New York, and the White House plus Pentagon in Washington D.C., and Allied Command Transformation in Norfolk. In all locations, they were to hear lectures and have practical familiarisation with the workings of the institutions in question. "While the lectures are held directly on the premises of the specific organisations, the ensuing questions are much more specific. Those are places I may never see in my life anymore. It will definitely be interesting, it helps you get a better idea of what it is about," COL Čížek smiles.

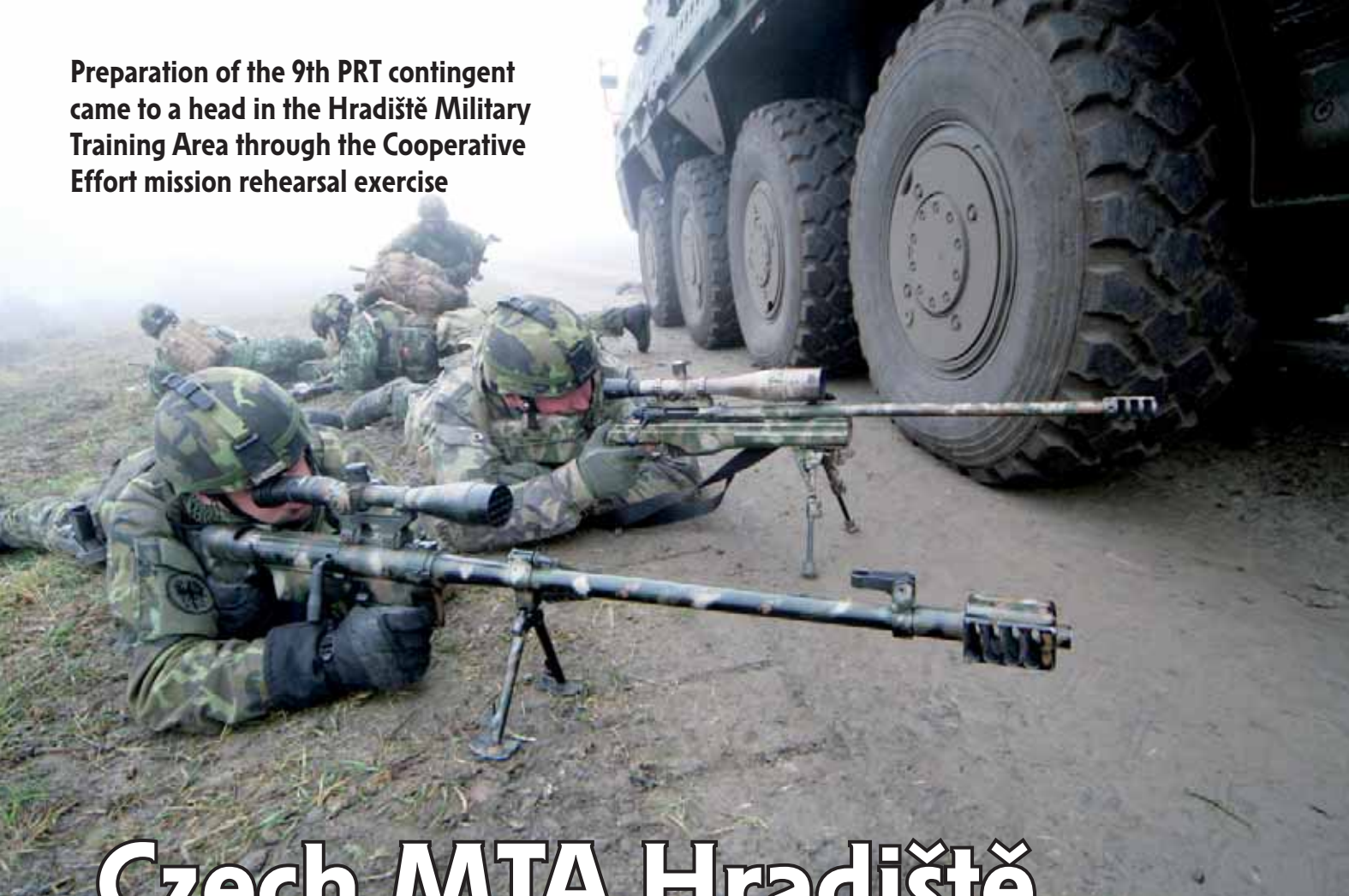
Another benefit the NDC brings is that one meets with people supposed to fill important posts in the future, including in NATO structures. Many useful contacts can be established. That was also one of the reasons why the so-called club of Anciens – former students – was formed. There are reunions every year. People share their information on newest developments and trends in specific branches. "Ties and contacts are forged here. It is only a pity that we are a bit passive in this respect. No one usually

attends the meetings from the Czech Republic. I would like to encourage the former students to get together and invite them to attend the reunions. In 2013, we plan to visit Prague as a part European Security and Defence Policy study tour and it would be good for the former Czech course members to come to the reception and join the discussions. That is the habit in other countries," Colonel Jaroš adds, who had already been in the College as a student six years ago. His assignments in Rome include representation of the Czech Republic and the Czech Armed Forces. "I have not encountered any negative opinion on our country, but most of the students here associate Czech Republic with Prague and historical sights. They have a substantially lower awareness of our political scene. We therefore seek to expand their knowledge."

by Vladimír Marek
Photos by Vladimír Marek
and the NATO Defence College



Preparation of the 9th PRT contingent came to a head in the Hradiště Military Training Area through the Cooperative Effort mission rehearsal exercise



Czech MTA Hradiště turning into Logar

A flaming mushroom lined with a screen of grey smoke popped up on the horizon. A couple seconds passed before a massive detonation reached us. A Pandur AFV heading the convoy literally staggered to the roadside, evidently damaged.

Before automatic weapon fire broke out in full, a report on the radio confirmed the front riding armoured vehicle has really been destroyed. Casualties must be recovered as fast as possible. Another Pandur vehicle therefore arrives to the right of the damaged vehicle to provide cover for casualty treatment.

Squads of warriors swarm out of vehicles. But the opposing forces well covered behind mounds of turf already attacks with RPGs supported by an inaccurate mortar fire coming in from a long distance.

The whole movement route is thankfully monitored by a Raven UAV from the above, providing the commander with instant situational awareness.

A contact with opposing forces occurs at three o'clock. That is where the commander concentrates the heaviest firepower at. Through what today is already a classic episode, the largest exercise came to a head of the Armed Forces

of the Czech Republic in 2011, the Cooperative Effort, which took place at the beginning of December last year in the Hradiště Military Training Area.

The core of over eleven hundred soldiers and three hundred vehicles comprised the 9th Provincial Reconstruction Team (PRT), which had a mission rehearsal exercise prior to deployment in the Logar province in Afghanistan. "We divided the unit training into three phases. Roughly first three months were dedicated to individual training. Then we focused on small units. All of that is finalised by the phase we are at. It is a rehearsal for a force comprising three hundred warriors altogether," the PRT team commander Colonel Antonín Genser describes. "Our objective was to make the exercise as realistic as possible to reflect the situation on the ground downrange. Our primary mission will be to provide a safe and secure environment for the PRT's civilian component to operate."



Insurgent mortar fire intensifies. Soldiers are forced to lay down and take cover. Escorting the convoy in conjunction with U.S. forces, the Afghan National Army unit incurs the greatest losses in terms of manpower and equipment. The commander requests air support.

Big white stars painted on the side doors of the Czech Land Rover vehicles give somewhat awkward impression. The vehicles playing the Afghani National Army are designated authentically. The exercise organisers sought to make



the exercise as close to the reality on the ground in Afghanistan as possible in every detail. They used a base map plus overlays with roads in Logar, as well as coalition bases and individual districts.

Camp Altamor is the largest U.S. military installation in the area, while the Czech 9th PRT contingent is stationed at Camp Shank. All of that is intersected by roads such as Utah, Jamaica or New York. To that end, the organiser chose the most suitable roads in the military training area corresponding both with their nature and distances.

"This field training exercise has been primarily designed to verify harmonisation and check preparedness of the 9th PRT contingent prior to their operational deployment in the territory of Afghanistan. We are running such a large field training exercise because we are trying to play all conceivable contingencies. For the PRT forces, we are staging not only the opponent but also coalition forces operating in the area, including the U.S., Afghan National Army and the Afghan National Police units. Operating shoulder-to-shoulder with those forces is often quite complicated particularly owing to the language barrier and cultural differences. Americans and Afghans are played by personnel who have recently returned from an operational tour in Afghanistan. They have the most current experience, which shows in the degree of fidelity they

Rapid Deployment Brigade, Colonel Miroslav Hlaváč. "As a matter of fact, we focus on the biggest threat: improvised explosive devices. Comprehensive attacks are also problematic. All of these are the worst contingencies possible. Indeed, as military, we always have to prep ourselves exactly for those."

A pair of L-159 aircraft attack and eliminates the insurgency mortar fire post. Having been taking cover by now, warfighters may launch a counterattack. The radio headset also gives a worse message: the requested MEDEVAC will not arrive. The weather in the incident location has deteriorated so, that the helicopter may not land. Wounded warriors are to be evacuated from the battlefield on the ground. A Pandur APC in medevac variant approaches the front lines. It is a debut for the vehicle, as the first two units of these vehicles have only been in the inventory of Žatec-based airborne battalion for a couple of days. In addition, a Pandur vehicle in command and control version has also joined the exercise to undergo its first ordeal by fire. Likewise, a reconnaissance variant is being presently finalised.

"The APC is designated for service as a evacuation vehicle for four prone soldiers. In emergency, we can also accommodate eight seated wounded soldiers inside. The crew comprises a driver, commander and a medic. The interior is equipped very much to the same standards

specific systems. That fully meets our requirements. Only the entry door is not too large, but that is determined by the nature of this piece of equipment. We have to have some time to learn to operate the medical version."

One of the medics indicates to other soldiers to provide fire cover for them. Along with his colleague, they grab the stretchers and bent slightly they run towards the medical Pandur. Other soldiers fire as much as they can so as to tie the enemy.

For Sergeant David M., this will not be the first operational tour in Afghanistan. His role will be to serve as a gunner on MRAP vehicle lent to Czechs by U.S. forces. "We have prepped for the mission for quite some time, and we all go to Afghanistan on voluntary basis.

In case someone would not be willing to go downrange, they have the option not to. I will be there as a member of the 1st Mobile Observation Team. That is also reflected in the type of training we are doing here. In the first week, we practised tactics, tactical drills and had live fire. That was followed by a tactical exercise, as a part of which we operated the way we would do downrange," Sergeant David M. explains. "All of our drivers have been to Germany to get a driving licence for MRAP vehicles at a U.S. installation there. The rest of us would only gain familiarity with MRAPs on the spot. I will operate a cal 50 M2 Browning heavy machine gun. I have shot some with this one last time I was deployed. It is an excellent weapon, proven in combat over decades."

Our soldiers finalise the assault eliminating the last pockets of resistance. They are firing the new CZ 805 BREN assault rifles. They had a two-month training to learn how to operate them. They have had such an extensive hands-on experience that they should have no problems using them operationally in Afghanistan. In addition, they are taking a reserve stock of the old Mod.58 rifles, which will be stored at Camp Shank. In case a specific operation would claim using calibre 30, these rifles will be available. The contingent commander is confident though this will not happen.

"Tactics used by the insurgency changes and develops continuously. We have therefore been in contact with units currently deployed in the territory of Afghanistan. We are getting the most current info from them on the situation on the ground. That is what primarily informs our training, play and scenario of the whole exercise, making it as current as possible," Colonel Miroslav Hlaváč underscores. "I am happy with what I have seen here so far. I think the 9th PRT contingent has made a great progress. It is fair to conclude today that all its members are ready to accomplish their mission in Afghanistan."

Exercise Cooperative Effort completed the predeployment training for the 9th contingent the Provincial Reconstruction Team. In January, they were only reassigned into the chain of command of the MoD Joint Operations Centre.



as regular ambulances are. We are able to provide medical aid to one acute patient while on the move. But when the vehicle is fully loaded, we do not have much extra space for possibly handling them through," Warrant Officer Petr Sedláček demonstrates. "This capability can be embedded into a combat formation with other wheeled armoured personnel carriers, but it does not have any weaponry. The platform is identical to the combat version of Pandur; the vehicle only differs with the medical body with role-

by Vladimír MAREK



"Hit!"

MAJ Jaroslav Tomaña and CAPT Petr Dřevecký, Gripen fighter pilots from Čáslav AFB, refuelled in flight for the first in the history of the Czech Air Force

There is always a first time for everything. The last Tuesday of February 2012 went down in history of the Czech Air Force. The Czech Armed Forces JAS-39D Gripen multirole fighter (tail number 9820) with a pilot of the 211 Tactical Squadron in the cockpit scored a successful connection with Swedish Air Force Tp. 84T (C-130E Hercules) air tanker at Ronneby, Sweden.

Two Czech pilots performed the historically first air-to-air refuelling for the Czech Air Force. "This day marks a major step forward for the Czech Air Force capabilities to substantially higher level of quality standards," said the Chief of General Staff Czech Armed Forces, General Vlastimil Pícek.

This premiere also has an extraordinary importance for Brigadier-General Jiří Verner, the Deputy Joint Force Commander – Commander Czech Air Force: "In-flight refuelling capability is a precondition for the Czech Air Force to be involved in NATO-led operations. We have made another step towards full interoperability of the aircraft with other NATO partners."

Two to become six

Major Jaroslav Tomaña and Captain Petr Dřevecký became selected for air-to-air refuelling. Not only have both of them served as quick reaction alert pilots in the NATO Integrated Air Defence System (NATINADS), but they are also flight training instructors, responsible for training the 211th Tactical Squadron personnel equipped with JAS-39 Gripen fighters.

"There are presently three Gripen instructor pilots at the 21st Wing of the Čáslav Air Force Base. Me and Petr got selected in the end and once we complete the training we will teach air-to-air refuelling to other pilots at the Čáslav AFB," MAJ Tomaña says and specifies that additional four pilots of the Čáslav AFB would undergo air-to-air refuelling by the end of 2012.

There are opportunities to perform this specific training. The Čáslav AFB personnel therefore seek to seize the slightest opportunity, for the

example the cooperation that is shaping up with the US Air Force. "We are working intensely to reach agreement with the U.S. on bringing U.S. Air Force personnel with a Boeing KC-135 Stratotanker over here in July later this year.

If this fails, we would like to get through to the German Airbus A-310 tanker," argues the chief group inspector of the 21st Wing and explains it would in fact be a reciprocal activity for the flight effort by the 212th Tactical Squadron with L-159 ALCA subsonic combat aircraft in support of the U.S. Air Ground Operations School (AGOS) located in Germany.

"I recently got an email from our British colleagues offering us specific timeframe for AAR as a part of the training they will be doing. Joining them or pilots from other NATO nations' air forces is one of the options we have as well," Major Tomaña says and cautions to stay with the feet on the ground this historical success of the Czech Air Force notwithstanding. "We cannot simply say that we would be starting training our pilots in air-to-air refuelling training from tomorrow on. We have just made the initial step; we are at the very beginning and have much work ahead in this respect, ranging from essential national legislation, from certifying Czech JAS-39 for refuelling from tankers types operated by NATO nations NATO, to funding this expensive training.

Before we start regular refuelling from tankers to Gripens we are still to undergo a very complex procedure on the ground. But nevertheless I think it is realistic for the Čáslav 21st Tactical Air Force Base to have as many as six AAR trained pilots by the end of this year," says

Major Jaroslav Tomaña, an experienced military pilot who have logged approximately a thousand hours flying the JAS-39 Gripen over the last seven years.

Connected...

A demanding task is preceded by a demanding preparation. That is true one hundred percent for any air force in the world. Air-to-air refuelling is no exception. "Air-to-air refuelling definitely ranks among the complex tasks, particularly at the initial stage of training that brings pilots through theory without any prior flight practice," Major Jaroslav Tomaña explains and recalls there a nearly twelve-hour block of ten lectures providing indepth familiarity with all aspects if refuelling missions. During the training, they were shown videos with required procedures, but also footage with pilots not responding to the situation in a correct way. "Some videos were really scary," the pilot from Čáslav AFB describes risk of air-to-air refuelling. On the second day, they were up to the practical part they had all been yearning for, comprising training Czech pilots with Swedish instructors in the JAS-39D Gripen double-seater. On the first mission that took two hours and five minutes, the Gripen crew successfully connected to a Swedish Air Force C-130E Hercules tanker seven times.

The first four connections were practise, so to say dry ones, and real refuelling was performed in the other three instances (so-called wet connection) approximately three thousand lbs of fuel. "The first flight in the double-seater with the Swedish instructor in the backseat was a demonstration flight. When we approached the tanker, he took over and indicated for me in voice both the visual reference points on the C-130 and individual procedures during refuelling. Then he handed over to me after this demonstration. I performed four connections and the instructor corrected me. Under his guidance, I aligned the aircraft to hit the refuelling drogue. That involves changes in the magnitude of ten or fifteen centimetres. You are correcting your position based on visual references watching the tanker. Piloting must be really subtle. It is nothing easy at all," MAJ Tomaña says and leans his experience on he following facts: "The refuelling basket's internal diameter is just over half a meter. The tanker flies around 450 kilometres per hour and the Gripen makes an approach 5kmph faster than the tanker, which equals to usual walking speed! There is a whole number of risks before the basket gets pinned right".

Czech Air Force

The training of Czech pilots in airspace in proximity of Ronneby proceeded from the easiest to the most difficult activities. The most challenging part included refuelling in turns up to maximum twenty-five degrees roll. In reality the Swedish tanker aircraft was making a left turn and the Czech Gripens were doing both dry and wet connections. To complete the picture, the following positive reference by the Swedish instructor, the very AAR training was up in a single-seat aircraft. Major Jaroslav Tomaña and Captain Petr Dřevecký flying the JAS-39C were assigned a refuelling slot. Both of them managed to get connected with the C-130E Hercules several consecutive times. "About eight connections



MAJ Jaroslav Tomaña

with the tanker were made in each flight. I have scored about twenty-five in total. Of course I missed several times too. It is completely new for us, and so it is natural to make mistakes. It is about building experience. I feel good about the training I have undergone. Although those are at the end of the day short intervals of time – to give you an idea: pumping roughly three thousand pounds of fuel lasts something less than four minutes – it is an unforgettable experience. Air-to-air refuelling qualification has a great importance for pilots. It is another leap forward in our profession,” MAJ Tomaňa describes his feelings.

In this respect, here are some interesting facts relating to air-to-air refuelling. For instance, the Stratotanker (having a different refuelling system than the Swedish C-130E Hercules tanker, the so-called boom-and-receptacle instead of the drogue-and-probe system) has ten fuel tanks in total – three in each wing (8,660 l, 7,825 l, 1,650 l), one on the lower deck between wings (27,670 l), on lower deck in front of the wings (21,980 l), another behind the wings (24,285 l) and last one on the flight deck (8,265 l). Located under the empennage, the refuelling boom is operated by an operator. The boom length is from 8.5 to 14.3 metres. The refuelling operator lies prone, watching some devices in an overhead mirror. Because the operator needs a visual contact with the refuelled aircraft, he is placed at the very back of the one-thirty-five, where no seat can be fitted given the plane's shape. The operator looks through a window in the fuselage to check the boom is in the right position and works the computers to get the refuelled aircraft connected to the tanker. Air-to-air refuelling is a real hurry. For smaller planes, the fuel transfer speed is approximately 570 to 1,700 litres per minute while the big ships such as B-52 bombers take as much as 3,400 litres of fuel per minute.

No way looking at the basket

The pilots of refuelled airplanes use visual reference to keep their machines in the right position. In case of the JAS-39, it involves one benefit and one disadvantage. The good thing is that the pilot uses a telescopic probe. When you do not refuel and the tube is stowed, the aircraft is aerodynamically clean. In other words: it does not hinder the flight with any extra drag, and does not consume more fuel. The disadvantage is that the probe is not ideally positioned from the pilot's viewpoint, i.e. left up or on the edge of the pilot's peripheral vision. “I cannot head for the basket. Even if I tried, I would never hit it right. Making the approach slowly, I am following the reference signs. When the basket gets close to me, I just have a fraction of second to wink to the left to nail it,” the Gripen pilot describes. “The refuelling basket comes in fast towards the canopy and you feel like it is going to hit you in a second, which could have fatal consequence. But in the last moment, the flow of air passing by the aircraft takes the drogue and diverts it into a position beside the cockpit which is already good for possible contact,” he adds. If you get connected successfully, the refuelling basket edge is about 30 centimetres from the canopy. In the air, where “close proximity” normally counts in tens of metres, it is truly very close. Pilots would probably give anything in the world



to be able to look forward with their right eye and left up with their left eye in the final phase of air-to-air refuelling ...

The Čáslav AFB fighter pilots come out lucky this time. All connections were performed excellently in terms of the procedure required. “Hit!” – Major Tomaňa hears from the headset of his helmet to mark another successful connection. He instantly accelerates and goes forward with the Gripen. He assumes a stable position for refuelling. In case of a miss, he would instantly decelerate and break away from the tanker according to specific procedures.

They that Čáslav AFB pilots are now qualified for AAR takes their operational capabilities another notch higher. Maximum endurance for the JAS-39 Gripen aircraft to remain airborne, with three extra fuel tanks, is about three hours. But the more extra fuel tanks on pylons, the lesser weapon payload available.

With air-to-air refuelling, there is virtually no limit to for the aircraft to stay airborne. This is rather about pilots' limits than those of the aircraft. “Missions lasting four hours or more may be a reality,” the Čáslav-based tactical squadron pilots say. What does it involve? Physiology: in general terms, the pilots' professional ability for combat operations lasting several hours. The seemingly easy questions are as follows: Will it be necessary for the pilots to eat something? Will the pilots need to take in some amount of liquid and liquid will be most appropriate? What will the long breathing of the oxygen mixture that is completely dry do with pilots? How should the pilots get ready for such long missions physically and mentally? Not only those but a whole range of other questions



must be matched with reasonable answers and then make the decisive step – introduce the right solutions to practice. “We will soon get in touch with experts at the Institute of Aviation Medicine Prague. In our training, we have a long-standing cooperation with Deputy Director IAM for training expertise activities MUDr. Petr Došel. We will ask Doctor Došel, along with additional experts, for collaboration in training other pilots on air-to-air refuelling,” Major Tomaňa concludes.

by Pavel Lang
Photos by Jan Kouba

Interview with the Director of the Institute of Aviation Medicine in Prague, MUDr. Dušan Bartoš, CSc.

Unique institute with mission out of the ordinary

There is a new pothole in front of the Institute of Aviation Medicine (IAM) building. It was produced there by the CAFR editors waiting for MUDr. Dušan Bartoš, CSc. There we are, his working schedule as the IAM Director and as an ophthalmologist is extremely busy. But it was definitely worth it: the dialogue is packed with interesting information, not only for the broad aviation community, but also for general public.

The news of the day that will go down in history is the air-to-air refuelling of JAS-39C Gripen supersonic fighters flown by Čáslav AFB pilots. In connection with longer missions flown, pilots speak about a different type of medical fitness. How will the IAM respond to what is truly a milestone for the Czech Air Force?

We will work with them very closely. We have been involved in training supersonic fighter pilots using our expertise, particularly our training expertise with MUDr. Petr Došel, who is in frequent touch with Čáslav AFB fighter pilots. In relation with air-to-air refuelling, it is vital to respond to a range of new realities. From the medical viewpoint, for instance, pilots must take in adequate amount of appropriate amount of suitable liquids and food in regular intervals. The intake of carbohydrates and proteins is particularly important. Everything must be well balanced and adequate to mission demands. We have the knowledge in this field plus we will also make use of the lessons other NATO air forces have gained. I suppose the Čáslav AFB will contact us soon. We will do our best to help them determine optimal regimen for missions lasting several hours.

Otherwise there is no need to make any changes to the methodology used for testing their ability in medical terms. The existing practice fully covers the demands of examining pilots to be completely healthy for flight activities. Examining supersonic fighter pilots is the maximum we are able to perform at the Institute of Aviation medicine Prague.

Do the personnel flying Gripen fighters demand other diagnostic data as opposed to helicopter and transport pilots?

Yes. Medical requirements for supersonic fighter pilots are the tightest. Those are strictly defined in military regulations, not only for the

Czech Armed Forces' Air Force, but indeed in all NATO armed forces. There are no so-called remissions. JAS-39 Gripen pilots must be completely fit individuals. That is why they are regularly and comprehensively subject to the most sophisticated examination techniques at our medical institute.

How frequently are the military flight personnel assessed for their ability in terms of health to perform their profession?

Once in a year. With a little exaggeration: without our round stamp, they cannot get airborne. Our assessment includes special examination in the IAM training expertise unit. We take restrictive measures in case of medical problems affecting flight activities. In reality, that involves temporary inability, downgraded rating, or indeed permanent inability to perform their profession.

For flight personnel and other specialists, we are the key institution deciding whether they would lift off or be grounded. But we can only admit healthy persons to flying. That is our responsibility. At the end of the day, all airmen are the makers of their destiny. Their attitude on fitness and regimen is the basis.

What if we would whoop it up for eleven months and then tighten our belts just to make it through the IAM?

That is not our concern. Health is the decisive factor for us. No one can expect us to make any benevolent steps. Either you pass, or you do not. I have worked in the IAM for twenty-nine years already, and I am no exception either in a sense that you have to tell people bad news. It does not



count here that the person can be your long-standing colleague or a friend of your friend. In the air, everybody is just with himself of herself, so you have to be healthy as required. With a little exaggeration, we are sort of a bogey for our clients.

But let me put it more precisely: a positive bogey. They realise very well what they would lose if they would not pass the IAM. I should note the verdict about this or that inability to perform flight activity is not a decision for a single individual to make, but a commission of experts. The individual may also use a remedy – an appeal to a higher professional authority.

The clients attending the IAM Prague do not include flight personnel only, but also other professions, such as air traffic controllers, paratroopers, divers, firemen, police officers, paramedics and rescuers.

Do their health criteria differ?

As to their ability in terms of health, different criteria apply to those groups. As a matter of fact, every profession has different regulations or ordinances defining the requirements. Those place different emphasis on partial aspects associated with the performance of the job. The highest criteria are for supersonic aircraft pilots,

I do not concur with you on the point that the health of Czech citizens deteriorates continuously. Contrarily, life expectancy increases both with both males and females. We have no reason to be pessimistic in our branch. Why? The age of flying population decreases, and a young and therefore healthier flight personnel generation predominates.

The Czech military medical service has also been able to draw lessons for number of years from deployments for operations abroad. Do any of them apply in aviation medicine?

The IAM Prague staff includes several members who served operational tours mostly as medics on foreign deployments, primarily in the territory of former Yugoslavia. We have close contacts with the Czech Armed Forces members forming the deployments for the Air Adviser Teams to mentor Afghani personnel on Mi-17 transport helicopters and Mi-24 gunships at the KAIA Kabul International Airport, who go to us for regular medical checks. We also find very valuable the cooperation we have with foreign colleagues whom we have met every year in the world aviation and space medicine congresses since 1993. It is no secret that we visit our counterparts, medical organisations in the United States, specifically in San Antonio and Dayton. In addition, we organise numerous reciprocal visit with our partners in NATO. It is pleasing to know we still have something to offer. The IAM has a public image of a specialised organisation with a high credit. We build on erudite personnel and state-of-the-art equipment.

There are a growing number of cases when aircrews are blinded on approach with a laser beam from the ground. Could you say as an expert with long-standing experience in ophthalmology what danger that entails?

My answer expresses three various perspectives on the subject. As a human, I regard it a true evil, even sheer barbarism. As an ex-military, this is sadly nothing new to me. I attended a specialist NATO conference in Turkey in 2000, which had laser weapons on the agenda. Already there we learned there had been localities in the world where aircrews could get blinded on approach. Those were not isolated incidents, but hundreds of cases annually. The examples given included Rio de Janeiro, Las Vegas, Singapore or Beijing, especially because there were entertainment centres there. It did not take long and these deplorable acts also got into the Czech Republic. And what is my comment as an ophthalmologist? Pilots attacked by laser beam suffer an evident change in their central retina. As a matter of fact, vision sharpness reduces by fifty to sixty per cent. One of the effects is the impaired spatial vision. There is no need to elaborate on the danger it may pose for an airliner with more than two hundred passengers onboard during a landing manoeuvre. No sane person can do that.

by Pavel Lang
photos by Jan Kouba



followed by subsonic, transport, helicopters and other specialisms.

No figures relating to the IAM activities have been voiced so far. Would you reveal some?

Our clients comprise roughly twenty thousand members of flight personnel, of whom about five thousand are aviation professionals and fifteen thousand are organised in the Light Aircraft Association or the Aeroklub of the Czech Republic. We perform close to one hundred thousand out-patient treatments on annual basis.

The IAM mission is to serve as a medical facility with coverage for the whole Czech Republic?

It is the case. We are the only organisation in the Czech Republic authorised to assess the aviation community's ability to perform their profession in the whole Czech Republic, both with members of the Armed Forces and in the civilian sector. By the way, this is a position making a number of our colleagues in foreign countries jealous. In countries such as Belgium, the Netherlands, Norway or Denmark, similar institutions are divided into military and civilian sections. Here we have everything under a single umbrella, if you will. It is very effective and costs less.

Do you consider changing the scope of treatment provided?

Not in the foreseeable future. If any changes come, they would be quality related, in the context of technology progress in medicine, including modern trends. Diagnostics accelerates based on new examination methods. That is the path we will follow in the years ahead. We seek to continue things that work well and improve them progressively, for example the cardiovascular and oncologic program. In addition to that, we do glaucoma screening and diagnosis and plus ocular hypertension.

Do you plan to expand the range of special facilities in the IAM Prague training expertise unit?

Except for some systems, such as the centrifuge, we have the necessary equipment there. Special equipment perfectly fits the specificity of what we do. We honour the existing trends in aviation medicine. Those are unique facilities and our integrated system is unique in the Czech Republic. I would just point out hypobaric and hyperbaric chambers, flight trainer, disorientation trainer showing variable flight illusions that may come in specific flight phases, including on landing, or the special facility for activities with night vision goggles. Any modernisation must also be judged from the viewpoint of economy. It is correct to say that it is a very expensive matter.

If I may commend myself a bit in this respect, I must admit that special examinations at the IAM are found attractive, including in foreign countries. Our services are demanded not only by NATO partners, but other countries as well. We already have collaboration in place with German, Austrian, Lithuanian, Estonian and Latvian air forces. We are committed to become the leading institution in the Central European region.

The health of the Czech population worsens every year. Does it also show in this specific category of flight personnel, where a sound health is truly the essential precondition?



Solving the Puzzle of Death

Through involvement of military doctors in a special team with the mission to identify multiple fatalities in a mass accident or emergency, the Czech Republic is at the threshold of an important achievement and the Czech military medical experts will not be left aside. A specialist team will be formed to identify victims in mass disasters, internationally referred to as Disaster Victim Identification (DVI). The Czech MoD would be represented in the DVI by the staff of the Military Forensic Medicine Institute of the Central Military Hospital Prague.

From time to time, there is news on global media of an emergency claiming a high victim toll. An airliner crashed in the Russian Federation, a ferry sank at Estonia, terrorists set a bomb in the United Kingdom, Spain and Afghanistan, tsunamis raged in Thailand and so did hurricanes in the United States. The Czech Republic is no exception either. We may recall the road accident of a coach at Nažidla in Southern Bohemia with twenty fatalities, railway crash at Studénka with eight dead or fire in Prague which claimed nine victims. Tragic disasters with a high toll necessitated the establishment a team of experts to provide victim identification. Most advanced European and overseas states have the so-called DVI teams available. But they are not identical,

as individual states form them based on their own vocational needs, technical limitations and in the context of costs. Over many years of their existence, the DVI teams gained many unique experiences identifying victims of mass accidents. Many of those lessons were recently shared in the congress centre of the Prague Central Military Hospital in an international conference named Theory and practice of DVI teams. The specialist audience was highly interested to hear presentations by Swiss experts, Mr. Winiger and Mr. Wohermayr, on the use of the special teams following the disasters in Thailand and Japan.

How is the Czech Republic doing in this respect? The signature by President of the Czech Police will crown the development of the



concept and organisational solution to the establishment and activity of the DVI team in the Czech Republic. That will bring to a successful conclusion the many years' effort by the staff of the Criminalistics Institute Prague, the Prague Central Military Hospital and the Institute of Forensic Medicine and Toxicology of the General Faculty Hospital Prague and the 1st Faculty of Medicine the Charles University in Prague. Their activities presently produce essential

Medical service

methodologies, including the mass fatality reception plan, which the Prague-based Central Military Hospital has as the only medical facility in the Czech Republic.

Two military experts in the DVI team

CAFR discovered that nominees to the DVI team also include Military Medical Service specialists, specifically two members of staff of the Military Forensic Medicine Institute (MFMI) Prague: MUDr. Václav Horák and Colonel MUDr. Miloš Sokol, Ph.D. – consultant of the Institute.

"Yes, you are correct. There are obvious reasons for that. Our tasks include post mortem examination of persons who died in air accidents, including both personnel of the Czech Air Force and commercial carriers plus passengers," COL Sokol explains and goes on to say that he had supported activities to form a Disaster Victim Identification team from the very beginning and was subsequently heavily involved.

"This is what brings our cooperation of many years to a head. It is critical for a variety of reasons to perform victim identification as fast as possible and to highest quality standards. First for ethical reasons, when the body of the deceased following the PM examination is handed over without undue delay to the survivors for burial and also with a view to follow-on legal

an airliner carrying one hundred and twenty passengers would crash was a double nightmare for me. First that lives would be lost in the accident, and second because of the lack of coordination on identification of mass disaster victims. Finally, there is an effective solution in place for these highly sensitive issues. All involved services and agencies have a clearly defined role to play on the site," Colonel Sokol emphasises and underscores importance of the whole matter. "The fact that military experts have been assigned to man the Czech DVI team naturally raises the Armed Forces profile. It is another proof of our high professionalism and readiness," the Military Forensic Medicine Institute consultant relishes.

Following the signature of the directive of the Police President, Doctor Miloš Sokol and Doctor Václav Horák are to become external experts of the Czech DVI team on standby for deployment into a specific disaster location. This will not involve the Czech bowl only, but any crisis area worldwide. In the structure of the Disaster Victim Identification team they are specifically assigned to the post mortem (PM) group to work on the accident site. "We are ready for emergencies of this kind. The activation order may come anytime. We have the necessary expertise to work both in field in our stationary facility. The relevant know-how we have is quite considerable and we definitely have something to offer to our colleagues on the DVI team," the MFMI consultant says.



Colonel MUDr. Miloš Sokol, Ph.D.

acts, such as succession procedures, liquidation of insurance contracts and the like," the MFMI consultant explains. He later openly admits that the establishment of the DVI teams would finally make him sleep much better. "The previous practice was not optimal. The DVI team has been established ad hoc in the Czech Republic so far, based on current needs. When I joined the forensic medicine lab at the Institute of Aviation Medicine Prague twenty years ago, an idea that

It should be noted that the Military Forensic Medicine Institute is not just two tables with necessary tools and equipment including X-rays, and cooling, or indeed refrigerating boxes storing bodies of the deceased. The institute is known for a broad spectrum of specific operations it performs, from toxicological examinations to forensic expert opinions. Over the whole fifty-seven years of its existence, a "handful" of employees there have done a highly valued job.

Behind the scenes of the Post Mortem Team

The following is a sort of a curriculum vitae of the DVI team, whose mission is to return to persons killed in an accident or disaster their identity and rid their surviving family members of the stressing doubts over the loss of their closest.

The DVI team comprises of three groups: Ante Mortem (AM) – experts performing collection and assessment of all available information and reference samples on missing persons in the place of their residence plus from their partners and families; Post Mortem (PM) group and the Identity Establishment group. In total, a typical DVI team may comprise ten to fifteen experts plus additional specialists invited as needed. Those are usually not only police specialists, but also other experts such as forensic doctors, dentists, genetics, anthropologists or psychologists.

"The mission of our PM group is to perform examination of the bodies in the accident site and then autopsy with specific focus on identification. That is also why we were divided into two subgroups with different procedures and supporting equipment. Although they operate relatively autonomously, they are interdependent. Both in the field and in the autopsy room, it is critical to obtain as much information as possible intrinsic to the person identified, so-called markers," Colonel Sokol lets a peak behind the scenes and specifies that those are however



supporting ones. The primary identification methods include DNA analysis, finger printing and forensic dentistry. "These methods used have in reality equal relevance and any one of them may decide the person's identity on its own," the consultant of the Military Forensic Medicine Institute adds.

by Pavel Lang
Photos by Jan Kouba



Czech and Croat Mi-17/171 helicopter aircrews underwent a joint prepping at the Zadar airbase in a premiere run of the Air Advisor Team Predeployment Training Course

In tune for missions in Afghanistan



So far, the city of Zadar, Croatia, has been only known as a famous tourist center. Hundreds of Czech citizens enjoy the miracle of the Adriatic Sea and the Velebit mountain range here every season. In May earlier this year, the seaside gem of Dalmatia also hosted Czech Air Force service personnel at the Zadar – Zemunik Donji airbase, who performed joint flight training with Croats ahead of their deployment as an Air Advisor Team (AAT) tasked to trained flight and ground personnel of the Afghan Air Force at the Kabul International Airport.

"If we are to fight together, we must train together" – that is the motto of the Czech-Croat initiative designed to prepare Mi-17/171 helicopter aircrews and ground specialists from both nations in the run-up to their deployment as another AAT rotation responsible for training Afghan Air Force (AAF) personnel at the Kabul International Airport. Based on bilateral agreement between the Czech Republic and Croat

Republic, a series of training courses named the Air Advisor Team Predeployment Training Course (AAT PTC) was prepared to the effect of harmonising procedures for operating Mi family of helicopters and for an increased effectiveness of training delivered by the instructors. The pilot project started in April with an initial academic part at the Ostrava Mošnov airport and continued with a two-week practical training performed at

the Zadar – Zemunik Donji airbase in Croatia. A unique training program, tentatively planned for two years, divides into six training courses. The first one was completed in mid-May earlier this year by what primarily were the members of the AAT deployment slated to take over the operational assignment in Kabul in July/August timeframe. The second edition is scheduled for commencement in the autumn.

Mr. Jiří Šedivý, declared it clearly in a ceremony launching the AAT PTC at the Ostrava airport: "There are multiple nations training the Afghans today and every one of them has a slightly different syllabus, which affects operating and mission performance. Training procedures applied by individual AAT teams must be harmonised as soon as possible. Bringing standards for Russian-made Mi-17/171 helicopters in harmony will undoubtedly increase effectiveness of training the Afghan Air Force flight and ground personnel."

The joint Czech and Croat instructor predeployment training was also praised during the VIP day (May 10, 2012) at the Zadar airbase. "What we are doing together is in the spirit of NATO's Smart Defence. We are delivering something that NATO currently demands. The positive reactions we receive from our NATO partners assure us that is the right and effective way forward. Additional countries have already indicated their interest in the training course. Harmonising the training of Czech and Croatian heli crews is the best proof of cooperation in NATO. This is a reality that is very pleasing for us," the Croatian Defence Minister Ante Kotromanović said exclusively for CAFR on his visit to the servicemembers in training at Zadar airbase in company of the Chief of General Staff of the Croatian Armed Forces, Colonel-General Drago Lovrić.

The Czech side also shows satisfaction. "In my perspective, this joint preparation is highly positive and I have no doubt it provides a very solid basis for the upcoming AAT deployment. Czech and Croat Mi-17/171 pilots have worked closely together at the Kabul International Airport for several years and this initiative is the best step to achieve further progress. I have seen the pilots in action today and I have no worries whatsoever. They will be a well-coordinated team," states Major-General Miroslav Žižka, the First Deputy Chief of General Staff Czech Armed Forces, and speaks highly of the fact that the predeployment course ahead of their mission in Afghanistan is found interesting by both NATO and Partners. "Negotiations with Hungary and Lithuania have seen the greatest

progress so far," General Žižka adds and says he is convinced that the AAT PTC vision will not be hampered even after realisation of some reorganisation in the Czech Armed Forces. "The realignment will mostly affect command and control structures. We have no plans to reduce transport helicopter capabilities."

Brigadier-General Bohuslav Dvořák, Director of MoD Force Development – Operations Division, implies that deployments for Czech Armed Forces Air Adviser Team in Kabul are planned at least till 2014. "Our joint goal is to prepare the Afghan Air Force for taking over their operational assignments. Once we succeed in doing so, our mission will be accomplished. We will achieve much higher training standards for our Afghan colleagues through a joint effort, and the faster good conditions will develop for transition of security into the hands of Afghans themselves," General Dvořák argues and points out the AAT unit includes two multinational expert groups: Czech-Croat on Mi-17/171 transport machines and Czech-Hungarian for Mi-24/35 gunships. "We are committed to see Mi-24/35 squadron members joining the predeployment course as well. We have a vision and some discussions have already taken place. But the situation is not easy, especially from the viewpoint of funding we have currently available," Brigadier-General Dvořák underscores.

It is not a secret that the AAT PTC course is sort of an initial step on the way to achieving much higher ambitions the Czech MoD has. "We regard this Czech-Croat project as a cornerstone for a much more ambitious goal, which is the Multinational Aviation Training Centre (MATC) for training Mi helicopter family flight and ground personnel," Major-General Žižka adds that the project will at the same time tie together multiple strands of work pursued in compliance with the development concept of the Czech Air Force helicopter component as well as international flight and ground personnel training initiatives, including the standardisation Air Advisor Team Predeployment Training Course.

The Czech contribution to Afghans however goes beyond this unique helicopter project. "Pending on the endorsement by the Parliament,

Concept-wise, the course has the full backing of the U.S., which assigned their experts and flight instructors for the joint training by Czech-Croat Mi-17/171 aircrews. The cost, specifically EUR 1.56 million, has been shared among Norway, Denmark and the Netherlands (each country allocated 0.5 MEUR), as well as Sweden and Finland. The Ministries of Defence of the Czech Republic and the Croat Republic agreed a technical arrangement to provide mutual support and servicing by the host nation free of charge. This provision significantly reduces costs associated with the stay of one country's service personnel in the other country. The obligation on the part of the Czech Republic is to cover the cost of a week-long stay of Croat unit in the Czech Republic throughout the duration of the six courses over two years. The Czech Armed Forces has allocated close to four hundred thousand Czech korunas for this purpose.

A pleasing reality

An appreciated attribute of this newly conceived project is the permanent support by senior defence officials of both countries. The First Deputy Minister of Defence of the Czech Republic,



we will send again a Czech helicopter unit to Afghanistan next year," Brigadier-General Dvořák elaborates.

Tactical missions on simulator

Sixty-three hours. That is the academic portion of the premiere predeployment training course involving Czech and Croat heli crews, which started with a drill at the Helicopter Training Point (HTP) Ostrava CZ training centre at the Ostrava Mošnov airport. First there was a string of lectures that truly dissected specifics of the area they would operate in, and peculiarities of their operational assignment. "The aircrews tested their theoretical knowledge on a flight simulator that features state-of-the-art Mi family simulation technology. It can provide high-fidelity rendering of any flight conditions and machine operations, including emergency situations or brown-out landings," says Lieutenant-Colonel Rudolf Straka, instructor pilot of the 22nd Air Force Base Náměšť, who has a high degree of familiarity with the airspace around Kabul from the tours he has previously served with the Czech Air Adviser Team.

The preparation proceeded from what were apparently simple to the most comprehensive tasks. "Tactical missions were no exceptions either. The aircrews got an operational task and elaborated on it thoroughly. Then they performed required flights on the simulator. Everything reflected the reality on the ground in Afghanistan, including identical names of forward operating bases in the mountains. The demands of training sessions progressively increased. The scenarios included unexpected fire by opposing forces from the ground or emergency situations during flight," LTC Straka elaborates.

His experience is welcome. Although there were some individuals on the AAT PTC course, who had already served a tour in Afghanistan, LTC Straka has a lot to say to them. The reason is that nothing can be underestimated. "Flying in high threat environment requires permanent one hundred per cent concentration and perfect preparation. Once downrange, there is no difference between training or operational missions. Each aircrew develops so-called risk assessment prior to every task, considering all factors of the mission in question, ranging from the weather to intelligence. It is a scoring system. Summing the points up, you figure out the degree of risk associated with your flight, and take measures accordingly to minimise the slightest danger. Every factor affects the way the flight will be performed," Lieutenant-Colonel Straka explains and concludes that one hundred per cent security may not be guaranteed on combat operations.

It may be of interest that the contents of the training course runs will not be identical. "We will make an in-depth evaluation of the pilot course edition. The second cycle, which we plan to start in September later this year, will already

include additional currency lessons. Individual AAT PTC editions will therefore be adjusted to the specific situation in the area of operations. Our joint training must enable the personnel to assume responsibilities under the operational assignment as fast as they possibly can. In Kabul, the process already has a lot of dynamism. You are confronted with everyday reality down there," says Major Miloslav Synek of the MoD Force Development – Operations Division.

Critics may argue that the importance of training camps may have little to no effect in case the trainees are seasoned military instructor pilots. "I believe these courses have a high value. It is the best prepping system. I have familiarised myself with the syllabus and I would say it is developed to very high professional standards. I can tell based on my experience there are differences in the way mentoring is delivered to Afghan Air Force personnel. I have served in the 5th Czech Armed Forces AAT at KAIA and I would definitely appreciate such kind of pre-deployment preparation. Another benefit is that you get to know each other and have an understanding of whom you will be working with on



the Air Adviser Team for four months," argues helicopter pilot Major Peter Smik, who recently returned from Afghanistan.

High-fidelity rendering of Afghanistan

From Ostrava to Zadar, or from the flight simulator into the cockpit of Mi-171Sh helicopter. A week's practise on the flight simulator in the Czech Republic is followed by a two-week academic and flight training in Croatia. Why the Zadar airbase? "Because of certain similitude with the environment and meteo conditions in the area where the Air Adviser Team will deploy. The surroundings of the Zadar airbase offer an array of training mission areas. Proximity of mountain ridges provides opportunities for intensive training of landings on small-sized zones, plus there is also an air-to-ground shooting range available nearby," Lieutenant-Colonel Michael Krizanec, commander of the Croat helicopter squadron, offers some of the reasons and specifies that the each pilot is planned to complete seven flight hours.

His words drown in the noise produced by spinning rotor blades on two starting one-sevens on the apron of Zadar airbase. Over the next ten minutes, aircrews perform engine test and check all systems onboard the helicopters. When cleared by the tower, they start taxiing to the takeoff point. It is nine o'clock sharp as Mi-171 with number 226 and Captain Robert Rajtmajer and Major Krešimir Matan in the cockpit lifts off and performs a hover, still in ground effect, about five meters above the runway. The

machine then takes off following the runway centreline and once travelling at about one hundred and twenty kilometres per hour it starts to climb and turn left.

The situation repeats a couple of minutes later. The only difference is that the chopper is now operated by another Czech-Croat aircrew: Major Josef Kořinek and Captain Dalibor Ivelja. Over the next two hours, they will also first practise take-offs and landings at various angles and with maximum take-off weight and then train emergency situations in mission areas. It is not a particularly difficult task, but aircrews achieve certain degree of automatism rehearsing it. In addition, pilots behave as if they instructed Afghans. Every little detail performed successfully moves them another step closer to the goal of the AAT effort – to prepare Afghan helicopter crews for operational flights. It goes without saying that all activities performed by trainees are closely watched by US instructors, who are current or former military pilots with rich operational experience from various parts of the world.

The flight effort gets ever more demanding day by day and comes to a head with tactical training missions. In nutshell, they end up performing tasks nearly identical to those they will be confronted with in Kabul in several months' time. "We commenced Mi-17 mentoring activities with Lieutenant-Colonel Petr Kratochvil in Kabul in November 2010. We were there four and a half month and each of us logged some one hundred and thirty hours. That is why I initially asked myself, what benefit the AAT PTC may bring to me. But one always has to improve. Pilots are no exception. In Afghanistan, it is an all-out flying: in a mountain environment, with high temperatures and in dust, with the machine at maximum weight, in areas with a high level of threat. No doubt this joint training will

enhance our readiness to perform the missions," CAPT Rajtmajer says.

Nearly three hours' mission is over and Mi-171Sh machines land in turns on airfield surface. "We picked troops at a forward operating base and lifted them to their destination. On landing and take-off, we were covered by helicopter gunships," MAJ Kořinek explains getting off the cockpit and they leave together with his Croat colleague for the debriefing.

CAFR gets a couple of minutes from a door gunner. "I will go on a deployment in Afghanistan for my fourth time already and always as a door gunner. This will be my eighth foreign operational tour," shocks the congenial military professional on the introduction and underscores that he nevertheless may not afford the slightest laxness. "You have to be fully concentrated every single moment and in any situation. I am another pair of eyes for the pilot. I am not onboard just to pull the trigger on the machinegun, but, as a member of the aircrew, I also perform other activities. Firing that is just the icing on the cake. It just takes a couple of seconds, plus you shoot on the move, and it is definitely not about having the target on the reticle for minutes. My success in the air is conditioned on my ability to foresee, but namely on experience that only develops in practice. You have to have a perfect command of the weapon and have an extensive shooting record. This course exactly answers what is required for foreign deployments."

Czech and Croat ground specialists led by Captain Ondrej Pecha are approaching the machines. According to their specialisms, they start another preflight preparation. The afternoon missions will take off at three p.m.

by Pavel Lang
photos by Jan Kouba



Ten years have passed from when the Armed Forces of the Czech Republic joined Operation Enduring Freedom

In the Kingdoms of the Mythic Scheherazadea

In the immediate response to the 11/9 attacks, the U.S. mounted the Operation Enduring Freedom. It has been a series of military actions performed on vast territory to fight terrorism.



The aerial bombardment of the Taliban by U.S. Air Force on 7 October 2001 is considered the start of OEF. Two weeks later, U.S. soldiers performed the first ground operation in the Afghan territory. From the very beginning, the Czech Republic declared its intention to meet the commitments to NATO and contribute to the endeavour in the compass of its possibilities. There were initial plans to deploy a force comprising the Czech 601st Special Forces Group.

The special forces personnel were immediately activated and started predeployment preparations. The force command coordinated modalities with the UK, under whose command the Czechs were to operate in Afghanistan. But at the end of 2001, with a view to the limited strength of NATO's contingent planned to operate in Kabul, the deployment was cancelled.

The first Czech force then to join the Operation Enduring Freedom in the territory of Kuwait was a CBRN defence unit at the beginning of March 2002. The CBRN unit was assigned to become a part of the Combined Joint Task Force – Consequence Management (CJTF-CM) and perform missions in relation to management of consequences following the use of WMD.

On March 7, 2002, an advance team of twenty personnel were the first ones to depart to Kuwait, from Prague via Ramstein, Germany, and Aviano, Italy. Their mission was to establish contacts with the U.S. command at Camp Doha and CJTF-CM and make all the necessary preparations for the arrival of the main force. They had to open a bank account for instance to be able to run logistic support properly. They also needed to rent vehicles for transportation in Kuwait, get ID and access cards issued for all contingent members, provide accommodation and get everything ready for debarking their vehicles. The unit representatives also frequently coordinated with the officials of the Czech Embassy in Kuwait.

First debarkation in the history of the Czech Armed Forces

The transfer of the main force into Kuwait took place on 19 March 2002. After arriving from Kuwait airport to Camp Doha on coaches, the service personnel were accommodated in relative austerity of a big non-air conditioned hangar that was previously used a food depot and slept on foldable beds. They had a chance to familiarise themselves with the Camp Doha premises and see the regimen there.

On the next day, wake-up signal awaited soldiers at half past four in the morn. Right after the breakfast, coaches took the soldiers into the Shu'aibah cargo port. The ship carrying the vehicles and materiel was however delayed, so they could do nothing but wait. Soldiers killed the time by eating a cold lunch. The contingent chronicler wrote down then: "Even though we knew how their MREs looked like, nobody has practically tasted it before. What was interesting was the variety of choice, and it was quite tasty as well, but we agreed in the end nothing compared to canned pork with bread." At noon, Sochi ship with Russian crew sailing under Maltese flag put in the port. Fifty minutes later, a Czech Tatra truck rolled out of one of the three decks. The first debarking in the history of the Czech Armed Forces started. Debarkation was complicated by high waves that often suspended the debarking operations. Moreover, 132 vehicles and 82 containers with materiel need to be transferred to Camp Doha and stored there.

The task took the whole night and was accomplished at five in the morning on the next day.

The last six soldiers, who travelled with the vehicles and materiel on sea, joined the contingent. The concerns that the ship could be attacked by pirates, which frequently happened then at the Horn of Africa, fortunately did not materialise. At the moment, the contingent was complete with the strength of 251 personnel, including eight female soldiers.

In spate

The Czech military camp was built in the following days. Containers were placed in the hangar around the walls. The service personnel built accommodation cabs from the timber and other materiel they brought in the middle of the hangar. Essential offices and materiel storage were built amidst the containers. A medical post was created in one of the corners using the POP-2 field aid truck. The medical facility also had an in-patient ward with ten beds. Once construction works were finished, it was just necessary to install communication lines, power lines and make other necessary adjustments. In the motor pool area, containers with materiel were placed, vehicles parked and maintenance shops established.

At that time training was getting in full swing in the contingent as well as preventive training courses for Allied forces instructing them how to proceed in case of the threat of weapons of mass destruction. Later on, they expanded their activities with monitoring chemical and radiation situation in the territory of Kuwait. In an abandoned female prison close to Camp Doha, a demonstration was held for CJTF commanding officers and members of the U.S. and German CBRN forces showing the Czech contingent's activities, tactics and capabilities plus the employment of the Hot Zone Extraction Team.

"Last night we had the first thunderstorm. Lightnings in the sky and then a solid downpour brought everybody inside the hangar to the gate to watch the spectacle. It came as a surprise that the raindrops were hot. Water poured down in streams through the ceiling of the hangar, and the staff in the local military shop hurried to carry away and cover goods, water in roads had nowhere to drain. Obviously, the locals were not ready for stuff like that," the contingent chronicler wrote down on 11 April 2002. "Only several days on we learned from the local press that the storm had caused enormous flooding, resembling our hundred years' water. For the first time in the history of this country, a lake covering eight square kilometres formed with up to two metres of water. The water damaged houses and swept nine cars off the road in the al-Jahra district. The press wrote that the elders recalled a stream had been running in that place sometimes during the rains."

Across the dessert

In the second half of April, training took place to practise shooting mounted weapons and sniper rifles. The range was located one hundred kilometres from Camp Doha, of which fifty kilometres led through the dessert. Temperature in the shade reached forty degrees Celsius, and way over fifty in the desert. Majority of the motor pool, including BRDM armoured vehicles, made it to the range without problems. The exception was the Tatra AV-15 recovery truck, which had a failure on its injection pump, and had to be towed back. Both the Tatra crew and the mobile shop personnel did a heroic deed trying hard to repair the failure for five hours in the scorching desert.

What an exotic experience it was for Central Europeans is corroborated by the following entry made the chronicler: "We were all surprised that life is found quite deep in the dessert. On the movement, we saw plenty of tent shelters and particularly huge herds of sheep, goats and camels. The convoys passed by the animals several times without ever making them look disturbed. After the training, soldiers spent the night in an expedient camp they built with full combat defences. Scorpions, snakes and lizards posed the biggest threat. A sandstorm broke out before the morning came, and covered everything with soft sand. The transfer back was smooth."

The CBRN unit was reorganised several times. In the beginning of March 2003, the 1st Czechoslovak Chemical, Biologic and Radiological Defence Battalion was formed with then Brigadier-General Dušan Lupuljev as the commander. Brigadier Lupuljev was also performing his duties on Thursday March 20, 2003, at five hours thirty-four minutes in the morning. At that moment, the US CENTCOM, the superior command of the Czech CBRN unit, ordered the Operation Iraqi Freedom to begin. Allied forces crossed the border between Kuwait and Iraq shortly after that. The first Czech reconnaissance team got into the Iraqi territory on 17 April 2003. The battalion helped distribute water and other vital humanitarian aid in Basrah and its environs and supported building the Czech 7th Field Hospital. Its operational assignment was however drawing to an end at that time. It returned back to the Czech Republic with most of its equipment at the beginning of June 2003.

Operation Enduring Freedom nevertheless continued in the following years and thousands of the Czech Armed Forces servicemembers joined the endeavour.

by Vladimír Marek





Firing at the Arctic Circle

Loading Czech Air Force aircraft with AIM-9M short-range air-to-air missiles is over. The ground personnel of the 211th and 212th Tactical Squadron has rendered mission-ready three JAS-39C/D Gripen supersonic multirole fighters and L-159 ALCA subsonic combat aircraft. Tactical air exercise Lion Effort 2012 in the territory of the Kingdom of Sweden has entered its final phase. In several days spent over ranges close to the Arctic Circle, twenty pilots from Čáslav AFB are to prove their high professionalism, and readiness to perform air defence missions in particular.

Located over two thousand kilometres north of the Czech Republic, the Vidsel Test Range is not a completely unknown destination for the personnel of the 21st Air Force Base. Six years ago, they had a premiere firing missions at Vidsel in live air-to-air fire exercise with AIM-9M Sidewinder missiles, and Mauser BK-27 and ZPL-20 Plamen cannons.

"From the opportunities available around Europe, we again chose the Vidsel test range. Besides meeting all our requirements for air-to-air fire, it also has requisite logistic and technical

support facilities for the JAS-39 Gripen aircraft," says Major Petr Michenka of the Joint Force Headquarters in Olomouc and points out the facilities available at Vidsel and the Lulea AFB nearby, where Swedish operate their Gripens from. Neither operation of L-159 machines should be a source of concern. The ALCAs frequently operate from airfields abroad and qualified technical personnel of the 212th Tactical Squadron have rich experience from tactical exercises.

If they got into trouble, they should be able to manage on their own. The Czechs had several



requirements, but the key ones were: towed flares and sleeves! In lay terms: in order for the Czech Armed Forces contingent on the exercise, it is essential to provide three Beechcraft MQM-107B towed drones, whose underwing containers deploy four towed targets: Servicing Mission SM-3B or flares. Sidewinder infrared seeking missiles home onto the activated flare jets. The drone takes off from a ground station and its flight route is preprogrammed. After the mission, which may last as long as three hours, a recovery parachute is activated for the drone to safely land. The distance separating MQM-107B and SM-3B during live firing is roughly fifty metres.

Flares are not copies of enemy aircraft. Their size is much smaller, they roughly to a jumbo jug kettle. Hitting such a target is close to miracle for outsiders. As a matter of fact, Čáslav AFB pilots have accomplished that miracle here back in 2006. Out of eight Sidewinder missiles fired, all eight hit the target, and what is more, it was a bull-eye hit in six cases. The second aspect relates to the Mauser BK-27 cannon that arms the JAS-39C Gripen multirole fighter and the double-barrel ZPL-20 Plamen cannon on the L-159 ALCA subsonic combat aircraft. Besides them, one of the key roles is played by a Swedish Learjet 60 airplane towing a strikingly red, roughly five-meter sleeve serving as a target for the attacking aircraft, on a line close to one thousand metres long. It goes without saying

that services and materiel provided at the Vidsel airbase are paid with money. The costs count in millions Czech korunas. The amount of funding required corresponds with the demands of flight effort. The Swedes are also able to prepare a higher level of training in live firing, for instance using manoeuvring drones, but that would substantially increase the cost. So, the parameters of a week-long exercise at Vidsel are given. Not only it should the most effective step but it also supports meeting the essential qualification requirements for the flight personnel assigned to perform air policing missions.

"The selection of pilots to attend the live fire exercise in Sweden was primarily based on their assignment to the quick reaction alert systems," says the Commander 21st Air Force Base Čáslav Colonel Petr Lančí and adds: "It is the NATO Integrated Air Defence System for Gripen pilots, and the pilots of one-fifty-niners serve in the NaPoSy national reinforcement system. In the second half of 2012, we will provide air policing to Lithuania, Latvia and Estonia as a part of the Baltic Air Policing mission. The personnel serving at our base must be adequately prepared to perform such missions. Live fire exercises involving the use of with air-to-air missiles and cannons are a precondition for their operational tours."

Arming the Sidewinders

To prepare such a tactical live fire exercise is not easy at all. "The Vidsel range has a quite busy schedule. Individual slots for live firing are taken well in advance. We had to definitely decide for April 2012 at the end of summer last year," MAJ Michenka explains. The specific phase is the transfer of trainees and materiel to the destination located at the very end of the Kingdom of Sweden. "You may not omit a single detail in the exercise. Everything must be based on a precision coordination with your counterparts, what they are able to provide and



what we must have on our own. Nevertheless, you have to be prepared for contingencies, or changes that must be dealt with operatively," says Major David Kudrna, Deputy Commander 21st Wing – AFB Chief Engineer, and goes on to specify that ground transportation from their station was provided by the 14th Logistic Support Brigade headquartered in Pardubice and the flight route Kbely–Čáslav–Lulea (Vidsel) and back by the 24th Air Force Base Transportation. Twelve units of AIM-9M, seven hundred and twenty cartridges for the Gripen's TP-28 and 3,200 TP-T cartridges for L-159 were transported in containers on the ground. In the finale, JAS-39D (tail number 9819), two JAS-39C machines (9235 & 9234) and three L-159s (6053, 6049 and 6065) made a transfer flight to Vidsel. ALCAs made a refuelling stop in Sweden.

The kind reader may ask why only twelve Sidewinders are fired, when the Czech Armed Forces have many more of them in depots. For sure, money is the only reason. The Czech Air Force paid for three drones and three by four has been twelve from everlasting.

Speaking about AIM-9M missiles, let us shortly entertain the subject of "activating" the missile. "What we first do after taking the missiles and munitions over from the carrier is a visual check. The Sidewinders must first be completed, i.e. fitted with fins and canards and then functionality of the control and guidance section must be checked.

Once everything is the way it should be, they are placed into special transport cages and transferred into an ammunition depot," Captain Marek Štěpánek, the Čáslav AFB Senior Chief Weapons Engineer, describes. As a part of preflight preparation, the missile is loaded on underwing pylon: left on the Gripen and right on the one-fifty-niner. Why? Not for image, but for safety, in order for the pilot not to get off the cockpit over the missile that would for any reason not go off.

There is a strictly defined procedure for everything, which must be observed one hundred percent, including arming the missile before the machine leaves the apron. "In the end, an aircraft technician removes the front cover from

the missile, cover strip from the proximity optical fuze and a safety pin from the rocket engine," CAPT Štěpánek elaborates and goes on to say once the missile rocket engine safety selector is switched from safe (green) to arm (red), its weapon is ready to fire.

The Czech Armed Forces Air Force has had Sidewinders in inventory for ten years. "We make sure the AIM-9Ms are serviceable by checking and testing the missile's condition throughout its life. Each level of maintenance has an amount of works prescribed to it. We also use special systems for testing. When those operations are performed correctly, the system functions can be guaranteed. We naturally have procedures to follow in case of malfunction," the missile preparation flight commander Captain Jan Kramer explains.

Missiles into flares

The morning mission begins with a take-off of today's opponent of the Čáslav AFB pilots: a drone with four flares under wings. Shortly after that, the controller clears a pair of aircraft to start engines and take position on the runway threshold. Captain Marian Králík sits in the cockpit of L-159, and the Gripen carries Major Jaroslav Tomaňa. For both of them, it is premiere air-to-air fire with AIM-9M. The one-fifty-niner

accelerates rapidly and once airborne it climbs in a right turn to the assigned flight level. The calm at Vidsel does not last long.

Major Tomaňa goes into action a couple of minutes later.

With RM12 powerplant producing maximum thrust of 80.5 kN, the Gripen gets airborne in couple hundred metres with afterburner on. The machines take formation and head north-west to the range nearby.

The control post takes over the L-159 and assigns heading and flight level for the pilot to lead him towards the aerial target. No other manoeuvres are allowed. First there is a radar contact with the drone, and the visual contact comes at about two naval miles to go (at about 3.6 km). Captain Králík continues to follow the flight trajectory of his SM-3B flare. The distance between him and his burning enemy shortens fast. His headset tells him shortly: Clear to fire! One point eight, one point seven, one point six, ... – the controller counts down the distance, and clearly accentuates the 1.6 figure. Since that moment till the distance of mile, it is a straight fight: the pilot versus the flare.

Ideally positioned to fire the Sidewinder, the pilot pushes the red button on the stick. He holds it a couple of seconds to be one hundred percent sure. Then he quickly rolls right sixty degrees.

him: Good job! My first air-to-air Sidewinder shot was successful. I can live it out fully only when the flight is over. It is a very important experience," says the military pilot who has logged nearly one thousand hours flying the Gripen and served in the NATINADS for seven years already.

Once they make their egress, additional aircraft enter their final attack cones. First to come in is the JAS-39D double-seater with Major Martin Pelda and First-Lieutenant Milan Nykodým in the cockpit, followed by a one-fifty-niner. Both aircraft have one AIM-9M Sidewinder on their pylons.

Attacks on the sleeve

Ninety cartridges for Gripen and two times two hundred for L-159 – that is the quantity of ready-to-fire munitions for the afternoon missions that will see fornt the Mauser BK-27 and ZPL-20 Plamen cannons. Target? Strikingly red five-meter sleeve towed by a markedly yellow Learjet airplane. "The sleeve has an integrated acoustic recording device that evaluates shooting accuracy using a computer, and gives evaluation for each burst separately," Major Michenka elaborates and adds that once the mission is over, the two airplane crew hands over to each pilot his score of firing accuracy.

of twenty rounds, using both podded Plamen cannons simultaneously. The he makes the rollaway, returns to the starting position and runs a new attack. This repeats in turns for about thirty minutes. Then the unloading safety burst and departure from the range. "In live fire, the opponent is attacked from any possible position. Here the safety parameters must be strictly observed, which means not to pose a threat to the two aircraft at any time. I must not get behind plus it must always be below me. We attack the target looking down," ILT Bruščík lets a peak into the tactical scenario, accentuating that effectiveness is not hampered nevertheless. First-Lieutenant Čejka concurs with that. "We may practise firing both on simulators and on another airplane in the airspace. The procedures are identical; the graphic symbols are the same. But live air-to-air fire is different nevertheless. There are different parameters than in standard use, but the better you have to perform. In a couple of seconds you have to make use of everything you have learnt so far in reality. Mentality is also important. Some may feel constrained. What is difference? I would say it generally compares to shooting a laser and real weapon," the pilot explains.

Our conversation vanishes in the roar of a Gripen taking off. Captain Jiří Čermák is just



"I saw the Sidewinder go off the right wing. It did not do anything special with the aircraft. I did not notice whether the missile hit the flare, because I rolled away. Only then I took a quick peak and saw a cloud of black smoke.

The hit was confirmed to me by MAJ Tomaňa, who was a mile behind me," the pilot says after landing from a sixty-minutes' mission and reveals his feelings: "I observed strictly what I supposed to. The debut went out well and I am happy with that. I should admit it is a nice feeling."

Combat mission at the Vidsel range continues.

Shortly after the one-fifty-niner, MAJ Tomaňa in Gripen with tail number 9234 is cleared hot. He also performs a precise firing and hits the burning flare. "The controller did not tell me the result and so I hanged in the balance for a while. Finally, after a minute, I hear from

ALCA pilots First-Lieutenant Tomáš Bruščík and First-Lieutenant Stanislav Čejka are the first to take off. The aircraft climb to two kilometres get into formation and head east, specifically to a range located close to two hundred kilometres from Vidsel. In reality, that involves a restricted area of one hundred by forty kilometres over the Gulf of Bothnia in the Baltic Sea.

By the way, today it is completely snow-covered and frozen. The sleeve for their attacks is ready!

After being controlled onto the target, pilots monitor the air picture and check for the "opponent". Everything is the way it should be. In the next phase, they acquire the target with their radars and start attacking, each aircraft from its assigned side and according to strictly defined procedures. Initially, there are about five dry runs, then hot. The ALCA performs an attack and fires at the target with a short burst

heading above the sea to prove his professional ability firing live with a 27-mm Mauser cannon. He comments his mission an hour later: "Weather has been ideal, the machines held and the results of firing were excellent, because everything went down to the target. Today's air-to-air cannon fire was my premiere, and it came out well. Feelings? Happy with the flight," he assesses. Other sixteen pilots stood the test in tactical air live fire exercise in Sweden the same way he did. To give a complete statistics: out of eleven Sidewinder air-to-air missiles fired, eleven hit the aerial target!

Exclusive findings about the Czech Republic's activities in the NATO Airborne Early Warning and Control Programme

The Czech contribution to NAEW&C

The Czech Republic has scored another achievement in the NATO Airborne Early Warning and Control (NAEW&C) programme. In 2011, the Czech Republic became a new NAEW&C participating nation after having completed nearly two-year accession process, and then strengthened the contingent of the Czech Armed Forces service personnel serving at the NE-3A Component Main Operating Base (MOB) in Geilenkirchen, Germany. In February earlier this year, the meeting of the NAEW&C program steering authority was held in Prague, Czech Republic, for the very first time.

The above-mentioned facts are so significant that they deserve elaboration. To start with, it should be noted that the Czech Republic became a full-fledged participant of the NAEW&C programme (also known as AWACS – Airborne Warning and Control System to the general public) upon completion of the ratification process by all seventeen signatories on 14 December 2010.

Five months later the national flag of the Czech Republic was raised at the MOB Geilenkirchen in attendance of the Czech Chief of Defence, General Pícek. The NAEW&C airborne centre opened its door for the Czech Armed Forces service personnel already in the course of accession talks in 2009.

Shortly after the Czech Republic joined the program, speaking in rowing slang, the Czech coxless four became an eight. The original boat crew – pilot Major Milan Vojáček, the bowman, Navigator Captain Jindřich Sněhota, number two, tactical director Major Stanislav Hebr, number three, and surveillance operator Senior Warrant Officer David Švagerka, the stroke – increased on the first day of August 2011 with additional specialists of the Czech 26th Command, Control and Surveillance Brigade and the 53rd Reconnaissance and Electronic Warfare Brigade. Specifically, the incomers were weapons controller / air battle manager Captain Milan

Gajdoš, surveillance controller Captain Michal Repka, passive controller Chief Sergeant Major Jiří Tichánek and radar technician Sergeant Major Richard Vágner.

The good thing is that all the posts are in the flight personnel category, both in the cockpit (flight crew) and in the cabin of NE-3A (mission crew) with unmistakable rotating radar dish above the airplane's fuselage. It should also be mentioned that Major Milan Vojáček recently successfully accomplished the tests to become an NE-3A captain.

Next Challenge? Instructor!

In addition to involvement in training and operational missions performed by the Geilenkirchen component, the Czech Republic has also scored hits in the diplomatic sphere. An excellent example of that is the recent three-day meeting of the NAPMO BoD (NATO Airborne Early Warning & Control Programme Management Organization Board of Directors) in Prague, whose agenda, in addition to routine administrative and operation matters, included the development of operational capabilities and funding the NAEW&C programme. The meeting was attended by the top officials of this prestigious NATO programme headed by the Mr. Gilbert W. Mace, the Chairman of the NAPMO BoD, Brigadier-General Ludvig Leinhos,

General Manager of NAPMA (the NAEW&C Program Management Agency) and Major-General Stephen D. Schmidt, Commander of the NAEW&C Force. Those officials also later had a call with the Minister of Defence Alexandr Vondra, who said to mark the occasion: "Having acceded to the NAEW&C program, we became involved in developing a unique capability that both strengthens NATO's defence posture and readiness but also adds security for our country and bolsters its position as a responsible and reliable NATO nation".

Over Europe on daily basis

The NAEW&C programme officially commenced in 1978 when the Multilateral Memorandum Of Understanding (MMOU) was signed by Defence Ministers of thirteen NATO nations (Belgium, Canada, Denmark, Federal Republic of Germany, Greece, Italy, Luxembourg, the Netherlands, Norway, Portugal, Turkey, US and the United Kingdom). The United Kingdom withdrew from the program later on and formed own AWACS fleet. Last year, Canada also announced it would withdraw from the programme. On the other hand, Spain, Hungary, Poland and Romania recently joined the programme. The Czech Republic became the eighteenth participating nation in this unique NATO programme (2010). The NAEW&C force command is headquartered in Mons, Belgium, and reports to the Supreme Allied Commander Europe. The operational force can be divided into two components: the first comprises seventeen NE-3A aircraft commonly owned by NATO and stationed at the Geilenkirchen airbase. The flight and ground personnel serving at Geilenkirchen airbase recruit from the programme participating nations. The second component comprises seven E-3D aircraft owned by the United Kingdom and stationed at RAF Waddington, which are operated by the Royal Air Force.

For operational and training missions, the NAEW&C uses its Forward Operating Bases (FOB) in Trapani, Italy, in Konya, Turkey and Aktion, Greece, plus a Forward Operating Location (FOL) in Orland, Norway. It is no secret that

the Czech Republic's airspace and Czech Air Force bases are also used for their aircrew training.

The NAEW&C system is one of NATO's strategic operational support capabilities. "From the viewpoint of operational employment, the NAEW&C very effectively complements continuous air picture acquired by ground sensors and provides air operations command and control capability in the absence of a NATO ground air operations command post. It provides an extremely valuable benefit over enemy controlled territories where it impossible to obtain data from ground sensors. NAEW&C onboard systems provide communication with air assets and their command and control posts. Under specific conditions, the AWACS is also able to detect some types of ground targets. The NE-3A aircraft may also operate in naval mode locating targets at sea. The whole NAEW&C aircraft fleet has recently been in an extremely high operation tempo," says Mr. Dušan Mackanič of the Strategic Development Department of the MoD Defence Policy and Strategy Division.

In addition to operational missions, the NAEW&C system is used to provide security to high visibility events, ranging from heads of states meetings to Olympic Games and World Championships. The system was also involved in providing additional security to the NATO Summit in Prague in 2002.

Full manning

The current number of the Czech Armed Forces service personnel as well as their positions in the NATO E-3A Component are regarded optimal for the moment. "In the early stages of accession talks, the Czech Republic already declared its personnel contribution would be maximum ten servicemembers. We accommodated the requirement by NAPMA by firstly sending a pilot, which is the position, besides navigators, that most nations strive for. By subsequent filling the posts in the mission crew onboard NE-3A aircraft, we have replaced nearly identical positions the Czech Republic filled in the Combined Air Operations Centre (CAOC) located in Messteten, Germany. Generally speaking,

surveillance operators or for example radar technicians only transferred from NATO ground centre to the airborne early warning and control capability," describes Colonel Vladimír Vyklický of the Airspace Operations Control and Support Section of the Air Force Branch the MoD Force Development – Operations Division. According to COL Vyklický, the Czech Armed Forces will be happy to maintain the current number of its service personnel on tours with the component in the years ahead. "To pursue further development, we would prefer to have a Czech staff officer at the NAEW&C force command in Mons," COL Vyklický comments.

The comment should be mentioned in this connection by Major-General Stephen D. Schmidt, Commander of the NATO Airborne Early Warning and Control Force Command. "I highly value the fact that the Czech Republic has filled the posts assigned to it in the NE-3A Component structure one hundred per cent," the U.S. Air Force General said exclusively for CAFR.

Operational tours served by Czech professionals in the NAEW&C programme will definitely entail benefits for the Czech Armed Forces. After their planned five-year tours of duty, they will be able to come back and deliver a progressive know-how. "The experience they have gained will also be valuable for the Czech Air Force command and control system. They have a unique opportunity to gain familiarity with these specific subjects from a different perspective than from the positions at the Control and Reporting Centre (CRC)," COL Vyklický argues.

Spotting the seven-o-sevener with the dish is nothing out of the ordinary in the Czech Republic. Apart from static displays, for example at the CIAF airshow at Hradec Králové or at NATO Days in Ostrava, the noise of four Pratt&Whitney turbofans can be heard in proximity of the Czech Air Force Bases quite regularly.

"An AWACS airplane may train at Czech Air Force bases on the condition that they inform relevant command posts of their intention a day in advance. Relevant authorities then decide whether the required training can be performed in given timeframe or not. The training of NE-3A crews will definitely be more intensive after the implementation of the relevant datalink at the national Control and Reporting Centre," COL Vyklický explains.

Based on the cost sharing matrix, the proportion of the Czech financial contribution to the NAEW&C amounts to 1.224 %. "In reality,

this represents roughly 90 million Czech korunas for the Czech Republic to fund operation and maintenance of the aircraft fleet plus procurement of fuel, and CZK 65 million to finance the NAEW&C system modernisation projects on annual basis," Mr. Josef Můčka, Deputy Director of the MoD Defence Policy and Strategy Division discusses the Czech Republic's financial contribution negotiated in the accession talks and specifies the data is relevant to when Canada was still a participant in the NAEW&C programme.

"After Canada's withdrawal, its share will be distributed among nations participating in the programme. Our financial contribution is nevertheless not expected to increase, because the NAEW&C programme's O&M budget will be adequately reduced to approximately EUR 250 million. As to the modernisation program, there are still discussions underway to reach financial settlement with Canada."

This begs the question how will the investments the Czech Republic has made be remitted. "The NAEW&C has a substantial industrial dimension, which guarantees for the participating nations nearly one hundred percent return of their invested national share in the form of industrial participation in the programme.

Negotiations on the form and scope of Czech industries' participation have already commenced. The Czech business are planned to become involved in the industrial cooperation program soon. Concrete contracts are expected to be signed already in 2012, or 2013 at the latest," says the Director of the Strategic Development Department the MoD Defence Policy and Strategy Division and specifies that it will be possible for Czech businesses to win orders from the Boeing corporation and the IAMCO consortium, which realise the NAEW&C systems upgrade and maintenance programs.

Not everything counts in money however. Upon joining the NATO early warning and control programme in full, the Czech Republic declared to its NATO partners its will to deliver on its collective commitments and contribute to NATO capabilities. "The NAEW&C program is one of NATO's hallmarks. It is an indispensable capability that is extensively used in NATO operations. Having joined the programme, the Czech Republic is making a contribution to the development of this unique NATO capability that strengthens the overall defence posture and readiness of the North Atlantic Treaty Organisation," Mr. Můčka underscores.

by Pavel Lang
photos by Radko Janata and Marie Křížová

The Balkan Crucible

Twenty years have recently passed since the Czech military joined the effort of the UNPROFOR mission in the territory of former Yugoslavia. The Socialist Federative Republic of Yugoslavia broke up at the beginning of 1991. The fire of war blazed out in the whole Balkans at that very instant. What originally had been political differences broke out into an armed conflict that claimed hundred thousands of victims.

Political and economic instability led to the disintegration of state structures. As early as in the autumn 1991, the United Nations began its active engagement in the region. The UN Security Council Resolution dated 27 November 1991 mandated the UNPROFOR mission. Peacekeeping Forces training centre in the town of Český Krumlov was the place at that time where development was coming to a head of a Czech UN rapid deployment battalion.

"First we lacked a clear vision what to train the battalion personnel for and how. The instructors built on the experience that similar establishments had in Austria, Finland, Norway, Denmark and Sweden and complemented it with lessons gained interviewing our personnel who had returned from observer missions," Mr. Tibor Horvát, who was responsible for training in Český Krumlov, recalled after years. "Areas were identified for our forces to possibly deploy, including Cambodia, Western Sahara and the former Yugoslavia. First of all, we needed to get some information about those countries. We started up in libraries, and also received assistance from the Military Geographical Institute. In case of Yugoslavia, one of the first aids we used was a roadmap.

The Czechoslovak peacekeeping forces were built on voluntary basis then. In collaboration with district military offices, the peacekeeping force training centre set up a database of applicants who were interested in taking part in the mission.

Heading for the Balkans

In January 1992, the Government of then Czech and Slovak Federative Republic mandated the Armed Forces to take part in the UNPROFOR peacekeeping mission in the territory of former Yugoslavia. The developed and trained battalion with commanding officer Lieutenant-Colonel Karel Blahna only underwent minor reorganisations. On March 13, 1992, a fifteen-member advance party headed by Major Vladimír Trněný entered the territory of Croatia. Their task was to make preparations for the arrival of the whole unit. The rest of the five hundred-strong contingent arrived at the beginning of April.

Along with the French and Kenyan contingents, the Czechoslovak battalion formed Sector South. It operated in the area of Plitvica lakes. Its initial missions included establishing

and running ten checkpoints. They also had to set up mobile observation teams and observation points. The battalion oversaw storage of weapons withdrawn from the frontlines. Day-to-day activities included patrolling, provision of security to the Croatian community of Podpalac and delivering humanitarian aid, which involved safeguarding and supplies of materiel into the provisional camp for displaced persons at the Dolni Lapac community. Czech soldiers also escorted convoys carrying humanitarian aid and displaced persons from Krajina to Croatia.

Opening the Serbian-Croat front between Zadar and Benkovaca in January 1993 left the operations of French and Kenyan battalions largely paralysed. Our unit then became the Sector Commander's operational reserve force, who used them for withdrawing French soldiers trapped between warring parties in the area of Goleš, Drač and Karin Plaža.

Rescuing the French

Currently serving as a Deputy Chief of Defence, Major-General Petr Pavel was a member of our contingent at that time. Together with twenty-eight volunteers, he set out for a week-long rescue operation. "None of us was really thinking long whether we would go or would not. Situation was rather unclear and called for a quick solution. We were driven by basic human and military instincts. It was soldiers, our comrades, who were in danger. We could easily find ourselves in a similar situation a week later," General Pavel said.

A unit moving on armoured personnel carriers searched the forbidding terrain and tried to evade locations with ongoing hostilities. When our soldiers attempted to gain some information at HQ UNPROFOR, they learned nobody knew anything there. Everything allegedly got confused following the Croat offensive.

"I certainly was afraid then. I think everybody experienced fear there. While the intense firefights I was encountering there made an impression of an exercise to me, I also saw the suffering the war was bringing about. Although one does not fully realise it on spot, you have to have some fear in such situations," General Pavel explained.

Our soldiers experienced the hardest moments perhaps when Serbs used them as human shields. They jumped onto their armoured



French decorations bestowed on four Czech soldiers

personnel carriers and threatening they would shoot everybody, they forced the Czechs to drive against Croatian lines.

When they finally discovered the French at Goleš community besieged by Serbs, artillery shells began hitting ground around them. Petr Pavel did not hesitate a second and immediately contacted a French liaison officer on the radio, who served as an observer in the Croatian staff. Luckily he managed to stop the shelling that way. There were French pinned down by mortar fire in another location, on a narrow beach strip between the rocks and the sea at Drača. They literally had nowhere to move. Two of them were shattered by artillery shelling. The more thankful they were when our group arrived. Fifty-three French soldiers were eventually rescued. They also loaded two dead bodies into the APC. Four Czech officers, including Major-General Pavel, received high French decorations for accomplishing the mission.

Croatian memorials

Several Czech and Slovak soldiers sadly rest in Croatia forever. They have their little memorials there. Some of them died in road accidents. Sergeant-Major Igor Rigo was killed by a mortar shell in Kuzmanovac, Croatia, in April 1993. He ran out of bunker regardless of mortar shelling in an attempt to rescue his dog. The shell exploded right at the bunker entry.

Perhaps the most tragic event for the Czech Armed Forces in Balkans happened at the beginning of August 1995. UN peacekeeping forces notwithstanding, the Croatian forces launched a massive offensive called the Storm. Roughly fifteen members of a platoon led by First-Lieutenant Jaromír Alan were at post Tango 23 on the border of the so-called Republic of Srpska Krajina

at that time. On Saturday, 5 August 1995, early in the morning, Petr Valeš was taking over as a duty NCO. He called Luděk Zeman to come down from the observer post and replace him. A couple of Croats dashed into the position at that instant. Perhaps they wanted to take cover there.

"Together with two other colleagues of mine, I was sitting at the entry to the bunker. We

overheard a conversation in Croatian and so we decided to find out what was going on. As soon as we ran out, a mortar shells came in and our bunker sustained a direct hit. It was the very first shell that hit the post Tango 23 area on that morning. I felt something hit my thigh. First I thought a stone hit me. I was trying to take cover inside the bunker as soon as I possibly could. But the explosion cut electricity off, there was darkness all around. Only when the lads brought in some torches, I realised I had a fragment in my thigh," Sergeant-Major Roman Čelanský recalled. He then discovered there were many more of them. The doctors extracted two fragments from his calf and additional three from his thigh. Other soldiers also were also injured. Sergeant Jiří Suda was hit in his back. Sergeant Jiří Hubáček had his leg and hand wounded. When other soldiers took his helmet off, he realised he was given a second life. There was a hole as big as a fist in the helmet. But Luděk Zeman and Petr Valeš suffered the worst. Luděk Zeman had his both legs torn off above knees. The extent of his injury was practically incompatible with life. Petr Valeš lost his arm, and he had additional heavy fragmentation wounds in his back region. Both of them died of their injuries on spot.

Czech soldiers remained active in the UNPROFOR mission even after the division of Czechoslovakia at the beginning of 1993. In the spring of 1993, the Czech contingent's personnel strength redoubled from five hundred personnel in the spring of that year. The UNPROFOR mission ended in 1995. Foreign operations by the Czech Armed Forces, which took place later on, were already led by NATO and the EU.

by Vladimír Marek
Photos by A-Report



Last family photo



A research team from the Military Geographical and Hydrometeorological Institute in Dobruška gave to the world a unique constant: the W_0



(Extra)ordinary eight-digit number



Sixty two million six hundred thirty-six thousand eight hundred and fifty-six – for an overwhelming majority of people, a commonplace and dull eight-digit number. But when you add "metres squared per second squared" behind the figure, the scientific community gets astonished. Why? Because $62636856.0 \text{ m}^2\text{s}^{-2}$ is an obtained constant, so-called W_0 , which sets the basis for developing a uniform global elevation system, which has not been in place to date. In other words: it enables to bring all local elevation systems developed on various continents to a single standard!

Behind deriving and introducing the unique W_0 constant into practice is a Czech – a researcher of the Military Geographical and Hydrometeorological Office in Dobruška, Ing. Viliam Vátrt, DrSc. By this outstanding achievement, he has ranked himself among the creators of world's constants such as the speed of light in vacuum or the famous Newton gravitational constant. International scientific tables include

a prestigious denomination of his constant: the Potential of the Geoid. Mr. Viliam Vátrt has worked for the Czech MoD for thirty-four years. Before that, he studied at the Military Grammar School in Moravská Třebová and subsequently what was then the Military Academy in Brno. "I was keen to go for maths and physics. That was the primary reason for me to choose a grammar school. And why a military grammar

school? My dad was a military professional and so I wanted to continue the family tradition," Mr. Vátrt explains and adds that he made a decision for good to pursue geodesy and cartography at his alma mater in Brno. In 1978, he started his military career in then the Military Topographical Institute in Dobruška as an independent programmer and analyst. He served in various specialists posts, from land surveyor to

a research and development worker. From the rank of Lieutenant, he made it to Lieutenant-Colonel. He took off his uniform eight years ago and reorganised himself into a defence civilian. His specialist and professional activities progressively culminated. In 2002, he presented his unique discovery – the W_0 constant – in an international forum and it then got into the world's tables of constants. The scientific community accepted it not only as a single origin of measuring elevation above sea level, but especially as the world's new constant.

The value of the constant was reconfirmed last year. Although the derived unique parameter of $62,636,856$ does not rank among classified information, it was basically unknown for a long time. Sadly! "There is no one to blame for it. Those are complex math formulas that do not have the potential to arouse sympathy with men of mould," Mr. Vátrt states and admits the boom around the W_0 constant was caused by the media. "It was a coincidence. There was a mention about obtaining the constant in a TV report on a completely different subject. This was how it got out and extensive publicity emerged. Everything was triggered by an inconspicuous piece of information. Of course I am not angry about those who set it in motion," the fifty-eight-year-old researcher smiles.

The Dobruška-based researchers got their satisfaction at the end of the last year. The Friends of Military Geographical Service association, chaired by Mr. Bohuslav Haltmar, proposed Viliam Vátrt as a nominee for the "Czech Head 2011" award in the Invention category. On 18 November 2011, Mr. Vátrt took over the award in a ceremony attended by the most senior officials of the Czech Republic, as the only one from the Czech MoD and Armed Forces! "After more than ten years of hard work, it was a very nice feeling. Czechs gave to the world a unique parameter. I highly value the national prize, but the fact that the W_0 constant in the world's

tables is what I personally regard an extraordinary acknowledgement. Not only that the figure has affected my life, but it has many practical applications across scientific branches," Mr. Vátrt says, who is the creator of most of the software technology and database support for using geopotential models in practice. He holds many expert functions, for example in the Czech UNESCO National Oceanographic Committee or the Czech National Geodetic and Geophysical Committee. In addition, he is also active at the Technical University in Brno, where he lectures on physical geodesy and geophysics.

A Ten years' path

The path to the top was immensely difficult for Viliam Vátrt. He did not have the backing of a numerous international team of recognised scientists, supported by generous grants. "We started in two, me and Professor Milan Burša of the Academy of Sciences of the Czech Republic, and were later joined by RNDr. Marie Vojtíšková, my colleague from the Military Geographical and Hydrometeorological Office. We also consulted on some of the issues with external collaborators in international institutions," he recalls the origins of the historical discovery and specifies that the amount of grants obtained from a grant agency made it possible to cover the costs of two expert symposiums a year. Although Mr. Vátrt is reluctant to say it explicitly, his narrative gives the impression that he takes the recognition as a sort of satisfaction for being initially cold-shouldered by his colleagues in scientific circles. "They did not believe we would be able to achieve such a discovery. After initial presentation in the United Kingdom, we started to be continuously contacted by scientific institutions of worldwide renown with various questions. They regarded our parameters faulty and expected it would just be a question of time before we clear the scene. That has not happened. We worked tenaciously to achieve our goal and we prevailed. We managed to convince them about the uniqueness of the W_0 constant. The Czech Republic is the first country in the history to have been recognised for this constant worldwide. That is the key message. As a land surveyor, however important result you may arrive at, you still need the recognition of the whole world

to make the breakthrough. The threat of the slightest mistake is impending throughout. You commit an error and the international scientific community will not accept you anymore. And it applies twice as much for a smaller country like the Czech Republic," Mr. Vátrt adds.

Manifold applications in a number of fields

"We obtained a numerical parameter that determines the mean sea level with mathematic accuracy of several hundredths of millimetre," Mr. Vátrt explains the substance of W_0 constant and continues: "Up to now, it was not possible to unify the elevation points in the history of geodesy. The way it was done was that individual countries or several states had a fixed common point on the seashore to measure the water surface on sustained basis. The average value of this measurement then determined the zero level of the local sea in the location. Today we do not even have to know the water surface elevation, it only suffices to know what is the potential on this mean transformed area of sea. More precisely, to know the numerical value of our constant. If we use the W_0 constant for calculating the elevations, all elevations in the world will have the same origin."

To complete the picture: before deriving and introducing the W_0 constant into practice there was not any parameter with such a value for a single global elevation system.

Geodesy, astronomy, air transportation – those are just some sectors where the W_0 constant can be used practically. Two outstanding examples: first relates to enhancing air traffic safety, especially when landing in aggravated weather conditions or when the airport technical facilities fail. The second is connected with applications in astronomy, where extraordinarily accurate timing must be known at observatories that use the atomic clock.

"Building of a single elevation system will start soon in various locations around the world. It goes without saying that I want to be a part of it," Mr. Viliam Vátrt clarifies his vision for the years ahead.

by Pavel Lang



Science Against Terrorism

Operations against active shooters in schools, as well as tactics used against targets armed with a knife. Those were just some subjects of the practical workshop held as part of the 4th edition of the Coping with Extreme Situations conference prepared by CASRI (the Czech Armed Forces Sports Research Institute) in collaboration with the Education Branch of the Police Presidium of the Czech Republic. The conference was held under the auspices of Minister of Defence Alexandr Vondra and Minister of the Interior Jan Kubice.

The conference was attended by 220 experts from nineteen countries with many attractive and substantial contributions. Lieutenant-Colonel Zdeněk Flasar of the Czech Defence University spoke on the subject of "Some aspects of physical security of critical facilities", Associate Professor Rudolf Horák, also of the Defence University, gave a presentation named "Individuals in crisis situations". Major Hynek Pavlačka from the Training Command – Military Academy in Vyškov had an attractive presentation on "Cooperation of law enforcement agencies and private sector on training target audiences endangered by emergency situations".

Dr. Paul Losiewicz of the Prague Office of the U.S. Office of Naval Research Global also delivered an interesting and substantial contribution dealing with ongoing and planned research in the sphere of traumatic injuries and the post-traumatic stress disorder. "I highly value the fact that the conference agenda covers the roles that the human factor plays in the challenging assignments of armed forces and security services," Deputy Defence Minister Michael Hrbata said in his opening remarks. "Even the best weapons, technology or information systems are of little use, if we do not have specialists with relevant

knowledge and skills to be applied in extremely demanding conditions. Sharing experience among scientific experts from all around the world is very valuable in this sphere and I trust these lessons will also be reflected in the work of military and law enforcement professionals."

"As a part of its research efforts, CASRI also develops methods helping to increase the quality in training the Czech Armed Forces military professionals, and I think therefore that such similar international meetings of experts pursuing topics relevant to armed forces improve the quality of work and help share experience," says Miloslav Stehlík, the head of CASRI psychological lab and one of the principal conference organisers. "Some presentations were really enticing and highly informative. We, the Armed Forces of the Czech Republic, cooperate with other armed forces and security services both in the framework of foreign deployments in Kosovo and Afghanistan, or in the home front. Therefore, I believe it is highly valuable for people to have the opportunity to share our experience with crisis situation management, law enforcement services training tactics, and, first and foremost, joint procedures used in dealing with the increasing occurrence of terrorist threats," said

Major-General František Maleninský, the Deputy Chief of General Staff – Inspector General of the Czech Armed Forces.

Service personnel of the 311th Chemical, Biologic, Radiological and Nuclear Defence Battalion in Liberec also attended the practical workshop. "We offered to conference participants the possibility to use man-portable devices that test tightness of gas masks", First-Lieutenant Jakub Paul explains. "For this specific demonstration, we have used the CS agent, rather known as so-called police gas, which is used for incapacitation." As a part of the practical workshop, an Israeli company showed for the first time in the Czech Republic a rifle designed to shoot around corners, the so-called Corner Shot. It may be used anywhere – in combat to engage terrorists in cover, against victim-borne IEDs or in dark premises where the shooter may be hidden. "It is an excellent weapon," MG Maleninský said after testing the weapon. "Soldiers may therefore stay out of harm's way and it can save many lives."

by Jana Deckerová



Memorable Days of the Czech MoD

Minister of Defence Alexandr Vondra signed an order on May 24, 2012, promulgating eleven memorable days of the Czech Armed Forces, which commemorate important anniversaries of the Czech military history, from Hussite fights up to World War II. "The Czech Republic has undoubtedly had its heroes, and it is our duty to remember these outstanding people," Minister Vondra said ahead of signing the order and added: "The armed forces is a vital attribute of state sovereignty and as President Masaryk said: "Nations not honouring their heroes will be in the need of them soon."

An excerpt from the order of the Minister of Defence dated May 24, 2012, reads: "Functions to honour memorable days are organised based the decision taken by the head of the relevant organisational component of the Ministry of Defence, usually in the form of muster ceremony and reading out the remembrance order or other appropriate function in honour of the memorable day."

March 8th – First combat engagement of Czechoslovak soldiers in the eastern front in the fight against Nazi Germany and its allies in 1943

May 9th – First major combat engagement of the "Nazdar Company", a unit of Czech volunteers in the French Foreign Legion during offensives in Artois region in 1915

May 27th – Assassination of the Deputy Reich Protector Reinhard Heydrich, carried out in 1942 by Czechoslovak airdrops flying from the Great Britain

July 2nd – Victory of Czechoslovak Legions in the Battle of Zborov in 1917

July 14th – The first clash between the Hussite fighters and crusaders in the battle of Vítkov in 1420

September 15th – Successful efforts by Czechoslovak airmen on the day when the Battle of Britain culminated in 1940

September 21st – Victorious battle by a Czechoslovak Division at Doss Alto in northern Italy in 1918

September 23rd – Declaration of general mobilisation of the Czechoslovak military in 1938

October 6th – Forces of the 1st Czechoslovak Army Corps in USSR entered the territory of the Czechoslovak Republic in the Dukla Pass area in 1944

October 24th – in 1941, soldiers of the Czechoslovak Infantry Battalion 11 joined the defenders of the Tobruk port in northern Africa

October 28th – The Czechoslovak Independent Armoured Brigade Group successfully attacked German forces in Dunkirk in the north of France in 1944



SUMMER OLYMPIC GAMES LONDON

27 Jul – 12 Aug 2012



KEEPING OUR FINGERS CROSSED
FOR FORTY-FOUR
MEMBERS OF ASC DUKLA

