

1/2020



**review**

# **Tango 22, Tango 22**

**– this is TANGO 21,  
OVER**

**Tactical training of Czech soldiers in  
Afghanistan continues even in time of their  
deployment in a foreign operation**





**The military will receive eight UH-1Y Venom multipurpose helicopters and four AH-1Z Viper attack helicopters**

# New helicopters in 2023

**Both new helicopters are part of the H-1 series. Their advantage is in the mutual conformity of up to 85% of identical components, so from the service point of view it is an ideal solution. The UH-1Y Venom and the AH-1Z Viper form the backbone of the US Marine Corps helicopter fleet. These are modern, proven aircraft. The Czech Republic will acquire them for 14.6 billion crowns by 2023, on the basis of an intergovernmental agreement with the USA.**

The price for helicopters is in the amount of 14.6 billion CZK without VAT and agrees with how much the US Army would pay for them. Not only the helicopters by themselves are included in the price, but also equipment and ammunition, spare parts, training simulator and initial conversion training of pilots and technical personnel. The advantage is the form of a contract, in the shape of government-government, which guarantees security and reliability of supplies. In terms of the involvement of the Czech defence industry, the Defence Department expects at least 30% of the contract value in favour of Czech firms.

## UH-1Y Venom

The UH-1Y can operate in the most demanding climatic conditions, from arctic cold to desert heat. In the front of the cockpit sits two pilots, side by side. At the rear of the cab, there is space for transporting passengers or materiel. A twin-engine of 1800 hp T700-GE-401C, turbo-shaft engines, are powered by a four-blade main rotor and a smaller tail rotor. The Venom reaches a maximum speed of 314 kph and a cruise speed of 272 kph.

The helicopter will endure 3.3 hours in the air, with service ceiling more than 6,100 m, and rate of climb 12.8 mps. The Venom can be armed with a pair of M240 machine

guns, calibre 7.62 mm, and GAU16/A, calibre 12.7 mm, or with 7.62 mm GAU17/A rotary machine guns. It can very effectively eliminate ground targets even with unguided air-to-surface missiles Hydra 70, or missiles with laser guidance APKWS.

## AH-1Z Viper

The AH-1Z Viper was developed on the basis of the AH-1W SuperCobra. The main rotor of the helicopter is four-blade and made of composite materials. The AH-1Z Viper engine drive is identical to that of the Venom. The helicopter reaches a maximum speed of 370 kph and with external fuel

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tanks can fly up to 685 km. The maximum ceiling of the Viper is more than 6,000 m and the climb rate is 14 mps. The cockpit of a two-man crew has a tandem arrangement, and the helicopter can be piloted from both the front and rear seats. All relevant mission parameters are shown on colour displays. The basic weaponry of the helicopter consists of 20mm three-barrelled rotary cannon M197, with cyclic rate of fire of 750 rounds per

minute. On each wing, tip station of the AH-1Z, an air-to-air AIM-9 Sidewinder missile (total of 2) can be mounted. Attached at four suspension points under the wings, there might be fixed in rocket launchers unguided air-surface 70mm rockets Hydra 70, guided air-to-surface missiles AGM-114 Hellfire, or air-dropped incendiary bombs Mk 77.

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Brigadier General Petr Procházka on closing down the Joint Operations Centre, building the new command and more

# The Operations Command activated

Brigadier General Petr Procházka became the Deputy Director of the MoD Joint Operations Command (MoD JOC) more than a year ago. Upon his assignment to the MoD JOC, he was tasked to pave the way for building the new Operations Command.

**You graduated from the military university in 1989, which was when the essential changeover of our military started to include major base closures. That was probably not a particularly easy period for a novice platoon leader?**

The period after the Velvet Revolution was full of euphoria. I was assigned to the city of Cheb to serve with a motorised rifle regiment as a motorised rifle platoon commander. Traditional training was still taking place for a couple of months. Then everything changed however. In connection of the mutiny by prisoners in Leopoldov, we were shortly assigned to guard the jailhouse in Ostrov nad Ohří. The regiment in Cheb was one of the frontline units ordered to withdraw from the national border. Those units were primarily assigned in support of national economy. So I was tasked with our company to help build the Zličín and Stodůlky housing estates in Prague until 1991.

**Then you arrived to Chrudim, where your para career began in 1994. Do you regard this moment as a turning point of your military service career?**

I had been intrigued by the paratrooper profession for long. Skydiving as well as other types of paratrooper training are quite popular among young lads.

**Had you done skydiving before, for example in the Svazarm (organisation for cooperation with the military)?**

I was very much eager to engage into such activities matters so I completed a skydiving course in the civilian sector. But an order came in the meantime for me to serve in Chrudim, so I did not even manage to complete my first jump, which I only achieved in Chrudim. I lived and breathed sports the whole of my youth; this was something that kept attracting me. The airborne soldier's job is physically demanding which is something I have always been after. So it was clear in this respect. As to how paratroopers operate, the planning and command and control system is similar to the one used in the mechanised forces. The difference is in the manner of insertion and the conduct of combat activities, which naturally claims a better physical readiness. That is where airborne forces' activities get more interesting.

**How did they accept you at that elite unit then, and how did you metamorphose into an experienced paratrooper?**

At that time, it was still the 71st Airborne Battalion, which had just started its transformation into the 43rd Airborne Mechanised Battalion. New companies began to form, the 4th Airborne Company came into being, and combat support and combat support service units were newly built. At the same time, the 4th Rapid Deployment Brigade

was formed, so we were a part of that process. We joined the unit in March 1994.

**You progressively changed the shape of personnel training; Chrudim was where our all-volunteer unit came into being. Was it a challenging process at that time?**

The training was very much a product of its time. We had been largely affected by our previous membership in the Warsaw Pact and we focused on the use of forces in fronts, where the key emphasis was on tank formations heavily supported by air and army artillery. The new era started with the tasking for those units designed as highly mobile, with high ability to conduct manoeuvres with its assets or firepower, and with increased requirements for expeditionary deployment and interoperation in multinational environments. Likewise, the NATO standardisation process forced us to adopt the western model of force training and it ensued the transition

**The symbol of paratroopers is the red beret. What does it mean for you personally?**

The Rapid Deployment Brigade has been intended to deploy in a combined way, including by airdrops. That was why majority of its servicemembers were assigned for paratrooper training too. The restrictions induced by defence cuts, including the lack of para materiel, brought about a reduction of paratrooper posts. The red beret nevertheless became a hallmark of all 4th RDBde members, even though it is primarily a mechanised brigade. Looking at it from the perspective of a guy from the Chrudim unit, only the paras should wear the beret though. So, only soldiers who have been trained for combat as paratroopers. Those units excel in the speed of insertion and performance of combat missions with maximum vehemence and reliability. They are able to perform the assault, do their job and make retreat or wait until the main forces arrive, including follow-on



to the all-volunteer force. There was no clear force training concept and adequate training facilities, so we had to do things by makeshift means in the units.

I had the honour of performing the task of forming and training the first all-volunteer company in the Czech Armed Forces. I started to build the company upon my return from operation IFOR in Bosnia and Herzegovina in 1996. The unit's training cycle was to span three years. That was because no one was yet able to specify the length of training from individual through to company level at that time. Today, the training system is elaborate and much more effective, we have many field and academic training facilities headed by the Training Command – Military Academy in Vyškov. It was an outstanding experience and today I may fairly say that I had the first all-volunteer company in the Czech Armed Forces.

forces with combat support units. There is a difference in my view as opposed to the mission of mechanised units. Yet we do have units in the mechanised forces, which must have paratrooper training, such as recce guys or snipers. So, in this sense I would not regard the red beret as an airborne MOS, but as soldiers who completed combat paratrooper training. Such training gives them certain degree of excellence.

**You assumed the new position with specific tasking to provide the transformation of MoD Joint Operations Centre into the new Operations Command.**

I was assigned into this post by the Chief of the General Staff with the task to build the Operations Command. This is the operational level in the Czech Armed Forces command and

control system, which I would not say has not existed by now, but was provided otherwise. For instance the MoD Joint Operations Centre works in all three levels – tactical, operational and strategic. But that is unfortunate, working on multiple levels is not very useful for a single component. That is why the Operations Command is being formed to be responsible for force training and the provision of forces and assets assigned to operations, not only foreign operations but indeed all operations inside and outside the territory of the Czech Republic, as part of emergency management and in security crises. On the operational level, we will be an umbrella component as the CHOD's tool towards the Armed Forces. The formation of the Operations Command however needed to be authorised by the Government.

**We used to have the Division Headquarters in Brno, the Joint Force Command in Olomouc, but none of those I would guess performed the role of an operations command...**

If I am not mistaken, the division is still the highest tactical echelon from the perspective of C2 levels. The mission of the Joint Force Command was roughly the same, as it was supposed to build a division in case activated. So we have never had a genuine operational level here in the past. That role was only performed by the MoD Joint Operations Centre, which provided tactical level force control, specific crisis process management on operational level and strategic level coordination and cooperation among governmental ministries and agencies.

**Although the JOC was in charge of foreign operations, it engaged only in crisis situations at home in the Czech Republic, mostly such as natural disasters...**

Those were not just emergencies caused by natural disasters – that involved any type of crisis situations. We are able to support the Police and the Integrated Emergency System not only during floods but also to provide consequence management following industrial accidents. For example, we were involved in the critical measures activated in the wake of the outbreak of the avian influenza. It has been quite a broad spectrum of engagements. The MoD JOC's responsibilities also include the support of the senior MoD management during the highest security alert statuses.

**What timeframe does the transformation of the Joint Operations Centre into the Operations Command claim?**

This is not a transformation. What we are faced with is the task to inactivate the MoD JOC as



## factsheet

BG Petr Procházka was born in Frýdlant, Czech Republic, on 19 February 1966. After the Military Tank and Automobile Secondary School in Nitra, he graduated from the Army College in Vyškov. Later on he completed studies at the Joint Services Command and Staff College at Watchfield and the General Staff Course at the University of Defence in Brno.

### Service career:

- 1989 Platoon leader, 53rd Motorised Rifle Regiment, Cheb
- 1992 Guard company commander, 2nd Arms Depot, Olomouc
- 1994–1999 Airborne company commander, 43rd Airborne Mechanised Battalion, Chrudim
- 2000–2001 DCOS Ops, 43rd Airborne Mechanised Battalion, Chrudim
- 2001–2004 COS, 43rd Airborne Mechanised Battalion, Chrudim
- 2005–2008 COS, 4th Rapid Deployment Brigade, Žatec
- 2008–2010 DCOM, 4th Rapid Deployment Brigade, Žatec
- 2011–2013 Deputy Director, MoD Joint Operations Centre, Prague
- 2013–2014 Senior Liaison Officer, Czech Armed Forces mission to USCENTCOM, Tampa, USA
- 2014–2016 Head Liaison Officer, Czech Armed Forces mission to USCENTCOM, Tampa, USA
- 2016–2017 DCOM Training Command – Military Academy, Vyškov
- 1 Dec 2017 Deputy Commander of the Land Forces
- 1 Feb 2019 Deputy Director of the Joint Operations Centre, Prague
- 8 May 2019 promoted Brigadier General

### Deployments:

- 1996 Deputy Commander of mechanised company, IFOR, Bosnia and Herzegovina
- 1997 Commander of mechanised company, SFOR, Bosnia and Herzegovina
- 2000 Chief of Ops Group, 43rd Mechanised Battalion, SFOR, Bosnia and Herzegovina
- 2002–2003 Commander, 2nd Czech-Slovak Battalion, KFOR, Kosovo
- 2007 Commander of contingent – chief of staff, PRT Fayzabad, ISAF, Afghanistan
- 2009 Commander, Czech Armed Forces 3rd Contingent PRT Logar, ISAF, Afghanistan

a budfin element and build the Operations Command newly.

**So, the MoD JOC will be abolished completely?**

Correct. The new command was activated on 1 October 2019. At that time, we began with approximately 20% manning levels of the Operations Command's Tables of Establishment. The first members were tasked to make sure the Operations Command would

achieve the Initial Operational Capability as of 1 January 2020. At that time, the personnel of the MoD JOC, Operations Support Centre Pardubice and additional selected Czech Armed Forces service personnel were assigned to service posts in the Operations Command. My assignment was to prepare for the conduct of the whole process. In the meantime, the OpsCom was led by the Director of the MoD JOC Operations Support Department, Colonel David Schnábel, MSc., who was vested with



the command and control authority in the Operations Command from 1 October 2019. I remained in the positions of Deputy Director MoD JOC, and my responsibilities included both building the new command and the inactivation of the MoD JOC.

**When will the MoD JOC be deactivated completely?**

We plan for the wrap-up team to continue till the end of March 2020.

**What will the formation of the new command entail in terms of personnel management?**

The core of the new command has been formed by the members of the MoD JOC. The Command's organisational structure involves classic individual branches – the Js. To provide the command functions, we have needed specialists from most of the military specialties ranging from intelligence through individual branches and services through to personnel and budfin. The new command has had roughly one hundred and fifty personnel. At the same time, the Operations Support Centre, which is presently the Foreign Operations Support Centre home based in Pardubice, becomes our subordinate component. So we will have a direct control over the materiel earmarked for operations. At the same time, we are tasked to prepare a volume of materiel for the battalion task force in support of performance of our NATO commitments by 2025. The biggest challenge is naturally the inactivation, as it encompasses extensive stocktaking and materiel transfers. That also involves administration, files and documentation. But the personnel have been ready and regarded it a necessary evil that needed to take place in order for the Operations Commander to start his

job with a clean desk on 1 January 2020. The Operations command also acts as the successor organisation to the MoD JOC.

**Are there currently enough operations staff officers and NCOs for the command, or do you need to progressively prepare and train them?**

We are drawing the highly experienced personnel from the MoD JOC complemented with additional specialists from the Czech Armed Forces, whom we will naturally need to further train, particularly in operation planning domains. That is why I have discussed cooperation for instance with the University of Defence in Brno to the effect of designing an operational planning academic training course. We will need to train especially commissioned officers ranked Captain and Major. Those are ranks who have not had an opportunity yet to serve multinational staff tours in higher NATO staffs and obtain the expertise we need. We will start to work on their professional training so that they are ready to perform the relevant functions. We expect them to serve in our command for some four to five years. We also plan for them to continuously serve staff tours in multinational commands including operational deployments to gain further lessons from operational environments. Those are areas we will use for our planning and management. Lessons learnt on operational deployments are important as well.

**Where is the new command positioned in terms of the command and control system – is it somewhere between the Land Forces and Air Force Command on one hand and the General Staff on the other?**

In terms of structure, very much so. We are subordinate to the General Staff divisions. But the Operations Command will be headed by a three-star general officer reporting directly

to the Chief of the General Staff. In peacetime, the primary mission of this Command is to provide operational control for operations both inside and outside the territory of the Czech Republic. In the transition to higher security alerts, which is the state of national emergency and the state of war, the mission of our Command is to provide the main command post of the Czech Armed Forces. We are an executive component of the Chief of the General Staff for force planning and control in operations and states of crisis.

**Contrarily, what forces will you be in charge of?**

In the first phase, we will be in charge of assigned forces and assets of the Land Forces Command and the Air Force Command earmarked for operations and for higher alert states and in the future the Operations Command should be superior to the Land Forces Command, Air Force Command and Cyber Forces and Information Operations Command.

**Does the Czech Armed Forces have enough forces adequate in strength for the new command to be able to train, or do you rather plan for the Operations Command to be involved in multinational exercises with NATO and Partner forces?**

On multinational cooperation, we intend to gain experience in this domain as well. One of our tasks will be to lead the preparation and training of the component command staffs including in the form of command post exercises. The priority for the Operations Command staff will be table top exercises where we will concentrate on harmonisation of crisis management and preparation of forces for operations.

*By Vladimír Marek,  
photos by Vladimír Marek, Radko Janata,  
MAJ Miroslava Štenclová*





**At the end of October, the Government approved the Concept of the Development of the Army of the Czech Republic**

# Prospects for ten years ahead

**The penultimate day of October, the government approved the key document the "Concept of the Czech Armed Forces Development through the year 2030". According to the Chief of the General Staff of the Army of the Czech Republic, General Aleš Opata, its goal is an operative and effective army. "We increase readiness and speed of reaction. At the same time, we focus on the modern way of fighting. We are strengthening the capabilities to address asymmetric and hybrid threats, by creating new capabilities, such as cyber forces," General Opata said.**

The document works with two milestones, 2025 and 2030. For the year 2025, the army plans an establishment of 27,245 professionals and 5,700 members of the Active Reserve. According to the current Concept, the army should reach 30 thousand professional soldiers and 10 thousand Active Reserve personnel in 2030. In 2025, there will be completed the rearmament of units of the 7th Brigade with new armoured fighting vehicles (AFVs); the 22nd Helicopter Air Base will get new multipurpose (and attack) helicopters; the Artillery Regiment should receive new self-propelled guns and mortars of NATO calibre (155 and 120 mm), including a unified automatic fire control system, capable of cooperating with NATO forces, connected to Alliance command and control systems. It is planned to create a new airborne regiment and logistic support battalion. Selected army units should reach 90% of full capacity. At the same time, it will be decided on the future form of tactical air force, i.e. the question of modernization and lease of JAS-39 Gripen fighters, or their replacement by another type. The second milestone, and in this Concept even a target one, is represented by the year 2030. At that time most modernization and reorganization projects will be completed. The number of men, vehicles and equipment (materiel) will be fulfilled minimally at 90% of full strength. Stationary and mobile command posts will be created to achieve a smooth transition from a peaceful to a crisis state. National command and control systems will be interconnected to the international environment.



## Land forces

Land forces will be augmented by wheeled armoured vehicles (equipped with means of command and control, based on the Titus platform), by tanks (replacement for T-72M4 CZ), the modernization of wheeled infantry fighting vehicle (WIFV) Pandur II will be completed, and the rearming of the 44th Light Motorized Battalion with WIFV Pandur II will be finished. The light armoured vehicle (LOV) Iveco will be fundamentally modernized. The Airborne Regiment will develop the capabilities of immediate

response to face unexpected situations requiring a military response with the possibility of its deployment in operations on and outside the territory of the CR.

In the field of artillery, the purchase of special equipment and materiel for fire support control and the acquisition of advanced means of artillery reconnaissance, able to detect targets and results of fire, at the distance of artillery firepower.

In the field of engineer troops, the MT-55 bridge-laying tank will be replaced; we plan the acquisition of wheeled armoured vehicles

for combat engineer units, acquisition of special materiel, technologies and detection equipment for the finding and destruction of explosives, mine clearance tools to support mobility of friendly forces and means for aerial minelaying to restrict mobility of opposing forces. In the case of chemical troops, we are going to replenish modern decontamination technology, means of information support, and means of CBRN protection of troops.

### Air force

The protection of the airspace of the Czech Republic, the fulfilment of our alliance commitments, and the support of ground task forces (TF), all this will be ensured by a sufficient number of modernized or newly acquired supersonic tactical aircraft. The subsonic aviation will be modernized and used in accordance with the overall capabilities of the supersonic air force. We will introduce new helicopters with the ability to use precisely-guided munitions against armoured targets. Old Russian helicopter Mi-8 is going to be replaced by a new transport one. The ability to transport passengers over long distances will be enhanced by the purchase of a small airliner. NATO standard navigation means will be introduced at Chotusice and Sedlec-Vícenice bases. We will complete centralized terminal control for radar approach and also we'll finish military-civil integration of air traffic control.

To secure the air defence (AD) of land forces, defence of non-military and military objects important to defence of the state (ODOS), we will increase the number of missile systems VSHORAD (very short range air defence), with the ability to react to the means of air attack, even while moving. Systems SHORAD (short range air defence) are able to provide air defence for up to three ODOS. By acquiring protective technologies C-UAS and C-RAM, we will achieve the ability to counter unmanned aircraft systems, on tactical and operational levels; rocket, artillery and mortar munitions.

### Special forces

By adapting the organizational structure, Special Forces will achieve full capability to respond comprehensively to anticipated changes in the future operating environment. The multidisciplinary training of personnel will enable to meet tasks in favour of protection of national interests. Emphasis will be placed on the introduction of modern technologies, limiting bounds of enemy detection and increasing the protection of own forces and resources, both in the physical and virtual environments, by which the ability to operate in cover or clandestine modes will be maintained and developed. The capacity of mobility and power projection will be developed, along with building independence from non-autonomous navigation systems.

One of the main programmes of modernization of our army is the purchase of American Venom and Viper helicopters.



The application of modern medicine, advanced technologies and procedures, will increase and prolong the performance of special forces operators. Interoperability with partners will be maintained, with an emphasis on sustainability, availability, including sharing technologies and capabilities.

### Cyber defence forces

The executive element of cyber forces and information operations will be further developed and adapted to modern trends. It will be divided into at least two specialized elements for information and cyber abilities. All elements of cyber forces and information operations will achieve full operational capabilities.

Volume of information capabilities will be increased. Cyber forces will be able to allocate elements for three independently deployed Brigade/Battalion Task Forces (Bde/Bn TFs) and will support strategic communications and information operations. Building capabilities

to ensure the protection of individual cyberspace parts will be finished. Cyber capabilities will be doctrinally and effectively integrated into operations organization, including the use of military intelligence capabilities.

In the acquisition and ongoing modernization of cyber means and information operations, the emphasis will be put on the implementation of autonomous systems and artificial intelligence. Special vehicles will be procured for deployable elements of information operations.

### Territorial forces

They will be able to run the performance of state administration through Regional Military Headquarters (KVV), conduct selective manning and mobilization, control the replacement of personnel in peacetime, implement selected measures of operational preparation of the state territory, participate in supporting allied troops in the Czech



Republic, defend and protect objects important to defence of the state (ODOS) with the Active Reserve units. The creation of the Radošov Training Centre will provide increased capacity in the area of basic and vocational training.

#### Intelligence assistance to the army

In the area of intelligence support, the system of semi-automatic evaluation of sensor input data will be completed, with full use of database files. In accordance with the architecture of C4ISTAR ACR, there will be acquired and modernized multipurpose unmanned and ground reconnaissance systems, with a high degree of autonomous control, together with a cooperative acquisition system with modular combat sets, compatible with acquired resources of forces and troops. At the same time, light reconnaissance, offensive unmanned aerial systems will be acquired to realize reconnaissance tasks and fire support to land units, with a focus on militarily significant pinpoint targets, located in the tactical depth of the operational area. Further, in the field of unit protection, we will continue with the acquisition of electronic warfare (EW) equipment against the effects of unmanned aerial vehicles, including mobile jamming equipments, integrated into the C4ISTAR system. Within EW, there will continue the acquisition of sophisticated means – active and passive systems, jammers of data and information networks and navigation systems, including the acquisition of weapon systems, with enhanced routing energy. The Air Force will purchase pod tanks to conduct air reconnaissance, to support targeting process, and aircraft self-protection systems. In the area of geographic, hydrometeorological and global navigation satellite systems, a high level of automation and robotization will be achieved, with the aim to receive data and information,

approximately in real time of command and control system.

#### Logistics

The reorganization of the 14th Logistic Support Regiment, Maintenance Centre, and Service Battalion of deployable forces, will increase primarily the repair capacity at the 1st to 3rd levels. In order to ensure combat operations, there will be created the reserves of 30 standard daily allowances in the field of ammunition, spare parts, and other common materials. In addition, means for transporting, storing and handling, a specified number of stocks will be acquired. Supplies to meet the needs of the Armed Forces of the Czech Republic for activities under state threats and state of war will be contractually secured, using the system of economic mobilization. Air Force Logistics, Level 2, will achieve full operational capability. The results of science and research projects in the areas of robotization and automation of logistics abilities and processes will be implemented in practice. The augmenting of the 1st and 2nd levels of logistic support will continue, by introducing new generation mobile devices, a unified system of containers, and special purpose superstructures. Implementation of the new generation of equipment, ballistic protection, small arms, ammunition, and protective devices, will continue.

#### Military health service

The medical service will continue to implement the projects started in the previous milestone, namely by acquiring medical evacuation vehicles and materiel equipment for field hospitals, including instrumentation and replacement of vehicles for transporting biological substances. Means of rapid identification of biological agents of interest will be procured for biological protection units. The Military Health Service will be ready to ensure the full operation of the

specialized infectious hospital of biological protection department at Těchonín, related to the hospitalization and isolation of persons with dangerous and exotic infections. The modernization of real estate infrastructure will continue.

#### Signals and communications

Modernization projects will be implemented to create an individual integration plan with a full spectrum of Communications and Information Systems (KIS) services. The automation of processes within the digitization of departmental systems will continue; robotics and artificial intelligence will be developed with an emphasis on security. The secret domain will be completed in the full range of required KIS services and related capabilities in the areas of operations planning and management. It will be extended to the strategic and operational levels, using software tools in NATO.

In the area of communication and information infrastructure, projects will be implemented to modernize the means of command posts, transport networks, military satellite broadband and narrowband systems, within their life cycle. Emphasis will be placed on security, expansion of transmission capacity, and implementation of new functionalities. All projects for the acquisition of the tactical radio communications system will be implemented; the replenishment of KIS materiel to the table of organization and equipment for all ACR elements will continue. The capacity to provide communication and information support for command points will be increased.

The war deployment of the ACR will be secured by the necessary amount of materiel and required services. For these purposes, we will use the opportunities and abilities of corporations operating on our domestic market that deal with these areas. The necessary stock of spare parts and materials of common use will be defined. In the framework of securing the life cycle of the army possessions, there will be provided repair capacities for the 1st, 2nd and 3rd levels of repairs of military equipment, and KIS materiel.

#### Active Reserve

The Active Reserve personnel will be added up to 10,000 reservists. In order to do this, it will be necessary to recruit professional soldiers intensively, so that they could join the Active Reserve Force after their service. Acquisition of equipment, technology and materiel for the Active Reserve units will be finished. Along with measures in the organization of training soldiers in the Active Reserve, territorial units will achieve the ability of independent operational deployment in the Czech Republic, in the defence and protection of ODOS, and the fulfilment of tasks in cooperation with the Czech Police. The Active Reserve of each type of armed forces will achieve operational capability for their deployment.



**Not only about cyber war was our interview with the commander of the newly built Cyber Forces Command Brigadier General Miroslav Feix**

# Getting the feel in cyberspace

**Brigadier General Miroslav Feix has been head of the newly built Cyber Forces Command for several months. In an interview with him, we were interested not only in the progress of building this new headquarters in Brno.**

## **Your nickname is Cyborg, how did you get it?**

Once I marched with my company from Macocha to Prostějov, as a nice Prostějov habit. After some time I got somewhat bored and wanted to support my colleagues' morale, so I started to circle around the group, which some considered inhuman. I do not know why, but that was where the nickname sounded for the first time and it stuck with me.

## **The organizational core of the Cyber Forces Command was established at the beginning of this year. How far have you gotten with building the headquarters itself?**

The Cyber Forces Command was established on 1 July 2019. Compared to the organizational core, which de facto had a task to create conditions for the establishment of the headquarters, we have moved further. There is more of us now, we are a diverse group of different people with different skills, experience and insight into the cyber and information warfare. But there are still gaps in many areas. However, I consider that as common initial problems, which we will easily fine-tune over time, once we manage to acquire more personnel. It is nothing to endanger us.

## **When do you expect to achieve full operational capabilities?**

Much will depend on what we are going to do. We now have a clear idea, which we are transforming into the cyber forces development concept. However, as the situation on the cyber and information battlefield is evolving extremely dynamically, our ideas today may not be up to date in five years. Nevertheless, we are all aiming to be fully deployable and beneficial to the defence of the country within six to seven years. We

see backlogs also in the approach of other service branches. We need to get on the same wavelength with them, and that will take some time.

## **Brno was selected as the headquarters' domicile. In this respect, how satisfied are you with the logistic and materiel background?**

We chose Brno for several reasons. It is a city with enormous cyber capital in the form of technology companies and academic background. It is a city of universities, full of young people, for whom cybernetics is a religion. Regarding logistics, Brno is one of the larger military garrisons, so we do not see any problem in this respect and we get that confirmed in building the headquarters as well. Just think of the size of the University of Defence. In many things, they obliged us and we appreciate that very much. Finally yet importantly, Brno is also home to CIRC, the Centre of Simulation and Training Technologies or the National Cyber and Information Security Agency. We wanted to be among people who speak the same language.

## **The Command should have four elements. CIRC has been existing for some time. In addition, cyber protection, information operations and support elements have yet to be created. Which of these elements is the most difficult to build for you?**

Each element has its specifics and in essence, a great deal of effort will be required to build everything so that it can work together and become a compatible element within the whole army. Let us not imagine the cyber protection as a mere passwording or encryption of military networks and computers. It is an aggregate complex of the

overall behaviour of the army in both its own and outside parts of cyberspace. An army, it is not only systems and weapons, but also soldiers. And even though soldiers have the vast majority of their abilities and skills drilled, they are still humans, and that is what we must focus on.

Information operations are primarily a staff function to coordinate, integrate and synchronize the activities of the entire army. It coordinates all the relevant elements, integrates narratives and themes from both superior and subordinate levels and it has to harmonize everything in time so that for example the Air Force does not bomb areas where we want to conduct an information campaign for the civilian population. This is what we call that synchronization. The second perspective of information operations lies in the specific military capabilities, which the staff part coordinates. We all know psychological operations, civil-military cooperation, electronic warfare, etc. Here we have an idea, which military capabilities will be directly subordinated to the Command and which, on the contrary, will be in the structure of other arms, but will be coordinated by us in joint operations.

## **What about support and logistics...**

That is a specific area. In addition to the usual logistics, which we know from all branches of the military, we have to build a functional system that will be able to facilitate all our activities. Imagine finding some gaps in the military systems. We identify the need to purchase and implement some specific software. We will get it in two years. That is, as they say, "locking the barn door after the horse is gone". We need to set up the support with respect to this one and many other specifics of the cyber forces, so that it is of any significance.

Bottom line, the most difficult thing will be to build everything together and in a connected way so that we can utilize the right things at the right time at the right place.

**This year you are due to proceed with the establishment of the executive elements. What elements these are and how will they look like?**

On 1 January 2020 a group of cyber forces and information operations was established. In principle, they are the organizational cores of the executive elements you are asking about. I have already mentioned some of the functional areas. In addition, we will add information operations in cyberspace and respective support in the production of a wide range of products for conducting information operations. An active reserve element will also be a part of the unit, which we will count upon a lot.

**How do you hunt the experts needed?**

As for the cyber part, we can pick and choose. A lot of people in the army deal with this area and they call us offering to serve within our forces. We are also open to direct recruitment from the civilian sphere, so we make it possible for all who want to put their hands to the defence of the state with their expertise. The sphere of information operations is a virgin territory in our army. There are individuals who have experience with psychological operations that have been at the army's disposal for several years. However, it has always been a marginal topic. Now that we need to build robust forces capable of conducting information operations, we want to lean on the knowledge of these people. We also have a lot of inspiration from abroad, where information operations have been part of the combat for many years. We will tailor this to our conditions and needs, provide additional education to the personnel and gradually begin to integrate information operations into the army.

**Is there any legal framework for waging a conflict in cyberspace?**

Cyberspace is a recognized operations domain in which the warfighting is conducted. So all the warfare-related legislation applies also to cyberspace. The problem is rather the division of competences, who does what. Much can be solved by the new law on military intelligence. There are also authorities outside the Ministry of Defence that deal with cyber security. We are in close contact with everyone, with the competencies divided among ourselves so that we, as a state, are effective.



**factsheet**

Brigadier General Miroslav Feix was born in 1974. He graduated from the Military University of the Ground Forces in Vyškov and the Naval Postgraduate School in Monterey, USA. He served in various command and staff positions at the Special Forces. On the occasion of the national holiday of 28 October 2019, he was promoted to the rank of Brigadier General.

Miroslav Feix being appointed to the rank of Brigadier General.

**The public perceives the creation of the Cyber Forces Command as a necessary defence. However, will you deal with offensive tasks as well?**

We will deal with the military part of cyberspace. Just the part where the army will have its networks and systems. There, of course, the offensive activities will also be part of the defence. Nevertheless, in the context of nationwide cyber defence, this area will be the competency of Military Intelligence, which is even more suitable for that, by its very nature.

**In the context of cyberspace, information is referred to as a weapon. But this is nothing new. The press was referred to as the seventh Great Power already during the Balkan Wars in the nineteenth century...**

Information has been a weapon since the beginning of warfare itself. So their important role goes back to long before Christ. Over the course of history, it was its meaning, the way it is spread, and its role in a particular conflict that have changed. Today, society is overwhelmed with information. This also applies to the military. If you ask me about

information that is not known by everybody because it does not fall within the area he or she is working in or is interested in, then he or she takes a cell phone and finds it in seconds. It is therefore necessary to filter information, verify its authenticity and learn to use it to wage a conflict.

**In your opinion, the GDPR restriction should make it more difficult for a potential opponent to aim disinformation accurately. Should we consider the protection of personal data already as one of the defence walls of a potential cyber conflict?**

Exactly. I have already talked about this in relation to cyber protection. Protecting your own information is one of the pillars. Every password is breakable. Every system is vulnerable. With our own ill-considered behaviour, we only make it easier for the opponent to achieve its intention. That is why we must think not only of how to secure devices and systems from a cyber point of view, but also of how to teach soldiers to treat them and to use them. In our terminology, we call it the Digital Force Protection.



**PSYOPS also deals with information and disinformation campaigns in the military. How will the competences be divided in this respect?**

The current psychological operations unit will be integrated into the above-mentioned group of cyber forces and information operations. On its basis, we will build a so-called operational communication, which will have a wider scope, but in principle will be based on psychological operations. Therefore, we do not have to think out the competences, because everything will be well inter-complemented.

**You said some time ago that cyberwar is not yet under way, hacker attacks are more of an intimidation. How do we even know that we already are in a cyberwar, is it exclusively about the intensity of these attacks?**

The question is rather what we consider as a cyberwar. Cyber attack alone makes little sense without the other domains; it can destroy, but it cannot occupy and break the will to resist. The attacks are indeed under way, but fortunately, not yet at the level we

generally consider as a war. That is why I have said that cyberwar was not taking place. It could be said that it is rather just getting the feel of it. We must prepare for what I spoke about. And for that, the army alone is not enough. The state knows its weaknesses and is trying to solve them. The army realized them too. The last element is the society. There, as the army, we can help with edification, but each of us must take the overall responsibility.

**The recent discussion is about the military and the importance to acquire artificial intelligence as quickly as possible. Will your command be involved in this task as well?**

In the future, the army cannot do without artificial intelligence. As the Chief of the General Staff recently said, we too would have a friend to help us fight. When, in what form and what intensity it will be, that is difficult to estimate now, but it certainly will happen. Sooner or later. Yes, we will have people who will have something to say to that. In any case, artificial intelligence will not be a little dwarf that we, as a command, will deploy as needed. It will become a part of a series of weapon systems, so it will pertain to the entire army.

**You are behind a new form of the social networks communication of the Czech army. You have chosen such means of expression that will intrigue or that target emotions. How satisfied were you with the first campaign regarding the acquisition of new infantry fighting vehicles?**

It was a first activity of the Czech army of its kind. The preparation for it was long and intense. Some people spent weeks on it. Overall, I think the new form of communication has succeeded. We have evaluated all aspects and I must say that the feedback on the new way of communication is very positive. The few individuals who did not like it, that is a drop in the ocean compared to the hundreds and thousands of people to whom it appealed and who were satisfied. It fulfils its purpose exactly as we had anticipated.

*By Vladimír Marek,  
photos: author and Marie Křížová*

### factsheet

The Cyber Forces and Information Operations contribute to the security and defence of the Czech Republic in cyberspace and the information environment. It operates independently, together or in cooperation with the Land, Air and Special Forces.

At the tactical level, they monitor, plan and control operations in cyberspace and the information environment, including support for the Czech Armed Forces strategic communication. They include the capabilities to protect own parts of cyberspace and to conduct information operations, information operations in cyberspace, psychological operations and civil-military cooperation.

When protecting cyberspace and conducting military cyber operations, they cooperate closely with military intelligence, where the capabilities complement each other.

Current topic:

# 533 Unmanned Systems Bn comes into being

**The rapidly changing principles and environment of today's armed conflicts show that one of the most important capabilities of contemporary armies is timely access to information not only on their own troops, but mainly on potential adversary, including the ability to have an immediate impact on targets. Unmanned systems play a very important role there. For these reasons, it was decided to strengthen the capabilities of the Czech armed forces by the creation of a battalion of unmanned systems in the structure of the 53rd Regiment of Reconnaissance and Electronic Warfare (53 RECCE EW Regt), which will thus achieve the capabilities of a comprehensive allocation of forces and resources of ISR (Intelligence Surveillance Reconnaissance) and electronic warfare to support combat units.**

## **Extent and tasks**

Unmanned Aerial Systems (UAS) are one of the important means of supporting commanders and their staffs in planning, coordinating and conducting combat and non-combat operations. They are used primarily for

reconnaissance of the enemy's territory and objects in the depth of his combat formation or in areas heavily protected by the enemy's air defence. One of the main advantages of theirs is the chance to verify information, obtained by other facilities and

means of reconnaissance, in a short period of time. Regarding the ACR, it is mainly the acquisition of reconnaissance information within the modularly created units of ISR and EW, composed of ground reconnaissance teams, electronic warfare units, and



evaluation centres for effective joint support to ground troops. They are primarily intended for the support of units of the 4th BTF (Brigade Task Force) and 7th BTF. Their capabilities can also be used for the benefit of Integrated Rescue System.

Unmanned systems in the Army of the Czech Republic create and even in the future will create one of the most important elements in the overall structure of the army. For this reason, we pay high attention to their present operations and further development. So, the ACR has a system ready not only to maintain acquired capabilities in the UAS area, but also for gradual steps to increase given capabilities, by replacing existing resources and introducing higher UAS categories.

This technology is applicable not only in the territory of our state, but especially in operations abroad. All ACR personnel trained to operate the customary UAS devices are further trained to conduct aerial optoelectronic reconnaissance, within the capacities of the device.

During the deployment of unmanned systems in multinational operations in Afghanistan, the ACR servicemen gained considerable experience with this equipment.

#### **History and present of unmanned systems in the ACR**

Unmanned aerial systems have a long tradition in our armed forces. Already in 1985, the then Czechoslovak army entered

into service the unmanned reconnaissance vehicle VR-3 Reys (Tupolev Tu-143). This reconnaissance UAV of Soviet production had a take-off weight of over 1,200 kg and reached a speed of 900 kph. He remained in forces until 1995, when it was put out of service. From 1994, in our country we began to test and gradually incorporate the unmanned system of domestic production Sojka III, which was developed by the Military Technical Institute, with a take-off weight of 145 kg. It was eliminated in 2010 without direct compensation.

Since one of the priorities of the Czech military was and still is to operate in missions abroad, the army focused in the past on the development and acquisition of unmanned air vehicles (UAVs), Category I, according to NATO STANAG 4670, the so-called Micro, Mini and Small categories. The RQ-11B Raven was the first system, which was introduced in 2009, in the "Mini" category, mini-UAV. The UAV has a wingspan of 1.4 m, weight of 2 kg, flight endurance of 60 minutes, and operation radius of 10 km. During 2017, the original system was replaced by a total of five sets (15 pieces) of the new version of the RQ-11B DDL (Digital Data Link). In 2009, the Skylark I-LE system (2 sets for Special Forces) was delivered, with a take-off weight of 6.5 kg, wingspan of 2.9 m, action radius of 15 km and 150-minute flight endurance. In 2018, they delivered the complete unmanned system RQ-20A PUMA III LE, with a take-off weight of 6 kg, a wingspan of 2.8 m, action radius of 20 km, and with a flight endurance of 120 minutes. As part of the modular combat set, used by members of the 43rd Airborne Battalion, in 2015 there was included in the armament an unmanned air vehicle in the category "Micro", micro-UAV, the RQ-12A Wasp, with a weight of 1.3 kg, wingspan of 1.02 m, action radius within up to 5 km, and ability to stay in the air for 40 minutes. At present, the most powerful unmanned vehicle in the armed forces of the Czech Republic is ScanEagle, which falls into the category "Small", small-UAV. Its maximum take-off weight is 25 kg, wingspan of 3.1 m, action radius over 100 km, and flight endurance over 20 hours. This system (10 pieces) was received by the Czech Army from the United States government to support the fight against terrorism. Since 2015, the ScanEagle has been continuously deployed in a foreign operation in Afghanistan, where it flew over 3,500 flight hours for the needs of ours and coalition units. At the beginning of 2019, the Czech Army ordered spare parts and the extension of the ScanEagle system to ensure the fulfilment of tasks in the territory of the Czech Republic. The system will be put into operation in the Czech Republic in October 2020.

#### **From company to battalion**

The battalion of unmanned systems was established on 1 January 2020 at Prostějov. It was formed from a company of unmanned

vehicles, which was until the end of 2019 part of the 102nd Reconnaissance Battalion. Initial operational capabilities should be achieved in October 2020 and it will be fully operational in January 2025. The basic organizational element for the development of the 533rd Unmanned Systems Battalion (533 USBn) was already shaped on 1 September 2019. The construction was entrusted to Captain Jan Štrbík, who had been responsible for unmanned systems from 2015.

The unit consists of headquarters, staff, centre of tactical unmanned vehicles, two companies of unmanned reconnaissance and combat means, including a logistics company with the possibility of adding other military occupation specialties.

The specialists of the unit consist mostly of reconnaissance and air force experts. The process of refilling personnel will be the same as it is now. The admission procedure will be identical for all those interested in the service in this unit, except for fulfilling some specific conditions for some selected positions. UAV-operators and technicians of remotely piloted vehicles have a similar system of testing and credentials as other flying personnel of the ACR, as to both the so-called 'MOS', military occupational specialties, or medical examinations at the Institute of Aviation Medicine. This is because unmanned systems of higher categories are certified as "airplanes" according to present legislation and regulations. For this reason, it is necessary to maintain a high standard and expertise of personnel.

### New abilities

The gradual increase in the number of specialists goes side by side with the purchase of materiel (equipment and supplies) and technology. In addition to existing technology in various categories (up to 150 kg), there are planned acquisitions for both battalion wants, as well as for manning of selected units of the ACR. Moreover, since 2017, company specialists of unmanned reconnaissance vehicles have been gradually involved in defence research projects. Based on the operational needs of the units, the ACR is carrying out a project of experimental development with the aim of delivering a so-called "militarized" unmanned systems of the "MINI VTOL UAS" types (mini UAV, vertical take-off and landing, unmanned aircraft system), backed by the most optimized commercial solution, as a quadcopter variant, with optoelectronic sensors and real-time video transmission. Currently, two systems were picked up. In January 2020, testing began for the needs of further development and replenishment of individual companies, including selected units of the ACR. There is also planned to purchase four PUMA III sets for the year 2021. At this moment, a tender



**533 USBn**



**HEADQUARTERS**

**STAFF**

**CENTRE  
OF TACTICAL  
UNMANNED  
VEHICLES**

**COMPANY OF  
MINI UNMANNED  
RECONNAISSANCE  
VEHICLES**

**COMPANY OF  
RECONNAISSANCE  
AND COMBAT  
UNMANNED  
VEHICLES**

**LOGISTICS  
COMPANY**

RQ-4D Global Hawk surveillance drone





ScanEagle vehicle



Black Hornet Nano vehicle



RQ-20 Puma drone



for the defence research project is held, the so-called "reconnaissance attack system", with swarming capability. They are small, portable airborne vehicles that can conduct aerial reconnaissance and, in case an important ground target might be found, they can be used to destroy it immediately. These means will be provided to both 533 USBn, as well as to a specialized platoon of the future airborne regiment. In addition to tactical and technical parameters, one of the essential requirements of the ACR for new systems is the maximum protection of control systems and data transmission systems, from sensors, against their seizure and misuse by a third party. A higher ambition is then the acquisition of a tactical unmanned system.

### **Drones, Category II, up to five years**

In the years 2022–2024, according to the concept of building up of ACR abilities, it is planned to achieve higher proficiency in the field of unmanned aerial vehicles of the multi-purpose tactical system category. The set goal is to acquire a multipurpose unmanned system, which include a Class II Unmanned Aircraft, i.e. in the categories up to 1,200 kilograms, with the ability to use sophisticated reconnaissance optoelectronic and radar sensors, electronic warfare systems, and communications systems, including the possibility of installing weapons systems. In terms of operational capabilities, the military requests Synthetic Aperture Radar (SAR), with Ground Moving Target Indication (GMTI). The acquisition of such a device will increase the operational capabilities of the Army of the Czech Republic, with the use of unmanned vehicles in the C4ISTAR system (Command, Control, Communications, Computers and Intelligence, Surveillance, Target Acquisition and Reconnaissance), above all, thanks to the introduction of new technologies. In addition to the above mentioned capabilities of unmanned systems, which will be operated fully under the control of the ACR, the military will also have access to data acquired by the new Alliance Ground Surveillance (AGS) system. The system is built on the basis of the largest unmanned aircraft RQ-4D Global Hawk. The Czech Republic has been involved in the project since 2009. The operating unit of NAGSF (NATO Alliance Ground Surveillance Force) is located at Sigonella Air Base in Sicily, Italy, where it will operate a total of five of these aircraft. Several specialists will work for the ACR in the NAGSF, three of whom are members of the 53 RECCE EW Regt.

*By CAPT Jan Štrbík,  
photos: archives and Michal Voska*



Tactical training of Czech soldiers in Afghanistan continues even in time of their deployment in a foreign operation

# Tango 22, Tango 22

– this is TANGO 21, OVER

One of the main tasks of the 11th ACR Guard Company BAF is to prevent enemy activities, focussed at Bagram Air Base. This task is fulfilled by means of patrols, deployed outside the base. When a convoy of armoured MRAP vehicles leave the base, Czech soldiers must be prepared for various security incidents, e.g. movements in built-up areas, meeting a suicide bomber, fire from small arms on convoy vehicles, and the employment of C-IED (Counter-Improvised Explosive Device).

For these incidents, our soldiers are drilled hard, during intensive preparation in the Czech Republic, but the same procedures also take place in the framework of tactical training at Bagram Air Base proving grounds. "One of the scenarios our troops are dealing with today, during the training, is the explosion of an improvised explosive device, ambushed on the road, where our unit was moving. The second vehicle in the convoy is hit," explains WO2 M. M., Senior Warrant Officer, 11th ACR Guard Company BAF in Bagram. "For all such situations we use clearly defined procedures. Every soldier knows very well what to do, at the moment, and where his place is. The aim of these trainings is to acquire automatic drill responses, so that the unit could act as a perfectly harmonized team."

### Vehicles must be ready for action

From the rear, soldiers of the 11th ACR Guard Company BAF jump into vehicles MRAP (Mine Resistance Ambush Protected), MaxxPro-Category, used to carry out given tasks in Afghanistan. The vehicles are marked as armoured and designed specifically to withstand improvised explosive device (IED) attacks and ambushes. Their characteristic feature is a "V"-shaped hull to deflect explosive forces from land mines or IEDs below the vehicle, off the cabin with crew. These vehicles must be on alert and ready to go into action, at any time. This is the assignment of any driver, for whom the task in fact does not end with the delivery of a vehicle after the finished action. Fuel must be refilled and they have to complete all required equipment for another unit, as it can be activated anytime. "The soldiers were ordered by superior level of command to check the scheduled patrol route," explains WO2 M. M. "With full gear, armament and protective ballistics, they had



to move to stand-by vehicles, as quickly as possible."

### A full 360° arc of defence with counterattack

First in the convoy of vehicles, there is a detachment of the RCP company (Route Clearance Patrol), which is able to detect and identify improvised explosive devices, and also land mines, which are not frequent there. "Moving ahead, in front of the patrol, they are able to find and clear the route. For such events they use the so-called rollers. They are intended to locate and initialize these mines and IEDs in front of the vehicle, not under it. The MaxxPro MRAP vehicle is designed to counter mines and ambushes; these include sporadic small arms fire. It has perfect ballistic protection and saves the lives of our soldiers," WO2 M. M. explains.

When in a patrol convoy, the vehicles carefully maintain safe spacing. These armoured vehicles, weighing 20 tons, can

drive at speeds of up to 80 km per hour during patrol, but in practice they drive much slower. During the mission, the unit normally runs about thirty kilometres. In the field, it shuttles from four to six hours. "When a C-IED explodes, the patrol members follow specific procedures that assign how patrol members are to proceed," the Senior Warrant Officer describes the situation. "What has happened in the vehicle, if someone was wounded, lightly, badly, or whether crew members are able to help by themselves, or not, all this is signalled in established ways. And the next unit in a convoy reacts according to those received signals, whether on the move or in time of shooting incident. The first thing the unit has to do in this case is to secure a spot. It is the so-called all-round, 360° arc defence, where everyone has his own sector and the entire perimeter is under our control," explains current situation in proving grounds, under the fire from small arms on one of the patrol vehicles.

### Gamer is the biggest dude

One crew member of the armoured MRAP vehicle is a gunner. He stands on his own position in the vehicle, alongside with his weapon there.

"It's a 50-cal machine gun (heavy machine gun Browning M-2 HQCB – soldiers nicknamed it Ma Deuce or with reference to its calibre 50, Fifty-cal), American machine gun M2 Browning 50, calibre 12.7 x 99 mm NATO, with effective range of 2,000 meters, with tripod and maximum range of 6,000 meters," explains one of the gunners.

"We have to watch people, how they behave; vehicles, why they are standing; how many people are in the car, whether there are explosives on trees nearby the road; simply we have to watch everything around us, to supervise our sector of fire. Each gamer – a gunner in the turret – has its own sector. Someone is ordered to watch twelve o'clock, so he is on the lookout for all possible details he can see and must evaluate all anomalies. To see if there is something not marked with a banner, which might be a shooting place, but he must also evaluate the strange behaviour of local residents," the gunner adds. In front of the vehicle, there is a hole in the ground to be fired in the training. The training simulates the situation, as if a soldier in a turret was sniped during a patrol on the street.

"It's not an adjustment fire in terms of accuracy, it's just a safety measure – the test with practising zero shots," the gunner further explains. "This can be done by the patrol before every tour, it is not fixed, but as far as the so-called test-fire is concerned, in this situation, weapons are checked at weekly frequency to see, if they work and are free from defects. After their cleaning and



One crew member of the armoured MRAP vehicle is a gunner.



disassembling, again there is a test-fire, so that we can be sure that the weapon is 100% reliable."

The turret gunner in MRAP vehicle is the only member of the team that is unprotected. "I have a helmet on my head, goggles, headphones," says the gunner. "I also have the necessary tools I need with me. If anything happens, I have a smoke pot, small smoke grenades, and spare ammunition. The advantage for me is that I stand free in my place, while the guys below are strapped to the seats."

It looks like that being a gamer is a win, but basically it's the weakest security position. He is the only target for gunshot. "The gamer is the biggest dude in the car, that's obvious," the gunner smiles.

### Saving life under fire

They are in contact with the commander and the entire unit, via Intercom communication headphones, so everyone knows what is happening inside and outside the vehicle. Before the unit goes out into the field, the radio connection is checked. "Tango 22, Tango 22 - this is Tango 21, Tango 21 - over" / "Tango 21 - this is Tango 22."

In each vehicle, there are also two qualified soldiers with a CLS course (Combat Live Saver). The aim of those courses is to teach chosen soldiers to provide urgent first aid to wounded unit members, directly on the battlefield, under protective fire. The CLS-soldiers form a kind of link between medics (combat medic) and soldiers. They can provide not only first aid, but they also know how to behave on the

At the proving grounds at Bagram Air Base, Czech soldiers are being trained even throughout their deployment.



The armoured MaxxPro MRAP vehicle.



battlefield in dangerous situations. This is also part of the CLS training course.

"They are combat rescuers, who are able to provide appropriate first aid in the field and prepare the wounded for evacuation," the Senior Warrant Officer continues. We have also medics with us, who are part of the company, and are in every patrol, which is of course a big advantage."

Emergency medical treatment is properly practiced and perfectly managed by each soldier. First aid procedures are regularly drilled during training. "The time of tourniquet application is documented. Then, in set time periods, we check throttling, according to precisely prescribed procedures. The wounded individual is checked in minutes, the vital signs are tested to see

if everything is in order. In case of blood loss, additional pressure bandage is added. After every movement with a wounded person, his state must be checked - every 5 minutes on average. All this is recorded in the documentation, which is then handed over, together with a wounded soldier, when he is transferred to a higher level of medical care," informs us the Senior Warrant Officer.

Preparing the soldiers takes place not only before the mission. Their training is repeated continuously, even during the deployment in a foreign operation.

"These situations and subsequent procedures are drilled in almost every exercise. Of course, they are more intense in the preparation of the entire contingent before leaving for the mission. In our case, it took eight months to

go through all courses, including this rescue one. At the proving grounds at Bagram Air Base, this is only a refreshing exercise, details are fine-tuned, supposing a serious situation like this might arise. In that case, learned drills must automatically jump in, as quickly and efficiently as possible," concludes at the end WO2 M. M., Senior Warrant Officer from the 11th ACR Guard Company BAF.

*Text and photo by Jana Deckerová*

The Sokol helicopter crews trained for the first time in the high terrain of the French Pyrenees

# Mountain Flight for the eleventh time

**A demanding training in flying in mountainous terrain was traditionally held in the surrounding of the French Sainte-Léocadie airport, near the town of Saillagouse. The Czech Army Air Force exercise named the Mountain Flight took place in the first half of September.**

Crews of the 24th Air Force Base with two W-3A Sokol helicopters, as well as the members of the 22nd Helicopter Base Sedlec from Vícenice u Náměště nad Oslavou with three Mi-171S helicopters participated in the fourteen-day exercise in the French Pyrenees. The transport of the exercise participants and the materiel was partially carried out by the CASA C 295 M transport aircraft. Thanks to the ground element, everything was prepared in advance. After an eight-hour flight, five helicopters also landed at the Sainte-Léocadie Airport (LFYS).

## **For the eleventh time**

The aim of the exercise was to practise and consolidate the practical skills and the routine of the crewmembers during various flying activities in a high altitude terrain, such as landing on areas of limited size with altitudes above 2,000 metres or in the inhospitable surroundings of the alpine valleys.

Centre de vol en montagne Sainte-Léocadie, meaning the Mountain Flying Centre, has hosted our helicopters for the eleventh time. This training facility is located at a small grassy airport close to the Spanish border, at 1,330 metres above sea level. It is equipped with high quality technical, accommodation and catering facilities. There are eleven working zones, each with its own characteristics. It offers a wide range of conditions, especially different altitudes climbing to three thousand metres and different terrain difficulty.

## **Temperature fluctuations and thinner air**

"This exercise is very important for pilots because flying at high altitudes is unique due to its conditions and cannot be simulated in the Czech Republic. Exercise areas offer plenty of landing sites and associated great opportunities for the

helicopter crews to practise decision-making and landing procedures. In the mountains, meteorological conditions change more often and more quickly, the air is thinner, temperature fluctuations affect the flight characteristics and helicopter performance. The pilot must learn to identify the wind direction both using the instruments and visually, depending on how the machine reacts," explains Major Petr Šafařík, the commander of the unit from Kbely. The selection of suitable landing sites in alpine terrain and subsequent landing is another part of the exercise. The surroundings of the exercise site offer a wide range of landing areas at different altitudes and therefore the training can be conducted gradually from simple to more demanding situations. The weather often changes in the mountains so it is necessary to know how the helicopter reacts and what its different characteristics at different heights





are. The main focus of a training in adverse conditions is to teach pilots to take into account the take-off weight of the machine at a certain height, which is closely related to the helicopter performance – the thinner air and temperature affect the performance of the helicopter. This also affects the maximum weight of the load.

### Preparation using a terrain model

“Even the preparation phase for flying in high mountains was of a great benefit to us. Using mountain terrain and small helicopter models, we have carried out a dry training drilling the principles of landing sites selection, reconnaissance of the sites, determination of wind direction, turbulence and so on. Before the flying itself, we have drilled and memorised all procedures and principles of the landing sites selection as well as the landing in the high mountain terrain itself,” added Major Šafařík.

Checking all of the survival equipment was also included in the theoretical preparation. This is what pilots have in their tactical vests and in so-called "alpha pack" bags. These contain important things they need to survive in inhospitable terrain in case of a forced or emergency landing.

“The alpine environment is diverse, each pilot must be prepared for the flight even more thoroughly than in the Czech Republic. We went to an environment that we do not know and where the mistakes are not forgiven. Each of us has learned something new here,” said Major Šafařík.

### More technicians

In the past, one team of engineers accompanied the Mi-17 helicopters. As two W-3A Sokol helicopters were included in this year's exercise, the possibility emerged to increase the number of technicians who could experience the so-called fieldwork thanks to this foreign exercise.

Although the engineers had a hangar for possible maintenance or repair of the helicopters at their disposal, their options during the exercise were very limited. For example, they could not rely on the home technical equipment facilities, including stock spare parts. Ground crew work therefore did not begin by arriving to the site, but their preparation for the exercise began several months before the actual exercise.

“All the equipment we carry with us for an exercise is the basis of how well we will work later. We have some materiel directly in the helicopter, but due to its small transport capacity, compared to the seventeens, we are significantly limited mainly by weight. Therefore, we have transported heavy spare parts, operational and service support elements in containers by vehicles or by the CASA aircraft,” explained Major Martin



Preparation phase – over the mountain terrain model and with a small helicopter model.

Moldřík, the deputy commander of the Kbely helicopter squadron.

### They drew on many years of experience

When selecting the spare parts, the engineers drew on many years of experience and took into account the limitations of the French facility. Tasks to be fulfilled in the mountain terrain also played an important role. The stock availability of individual spare parts was an equally important criterion for the selection of technical equipment.

“For example, it happened to us in the past that a helicopter got its tyre damaged on a rocky terrain. Therefore, one set of wheels for the main and nose landing gear and complete jacks for changing wheels was an integral part of our equipment this year. Similarly, we

have changed the entire propeller of the Mi-17 during the exercise in the past. Due to the limited transport capacity, we really took only the essentials. In case of damage to the blades of the main rotor or the tail rotor, we would have to act operatively and have larger parts transported,” added Major Moldřík. However, even this option would not do without complications. An aircraft would be able to transport the spare parts to the airport in Perpignan, but from there the parts would have to travel for additional two hours by vehicles or a helicopter to the mountains to the Sainte-Léocadie airport.

*Text by CAPT Zuzana Špačková, MAJ Martin Moldřík,  
MAJ Břetislav Sedlář and Vladimír Marek,  
photo: archives of the air bases*



The Kbely contingent group photo.

The exercise area offers a lot of landing sites with altitudes above 2,000 metres.





Czech soldiers together with the battalions of Poland, Spain and Great Britain are part of the multinational brigade

# NATO Response Force

**Based on the 71st Mechanized Battalion "Siberian" is built the Task Force of the ACR (ACR TF), which is in the years 2019-2021 included into the NATO Response Force. Czech soldiers are part of a multinational brigade of around 5,000 soldiers. In 2020, they are organized within the NATO's Very High Readiness Joint Task Force (VJTF), ready to respond to threats to Alliance members anywhere in the world, just in five days. The Czech Task Force (TF) comprises a thousand members and consists of manoeuvre units of the 71st Mechanized Battalion (71st Mech Bn), reinforced by combat support and security units and other specialists from a total of 16 ACR units. At the end everything is completed by a company from Romania.**

Intensive preparation for appointing to these units has been carried out since 2018. It was launched by planning conferences at which the battalion commanders coordinated preparation for joint employment in the VJTF. Another part of this preparation was the Battle Staff Training (BST) in Poland, which was the training for harmonizing the staffs of the brigade and individual battalions, or a series command post exercises (CPXs) with

the help of computer simulation, aimed at harmonizing the work of multinational staffs. This theoretical preparation was followed by preparation with the participation of troops. The 71st Mechanized Battalion began the training of company task forces (Coy TFs), which culminated in reviews of companies' harmonization and tactical exercises with field firing, and combat support from the tank and mortar platoons, as well as air support.

The preparation included the deployment of the 1st and 2nd Task Force Mortar Batteries in Latvia, as part of the so-called enhanced Force Presence (eFP). In November 2018, there followed the multinational exercise Lampart 2018 in the Polish Military Training Area, in which more than 250 soldiers from the CR with 60 pieces of equipment participated. Already in 2019, a joint training of the whole NRF 2019-2021 ACR TF took place, in the



## factsheet

The VJTF forces consist of a brigade of approximately 5,000 soldiers, supported by air, naval and special forces. Their aim is to ensure a highly professional and very rapid response, when necessary to protect the integrity and wholeness of NATO territory. The VJTF units are capable of performing a wide variety of tasks, including the provision of an immediate collective defence response capability, under Article V, crisis management & peace support operations, prior to arrival of other forces, plus disaster relief and the protection of critical infrastructure.

Without connection,  
there is no command.

presence of multinational observers and umpires from NATO. The Czech Task Force was rated as excellent and incorporated into NATO structures. Subsequently, in the presence of observers and umpires from NATO in June 2019, the entire multinational brigade for exercises Dragon 2019 was certified.

## Cooperation with Romania

A separate chapter is the cooperation with the 811th Infantry Battalion of Romania, which is above standard. Part of the 71st Mechanized Battalion (71st Mech Bn) for the years 2019–2021 is also an infantry company of the 811th Battalion. In September 2019, the joint multinational exercise Transylvanian Dragon I took place in the Romanian mountains, during which the soldiers had a unique opportunity to try the tactics of conducting combat activities in the mountains and in a completely unknown environment, and to make long-distance movements, at maximum possible speed. Within the VJTF brigade, based on the be Poland's 21st Podhale Rifles Brigade, our 71st Mech Bn closely cooperates with Polish battalions and also participates in joint training with battalions from Great Britain and Spain in the territory of Poland. The significant portion of the high degree of training the whole ACR TF, have the following units: elements of combat support from the 13th Artillery Regiment, 22nd Helicopter Base and elements of combat support from the 14th Logistic Support Regiment. An important part of the preparation in recent years was cooperation with members of the Air Force bases in Náměšť and Čáslav. Exercises with live shooting of combat aircraft L-159 and Mi-24 helicopters, during the field firing of

manoeuvre units, is already an integral part of the preparation.

## English courses

As the exercises take place in a multinational environment, over the past two years maximum attention has been paid to learning individual assignment, by completing English language courses, vocational courses at home and abroad. The TF members took courses in Germany, USA, Israel, Italy, and Slovakia; went through training in Poland, Romania, Germany, Lithuania, Latvia, as well as Norway and Canada. They all also had to undergo medical examinations and tests for narcotic and psychotropic substances (OPL). In 2020, the TF VJTF units, based on the 71st Mechanized Battalion, participate in several foreign exercises in Poland (Lama 2020), Lithuania (Brilliant Jump and Iron Wolf 2020) and Romania (Transylvanian Dragon II and III). In the territory of the CR, an exercise Adamant Warrior 2020 is planned to test the capabilities of the Very High Readiness Joint Task Force (VJTF), with the participation of 150 soldiers from Romania and NATO observers.

## Developing self-reliance

At the end of November 2019, soldiers from the town of Hranice underwent their concluding field training, the aim of which was to maintain and deepen the capabilities of manoeuvre units with incorporated members of other groupings. Soldiers improved their movements on the battlefield, searching for and destroying targets, use of artillery reconnaissance or logistical support to fighting units. They completed control exercises firing from small arms, throwing hand grenades, and training drivers of wheeled and tracked vehicles. "We are now paying the main attention to low-level commanders," explains the exercise sponsor, Captain David Kremlička. "We need to develop their self-reliance as much as possible, the ability to quickly orient themselves in a combat situation and the subsequent adoption of adequate decisions. We practise their communication with both air and artillery support, so that they can use assigned elements, be able to direct mortar fire, request fire from helicopters or combat aircraft, or properly use the engineer unit. And as we are in the top phase of preparation, we use live ammunition both in the air and land forces, and in mortar batteries," adds Captain Kremlička. For two years, the training of the NRF unit has been more intensive than usually used to be, because it is necessary to be prepared for various types of operations. However, even in the highest level of readiness, they still continue in their demanding training. Another exercise of similar size is waiting for troops already in March next year.

Text by Michal Voska, LTC Petr Blecha,  
photo by Michal Voska



**The Czech Army Land Forces  
international exercise Czech Lion  
2019 culminated in Libavá**

# A thousand soldiers of Visegrad in Libavá

**Four states, four armies, a thousand soldiers and eight dozen military vehicles. The armies of the Visegrad Group (V4) states – the Czech Republic, Slovakia, Hungary and Poland – joined their forces during the Czech Lion command post exercise. During ten days in early October 2019, they verified mainly the capabilities of commanders and international staffs to command subordinate units of a task force, plan and control combat and respond flexibly to the developments on the battlefield. The Czech Republic was represented by the 7th Task Force based on the 73rd Tank Battalion.**

One of the Visegrad Group states is attacked, the enemy crosses the border and gains control over the conquered territory. The attacked state activates its army and, due to the unfavourable development in the area of armed conflict, calls in the allied forces of the Visegrad Group states, including the 7th Task Force.

Units of the attacked state set out to the border. The enemy, however, strikes with unprecedented power and beats off his opponent. The main command post immediately responds to the current situation on the battlefield. It orders to withdraw the ground troops and deploy air support, L-159 Alca fighter aircraft and Mi-24 attack helicopters. The artillery is also activated, deploying the self-propelled gun howitzer Dana. The enemy is paralyzed and its advancement is stopped. The 73rd Tank Battalion's ground vehicles pull together and, following the command's decision, set off against a border intruder.

## **Tanks as a combat power**

The exercise took place in the Hranice and Přáslavice garrisons, the Centre of Simulation and Training Technologies in Brno and in the Velká Střelná area in the Libavá military training area. That is also where the final display culminated with the battalion task force presenting the capabilities achieved.

"The taskforce that demonstrated its readiness consists of the 73rd Tank Battalion, reinforced by a mechanized company and mortar platoon of the 71st Mechanized Battalion, a mechanized company of the 4th Rapid Deployment Brigade, a fire platoon of the 13th Artillery Regiment, a reconnaissance



The 4th Rapid Deployment Brigade also participated in the Czech Lion 2019 exercise.



The Czech Republic was represented by the 7th Task Force based on the 73rd Tank Battalion



team of the 53rd Reconnaissance and Electronic Warfare Regiment, a mine launcher platoon of the 153rd Engineer Battalion, and an active reserve tank platoon. The task force was also complemented by the capabilities of the Czech Air Force," informs Captain Ladislav Kabát of the 7th Mechanized Brigade. "Thanks to the support of the Centre for Simulation and Training Technologies, using a standardized NATO application, it was possible to create an environment in which commanders and staffs controlled, within a coalition context, both defensive and offensive operations comprehensively, indeed."

### Commanders proved skilled

The aim of the joint exercise of the Visegrad Group armies was to harmonize the procedures and principles of using all arms when conducting main tactical activities in higher intensity operations. The purpose of such training activities is to continue to develop capabilities that have been neglected in the last decade due to the focus on counter-insurgency operations in various regions of the world.

"The Czech Lion 2019 exercise was focused primarily on the verification of interoperability capabilities and on the preparation for possible joint deployment to foreign operations," said General Aleš Opat, the Chief of the General Staff of the Czech Armed Forces. "It was primarily a command post exercise, whose conclusions confirmed the ability of commanders and international staffs to command subordinate units of a combat task force, jointly plan and control the combat and immediately respond to the current developments on the battlefield."

In recent years, the security situation has changed, and therefore the Czech army had to change some approaches and procedures in this area. One of the basic things is a stronger establishment not only within NATO, but also within Europe as such with closer co-operation in common activities

through a joint deployment of the armies of the Visegrad states. It means mainly focusing on training and preparation of larger units, which is a brigade and a battalion.

### Use of computer simulation

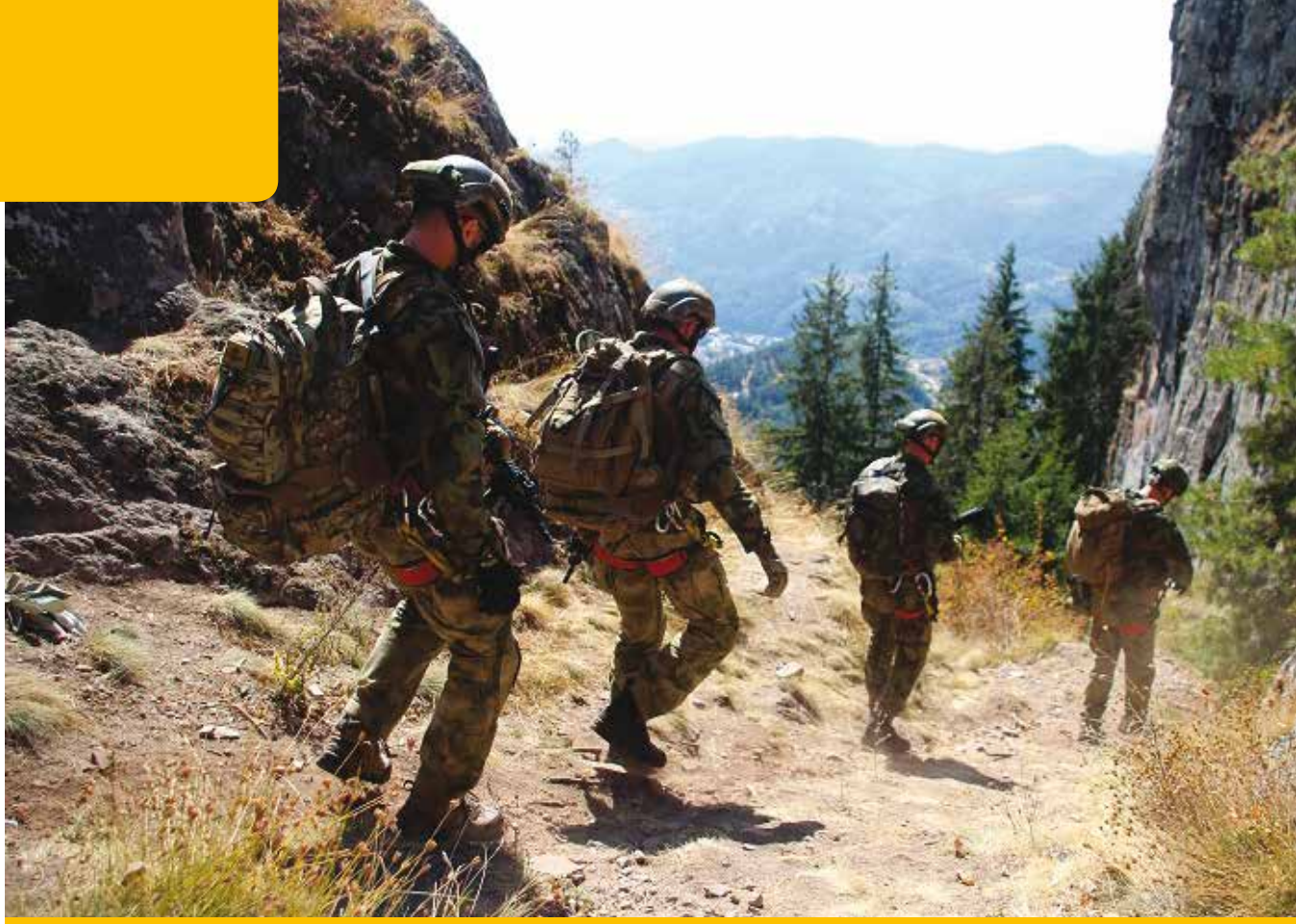
"Besides the fact that we have members of different armies exercising together, and communicating in English, it is also significant that the command posts are deployed to several places at the same time with a maximum possible use of the computer simulation support," says Captain Ladislav Kabát. Thanks to the support of the Centre for Simulation and Training Technologies, using a standardized NATO application, it is possible to create an environment in which commanders and staffs control, within a coalition context, both defensive and offensive operations comprehensively, indeed.

### Interoperability of information

The Czech Lion 2019 exercise also utilized the "Dolphin" command and control information system of the Land Forces of the Czech Armed Forces, which supports, by its interoperability, the exchange of information between the exercising countries. This interoperable version has been used in the Czech Army since 2013.

It is a software system that assists all levels of command with planning, controlling and conducting of combat activities. It can be characterized as a system that allows the staff to keep track of ongoing operations through specific recognized battlefield pictures, and also to continue planning future operations and missions. It covers the whole range of communication from the lowest level of command to the vehicle to the headquarters. It mainly covers international exercises, where this system is also tested in cooperation with other armies within NATO. It works seamlessly with Alliance armies' information systems and it works almost instantaneously.

*Text and photos by Jana Deckerová*



# They were among the best

**Reconnaissance units from Bechyně participated in a demanding exercise in the mountain terrain of Rhodope in Bulgaria**

An eighteen-kilometre march in a challenging mountain terrain, rock climbing or night bivouacking – the 15th Engineer Regiment scouts have experienced all of these. In addition to representatives of the engineer reconnaissance platoons of the 151st and the 153rd Engineer Battalions, soldiers of the Austrian, Polish and Romanian armies also attended the international Rhodope exercise in the southern Bulgaria. The aim of the exercise, organized by the Bulgarian Army Land Forces Command from 8 to 20 September 2019, was to master fighting in the mountains at the platoon level.

“The soldiers were integrated into Bulgarian companies and went through the different stages of the exercise together. In the first week, they were trained in movement and patrolling in mountain terrain and survival associated with sleeping in a saddle located

1,960 metres above sea level. There was also a shooting training at a shooting range 1,100 metres above sea level or military climbing. This training was in charge of the mountain leaders of the Austrian 6th Mountain Brigade,” explains Captain Eduard Zíka, the commander of the Czech unit.

Although the program was demanding and required excellent physical condition and expert knowledge, seventeen Czech engineers fulfilled the tasks at one hundred percent. The only complication of the exercise was, according to Second Lieutenant Daniel Schreiber of an engineer company of the 153rd Engineer Battalion, to communicate in English. “Since we were assigned to the Bulgarian units, we of course had to speak with them. Despite this was a part of an international cooperation effort, almost none of the Bulgarian soldiers spoke English. We mainly communicated with the company

commander. The others knew only a few words or nothing,” Second Lieutenant Schreiber points out.

On the other hand, our soldiers relished the hospitality of the hosts and the logistical support, especially the meal supply. “I liked the rock climbing and the nature the most. You will not find mountains as high as Rhodope in the Czech Republic. Therefore, it is great that we can try out to operate at higher altitudes as well,” emphasized Second Lieutenant David Lysoněk from the engineer reconnaissance company of the 151th Engineer Battalion. Of a great benefit to all soldiers was also the participation of trained instructors from all participating countries, who could pass new knowledge and experience not only to the trainees, but also to each other. The second week was devoted to a complex field training. The program was based on a scenario in which a newly created international

mountain regiment was to ensure the defence of a certain place in the mountain terrain. "Our soldiers fulfilled all given tasks and got very good ratings. It is not for nothing that members of the 15th Engineer Regiment are among the best in training in mountain terrain throughout the Ministry of Defence and the Czech Army," assessed the engineers' performance Captain Zíka.

Rhodope 2019 was one of the first preparatory events for a major exercise of mountain units named European Mountain Phalanx, which will take place in 2022 in the Austrian Alps.

And why is the mountain range in which the exercise took place called Rhodope? An ancient proverb tells of the Thracian King Haemus and Queen Rhodope, who loved each



other so much that they called each other by pious names – Zeus and Hera. The gods got so angry by this impudence that they separated them and turned them into distant mountains (the Balkan Mountains and the Rhodope Mountains). These and other legends have changed the Rhodope Mountains into a place with a peculiar mystique.



**Soldiers from the 153rd Engineer Battalion Olomouc participated in the Cooperative Security 2019 exercise**

# Closely guarded borders

**Border protection and readiness to manage a migration crisis. This was the main theme of the international Cooperative Security 2019 exercise, which took place close to Veszprém in a military training area of the Hungarian army.**

Six countries of the Central European Defence Cooperation (CEDC) joined the joint training of military and police forces to manage mass migration of the population. More than one thousand members of the military and police forces of the Czech Republic, Hungary, Austria, Croatia, Slovakia and Slovenia focused on practicing a common procedure for declaring a migration crisis once the border of one of the European Union states is illegally crossed. Last year, 150,000 people crossed the borders of the European Union illegally. Its external borders are under a constant pressure. The Army of the Czech Republic joined the international cooperation units as well, contributing with its capability to

build a humanitarian base with a maximum capacity of 150 people.

## **Full deployment within 72 hours**

"As part of the exercise, we have built a humanitarian base here on a simulated border of an European state, which would be used to receive illegal migrants in the event of a crisis declaration," informs Captain Josef Zdanovec, a rescue company commander from the 153rd Engineer Battalion, who acts as the humanitarian base construction commander. "The task of this unit in the event of a real deployment is to sort migrants, provide first aid if necessary and provide clothing and food." "The base provides

space for accommodation in heated tents, sanitary facilities, food preparation and food dispensation, basic medical treatment, decontamination and disinfection, and, if necessary, dispensation of clothing. It consists of a reception centre, accommodation and a technical part," adds the commander of the military engineers from Olomouc.

The humanitarian base, with the possibility of accommodating up to 450 people, can be fully deployed within 72 hours. To do so, the soldiers need specific information about the site selected and they need the materiel to be transported to the respective site. The base can be built up on a grass site as well as on a paved surface, and can operate practically

limitlessly, independently of the surroundings, if logistical support is provided. The base is operated always in cooperation with the rescue system of the respective country, the police of that country or the local police.

"We appreciate this exercise for the opportunity to cooperate with units from other countries, but also to experience what the situation will be during a real deployment."

### The base life is unlimited

"The humanitarian base is very variable; for example here in the Hungarian military training area, we have built a modification for 150 people," informs Second Lieutenant Marek Hurta, a rescue platoon commander of a rescue company of the 153rd Engineer Battalion Olomouc, who acts as the deputy commander of the base construction here in Hungary. "This base can serve not only for migrants in case of illegal or legal migration, but it can also be deployed during natural disasters such as floods or industrial accidents. Here, we have built this base in two days, which means in 48 hours, but the speed always depends on the level of training of the personnel conducting the construction, and others involved in the construction. The life of the base is indefinite and we are able to operate independently of the surroundings until the emergency board finds a more suitable place for the accommodated persons."

The Czech Army has two fully prepared humanitarian aid bases, each with a capacity of up to 450 people. They are stored at the 151st Engineer Battalion in Bechyně and the 153rd Engineer Battalion in Olomouc. In the past, the Czech army used them during the floods or during the winter of 2008, when the Municipality of Prague needed to accommodate homeless people due to a severe frost.

### A medical team also operates here

A primary health care unit with an examination room, an isolation unit and a sick bed unit is included in the humanitarian base modification.

"This health care unit has several separate parts. The basic one is used for sorting and basic medical examination of persons," explains a nurse, who is part of the medical team operating within the humanitarian base. "In case a dangerous infection is suspected after the initial examination, the persons concerned are moved to the isolation section, where they are subjected to a more detailed examination. At this point, we request – through the emergency board – their transport to a higher role medical facility to prevent the spread of a possible infection among the temporary residents of the humanitarian base. We also have a sick bed section that serves patients who require medical care but who are not a threat to others. Our team monitors these patients, indicates possible medicaments, and checks



how the situation evolves as part of the health care that we deliver."

### Refugees are heading to Europe

The Cooperative Security 2019 exercise focused on illegal border crossing and managing this situation by the border and police units.

Several migrants in a tent camp of the humanitarian base excite riots and verbally attack troops guarding the external border of one of the European states. The aim of migrants is to illegally cross this border and enter the Europe.

While one part of the migrants is distracting the border units, three migrants are taking advantage of their inattention and they are crossing the prohibited border zone through a barbed wire. However, this part of the border, which is close to the humanitarian base, is monitored and the illegal refugees are captured. During the inspection of one of them, an unknown substance, assessed as dangerous, was found.

A dangerous substance identification unit together with firefighters is called in. Once evaluated, the substance is stored in a special box and taken to a stone laboratory for identification. The offender is captured and

taken away by police units. The other two are returned to the humanitarian base.

At that moment riots arise, the refugees attack the members of the police units not only verbally but also by throwing stones at them. An intervention unit is deployed to eliminate and pacify the most aggressive attackers.

### Harmonization of procedures

"These situations are common within refugee camps, so we need to practise these crisis situations and to be ready for such situations," says István Szabó, the Hungarian officer conducting the Cooperative Security exercise. "The most valuable thing about this exercise is that the participating units can practice the deployment in real situations. Similar issues are exercised by each country with their national units, but when a crisis situation requires a joint deployment, it is essential that mutual communication works and the procedures are harmonized. This exercise was also very valuable for the staffs of the participating countries, which had to communicate not only within the main staff of the international command, but also worked perfectly with their national units."

*Text and photos by Jana Deckerová*



The Minister of Defence Lubomír Metnar (second from right) also visited the Cooperative Security 2019 exercise.

**Multinational exercise Joint Fires 2019 took place in the Doupov Mountains**

# Under live fire

**Four hundred service personnel, seventy vehicles and live fire exercise for the DANA self-propelled howitzers. For a week, the Hradiště Military Training Area became home for the members of the 131st Artillery Battalion of the 13th Artillery Regiment based at Jince, who were complemented with airborne soldiers of the 4th Rapid Deployment Brigade.**

A high priority was on verifying interoperability of command and coordination structures on the level of both mechanised battalion and mechanised brigade. Those elements were included in the command posts.

"The exercise objective was to improve the skills of the servicemembers of the 131st Artillery Battalion in the provision of defensive fire support to the 4th Brigade Task Force," says Colonel Jan Cífka, Deputy Commander of the 13th Artillery Regiment and deputy exercise director for live fire. The servicemembers of the Slovak Armed Forces and the Polish Armed Forces joined individual combat scenarios. Soldiers of the Bundeswehr and US Army took part in the exercise as observers this time.

"For the partners from other armed forces, this exercise is valuable because it provides opportunities for sharing information and harmonisation of specific procedures for potential NATO deployed operation," says the commander of the 13th Artillery Regiment, Colonel Ivan Mráz. Next year, particularly the Polish Armed Forces will participate with a larger number of service personnel and equipment.

## JTACs under cover

Exercise Joint Fires 2019 also verified the skills of artillery reconnaissance specialists, the so-called Forward Observers (FO). They are trained for reconnaissance and land artillery fire guidance. Their primary mission is to detect targets on the front line of the opposing forces. That is why the FOs are assigned to mechanised and airborne companies of manoeuvre battalions, which was indeed their objective for this year's exercise.

"As the modern battlefield becomes increasingly complex, the demands on artillery reconnaissance units grow accordingly," JFO program manager LTC Marcel Křenek of the

Czech Land Forces Command points out and goes on to say that it is often challenging and sometimes ineffective to include the Joint Terminal Attack Controllers (JTAC) into the order of battle of mechanised and airborne companies. At the same time, their training is very demanding in terms of personnel requirements, and that is why their number is significantly limited. So, they cannot be used on the lowest tactical level. The current trend in NATO nations' armed forces is to increase the abilities of Forward Observers through their training in Close Air Support (CAS). The personnel with such training is referred to as Joint Fire Observers (JFO).

Our mission is not to substitute the job of JTACs," LTC Křenek explains. "We understand their indispensable role and the scope of responsibility in requesting and coordinating close air support. In our case, it is only about increasing the abilities of Forward Observers so that they would be able to communicate the target description to the JTAC or pilot of air asset in planning and performance of close air support procedures. At the same time, they should be able to perform terminal guidance operations electronically, optically or visually," LTC Křenek underscores.

In practice, the JTAC stays in the mechanised battalion command post and follows radio traffic between the JFO and the allocated air support asset. After a clear identification of own position and the target position, only the JTAC is authorised to order the use of air munitions on the attacking aircraft. The JFO also communicates the assessment of the effects of using CAS against ground targets to the superior command for analysis and coordination of further course of action.

## DANA – the primary artillery weapon

Second to air forces, artillery systems represent an important asset to provide fire



Each shell goes through an inspection, being prepared for loading.



The self-propelled gun howitzer Dana enters the firing positions.



support to land forces to engage targets at short and medium distances.

The model 77 calibre 152mm Dana self-propelled gun howitzer on 8x8 wheeled platform is a very potent thirty-ton weapon, which engages opposing forces and equipment with maximum range of twenty kilometres," LTC Mráz says. A Dana crew comprises five members: commander, driver, aimer, loader and timer. Besides responsibility for the whole crew, the commander receives missions from command, has to compute the elements of fire correctly and communicates with the aimer for setting the elements. The post of driver is extremely important. Not only he has to drive the thirty-ton beast and move it with the crew to the designated position, but

he is also responsible for the condition of the vehicle, engine checking, replenishment of motor and hydraulic oil; simply he maintains the gun in a fully serviceable condition to be ready for action at all times.

The vehicle has a filtering and ventilation system that permits operation in contaminated areas and is equipped with a central tyre inflation system. The machine features an automatic loading system, but it is also possible to load the howitzer manually in emergency. In addition, the vehicle has a model 38/46 calibre 50 DShKM machine gun mounted on the roof of the turret.

*By Jana Deckerová*

1LT Tomáš Nedvěď, technical flight commander, 242nd Squadron, 24th Transport Air Base, Prague-Kbely.

Introducing military professions

# Aircraft mechanic of the CASA C-295 and L-410 airplanes

**Their job is almost invisible, yet they have dozens of human lives in their hands. Yes, we are speaking about the profession of aircraft mechanics. The inventory of the Czech Air Force holds a wide variety of airplanes that must be serviceable at all times. And that is the daily as well as nightly bread of aircraft mechanics, including First Lieutenant Tomáš Nedvěď, commander of the technical flight of the 242nd Squadron of the 24th Transport Air Base. His domain are CASA C-295 and L-410 airplanes.**

"I was eager to learn about airplanes and everything connected with aviation already as a small boy," First Lieutenant Tomáš Nedvěď says. "It did not let go of me even after the primary school and I actually enlisted at age of fourteen, when I started to study the air ammunition mechanic program at the Secondary Military Aviation School in Prešov. When you are keen on something, you should go after it and make your dreams come true. I succeeded, and after all those years and lessons, I do not regret my decision at all and would never change my job."

## From A levels to CASA

After graduation from the Secondary Military Aviation School, with A levels in his pocket, 1LT Tomáš Nedvěď reported to service at the Prague Kbely airbase. That was when he sustained the first shock, despite he had undergone military training thanks to the secondary school.

"Although I had military drill under my skin thanks to the school, I soon figured out the practice at the unit was more demanding than students think. Back in our days, we started as "complete" mechanics," 1LT Nedvěď recalls. "Today, the recruits are up to entry medical and psychological tests and basic training in Vyškov. Only then they start with professional training, which is nearly an eight-month engineer flight service course again in Vyškov, and continue with type training. Today it takes over a year, or even two, before mechanics put their hands on an airplane. In the ideal case."

For those deciding to serve in the Armed Forces and having already some experience with aviation, the requirements are not so demanding. Those are just differences that are covered with difference type training course. In such case, the specialists are able to get their hands on their airplane already within some eight or nine months.

"In Vyškov, you have to put dozens of kilograms of pages with theory inside your head, and then type training comes next. Once you begin to integrate the boned up theory with practice, you are gaining assurance and confidence," 1LT Nedvěď goes on. "Novices are assigned to the more senior and experienced guys who take them under their wings. It does help for the novice not to act as a Mr. Know It All and or as a world champion. I was never afraid to ask questions and nobody ever turned their back on me. And that is the way I am treating novices too."

## Preflight and after-flight checks

The aircraft mechanic profession divides into so-called specialties – for example the airframe/engine specialist, an individual responsible for the airplane fuselage. That encompasses the hydraulic system, fuel systems and engines. Another specialty is the radio systems specialist, who is responsible

The aircraft undergoes inspection by mechanics even after landing.

for the communication and navigation systems and devices. The third is the electro and special equipment group, who care for the onboard electrical networks.

"Each specialist in this group has his/her specific field that they know to the very detail, but they naturally have to be knowledgeable about the other systems in the aircraft," 1LT Nedvěď explains. "Ideally, there are four individuals doing the maintenance – the maintenance team commander, an airframe-engine specialist, radio systems specialist and a special electrical systems specialist. If we are initiating a novice, there would be up to six people working the aircraft.

### CASA C-295 and L-410 as the strong point

Ahead of each flight, aircraft have to undergo so-called preflight preparation. That involves a check of all systems and the aircraft has to be energised and activated.

"What it means in practice is that the aircraft is parked on its apron and a team of maintenance specialists takes on it to perform mandatory checks defined by the manual," the commander of technical flight of the 242nd Squadron describes. "It goes like clockwork, everyone in the team knows what his duties are. It involves a visual check of the condition of all units, engines, condition of the landing gear, navigation systems, electrical and radio equipment. It is rather a routine that is done again and again, but that is exactly the way one must not approach it. The red warning light of responsibility for human life must be flashing out there for you all the time."

Every aircraft has its own maintenance documentation, where every check is recorded, not only before the very start but also after the landing. When the airplane touches down, the aircraft mechanics again take care of it.

"After the landing, the communication with the pilots is essential for us, because they may alert us to possible, although slight anomalies that seemed to occur during the flight but did not threaten flight safety," 1LT Nedvěď elaborates.

But still the aircraft has to be in perfect condition, ready for starting anytime. Especially in the military. That is why, when the aircraft is not airborne, planned maintenance is done.

"Those are primarily so-called periodical works, a planned maintenance that must be done on the aircraft on regular basis. Also, that involves various lubrication works and checks that are determined by the time the aircraft has been in use, either based on flight hours or time since the last check. In short, all larger maintenance efforts are done, specifically by the technical section here at Kbely, which is another maintenance squadron taking care of the machines," 1LT Tomáš Nedvěď expands.



### Practice makes perfect

When 1LT Nedvěď recalls his very beginnings, as he was standing at the gate at the Prague Kbely airfield, he smiles.

"I can never forget that. You feel timorous and spooked. I was 18 and came into live operation and was watching tons of iron getting airborne," the seasoned aircraft mechanic looks back. "Of course, it was not for the first time for me to see an airplane – you can put your hands on everything in the training courses. But those are learning aids and that is something completely different than a real airplane. I sensed the hustle and bustle around me and told myself well this is your dream you have chosen. Only here I realised the responsibility for that airplane must be in a perfect condition, because if it was not there would be a disaster. You realise the basic rule – if the airplane is not all right, it must not go into air. And for the certainty that everything is OK, you lay your head on the block."

### Manual: Alpha and Omega

Such an airplane is an extremely complex system for outsiders. That however does not apply to aircraft mechanics. They have to know their type down to the very last detail. "Based on anything they are indicated, experienced mechanics already know where to put their hands and where to focus their

attention in case any problem occurs," 1LT Nedvěď explains. "That is why the communication with pilots immediately upon landing is so important for us. In case they alert to some anomaly, or malfunction, we know where to look for and where to go. When the manual does not work, we seek help from our specialist engineers, or communicate with the manufacturer's experts."

### Deploying with airplanes

The Czech Armed Forces service personnel serve on deployed operations in several locations worldwide. Our aircraft transport them there, including logistic resupply during the whole operational tour. Aircraft mechanics go down the range with the airplanes.

"We served tours in Yugoslavia – in Kosovo, for instance – which involved the L-410 and An-26 aircraft," 1LT Tomáš Nedvěď elaborates. "At present, we are primarily active in the Sinai. As military professionals, we go through classic training, we have shooting practice, physical training examination and additional training associated with service in our military. But I absolutely do not regret and as I said: my job became my hobby. If someone would like to become one of us, and are interested in technology, they will surely not regret."

*By Jana Deckerová*



During the pre-flight preparation, any part of the aircraft mustn't be missed.



**Military tests of a new generation  
air defence missile system**

# RBS-70 NG in Action

The servicemembers of the 252nd Air Defence Missile Battalion stationed at Strakonice performed a live fire exercise with the RBS-70 NG air defence missile system at the Podvoří range in the Boletice Military Training Area. The tests saw eight MK-II missiles fired at a sleeve target towed by a radio controlled airplane.

## factsheet

Robotsystem 70 (RBS 70) is a very short range man-portable air defence system developed by Bofors in 1970s, which is designed to engage both incoming and outbound targets including cruise missiles in the conditions of radar detection and in direct visibility both day and night.

### Technical parameters

Weight of basic configuration (stand, sight, missile): 87 kg

Missile calibre: 110 mm

Diameter of missile with wings deployed: 320 mm

Payload: 1.8 kg

Max speed: Mach 2

Vertical coverage: 0 – 5,000 m

Max effective range on ingress and egress: 300 – 8,000 m

Operator crew: 3 personnel



As opposed to the earlier version of the air defence system that is in the inventory of the Czech Armed Forces, the RBS-70 NG boasts a range of benefits. It is smaller, light-weight and also more compact. It takes much less time for the soldiers to deploy the system for tactical use and it has an in-built night mode. For night operations, no additional devices are needed. Another advantage is the capability to engage targets in automatic mode. Before firing, the operator has an option to lock onto the target automatically. The very homing is done by the computer. The guidance is therefore more precise and faster than if manually controlled by the operator, plus it represents a substantial mental ease for the operator in the firing sequence process. The RBS-70 NG system naturally continues to include manual target acquisition and, as opposed to the previous generation, also works in reduced visibility conditions or at night without the use of additional devices. The new version of the weapon system has similar requirements for spare parts and test and servicing equipment. It also makes use of the same range of the existing as well as future RBS-70 missiles. Neither operator training nor tactical procedures differ considerably from the earlier version; it is even fair to say that they are now simpler.

### Manual and radar acquisition

It is a state-of-the-art system, even when compared to competing systems. It enables two types of target acquisition and both were tested at the firing range. Targets can be acquired either visually or using radar connected to the system. Once the target

is detected, the operator acquires it and identifies whether its friend or foe using the IFF transponder. If the target is friendly, a warning light appears in the sight and the firing sequence is aborted. In case it is a foe, the operator aims on the target, fires the missile and continuously tracks the target. That way the operator guides the missile on a laser beam onto the target until the hit. In case the homing signal is lost, the missile will autodestruct after specific period of time. The benefits of the laser guidance system used on the RBS-70 as opposed to IR homing include the following:

- Substantially longer maximum horizontal and vertical range;
- A high resistance to all types of jamming;
- The possibility to change targets during flight and possibility to select the point of impact;
- Increased safety for friendly air assets (autodestruct option).

### Military tests

The live fires were a part of the military tests of the NG firing component terminal. The terminal serves for fire control and planning of activities of platoons equipped with the RBS-70 NG air defence system. Besides compliance with tactical and technical requirements, the military tests verified the integration of RBS-70 NG into the existing command and fire control system. The terminal's connectivity to the field command post, the RVR radar and the air surveillance observer kit were tested. All of that was trialled already during the first live fire of the system in our territory in the

previous years. The present tests verified the connectivity and the crew/operators training standards were verified in the presence the manufacturer's representatives. The overall concept for tests was as follows: assume positions, deploy systems and check radiolocation, including optical and surveillance devices. An operator was ready in a remote area with radio controlled drone which towed a sleeve target to be engaged on a fifty-meter cable.

### Target eliminated

The first team moves into the operation area. The three-member crew carries a missile in a canister that is positioned onto the terminal once ordered by the controllers. Then the drone is launched to fly past the system position at roughly 4,000 metres. Target acquisition is demonstrated for the observers with a raised hand holding a red flag. The operator reports "engage", which means he has acquired the target and is going to shoot. In a couple of seconds, the type MK-II missile departs the launching tube and the target is hit in no time, which is checked optically both by the operator and the radar guy. After the drone returns, the sleeve is apparently damaged – mission accomplished, the opponent would have no chance. A similar scenario is played four times during the day with each team firing two missiles. In total, the Boletice MTA saw eight missile fired, of which two at night using add-on night vision components the new type boasts.

New units are not the only novelty in the field of Active Reserve



# The future of the Reserve in the ACR

**The military plans to have up to 10,000 active reservists in 2030. During 2020, we will start recruiting personnel for 13 new Active Reserve units and two more units are planned for the future. In four years, 138 active reservists have moved to the professional army. The future of the Reserve will be presented to us by Ludvík Cimburek, adviser to the Chief of the General Staff of the ACR, Active Reserve Company commander, 601st SFG.**

**What are the current numbers of reservists and outlooks for the years to come? Are the plans of the "Concept of Development of ACR (KVAČR)" fulfilled?**

As of January 1, 2020, we have 3,242 active reservists in the Active Reserve (AR). The original plans from 2015 we surpassed long ago. First of all, I would like to say that women and men from the Active Reserve have the greatest credit for this substantial increase in

the AR numbers. They are the ones who talk about what it is like in AR and pass on their experiences to others around them and on social networks.

**Ten thousand Active Reserve members are a lot, is it real?**

I think it is real. Both the Army and the Active Reserve have a good reputation among the general public. People enter the AR because they believe it is a good thing. There is

patriotism, desire for adventure, interest in military technology. And only in the army you can drive a tank or shoot from a howitzer. In my opinion, the units that are something special will be manned first, and in a few years candidates will be queued to serve in them. Last year, because of great interest, the ACR increased the establishment of some infantry companies at the Regional Military Headquarters. I also assume that the former professional soldiers will be transferred to the AR to a larger degree, especially to specialist positions, where long-term courses are needed.

**So the Army wants to recruit former professional soldiers into the AR?**

Yes, even now we have already 10% of former professional soldiers in the Active Reserve. Moreover, it is necessary to realize that the military is and will be for the vast majority

of soldiers only their first occupation. The occupation, where they learnt something new, gained interesting experience and made friends for life. I'm not saying that everyone, but some will want to keep in touch with "their" unit.

**Reservists are not with all troops; do you expect or plan to change this state? And if so, where will it be in the coming years?**

Currently, there are AR units in almost all ACR troops. Last year we supplemented 44 AR units. Fourteen infantry companies are at the Regional Military Headquarters and 30 AR units in army combat troops.

Naturally, this state of affairs will change, if the army may come to the calculation that it is needed, either backed by new tasks the army has, experiences in the development of the AR, or from the emerging situation. One way or the other, in 2020 we plan to start recruiting personnel for 13 AR units, such as:

- Air and technical flights of the AR with the 21st Tactical Air Force Base (21 zTL), 22nd Helicopter Air Force Base (22 zVrL), 24th Transport Air Force Base (24 zDL);
- Air service and traffic control unit of the AR within Pardubice Airport Administration;
- Three units of the AR under Military Police;
- AR units of newly established commands: Operations Command, Territorial Command and a Cyber and Information Operations Command. Besides, later we will start recruiting applicants for the AR support unit at the Military Hospital and for the Active Reserve Support Battalion of Deployable Force.



The newly established Territorial Command at Tábor will play an important role in the area of further development of AR. Among others, its task will be to manage and coordinate the training of 14 infantry companies of the Active Reserve at the Regional Military Headquarters.

**As far as I know, there are many women in the AR. How do the numbers in this case differ from the professional soldiers and in what positions do they serve?**

As of January 1, 2020, in the AR there serve a total of 296 women, the percentage a bit smaller than that of the professional army. Women serve in similar positions as men.

They are in the positions of riflemen, trucks drivers, signallers. We have a woman as a mortar platoon commander and recently the first woman has successfully passed the selection procedure to join the Active Reserve of the 43rd Airborne Battalion (43 vpr). The highest percentage of women in the AR unit is in the Biological Defence Department of the Military Medical Agency, at a "secret" military hospital, Těchonín.

**Is the time for Active Reserve training sufficient?**

This is a bit of an academic question, so I could say that there is never enough time for training - neither for reservists, nor for professional soldiers. The extent of AR training



is set by law for a maximum of 42 days a year. It is not easy for individuals and units to master issued equipment, to be able to perform assigned tasks of platoon and company. We must not forget that the AR is not a standby unit, waiting 24 hours a day for an alarm. The actual deployment of the AR (according to the law valid from July 2016) would be preceded by further training, lasting up to 12 weeks. Operational deployment, based on the decision of the Government of the CR, may last up to 7 months a year.

**What is actually missing in the AR and what steps will you take to correct it? Are you considering reducing the requirements for AR candidates in the same way as a branch of a military school at Sokolov town does?**

All AR units are gradually filled. Some even faster, because they are naturally more attractive, such as paratroopers of the 43rd Airborne Battalion, tank company, artillery battery or the AR unit at Těchonín. Already last year, the numbers of some infantry companies increased, because there was a huge interest in joining the units. People who join the Reserve want to do something; they want to train, so they fill the positions of "fighters" and specialists very quickly. As far as I know, truck drivers and cooks are needed almost everywhere, even with a paratrooper unit. We are not considering decreasing the requirements for the AR applicants.

**The possibility of reservists deployed in missions was discussed lately, well known in media is the case of MUDr. Kolouch, director of Emergency Rescue Service Prague. Was this an isolated case, or is there really intent to deploy reservists in missions for years to come? What positions? It is hard to imagine reservists training several weeks a year in combat positions, for example in the Republic of Mali, West Africa.**

Here it is crucial to say that the most important thing for the military is that the law allows operational deployment of AR members abroad, but only with the explicit consent of a reservist in question. The prospective deployment of reservists abroad will always be based on the needs of the ACR. Personally, I think that most probable is the potential deployment abroad is for personnel from the ranks of specialists, or former professional soldiers serving in the AR. But I will not decide on this case. And let me disagree that the members of the AR could not master the tasks in the Republic of Mali. Remember that many of them served in the AR for years. So, if the army will have to send to mission abroad a section or platoon, surely there are members of the AR who will meet set requirements. I just want to remind you that



dispatching reservists to foreign operations is not new for the ACR. In the former Yugoslavia, for example, there used to be hundreds of reservists over the years and some of them still serve in the AR.

**What is the real state of uniforms, equipment, weaponry, at the Reserve?**

Each new professional soldier and active reservist receives equipment and supplies according to the applicable standards and also whether the army has this materiel. There is no difference in furnishing new AR members and new career soldiers (VZP), at the beginning of a basic preparation course (KZP). Typically, AR units are gradually upgraded to the standard. The situation that not all materiel are in the depots, it is another problem. Believe me, the theme of equipment and armament of all soldiers is one of the most important themes for the Chief of the General Staff (CGS) of the ACR. And the fact that soldiers and reservists buy for themselves better equipment and accessories is customary everywhere in the world. I myself have decent collections of both combat boots "kanady" and also other equipment.

**Where do you see not exploited resources in the case of AR?**

The Active Reserve in its development has currently encountered the same limits that the all forces deal with. By this, I mean, for example, the situation when a unit has old equipment which is very difficult to maintain in working order, and this of course also affects training the AR. Similarly, if a purchase is planned and equipment that wins subsequently fails military tests, or the winner of the selection procedure withdraws from the agreement, this materiel is obviously missing to both professional soldiers and active reservists.

**Army General Aleš Opata, CGS ACR, several times mentioned the motto "One Republic, One Army." What does it mean in the context of the Reserve?**

This motto briefly expresses that the ACR Command does not make any difference in access to professional soldiers and active reservists. The service in the AR is as close as possible to the service in the regular full-time professional force. We want to be one

"family", we want reservists and professional soldiers to feel that they are on the same boat, we want the differences not to deepen, but to disappear. We're just one army. We care about a team spirit, feeling of unity among all soldiers, without exception. In case of need, the AR will always work together with professional soldiers, so it is important so that they could know each other as best as possible.

Since last year, all reservists have been required to pass annual fitness tests according to the same standards as professional soldiers.

### **What exercises could the AR participate in, side by side, with soldiers?**

For two years now, active reservists can take part in selected sports competitions of the Ministry of Defence, for example climbing a climbing wall, mountain bike races, Summer Survival team competitions, or chess championship in 2019, which, by the way, was even won by a member of the AR Liberec. It also means the inclusion of the AR during training into units with professional soldiers and participation in international exercises, for example, AR tank platoon participated in the exercise Czech Lion 2019, AR section of 72nd Mech Bn was in Poland, and AR 601 SFG took part in Dark Shadow exercise.



### **Speaking of exercises, AR's major exercises took place in 2016 and 2018, does the military plan a similar exercise in 2020?**

It is true that field exercises of Active Reserve forces HRADBA 2016 and HRADBA 2018 significantly shifted up the training of AR infantry companies. Especially HRADBA 2018 with its theme, scope, real objects to guard

and cooperate with the Police of the Czech Republic was unique. The next major exercise of the Reserve will not be until 2021 and it is the newly established Territorial Command at Tábor that will play an important role in its preparation.

*Prepared by Michal Voska, photo: author's archive*



We introduce members of the Active Reserve and their profession

# Reservists under a magnifying glass

Petr Kadera, born in 1986 in Brno, where he lives even now

Petr Kadera with comrades-in-arms during training.



He was born in the Hospital of the Merciful Brothers. At that time he could not have known that it would not be the last fateful moment in this area. He played there his graduation concert, in the Hall of the Convent of Merciful Brothers, and during his short study at the Medical School, he also had job-related practice in this hospital. He grew up in the Brno district of Královo Pole, where he has been living up to now.

### Civilian career

After elementary school, he went to Brno Conservatory, where in 2008 completed a six-year study in the field of oboe. He needed to change the environment, so he went to Music School in Bratislava, where in 2011, after graduating with bachelor's degree and successful audition; he joined an opera orchestra of the Slovak National Theatre, where he has been employed as an oboe and English horn player for eight seasons. Since 2006 he has been performing with the Military Art Ensemble Ondráš. Last Christmas he played with them, in its Orchestra of Folk Instruments, as a guest. In his free time he enjoys sport shooting, crossfit, hardy swimming, and travelling.

### Relationship with the army

His positive relationship with the army has been gradually formed since childhood - as a young boy he was fascinated by military technology. He and his school friends loved multi-day hikes called "backpacking", where they used military camouflage clothing and other equipment purchased in military surplus stores. He became interested in how these individual components were to function as a whole. This led him to join a military history club, which cooperates, among others, with the Military History Institute.

### When he learned about the AR

It was in the military history club where he met friends who were among the first members of the AR, who did not attend the classic basic military service. Even though he knew about the AR at the time of its creation, unfortunately at that time he did not have not spare time to enter some two-month training, nor could

he imagine that he might combine study and participation in military exercises.

### Motivation for joining

At that time, as one of the very few, he looked forward to enlisting basic military service. He was disappointed when he learned that his age-group would not be recruited as a whole, first in history. An important impulse for joining the army was the introduction of the possibility to embark on a voluntary military exercise, with the possibility of dividing it into two weeks three times a year. However, for various reasons, from applying for admission to the army and entering the barracks at Vyškov, quite a long time passed, in which he decided to join the Reserve.

### Echoes around

He had been interested in the military and military sports activities for a long time, so his decision did not surprise the people around him. In his neighbourhood, there are relatively many soldiers (both reservists and "pros") and police officers, with whom he exchanges experiences nowadays. At work he encountered several interesting situations. The very fact that he is employed in Slovakia brings enough extra paperwork (before each exercise he has to apply to the Social Security Administration for health and social insurance contributions). It was interesting to find out that a personnel manageress from the Slovak National Theatre has a sister serving in the Czech Army, which helped her to understand the whole thing better and probably make it easier. When the director signed his request for unpaid leave, he shook his head saying "I assumed you were going somewhere to earn money, but you are going to exercise... What is your rank - Captain?"

### Position in the AR

Due to various things, between the first visit to the recruitment centre and the start of the course at Vyškov had passed almost two years, the situation developed, and he began to think more intensively about entering the AR. But he still did not know for what unit he should decide and where he would really enjoy it. The unit, where he is assigned today, was discovered by

his old friend and now even a mate in the unit, Pavel Š. When he told him where he decided to join, it in fact corresponded to his previous activities in the humanitarian unit of the Czech Red Cross in the Brno-City District. He told himself that it would be exactly both what he was looking for and what he was interested in. The motto of the 15th Engineer Regiment, under which his unit is subordinated, runs: "We serve to help." This saying fully explains the attitude with which he and his mates in the unit deal with the activities in AR. In June 2019 he was assigned to the AR rescue company, 153rd Engineer Battalion, in the position of senior paramedic, in the rank of corporal. Towards the end of 2019, the unit was reorganized and he was reassigned to the position of senior decontamination squad member, which opens him up new horizons, but he would rather return to the original position of rescuer.

### Frequency of exercises

At the moment, there is a 5-month gap between the last year's exercise and the first this year's exercise, which seems to him to be quite a long time. It is clear that the end of the year brings with it enough work and worries, as well as (pleasant) family responsibilities associated with Christmas holidays. He understands why longer periods between exercises are necessary. The training lasting one working week suits him well, such absence from work is tolerable. But it would be beneficial for some drills (such as shooting, medical or topographic training), if reservists could be more self-sufficient and were allowed to organize them on their own, for example on weekends. This would create more space for the preparation of individual military occupational specialties.

### Echoes of professional soldiers

With some professional soldiers, it is possible to meet astonishment, in terms of, "Wow, what you enjoy about it? Further, you do it voluntarily." More often, however, during training, their professional counterparts, "pros", try to learn them something new and share their own experience. Moreover, the trend is that there are more and more former professional soldiers among AR members.

### The position of a professional soldier

He personally knows several people who understand active reserve as a preparation for the position of a professional soldier. In addition, at least three fellows who have completed a basic training course with him have already expanded the numbers of professional soldiers. Petr had tried this several times before entering the AR. At present, however, it is not possible to get the positions he would be interested in, so for the time being, he is satisfied "at least" with the position of a member of the AR. In his opinion, however, it is good that there is some accessibility between the AR and the career of a professional soldier.

*Based on the story of Petr Kadera, prepared by Michal Voska.*

*Photos: archive's Petr Kadera*



When playing the oboe.

One hundred years have passed since the birth of a native of Czechoslovakia, Sergeant Michal Strenk, whose portrait is part of a bronze sculptural group at a national memorial located at Arlington County, Virginia, USA



## Fame came late

When a photographer Joe Rosenthal died at the age of 94 in August 2006, his legendary photograph of American Marines raising the flag over Iwo Jima for which he received the Pulitzer Prize was the main topic. The picture, taken in February 1945 during an attack by U.S. troops on an island representing the gateway to Japan itself, was not only the most published photograph of all time, but above all a hundred-ton bronze sculpture placed at a national memorial, located near Arlington National Cemetery, close to the capital Washington.

### A legend with our roots

Somewhat behind all these glorious events, a fact remained hidden that the six-man patrol of the United States Marines was commanded by Sergeant Michal Strenk, who was born on 10 November 1919 in the village of Jarabina, then Czechoslovakia. However, he did not stay in the small village near the Slovak Pieniny for a long time. His father Vasil Strenk struggled to find a job in the post-war chaos, so he left for America in the autumn of 1920. Two years later, his wife Marta followed him through Gdansk with little Michal in her hands. In 1937, Michal graduates from secondary technical school, finding a relatively good job on the construction of the Pennsylvania Motorway. He grew into a handsome young athletic man with a very good physical condition. It was not by chance that he led a baseball team at school.

After the outbreak of war in Europe, Michal Strenk volunteers to join the U.S. Army on 6 October 1939. He undergoes a basic

training in North Carolina, Parris Island, at the New River Base. He is assigned to the Marine Corps. First, he serves directly at the New River, later he is transferred to the U.S. Guantanamo base in Cuba. Already on 23 April 1941, he is promoted to the rank of Corporal and on 26 January 1942 to the rank of Sergeant. After the outbreak of war with Japan, he is transferred to the Wallis Islands to the naval base Uvea. He engages in battles with the Japanese. In March 1943, he receives the Purple Heart for the battle at the Russell Islands.

With the E Company of the 2nd Battalion of the 28th Regiment of the 5th U.S. Marine Corps he lands at Iwo Jima in February 1945. The island, less than eight kilometres long and four kilometres wide, had enormous strategic value at that time. Its defence was entrusted to Japanese General Tadamichi Kuribayashi. He had twenty-three thousand troops at his disposal, claiming that each of them rather dies than voluntarily surrenders. In the lava ground of the island, the Japanese

set up a network of underground tunnels and various holes in which they perfectly fortified. Their knowledge of these places and perfect orientation was also an advantage.

U.S. troops, commanded by Major General Harry Smith, were greeted by firing not only from infantry weapons, but above all from guns and mortars. There was no place to hide on the beach. On the first day of landing, at the price of major losses, the Marine Corps managed to break through to one of the airports and cut off Mount Suribachi. For the next three days, the U.S. troops advanced literally step by step.

### The fateful day

On Friday, 23 February 1945, the Marines squad under the command of Sergeant Strenk was tasked with extending the telephone line to the top of the 166-metre-high volcano Suribachi. At that time, Joe Rosenthal, an experienced Associates Press agency photographer, came into contact with them, sensing a historic moment was coming.

An American flag, sized 137 by 71 centimetres, had already been raised on the volcano before that. However, it was too small to be seen from all sides of the island where the Americans landed. Therefore, it was decided to replace it with a bigger one. A new flag of impressive proportions two and a half by one and a half metres was provided by the Pearl Harbor supply warehouse. Marines used a six-and-a-half-metre-long metal pipe from the Japanese water pipeline as a flagpole.

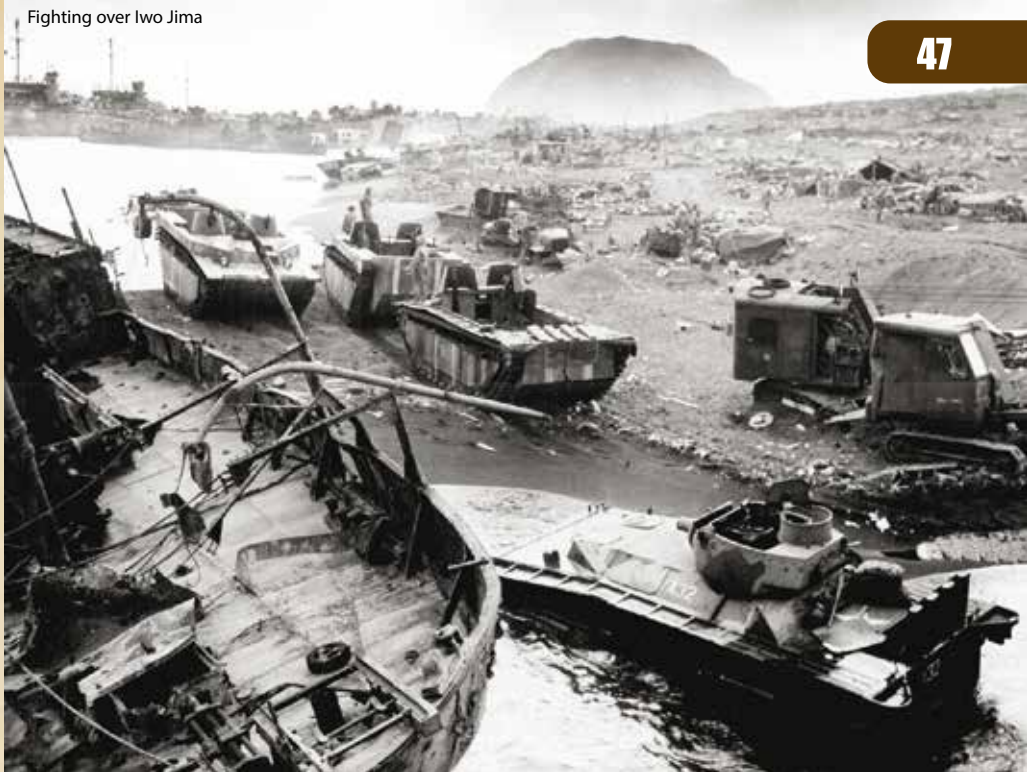
The top of Suribachi has already been conquered, but that meant nothing. Japanese soldiers swarmed everywhere around it. Rosenthal edged his way with the U.S. Marine Corps squad around the holes in the volcanic sediment from which the enemy fired furiously. The Americans reached the top around noon. They took off the smaller flag and started raising the new one. Rosenthal ignored the danger and took a historical picture.

Raising the flag at the top of Suribachi in the southern tip of the island, however, was far from breaking the resistance of Japanese soldiers. They kept fighting furiously. In mid-March, General Kuriyabashi reported to Tokyo that they had not eaten or drunk for five days, but the mood was still good. General Schmith promised Washington to occupy the entire island by 16 March. However, in view of the situation, he was forced to reconsider his plans. Even on 25 March, the Japanese launched a desperate counterattack on one of the occupied airports. It was not until the end of March that the entire island was finally conquered and cleaned.

### Michal Strenk's Battalion

At this point, no one from Strenk's patrol had any idea how fateful the event they went through was for their next lives. However, some Marines, including the commander of Czechoslovakian origin, had only tens of hours left in that moment. And that is too little for their moment of fame to arrive on time. On 1 March, Michal Strenk died the first. He was drawing a plan for the next advancement when a grenade allegedly fired by friendly artillery hit him. Harlon Block took command of the patrol. However, he also was hit by a grenade. Just an hour later. At this time, a bloody battle raged on Iwo Jima. Franklin Sousley, who died third, was killed on 21 March 1945 by a Japanese sniper right on top of Suribachi. None of these soldiers learned that they had become legends. Meanwhile, Rosenthal's war photo appeared in the American press.

Michal Strenk was buried at the place where he was killed. In January 1946, his remains were exhumed and transported to the USA. With the full honours, they were committed at Arlington National Cemetery. A monument commemorating the famous flag-raising event was built at the Michal Strenk's original resting place. The remaining three Marines, John Bradley, Rene Gagnon, and American Indian-born Ira Hayes survived and were later



The sculpture at Arlington National Cemetery



received by the U.S. President Harry Truman himself.

When a commemorative plaque in memory of Michal Strenk is unveiled in Franklin Borough in 1986, only John Bradley is still alive. The plate reads: "Sergeant Michael Strank (the American transcription of his name) was the oldest and highest ranking of the six men who took part in the famous raising of the U.S. flag on Iwo Jima."

For several decades, Rosenthal's famous photograph moved virtually all areas of American society. Both books and a number of movies are based on the story of raising the flag. The *Flags of Our Fathers* and *Letters from Iwo Jima* movies are ones to remind. Among other things, the photograph was printed on three and a half million posters at the end of the war. In 1945, the U.S. Postal Service

issued its reproduction on a postage stamp in honour of the victory of U.S. soldiers in World War II. It was the most famous postage stamp in all American history. In total, 137 million pieces were sold. Moreover, in 1995, this motif appeared again on a stamp, this time on the occasion of the 50th anniversary of the event. After decades of forced oblivion, Michal Strenk was remembered in his homeland as well. In March 2002, the 2nd Reconnaissance Battalion in Bardějov, Slovakia, was awarded the honorary title of the "2nd Reconnaissance Battalion of Michal Strenk".

*By Vladimír Marek, photo: author's archive*

Seventy-five years ago, two Czechoslovak officers were airdropped with the Kataract team on the Danube with the mission to disrupt lines of communication



# Struggle for the Iron Gates

The Iron Gates on the Danube is known to the present generation as a dam on what is a major European river. That place however had a strategic importance long before the construction of this man-made dam was completed at the beginning of the 1970s.

Before it reaches the Iron Gates, the Danube makes its way through a 130 kilometre long rocky canyon-like valley (gorge) with the Carpathians on one side and the Balkan Mountains on the other. In order for the shipping to be able to sail through the valley at all, rocky steps in the river bed were cleared and the bed was deepened at the end of the 19th century. Still it represented one of the most feared sections of navigation. Ships had to be navigated by local pilots who knew every rock. Counterflow, ships were hauled by steam engines, which had replaced horses or manpower.

Of course, the strategic importance of the location grew exponentially once World War II broke out. Germans transported there the fuels that were in short supply and other necessary materials for their war industry. The Allies naturally realised that and so many years' struggle for the control of the Iron Gates started, to progressively involve not only pilots and paratroopers but also local resistance fighters. Representatives of Czechoslovakia

also left their mark there, particularly Jaroslav Oldřich Vrána and Adolf Navrátil.

## Engineer on the Danube

Already before the war, both of the gentlemen were closely related with sailing on the Danube and the Iron Gates region. Mr. Jaroslav Vrána was born in the town of Jablůnka nad Bečvou on 24 January 1914, but he grew up in Hodonín, where he completed four-year study of grammar school. After one-year intermezzo at engineer school at Napajedla, he changed to the Engineer College in Moravská Ostrava. He worked for some time as a technician in the Škoda works shortly before his conscription service. Then he served with the Infantry Regiment 27 in Uherské Hradiště and, after he completed the reserve officers' school, he enlisted with the Cyclist Battalion 2 in Brno, ranked corporal. He retired from the military in October 1937 ranked sergeant. Three months later he was nevertheless promoted to the rank of infantry lieutenant.

By that time, however, he was already employed as an engineer a steam navigation company on the Danube. He sailed on the Svatopluk tug as the second engineer in the area of Iron Gates between Turnu Severin and Orsova. In connection with the mobilisation of the Czechoslovak Army in May 1938, he was called up for an extraordinary military exercise lasting one month.

## Organised sabotage on the Danube

After the occupation of Czechoslovakia and the establishment of the Protectorate, he stayed on the Danube as an employee of the Slovak Dunajplavba. From the very outset, he sought to become involved in sabotage actions in the area. At the beginning of January 1940, he contacted Colonel Heliodor Píka in Bucharest and enlisted with the Czechoslovak foreign army. At the same time, he was appointed the organiser of sabotage actions on the Middle Danube. In the following months, he created a network of co-operators based on the Danube from Bucharest through Vienna.

He used to pick up arms, explosives as well as magnetic mines at the British Embassy in Bucharest and distributed them up and down the river for his co-operators. With the help of captain František Leiss and helmsman Anton Habart, he managed to accomplish a range of successful sabotage actions in ports on the Danube.

The Gestapo however succeeded in penetrating the resistance organisation in summer 1940. Second Lieutenant Vrána was faced with the threat of being arrested and so he fled speedily on the Štúr steam boat to Yugoslavia, where he was also involved in intelligence activities for some time. At the beginning of March 1941, he eventually had to travel on fake passport through Greece and Istanbul into Palestine, where he was assigned to the Czechoslovak Battalion 11 – Eastern.

He became a member of the training company. Together with ship captain František Leiss, a thirty-five-years-old native of Louny, and Adolf Navrátil, they developed a plan at that time for mining the Danube using airplanes, which they presented to the British Middle East Command. At the end of 1941, already ranked Lieutenant, Vrána was requested by the British Military Intelligence as knowledgeable in the Danube basin. In March 1942, he completed a basic sabotage and paratrooper training in Palestine. At the Great Bitter Lake in Egypt, he underwent parachute training. The British intelligence then however changed their intentions and Jaroslav Vrána was reassigned back to the Czechoslovak battalion in September 1942. He became a weapons and automobile officer of our training centre there.

His assignment into that position did not last long either. In October 1942, he was ordered to the Czechoslovak Air Force in the Great Britain as an education officer. At RAF Grantham, he completed both an officers training and a navigator-aerial water minelaying specialist course later on. In March 1944, he completed an assault warfare course in Northern Scotland.

### Assigned to Force 399

Adolf Navrátil was nearly a generation older. He was born in Radkovy near Holešov, Czechoslovakia, on 16 June 1901. He already managed to serve as a volunteer in the Austro-Hungarian Navy in 1918 during World War I. He was released from service at the end of October 1918 as Seaman 4th Class. Upon his return to homeland, he became a member of the Czechoslovak Infantry Regiment 3 for a short time. The nascent Czechoslovak Republic nevertheless shortly decided to make use of his sailing experience. In June 1919, he was assigned to the Czechoslovak Navy on the Danube, ranked Seaman. He was promoted to the rank of Seaman 1st Class in December 1921. In March 1922, he was released from the military but continued to navigate on the Danube in the merchant navy working as a bargee.

After the occupation of Czechoslovakia, he also left the country and joined the services of the British Royal Navy in the middle of May 1941. He served at Royal Navy Milford Haven in Wales. He was commissioned Sub Lieutenant at the beginning of November 1943.

At the end of April 1944, he and Jaroslav Vrána received an order reassigning them to the Air Ministry. Both of them underwent additional sabotage and combat training in Scotland and then in the Royal Navy. They got into southern Italy via Cairo in June 1944. In the city of Taranto, they completed air training and were assigned to Force 399, a British Military Intelligence Special Operations Executive unit with the mission to operate in Hungary, Yugoslavia and Albania from airfields in Foggia and Bari.

By that time, Operation Gardening primarily involving the No. 205 (Heavy Bomber) Group RAF had already been in full swing. As part of Operation Gardening, aircraft dropped over thirteen hundred mines into the Danube in forty sorties. In Hitler's back door, the war for blocking what was a vital line of communication for Germany broke out in full.

### Airdropped with the Katarakt

The endeavour included an airdrop carrying the Katarakt (Dolphin) team. Besides Navrátil and Vrána, the team also comprised Brits, specifically Captain A. Franks and Sergeant J. Robers. Their mission was to assess on spot the effectiveness of aerial minelaying on the Danube with magnetic and acoustic mines, perform sabotage in the Iron Gates area and monitor German mercantile shipping in the location. In sabotage actions, they were to be assisted by Yugoslav partisans. Similarly as Navrátil, Vrána performed in the team the role of scout, expert in the local relations and interpreter, because besides English he also spoke Romanian, Serbian and German to some degree.

The team was airdropped at night from 13th to 14th September 1944 at Negotin, Yugoslavia. The area was under control of Yugoslav partisans and so they jumped in uniforms. They hooked up with the British mission immediately upon landing. The team commander Captain Franks began to build a base between the towns of Dobra, Milanovac and Turnu Severin. The problem was however that most of the bargees from the Danube with various nationalities, of whom there were 72, were held in isolation by Yugoslav partisans of the 25th Division. Vrána with Navrátil therefore had to move into the vicinity of the Klokočevac community where they were supposed to meet with people whom they had cooperated with in the resistance fight from the beginning of the war. From those individuals, they sought to obtain critical information about the mining of the Danube, locations and quantity of sunk ships. Thanks to their military expertise and knowledge of the location, they were able to analyse the information and draw relevant conclusions.

After two weeks of successful operation, the group was however divulged. Heavily outnumbered, the resistance unit was attacked by a German force in the Brza Palanka area and dispersed. Both Vrána and Navrátil nevertheless managed to cross the Danube, get to the Romanian side and then break through to the advancing Red Army. Once they moved to Sofia, they presented themselves at the Allied mission, which arranged for their airlift to Bari, Italy. Then they returned into Great Britain, where they personally received by President Edvard Beneš. At the end of October, Vrána was promoted First Lieutenant for successful mission accomplishment. His assignment to SOE was officially terminated in February 1945. First Lieutenant Vrána was assigned into the war planning department in the Czechoslovak Ministry of National Defence in exile, where he worked until the end of war.



Romania with its oil fields was frequently targeted by Allied bombing missions.

By Vladimír Marek



**THE BRITISH COMMONWEALTH AND ITS ALLIES  
WILL DESTROY THE NAZI TYRANNY**

**75 years  
since**

**the end of  
the Second  
World War**

