# Review for Defence and Security Industry

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# EDITORIAL

*Dear readers,*

*Introductory pages bring this time an interview with the Head of the Air Service of the Police of the Czech Republic, concerning not only the activities during the pandemic.*

*There are also some news from the defence and security industry, including the introduction of the new members of the Defence and Security Industry Association.*

*This issue is published, as every year, on the occasion of the General Meeting of the Defence and Security Industry Association, which will take place on the remote basis this year as well. And, of course, I can't miss the upcoming much-anticipated Brno fairs IDET, PYROS and ISET, which will take place from October 6 to 8, and we look forward to meeting you again at our joint stand of MS Line and DSIA CR.*

***Šárka Cook , Editor in Chief***




## CONTENTS



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# EDITORIAL BOARD OF CDIS REVIEW 2021

# The Air Service of the Police of the Czech Republic is one of the Elite Units Ensuring the Safety and Health of Czech Citizens

During more than twenty years of existence of the magazines CDIS Review and Review for Defence and Security Industry, we visited the air base in Prague-Ruzyně several times and also the long-time member of the editorial board, Colonel Dipl. Eng. Tomáš Hytych, the Director of the Czech Police Air Service (LS PČR) gave us an interesting interview several times. Also, this time he did not refuse to answer several questions concerning current activities of this police unit.

**Mr. Director, how would you characterize the current core tasks of LS PČR?**

The tasks of the Air Service of the Police of the Czech Republic have not fundamentally changed over the years. From Prague and Brno bases we ensure 24/7 operation of the police helicopters in various versions for the needs of the Police of the Czech Republic, Ministry of Interior, Fire Rescue Service and contractual organizations, as well as continuous readiness of the helicopter in the ambulance version at the Prague base for the needs of the First-aid service Prague and the First--aid service of Central Bohemian Region.
Since 2018, the Czech Police Air Service has been operating unmanned aerial vehicles. The use of UAVs is used especially in searching for missing persons in hard-to-reach terrain, aerial photography and video recording, monitoring of security measures, documentation of fires, industrial accidents and natural disasters, pyrotechnic surveillance, state border surveillance and above all in situations where the safety of the intervening police officers or the crew of piloted helicopter is endangered.

**It is clear from the tasks of LS PČR that it provides support to crisis management bodies in crisis situations. What is the current situation, i.e. in the period of covid pandemic?**

The Ministry of Health has taken a number of steps since the beginning of the Covid 19 pandemic.
At the moment of significant differences in the load of medical facilities in particular regions, especially in the intensive care segment, a sudden need arose in mid-January 2021 to ensure interregional transports of intensive care patients with Covid 19, usually on long transportation distances. Due to serious state of health of transported patients and considerable risk of deterioration due to transport trauma, it was desirable to ensure the possibility of air transportation. For these reasons, the National Intensive Care Coordinator decided, in agreement and cooperation with the Health Care Department, and the representatives of two state operators of helicopters, to exceptionally activate 2 medium--weight helicopters operated by state operators to provide these interregional transports.
The W3A Sokol helicopter operated by the Army of the Czech Republic and the Bell 412 helicopter operated by the Czech Air Service, which provided the aviation part. The medical crew for this helicopter was provided by the Emergency Medical Service of the Capital City of Prague.
The air service with this helicopter performed the total of 49 flights and transported 48 patients - the net flight time during transports was 6,666 minutes.
These transport helicopters provided transportation for all regions of the Czech Republic and at the direct request of the Ministry of Health of the Czech Republic. At the same time, the implementation of these transports significantly helped to manage the consequences of a pandemic in extremely burdened regions, by the central coordination of interregional cooperation in the area of encumbered intensive care by distributing patients to regions with less burden.

As a part of the state of emergency in the spring of 2020, an operational test took place in the South Moravian Region, when the Primoco One 150 unmanned aerial vehicle was deployed for the flight. A series of flights were performed near the state borders with Austria and Slovakia. These were flights between the cities of Znojmo and Hodonín.
The deployment of UAV was consulted with the Civil Aviation Authority, which, within the framework of the State of Emergency declared by the Government of the Czech Republic, cooperated with creation of the risk analysis for this flight. The final accomplishment of these flights

was carried out after the mutual approval of comments and safety recommendations. At the same time, no-fly areas were declared, ensuring the separation of unmanned and piloted operations to ensure flight safety. The Army of the Czech Republic, the LS PČR and the Air Rescue Service had access to these no-fly areas in agreement with the air traffic control service, which ensured the spacing between aircrafts.

There were several flights at a maximum distance of 60 kms from the place of departure. The flight route has always copied the state border. During all flights, a two-member crew consisting of " the Pilot and the Operator" cooperated. The pilot was only engaged in the control of the aircraft, the operator operated camera devices and evaluated displayed information. The greater distance of the aircraft has not been tested, as at the current flight altitude, direct radio visibility could be interrupted and thus the connection between the aircraft and the ground control station could be lost.
From the operational point of view, it was a successful test, which proved the applicability of this new equipment for the purposes of the LS PČR. The condition for proper deployment is subject to adjustment of the EU legislation, which is expected by 2025.

**Can you give some other specific examples of cooperation with the units of the Integrated Rescue System?**

We cooperate with the IRS units, namely the units of the Fire Rescue Service, within the joint performance of the service of our members and members of the FRS at the air bases of the Air Service in Prague and Brno. These activities include the provision of air support in the aerial extinguishing of large fires, rescuing people from inaccessible terrain and likewise. These activities are carried out in particular in the event of natural disasters or, when the rapid and effective intervention of this nature is needed.

**Is there any cooperation at the international level, what kind of, and with whom?**

Air support abroad is carried out in line with standard procedures of the whole EU concerning the provision of humanitarian aid. The Air Service has been asked several times to prepare for such flights and to provide air support abroad. We have implemented some humanitarian flights. These have always been associated with IRS activities, such as extinguishing large areas, rescuing people or delivering material to affected areas.

**The air support of the Police of the Czech Republic is provided by a 24-hour standby duty of helicopters and flight crews. It is also known that the air support of the Police service is provided from the main air base in Prague - Ruzyně and from the air base in Brno - Tuřany. What are their main tasks, what are the differences between those two and what kind of technical equipment and facilities do they have available?**

Equipment, technical means and emergency helicopters are the same at both bases due to the identical scope of providing air support to the Police units and the units of the IRS units from these bases.
The Prague Air Base is equipped with personnel and technical means to provide heavy maintenance for all helicopters of the LS PČR.
UAVs are operated from 4 locations - Prague, Brno, Ostrava and České Budějovice.

**The backbone of the air service are helicopters EC-135 T2 from Eurocopter and Bell 412 HP/EP from Bell Helicopter Textron. For example, our editorial team was at the christening of the first Eurocopter at Strahov in 2003. How many helicopters do you currently have available and what kind of modernization have they undergone?**

We currently have nine EC-135 helicopters and six Bell 412 helicopters available. In recent years, all helicopters have undergone modernization of radionavigation equipment. We have modernized tactical elements for selected helicopters with police equipment.

**A few years ago, we organized an extraordinary meeting of the editorial board of our Review at the LS PČR in Ruzyně, which, among other things, fascinated us. We were especially captivated by the master piloting of your pilots, but also the special cutting-edge equipment of the new helicopters.**

We do not publish special tactical equipment for helicopters in police role versions.

**State-of-the-art special equipment and devices require the above-standard pilot capabilities and state-of-the-art technical support combined with special service. How do you deal with this challenging task?**

Helicopter crews and technical personnel are trained by helicopter manufacturers or by authorized organizations supplying the special equipment for the helicopters. The contract for delivery of a new helicopter or its modernization usually includes the training of pilots and technical personnel.
We carry out on our own the training of pilots - operators of UAVs.

**The present is the present, but nowadays it is fast becoming the past. What can you say about plans and goals of LS PČR?**

The Air Service of the Police of the Czech Republic submitted to the management of the Police of the Czech Republic the new development concept of until 2030, in which, of course, the modernization of existing helicopters is proposed, as well as building of a new air base in Prague. We follow the new trends in technology, equipment and special means of the security air forces in the world. Modernization of current helicopters due to their wear and tear or technical possibilities will be necessary. At the moment we are not able to meet all the requirements and the new tasks that can be performed by modern helicopters.
The new concept also considers the expansion of UAV sites and the possible introduction of heavy - large UAVs (VTOL = Vertical Take-off and Landing and STOL = Short Take-off and Landing).

*Mr. Director, thank you for your answers.*
*Miloš Soukup*

## Equipment operated at present time:

### EC-135 T2+ Helicopter

Light twin-engine helicopter, manufactured by Airbus. The helicopter is manufactured in Europe - Germany. This is a very widespread type, used by the private sector, air rescue services and police squadrons around the world. The EC-135 T2 + variant is not manufactured any more, and has been replaced by the H135 variant.

| Technical Specifications: | |
|---|---|
| Maximum take-off weight | 2910 kgs |
| Rotor diameter | 10.2 m |
| Total length | 12.16 m |
| Number of passengers | 5 |
| Flying range | 600 kms |
| Cruising speed | 230 kms/h |
| Maximum flight time | 2h 30min |

### Bell 412 Helicopter

A twin-engine helicopter manufactured in the USA by Bell Helicopters. Conceptually, it is based on the UH-1 Huey helicopter family. The shape of the hull is not adapted for transportation of larger loads. It was produced in several versions. LS PČR operates HP, EP and EPi versions. Versions operated by LS PČR are not manufactured any more, and have been replaced by the EPx version.

| Technical Specifications: | |
|---|---|
| Maximum take-off weight | 5 397 kgs |
| Rotor diameter | 14.0 m |
| Total length | 17.1 m |
| Number of passengers | 13 |
| Flying range | 637 kms |
| Cruising speed | 225 kms/h |
| Maximum flight time | 2h 30min |

### DJI Mavic 2 Zoom

DJI Mavic 2 Zoom is a compact drone manufactured by SZ DJI Technology Co., Ltd. produced since 2018. It is characterized mainly by its small dimensions and low weight not exceeding 910 grams. Flight endurance reaches 31 minutes. It withstands wind speed up to 10 m/s. It is protected against impact by ten sensors on all sides.

### DJI Matrice 210 v2

The DJI Matrice 210 v2 model comes from the workshop of SZ DJI Technology Co. It is equipped with an ADS-B receiver, thanks to which the operator has the information about surrounding air traffic. Its maximum take-off weight is 6.45 kgs. It reaches the top speed of 81 kms/h. The dual battery system allows to reach up to 34 minutes of flight endurance.

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# Rubena is Back!

On 1st April this year the company Trelleborg Bohemia, a.s. located in Hradec Králové was split up. A newly created company Rubena Náchod, s.r.o. consists of the plants in Náchod, Velké Poříčí and Zlín. Using this company name, we come back to the time-tested Rubena brand continuing more than one-hundred-year tradition of rubber manufacture in Náchod region.

Rubena Náchod is a manufacturer of traditional rubber products made under Rubena, Mitas, Trelleborg or Dunlop brands in the past. We supply both the civil sector and defence forces and law-enforcement agencies of NATO states in particular with a wide range of our rubber and rubber-textile products. Our range of products includes ice hockey pucks, bicycle tubes and tyres, V-belts, truck air springs, mobile infrastructure and industrial applications, flood-protection walls, inflatable rubber dams for river construction engineering, aircraft fuel tanks, low-pressure marine fenders and water surface safety barrier systems. An interesting product is a vacuum dry storage system designed for long-term storage of military equipment under demanding climatic conditions. However, the largest part of our products used for military purposes are large-volume flexible systems for storing liquids, especially fuels and water.

**Rubber-textile tanks**

The rubber-textile flexible tank for storing or transporting various liquid substances is a globally popular product used in the civil sector (liquids transport logistics, chemical industry), in the civil protection area and military applications.

We have been engaged in the production of these tanks for more than 70 years. During that time rubber compounds have been continuously developed, from NBR through SBR and CR to rubber-plastic combinations, such as PVC/NBR. The development did not stop even in the area of textile cords and fabrics that secure tank statics under specific application conditions allowing us to choose from a wide range of fabrics based on Polyester, Polyamide, Kevlar, and also cotton and other technical fabrics. The technological procedures for their manufacture and production equipment have been developed as well. From free vulcanized tanks at the beginning of our journey, we are coming to the present day featuring very precise and quality production based on user's instructions and done in computer controlled technological units.

In the manufacture of tanks, we use experience gained to build custom-made tanks with their composition – rubber used, textile reinforcement, fastening and fixing flanges – corresponding accurately to the requirements of our users. Our range of products includes rubbers enabling to store both drinking and non-potable water, fuels and other petroleum derivatives, and other chemicals.

An important part of our work is the development of custom-made tanks for a particular environment and a particular liquid. Our tanks are actively used on the EU territory and, for example, also in Australia.

**Contact**

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# EXCALIBUR ARMY

EXCALIBUR ARMY, belonging to CZECHOSLOVAK GROUP's industrial holding, is the leader in the Czech military equipment market. Its history dates to 1995. At present, it focuses on research and development, production, service, repairs and modernization including key upgrades of military wheeled and tracked land platforms, and on the sale of military vehicles and land systems, spare parts and military equipment. The company has production capacities for producing of heavy off-road wheeled chassis, electronics, ammunition, special containers or armored vehicles.

EXCALIBUR ARMY owns several production and storage facilities all over the Czech Republic and is thus an important Czech employer. It cooperates with a number of companies not only from the defence and security industry, and the company is a member of the Defence and Security Industry Association of the Czech Republic. It has customers around the world and cooperates with renowned global manufacturers such as General Dynamics European Land Systems.

At present, the main part of the company's portfolio is producing of armored vehicles, artillery systems and engineering land systems. The company's latest projects include Patriot 4x4 APC modular patrol armored vehicle for armed and security forces as well as civilian components, RM-70 Vampire self-propelled rocket launchers on the Tatra chassis, AM-50 EX and AM-70 EX bridge vehicles on the Tatra chassis as well or modernization and development of self-propelled howitzers of the DANA M2 standard and development of DITA howitzer.

# STV GROUP a.s.

Strong production base, respect for experience, solid customer relations, teamwork, and above all, 100% reliability. These are the values on which we are proudly build our success.

Development of the production base and incorporation of new products into our own production fulfils one of the main pillars of STV GROUP's vision, which makes the group the largest Czech manufacturer of ammunition. The company has newly started production of 155mm artillery ammunition. Next production lines for small-bore ammunition are under construction. They will expand current production capacity of 5.56x45 and 9x19mm calibres, both with STANAG certification. The most recent investment plan in amount of CZK 350 million is building own production line for primers with production capacity of 2 billion pieces per year.

In the field of overhaul and modernisation of land vehicles, STV GROUP brings the capabilities of armoured fighting vehicles, tanks, howitzers and rocket launchers to a new level by integrating modern systems of protection, communication, observation and firing from renowned manufacturers of these systems. To ensure the lifecycle of the vehicles, the company provides service at its production facilities and also directly at customers' sites and has an extensive stock of spare parts.

An important part of the production programme of STV GROUP a.s. is the production of TNT-based demolition charges and plastic explosives based on hexogen and especially pentrite. The company has developed its own product under the name Black Dough, where the use of a new generation of plasticizer has given the product excellent features over the entire temperature range of use.

STV GROUP is continuously expanding its portfolio of soldier's armament and equipment. In the past year the company FENIX Protector s.r.o. was acquired, which provides to the group a capability of development and production for ballistic vests, plate carriers, backpacks, war belts, pouches and other accessories.

STV GROUP is a reliable partner of renowned brands, for which the group provides exclusive representation mainly for the domestic market. These include for instance companies like OSHKOSH, DIEHL Defence and others.

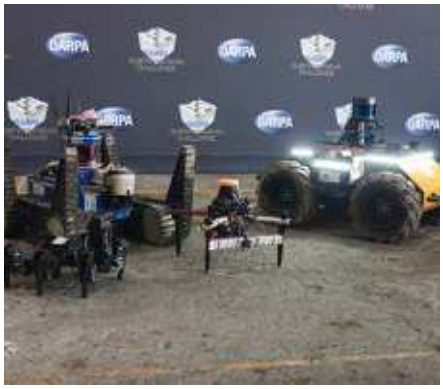
The company currently employs over 700 qualified employees and exports to 40 countries worldwide. Our equipment has proven its reliability in the armament of the Czech Armed Forces, NATO armies and in combat operations in Afghanistan and other missions.

# ČVUT

The Czech Technical University in Prague is one of the largest and oldest technical universities in Europe. According to Methodology 2017+, it is the best technical higher education institution in the group of Czech technical universities that were evaluated. Currently, CTU has eight faculties (Civil Engineering, Mechanical Engineering, Electrical Engineering, Nuclear Science and Physical Engineering, Architecture, Transportation Sciences, Biomedical Engineering, and Information Technology. More than 17,800 students are currently studying at CTU.

Projects for the defence and security industry are dealt with by a number of experts at CTU in Prague. The Experimental Centre at the Faculty of Civil Engineering is a workplace where ballistically resistant concrete has been developed for use in the manufacture of ballistic mobile barriers. These barriers can be used by professional soldiers and for protecting civilians at mass events. Teams of robotics experts at the Faculty of Electrical Engineering are developing state-of-the-art systems for rescue robots and drones. With $1.5 million of funding from DARPA, Spot mobile robots have been introduced to provide increased ability to meet targets in the most challenging conditions. At the Faculty of Biomedical Engineering, the FlexiGuard personal biotelemetric system was recently established to provide health monitoring in real time for rescuers, firefighters, soldiers and others when they are subjected to increased psychological and physical stress. The new composite structure of the supply line is one of the outcomes of joint research carried out by the Faculty of Mechanical Engineering and AERO Vodochody AEROSPACE a.s., manufacturer of the Aero L-39NG turbo-fan powered military trainer and light combat aircraft.

For academic year 2021/22, CTU offers its students 227 accredited study programmes, 94 of them delivered in a foreign language. The university educates experts in technology, scientists and managers with knowledge of foreign languages, who are dynamic, flexible and able to adapt rapidly to market requirements. According to the QS World University Rankings, which evaluated 1604 universities worldwide, CTU is currently ranked in 432nd place in the world, and is rated in 12th place in the Emerging Europe and Central Asia regional rankings.




# GUMOTEX Helps in the Fight against COVID-19

The GUMOTEX Group is a renowned Czech processor and producer of rubber and plastic products, and, for over 20 years, has been focusing on the production and development of special products for the army, police, fire brigade and rescuers. Our solutions make it possible for us to cater to individual customer needs thanks to the wide variability of inflatable tents or decontamination solutions. Inflatable tents are used as command posts, facilities for acting rescuers, tent cities, or temporary garages for equipment. Mobile decontamination posts are an important tool for emergency response teams and military CBRN defence teams when handling accidents caused by the release of CBRN substances and gases. They mainly serve the purpose of cleaning and decontaminating the responders and their equipment – both individuals and larger groups.

Like many other companies, GUMOTEX has undergone and continues to undergo a great test of its own capabilities and options of how to best deal with the impacts of the COVID-19 pandemic, hitting hard throughout the world. In 2020, the Center for Special Rescue Products, a strong partner of the Czech Army as well as all units of the emergency response system in different parts of the world, registered a sharp increase in demand for inflatable decontamination showers for emergency responders, and inflatable tents used as sampling and control stations, alternative accommodation or field hospitals. All this taking place while state authorities were introducing various measures significantly limiting or making it difficult to maintain a continuous production process. Despite all the objective difficulties, GUMOTEX managed to respond to the situation at hand and accommodate the increased demand.

More than ever, we have all come to realize the vulnerability of humankind and, to some extent, its unpreparedness for similar events. Our priority is and will always be the protection of lives; the way GUMOTEX can lend a hand is by manufacturing top-quality equipment for rescuers who stand and fight tirelessly on the front lines.

We believe and we are proud of the fact that we have affirmed this approach during the coronavirus pandemic, thus, helping in many areas. In the future, we will continue to work on ensuring that our inflatable tents and decontamination solutions meet the highest expectations and are useful helpers in the fight to save people's lives.

# LOM PRAHA s.p. Extends the Technical Life of Helicopter Engines

Dismounting, defectoscopy, expert assessment of part technical condition and required scope of maintenance, dynamic component and system renovations and repairs including their assembly, testing, mounting and check of collected parameters in the whole range of operating modes - this is, generally speaking, a overhaul procedure of TV3-117 turboshaft engine powering Mi-17, Mi-171 and Mi-24/35 helicopters that is performed by LOM PRAHA s.p. This complete service also applies to various modifications of these engines, such as MT / VM or V / VMA versions.

The TV3-117 engine repairs are carried out in the aircraft facility of the state enterprise LOM PRAHA according to the original documentation of the Klimov Design Bureau with the appropriate certificates and bulletins, and therefore they are clearly defined. However, more factors affect the process, such as constantly "ageing" technology, lead time for spare parts delivery or identification of so-called hidden defects. Every overhaul of a helicopter is therefore unique.

Testing of overhauled engines is performed on modern test equipment with automatic computer data collection and highly-developed evaluation of collected parameters. In addition, the professional know-how of our experts enhanced by many years of experience in repairs entails targeted and effective repair service. An important factor is also the fact that the majority of aircraft engineers joined LOM PRAHA with broad work experience gained at air bases of the Czech Air Force, and therefore with the required qualifications.

*Text: Pavel Lang*
*Photo: Jitka Šuláková*

# New Vehicles for CBRN Reconnaissance Units of the Czech Army

Paired vehicles, i.e. light armoured vehicles S-LOV-CBRN and LOV-CBRN II manufactured by the state enterprise Military Research Institute in Brno, successfully fulfilled demanding requirements of military field tests. After these tests and according to the schedule given by the contract, vehicles will be introduced gradually in the Army of the Czech Republic up to 2023.

Paired vehicles are designated for CBRN reconnaissance and monitoring in military operations abroad and in the Czech Republic, e.g. in favour of the Integrated Rescue System as it is called. Not only the 31st CBRN Defence Regiment in Liberec, but also another CBRN units within the Land Forces and Air Force will be equipped by these modern and comprehensive means, which are intended to replace the obsolete armoured vehicles BRDM-2rch, reconnaissance vehicles UAZ-469CH and also LR – 130CH.

S-LOV-CBRN is equipped with detection devices for CBRN reconnaissance and monitoring, means for marking out contaminated areas and with robot for CBRN reconnaissance nearby the vehicle. The trailer contains a portable autonomous CBRN module for monitoring of remote locations and other supporting means. LOV-CBRN II is designated to enhance and to support capabilities of the first vehicle. Its equipment allows CBRN reconnaissance on foot, taking and transport of samples contaminated by CBRN agents and substances. Furthermore, the vehicle incorporates decontamination means and a tactical jammer to protect crew members against explosive devices and systems.

Comprehensive protection of the crew of both vehicles against the effects of gunfire including mines, explosive devices, toxic and radioactive substances is ensured through ballistic protection at level 2, counter mine protection at level 2a (according to STANAG 4569), the pressurized cabin with filtration system and clean air emergency supply system in the case of inner cabin contamination. Counter fire protection of vehicles ensures a remote control weapon station (RCWS). An on-board information system provides a detailed overview of the tactical and CBRN situation and supports crew in its tasks.

These modern vehicles for the Czech Army will be exhibited at the trade fair IDET 2021 in Brno.

DSIA

# We Work to Make the World a Safer Place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**Defence and Security Industry Association of the Czech Republic has been a Significant National and International player.**

**www.dsia.cz**

# The Gates of the IDET, PYROS and ISET Trade Fairs will Open at the Brno Exhibition Center in October

From October 6 to 8, the Brno Exhibition Center will host a trio of security fairs, i.e. the 16th International Defence and Security Technologies Fair IDET, the 20th International Fire Fighting Equipment and Services Fair PYROS and the 11th International Security Technology and Services Fair ISET. This is an extraordinary opportunity for the Czech defence and security industry to comprehensively present its offer to potential customers from all over the world.


Defence spending is rising worldwide, the development of defence and security technologies is accelerating, and the coronavirus pandemic has shown the importance of having a reliable and well-coordinated Integrated Rescue System. All this is positively reflected especially at the IDET trade fair, which is an important platform for the development of international cooperation. "We are pleased that companies are extremely interested in participating in this year's event. Many exhibitors are expanding their expositions and plan to present a number of attractive exhibits," said Michalis Busios, director of security fairs. As in previous years, IDET will offer exhibiting companies direct contacts with customers from the Czech Republic and abroad.

**Leading companies in the defence industry**

Companies such as Czechoslovak Group, Glomex MS, STV Group, Česká zbrojovka, Zetor Engineering, SVOS, Agados, Aero Vodochody or state-owned companies LOM PRAHA, VOP CZ, the Military Research Institute and the Military Technical Institute will be present at the fair. EVPÚ DEFENCE, which is celebrating its 20th anniversary this year, will also present its exhibits. Sellier & Bellot, for example, will introduce itself in the field of ammunition production. The producer of optical products Meopta will be also present. The Ministry of Defence of the Czech

Republic and the Armed Forces of the Czech Republic represent an important part of the fair. It is the modernization of the Czech Armed Forces that will be one of the main topics of the fair.

Traditionally, foreign exhibitors will be represented on a large scale. This year's partner of the fair will be Lockheed Martin, a global defence and aviation company. Exhibits of BAE Systems, KMW, Rheinmetall, Nexter Systems, John Cockerill Defense, ARQUUS and others will also be on display. Once again, foreign armed forces delegations are expected to attend the show, whose participation is coordinated with the Ministry of Defence of the Czech Republic and the Defence and Security Industry Association of the Czech Republic.

**Presentation of the Integrated Rescue system**

The IDET trade fair is also exceptional thanks to the connection with the PYROS and ISET trade fairs. The scope of these fairs is very close to each other, so exhibitor participation is extremely advantageous. Many companies supply equipment simultaneously for the armed forces, police and fire brigade. The Police of the Czech Republic, the Fire Rescue Service of the Czech Republic, the Customs Administration of the Czech Republic, the Prison Service of the Czech Republic, the Administration of State Material Reserves of the Czech Republic and the Brno Municipal Police will exhibit at security fairs. An attractive part of this security exhibition event will be the IDET ARENA, a show ground with live demonstrations of military, police and firefighting equipment as well as simulated intervention strikes of special forces.

# Swiftness and preparedness as key points in the fight against future threats

More than a year of fighting the pandemic has crippled the world's healthcare, economy and functioning of the states. It showed us the weaknesses of the system, whose task is to protect the population. Experiences from many countries clearly show where it is the essential point in the fight against the dangerous substances, which are also fast spreading viral diseases. The necessary part of the protection is to quickly find the epicentre and immediately isolate the affected persons and areas. For this situation, EGO Zlín developed a comprehensive set of products that allows ensuring the safety of intervening units, isolating the affected persons and further allowing their transport to hospital facilities with the possibility of follow-up examinations without contamination of the environment. Thanks to its biological protection systems, logistical and decontamination systems, and isolation means for transportation and hospitalization, for almost thirty years, the company is actively involved in systemic preparedness for highly contagious diseases and emergency management.

The fight against the COVID-19 pandemic has also revealed other weak spots. Hospital congestion and spreading of the disease among staff can escalate into a catastrophe of unprecedented consequences very easily. That is why the protection of health staff and disease prevention is another important aspect of epidemic handling and risk elimination of future threats, which increase with the growing mobility of the population and the accessibility to exotic destinations. There is also a need to have an immediate opportunity to increase the capacity for hospitalization of patients. In these cases, the company EGO Zlín is able to provide isolation units for safe placement of patients in almost any covered space. Being prepared and not underestimating future risks is a major lesson we should learn from the COVID-19 pandemic. Thanks to these principles, we can then prevent the loss of lives and paralysation of economies, even in highly developed countries.

# JISR INSTITUE a.s.

In the field of defence technology, we are increasingly confronted with terms such as electronic warfare or ISR. Technological developments have involved this kind of combat activity in conflict resolution, which is carried out by electronic equipment against enemy´s electronic equipment. It is almost certain that this kind of fight and protection will be used more often in the future and Czech companies are well aware of this trend. One of the major Czech players in this sector is JISR Institute.

JISR Institute focuses on building of complex capabilities in the areas of ISR (Intelligence Surveillance and Reconnaissance) and EW (Electronic Warfare). It creates the architecture of command and control systems and thereby contributes to the fulfilment of C4ISTAR capabilities particularly at the tactical and operational levels.

To achieve these capabilities, JISR Institute analyzes user requirements, defines appropriate solutions and supplies software and hardware systems as tactical means for targeting and identifying targets, jamming of communication and radar systems, and anti-drone systems. Important added value for the customer is integration of these means and systems into one comprehensive architecture and implementation of control systems into individual stages of command, including the possible design of a tactical radio communication architecture of command posts, dismounted troops or vehicles.

Education and training programme is an integral part. The JISR Institute provides on-site customer support throughout the life cycle of delivered solutions – from analysis to deployment in a real mission.

The company works with top experts in the field of C4 system architecture design (Command, Control, Communication, Computers), ISR and EW. These experts come from the military practice, from the scientific community and from business partners.

In addition to the field of military technology, JISR Institute also covers the comprehensive supply of security systems for intelligence services, rescue services or other national security forces.

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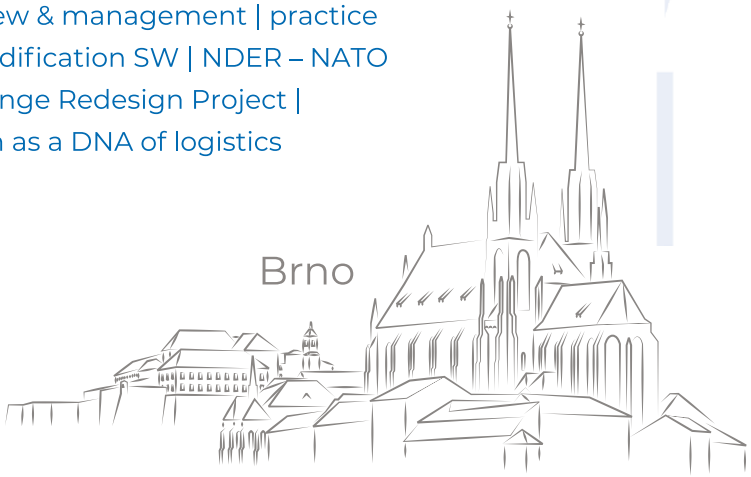


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