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3/2016

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## EDITORIAL



Dear readers,

You now have an opportunity to look into this year's third issue of the English version of the CDIS Review, which is focused mainly on the MSPO fair in Kielce, Future Forces exhibition in Prague, and the NATO Days in Ostrava. The principal mission of the English version of the CDIS Review is to provide media support to the Czech defence and security industry, in particular during the major international events in Poland and the Czech Republic. We will also remind ourselves of the last issue of the CDIS Review, which was widely distributed at the leading European event of this year, EUROSATORY 2016 in Paris. We are happy that our stand in the Press Village was visited by many distinguished guests both from the Czech Republic and from other countries.

On the first day of the fair, during the official opening of the Czech stand, we arranged the presence of renowned foreign journalists.

The MS Line s.r.o. publishing house and the Review magazines are the Czech's Republic principal media partners of the FUTURE FORCES event taking place on the exhibition grounds in Praha – Letňany. In accordance with the tradition, the MS Line publishing house organizes and put together an international panel of journalists which grants awards to the best exhibits and activities in various categories. The competition is announced by the international panel of journalists the chairman of which is Stephan Barnard, former editor-in-chief of the Military Technology magazine. Its members include renowned journalists from France, Poland, Norway, Germany and Czech Republic.

The CDIS Review offers a number of interesting articles in which various companies present their current product portfolios, as well as some of their exhibits and innovations. You will also find basic information on the fair and accompanying Future Forces Forum conferences. However, a presentation in the CDIS Review does not amount only to media support at selected fairs, exhibitions, conferences etc. Its exclusive distribution list includes selected NATO and EU representatives, all Czech embassies and consular offices, committees of the House of Deputies and the Senate of the Czech Parliament, leading government representatives, trade and industrial partners both at home and abroad, Kbely Aerodrome Terminal and many other places and addresses. On this occasion, I would also like to mention an increasingly wider usage of on-line versions of printed Review magazines.

At the same time, I would like to inform you about the commencement of preparations of the thematic and publication plan of the Czech and English versions of the CDIS Review for 2017, which we will let you know about soon. Your media plan may also include both printed and electronic versions of the Catalogue of Security and Defence Technologies of the Czech Republic 2017-2018. We will be in touch with you in September and October. Dear readers, the editorial staff look forward to meeting you during the Future Forces Forum, from October 19 to 21, at the stand of MS Line, next to the stand of the Czech Defence and Security Industry Association and close to the stand of the Ministry of Defence of the Czech Republic.

Lt-Col (R) Dipl. Eng. Miloš Soukup, Editor-in-Chief

## Exclusive Official Welcome

### Ladies and Gentlemen,



The Future Forces Forum project held under my auspices exactly matches the interests of the Ministry of Defence of the Czech Republic both in terms of its contents and focus. It is a project that offers ample opportunities for all men and women in uniform to expand their familiarity with the latest trends and development tendencies in the domain of defence and security.

The fact that the Ministry of Defence of the Czech Republic renders a full support to the FFF project is not by coincidence. We are committed to making sure our armed forces have all relevant policy, legal, financial and military requisites conducive to successful activities and we stand ready to do everything needed for the technology in the inventory of the Czech Armed Forces to match current demands of the global development trends. As a networking venue for military and civilian experts, Czech and foreign institutions, and national and international organisations, the FFF enables the Ministry of Defence to increase visibility of its activities and readiness to manage military as well as non-military emergency situations involving massive migration, terrorism, cyber defence, autonomous systems, protection of population and critical infrastructure.

The Czech Republic has acted on a sustained basis in support of Euro-Atlantic defence potential with specific focus on developing its specialised capabilities. We are committed to advancing the concept of European security that is largely based on the North Atlantic Treaty Organisation. The rationale for the Czech Republic's Atlantic orientation is deeply rooted in the historical experience of World War I and World War II as well as the present stage of development in international relations.

The key principles embodied in our approach to security are realism and transparency. A successful security policy is not conceived only with crises looming – it is a long-term and continuous process with many constantly scrutinised variables.

Most diverse challenges and risks we are facing will continue to claim a comprehensive approach and international cooperation already when preventing them. What we witness is a dynamic development of defence concepts, which would nevertheless be hardly feasible without an effective and efficient cooperation in foreign, security and economic policy.

Besides political and diplomatic instruments, military capabilities will nevertheless remain

one of the key factors in successful crisis management. Defence and security will continue to be based on building and development of defence capabilities with the support of defence and security industry, whose capacity and potential must be subject to our permanent attention. The Future Forces Forum project therefore addresses armed forces and security services as well as security community comprising the government, science and research institutions, the academia and industries engaging in projects of public interest. Current status and development goals of the Czech Armed Forces will be shown in their entirety to the domestic and international defence and security community.

I am confident the twelfth edition of the Future Forces project, with its venue again in our capital, will follow on the successful outcomes of previous meetings and will offer much valuable information and contacts to all involved. In a comprehensively conceived program, the FFF will showcase current and future defence and security trends, and pave the way to new prospects for trade as well as mutual understanding.

**Martin Stropnický**

**Minister of Defence of the Czech Republic**

\* \* \* \* \*

### Dear colleagues and participants,



In the second half of October 2016, Prague will be the venue to the Future Forces Forum (FFF) project that offers a welcome opportunity for all servicemembers of the Czech Armed Forces to expand their familiarity with the latest trends in defence and security.

The FFF project primarily focuses on seeking practical and realistic answers to future challenges and threats. In this kind of events, it is of central importance to induce an appropriate constructive environment, which FFF organisers manage truly successfully in cooperation with the Czech Armed Forces and other partners. The global networking platform offers ideal opportunities for presenting interests of the Czech Armed Forces and for meeting experts from the Czech Republic, other nations and multinational security organisations.

The FFF offers exclusive access to the latest outcomes of science and research, including demonstrations of possibilities and offers by industries in innovative, dual and smart technologies. The vehicle the FFF project uses to establish possible cooperation primarily involves the combination of theoretical specialist solutions presented in the congress, conferences, workshops and meetings with leading officials, experts, manufacturers and users with practical demonstrations on site. For us, the soldiers, it is also an opportunity to obtain information, achieve enhanced interoperability, better deliver the commitments to our NATO Partners and make use of the doorway to some universities and schools educating possible future experts.

While the project has been recently rebranded, it builds on several previous editions of similarly conceived successful international project Future Soldier and Future Forces. Thanks to the FFF project, Prague remains one of the venues for the leading personalities of the international security community to meet on regular basis. The centrality of the Czech Armed Forces' participation in the project is underscored by our active participation in the specialised events prepared in conjunction with experienced representatives from NATO expert groups, COE JCBRN D in Vyškov or indeed Prague-based MLCC. As the Chief of General Staff Czech Armed Forces, it is my pleasure to again express my support to the project that I believe is up to highest professional standards and brings multiple benefits. Topics proposed for 2016 are very interesting. I am therefore confident that our experts as experienced users will voice their opinions in individual parts of the program.

With best wishes for the success of the Future Forces Forum project, I am looking forward, together with other officials of the Czech Armed Forces High Command, to meeting FFF participants in Prague.

**General Josef Bečvář**  
**Chief of the General Staff of the Armed Forces of the Czech Republic**

\* \* \* \* \*

### Dear Ladies and Gentlemen,



I am very pleased and honoured that the Police of the Czech Republic received the offer to present its activities in such an important event as the Future Forces Forum (FFF) is without any doubt.

The Future Forces Forum is exactly the kind of action, which is according to my opinion necessary to organise regularly. In the relatively short time period many subjects, which have to say something to contemporary questions in the area of the newest trends and demands concerning the safety and security and defence, could be presented in

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one place. I consider as a very beneficial for all participants mainly the connection of practical demonstrations and subsequent discussions on the topic.

We as the police together with the Army of the Czech Republic ensure the safety and security of the Czech Republic. In this connection I would like to highlight the co-operation of these two security bodies, which was realised last time for example during the exercise focused on the protection of state borders regarding possible migration risks.

The Police of the Czech Republic has been changing and developing all the time. Inhabitants do not apprehend it as something "troublesome" anymore, but as the modern security body providing their safety and security. Not to fall short of their confidence, it is necessary to support exactly these types of actions, where we have the possibility to monitor the current development in the field of the internal security.

From this point of view we consider our participation at the Future Forces Forum as the possibility to develop and to improve our further cooperation with other parts of the Integrated Rescue System as well. The proof of our interest to evolve this cooperation is for example the opening of the training polygon in Zbiroh financed in the frame of the Swiss and Czech cooperation. The above mentioned polygon is used besides the Police of the Czech Republic also by members of Fire Brigades, Army of the Czech Republic, Health Rescue Service and other parts of the Integrated Rescue System.

The Police of the Czech Republic provides the internal security at the territory of the Czech Republic. Regarding the current development in the field of migration problems we express our copartnership concerning the protection of Schengen outer borders by the deployment of our police officers to Macedonia, Hungary, Slovenia and Greece. In the frame of the international cooperation the mission of Czech police divers to Bosnia and Herzegovina was realised. The team of divers has continued in the gradual and very dangerous mine clearance from the Sava river (the residue from the war in years 1992-1995) during the stay in these territories.

In this connection I would like to mention that the equipment of police divers, which is by the way on the high level, was purchased from the financial means of European funds. Thanks these funds the purchase of police boats for the surveillance over waters was realised.

I would like to use this occasion to inform you that after the reception of the offer to present the Police of the Czech Republic at the Future Forces Forum I decided without any hesitation about the participation of our security force in this, for us so important, event.

**Maj.-Gen. Tomáš Tuhý**  
Police President

\* \* \* \* \*

Dear friends,



Lately we have witnessed a growing complexity and prevalence of security threats and resulting risks, directly or indirectly affecting our ability to protect Czech citizens and critical infrastructure. Units of the Security

System of the Czech Republic therefore need to constantly adapt their competencies in order to be able to react to potential threats, which can concatenate, and their impacts on the protected interests of the society can be multiplied. In light of the growing number of natural and man-made disasters (including the migration crisis) and the severity of their consequences, targeted integrated approach to reduce the impact of these adverse events is becoming increasingly imperative.

Contemporary cross-linked and interconnected society is becoming more and more vulnerable and must face new challenges in protecting the population and its infrastructure. This is reflected in the new approaches of the society not only towards dealing with the consequences of adverse events, but essentially towards their prevention, and the development of materially-technical preparedness.

At this point I would like to emphasize importance of developing the material base concerning the equipment of all units of the Integrated Rescue System. Based on the good experience with some of the well-tried domestic suppliers of rescue equipment and technology, we would like to continue to cooperate with them. A wider international cooperation in the above area also represents an important and increasingly significant factor contributing to reducing the consequences of such events.

Fire Rescue Service of the Czech Republic (FRC CR) within the Integrated Rescue System of the Czech Republic together with other security forces endeavours to save lives, health, and possessions of the citizens not only in the Czech Republic but also beyond. An important role of the Fire Rescue Service is not only fighting fires, but also to come to the rescue during other emergencies, such as various natural disasters, and industrial and road accidents. Moreover, it has recently undertaken an important task to provide domestic and international humanitarian aid.

I would hereto like to mention material humanitarian assistance provided to Bulgaria, Serbia, Bosnia and Herzegovina, and Ukraine. However, we have also delivered aid in more distant places, such as in Japan and Nepal. During the recent months, in connection

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with the refugee crisis, vehicles loaded with fully furnished tents were dispatched to Hungary, Croatia, Macedonia and Slovenia. Furthermore, members of the Fire Rescue Service participated in the construction of the tent detention facility in Břeclav-Poštorná and Jezová-Bělá in Mladá Boleslav region. European Union projects have also significantly helped to improve technical equipment of the Fire Rescue Service. It can be proudly said that the overall preparedness for all types of emergencies is being constantly developed and improved. Not only firefighters, but all bodies of the Integrated Rescue System, state administration, local governments and NGOs have learned to deal with such events with much better efficiency.

International cooperation involving both neighborly bilateral and multilateral support in dealing with emergencies, including the provision of material and humanitarian aid, has proved to be increasingly vital. I am convinced that with an ever-increasing intensity, scope and frequency of non-military emergency situations a greater success in managing them and minimizing subsequent losses of human lives, damages to public health, property values, and the environment will be achieved. This is also affirmed by the gradual improvement of the population readiness to adequately respond to an imminent or already incurred emergency situation. A new Act on the Fire Rescue Service came in force from January 1<sup>st</sup>, 2016. It replaced the existing Act of 2000, which was deficient in a number of legal solutions that are standard at the Security Forces nowadays. The Act on the FRS newly establishes or modifies some of its authorities. The Act maintains the current status and mission of the FRS, but it clarifies and amends its various parts. The new Act on the Fire Rescue Service has the potential to contribute to the development of skills needed to ensure security of the Czech Republic by completing tasks of the fire protection, population protection, civil emergency planning, Integrated Rescue System, crisis management and other existing tasks.

I have the honor to inform you that the Fire Rescue Service of the Czech Republic became part of Future Forces Forum and will be presented at the exhibition, as well as on the second World CBRN and medical Congress with a presentation on "CBRN preparedness and response in the Czech Republic." I am convinced that the Future Forces Forum is a platform of global network where all stakeholders can exchange information and present the latest technologies, materials and processes in the field of security.

**Maj.-Gen. Drahošlav Ryba**  
**Director General of the Fire Rescue Service**  
**of the Czech Republic**

\* \* \* \* \*

**Dear exhibitors, dear visitors,**



Let me tell you a few words about the long-standing tradition of the Czech defence industry. It's roots reach far into the past, to the period before the First World War. Since then there have been many changes, but the Czech producers still hold a significant position among the global competitors in the wide range of commodities. For example, the passive surveillance systems from the company ERA are the Czech invention coveted by global producers. Handguns, ammunition, devices for protection against weapons of mass destruction, information and communication technologies, military vehicles and aerospace technologies belong among the Czech products that are successfully exported to countries around the world. Nearly 90 % of the total output of the Czech defence industry is intended for export.

In comparison with the foreign competition, the Czech defence industry excels primarily in the area of high-tech innovations. Military technologies originating here are very sophisticated and can be adapted to the needs of the customer and his technical requirements. It often involves the integration with existing systems. In such cases, the creativity is highly important and we can say that Czechs are masters of it. Thanks to thorough care for delivered products throughout their lifecycle, its continual modernization and a willingness to cooperate with local companies in export destinations, the Czech defence firms have a strong possibility to beat out their foreign competitors in tenders around the world.

The Czech defence and security industry is ready to contribute to eliminate a globally growing security risks.

**Jiří Hynek, President**  
**Defence and Security Industry Association**

\* \* \* \* \*

**Dear ladies and gentlemen, business partners, participants and supporters,**



In October 2016, Prague will traditionally become the venue of a meeting of domestic and foreign defence and security leaders, this time under a new name – Future Forces Forum (FFF). It is a long-term continuous project in support of interests of industry, government bodies, science, research and development, which links the military and the civilian sectors. FFF follows on and draws from successful international exhibi-

tions and conferences that our agency has been organizing since 2000. Both domestic and international institutions and organizations are closely involved in the preparation of the project, helping define its contents and focus with an aim of achieving the most effective cooperation of the public and the private sectors. The most important long-standing participants in the project include the Ministry of Defence of the Czech Republic and the Army of the Czech Republic, whose support and cooperation we have been enjoying for more than sixteen years. We can now also rely on broad support and professional involvement of the Ministry of Interior of the Czech Republic, Police Presidium, Fire Rescue Corps, and other important authorities of the state.

The current security situation and the related threats and challenges we are going to face in the next few years will require, now more than ever before, a comprehensive approach and international cooperation in preventing and dealing with these risks. Our project reflects these needs, providing an ideal platform and a unique gathering place for a discussion of experts from the whole world. Offering a broad portfolio of events and activities at the highest political, military and security level, including official meetings of expert working groups, it has been systematically and consistently pursuing its mission.

The Future Forces Forum has been continuously developing, and its activities this year will culminate in the week from October 17 to 21 by an international exhibition, a congress, three conferences, four workshops, and meetings of several expert groups. The Czech Republic will have the honour of hosting official meetings of the largest expert group for the equipment, armament and protection of the future soldier – NATO Land Capability Group on Dismounted Soldier Systems (AC/225 LCG DSS), the Chemical, Biological, Radiological and Nuclear MEDICAL Working Group (CBRN Med WG), international experts in military medicine – the Medical Material Military Pharmacy Working Group (MC MMMP WG), and experts in camouflaging of the NATO Science and Technology Organization. The exhibition and its programme, static and dynamic demonstrations will give those who will attend an opportunity to make a first-hand acquaintance with the latest technologies in the field of armament and equipment of armed and security forces, means of CBRN protection, critical infrastructure protection, protection of population, robotic technologies, unmanned ground and aerial vehicles, capabilities that can be used to stem the migration flow, border protection, defence against terrorism or principles of cyber security and ethics, civil-military cooperation (CIMIC), logistic solutions (Smart Energy, supply of water and POLs, storage, transport), use of innovative materials, and others.

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The Future Forces Forum is a platform where leading experts, people involved in research and development, academicians and members of acquisition offices meet representatives of the industry and trade to establish contacts and develop cooperation to ensure necessary defence and security capabilities at both national and international levels. It presents interests, needs and acquisition plans of armies, elements of the Integrated Rescue System (police, Fire Rescue Corps, paramedics), Prison Guard Service and other uniformed elements, local and foreign government bodies, local governments, industry, as well as the latest achievements of science, research and education, thus connecting the public and the private sectors which are both interested in long-term effective cooperation.

I would like to conclude by thanking leading representatives from the Czech Republic and

other countries, as well as all our partners, in particular the companies LOM PRAHA and VOP CZ and the Czech Technical University (CTU), for their very important support which we highly appreciate. I would also like to express my hope that this year's twelfth sequel of the Future Forces in Prague will once again bring a lot of new information and valuable contacts, business opportunities and overall professional enrichment to all who will attend the event. I believe that the Future Forces Forum will follow on from the unquestionable success in previous years and will once again be a welcome opportunity for a joint meeting in a friendly atmosphere. On behalf of the whole Future Forces Forum team, I am cordially inviting you to come and I am looking forward to seeing you in Prague.

Daniel Kočí

FFF Managing Director



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## CZ – Partner for Professionals

### Interview with Lubomír Kovařík, CEO of the company



**CZ is celebrating the 80<sup>th</sup> anniversary of its founding and at the same time, you are celebrating ten years as the leader of the company. What direction has the company taken under your leadership, what have been its greatest successes and what are the plans for the future?**

The company's 80<sup>th</sup> anniversary is certainly a great opportunity not only to celebrate but also to look back upon the years. After all, how many major firearms manufacturers with such a long continuous tradition are there? We could spend many hours talking about our company's interesting history. Over the years, we have made many popular small firearms, from airguns, pistols, rifles and rim-fire rifles to assault rifles, submachine guns or machine guns.

If I focus on my time as the head of the company, my main goal in the first stage was to get CZ back into the spotlight for the armed forces. As you probably know, after 1989, when many were lulled into thinking that

the period of major conflicts had ended, the company dropped automatic weapons from its portfolio. As a result, supplies for the armed forces from our company consisted essentially only of pistols. Otherwise, the focus was placed on the civilian market. Although we are very successful in both sectors, with that move we lost one of the traditional pillars of our production programme.

Nevertheless, CZ has the advantage of a developmental, manufacturing and commercial independence. Therefore, after my appointment as the CEO we decided to once again re-introduce weapons for the armed forces into production. Over a relatively short time, we managed to design, manufacture and launch a completely new assault rifle, a sub-machine gun and a grenade launcher. In addition, I must not forget the new models of modern pistols.

Other changes took place concurrently. We have significantly modernized the production facilities at our main factory in Uherský Brod and increased the number of product lines from 8 to 12.

Today, CZ ranks among the top ten world producers of small arms. Our products are exported to nearly one hundred countries all over the world (prior to my appointment as the CEO the number was 69). In the last ten years, we have increased our sales three-fold. We keep increasing the number of employees, originally there were 1,200 and currently we have approximately 1,800 employees. We are the largest employer in the region, with a salary about 15 % higher than is customary in this region, plus we also have an extensive social programme. Besides our daughter companies, CZ-USA and Zbrojovka Brno s.r.o, it has been two years since we acquired a "daughter" in Slovakia.

As for my future plans, regarding the service

sector, I want to fulfil the vision of: We are the partner of professionals and fulfil their expectations.

**In recent years, in line with new trends, you have ceased to present yourself as just a straightforward arms manufacturer. Nowadays, for customers from the ranks of the armed forces you also offer comprehensive solutions to their requirements. What does your portfolio currently include?**

Yes, we strive to provide our customers with maximum service. Therefore our portfolio offers not only the weapons as such, but also all the necessary accessories and other related products and services. Apart from the traditional holsters and magazines or slings, we also offer, for example, optical sights, ballistic protection, ammunition, and we train armourers, we provide expert presentations and training according to the needs of each particular customer. Basically, we are able to meet any requirements.

**Anyway, the key to success of CZ are still the firearms themselves. What are the main this year's novelties in this field?**

There are lot of novelties in our portfolio, when I leave out those with which we complement already running product series, then the most important new models are the CZ Shadow 2 pistol and the CZ BREN 2 assault rifle.

The first case deals with a completely new handgun, where development and production of took great advantage of extensive experience accumulated with the best-seller named CZ 75 SP-01 Shadow. The CZ Shadow 2 dramatically outperforms its famous predecessor in all key factors, while at the same time maintaining wide affordability. The best evidence are those excellent result achieved by the CZ Shooting Team in IPSC events at Production Division, where our new pistol expressly shines from the very beginning of this year's season.

However, for your magazine is certainly more interesting the CZ BREN 2 assault rifle. Also with this weapon we did not start from scratch, but our proceedings were based on findings learned in the design and manufacture of the CZ 805 BREN weapon family, adopted into armament of the Armed Forces of the Czech Republic and supplied also to other armed forces. Thanks to this we have been able to launch to the market in a short time the new, highly modern model with really outstanding performance and parameters.



## Equipment and Services by Professionals, for Professionals



***At the 2016 exhibitions the renowned Czech gun manufacturer CZ will continue to enhance its range of both hardware and support services that were introduced to acclaim and attention at DSEI in London last year.***

In particular, building on the presentation of the new CZ ballistic vests (see CDIS Review 3/2015 issue) the company takes the 2016 exhibitions as opportunity to engage with the first responder community, offering a level of protection that is not only the lightest in its class, but is also buoyant in water, making it ideally suited to counter-terror and homeland defence missions – including first responder, police and customs officers – on or near water.

Specialist training is a new component in CZ's inventory, and includes training in the uses and applications of the vests.

This new string to CZ's bow – specialist training and support – is enhanced even further in respect of the company's traditional activities.

In addition to being able to set up at a customer's own facilities, CZ now has a complex of ranges throughout the Czech Republic with which customized training programmes for the entire shooting community can be created and conducted: from basic shooting to highly-demanding Gunsmith and Armourer training, from static to mobile training, from open area to built-up (FIBUA) training – and even indoor / outdoor training: all are available. Beneficiaries of CZ's in-house expertise (most instructors are former military with recent, extensive combat experience) range from gun designers and builders right up to Grand Masters in the art of the most complex repairs - and this expertise is now being offered to CZ's partners and customers.

As a company CZ has a very significant number of specialists who are actively looking to engage with the customer and to accompany them in the journey of CZ product ownership; and the combat experience and lessons learned that these veterans

are able to pass on will directly impact not only the customer's organisation-wide selection and use of the weapons available, but also down at the individual level both tactics and survivability in-theatre – wherever that theatre may be.

In offering a complete through-life support solution to its customers CZ will be able to track, measure and ultimately improve the long-term performance of its weapons, while the owners, be they military, police or first responder, will have the full-spectrum benefit of the most expert, knowledgeable people in the world – the manufacturers – supporting them. Closer engagement of the company with the owners of its products, from initial acquisition, through training and in-service support, to final disposal, will enhance the complete ownership experience and reinforce the true through-life engagement and partnerships that the company is now offering.

[www.czub.cz](http://www.czub.cz)



## EXPLOSIA – Important Exporter mostly to EU Countries

*The company EXPLOSIA a.s., large manufacturer of industrial explosives, smokeless powders for hunting and sports purposes, rocket motors for rescue systems used in ultra-light aircraft and explosives for military applications, known not only on the domestic market, but also on the foreign one, continues this year in successful economy.*

In the segment of military spherical powders for calibers from 5.56 to 12.7 mm we start the cooperation leading to large-volume orders. The extended production capacity of the spherical powders plant is used for the realization of these contracts.

In the segment of smokeless powders we extended trade relations with Mexico with a view to further expansion into areas of Central America. Furthermore we managed the breakthrough with smokeless powders for civilian use into the long resisting US market. Within Europe itself, we have renewed relationships, or there was an increase of interest, with large manufacturers of ammunition, such as the German MEN or Polish MESKO where there has been an increase in supplies of smokeless powders for medium caliber ammunition.

Even the production of industrial explosives is outdone and despite the decline in supplies for the largest domestic buyer of dynamites (OKD) we manage to keep the total volume sold. For example, it helped a renewed interest of Greece on our dynamites.

During this year we made an adjustment in production technology of PETN, which is the main ingredient for the production of detonating cords, detonators and some plastic explosives, and there has been an increase in production capacity by 30-50 %.

In the segment of large caliber ammunition the company EXPLOSIA a.s. is the producer of bi-modular charge system for 155 mm gun-howitzers (BMCS) which can replace old bag charges and which won few prestigious prizes on international exhibitions. BMCS is the system of the second generation and is the successor of previous successful system, con-

taining three types of modules and sold in big quantities to several countries (Slovakia, Cyprus). BMCS consists of two different types of modular charges - BC-E for short range (zones 1 and 2\*) and TC-F for long range (zones 3 to 6\*). The maximum range in the 52 caliber weapon and with shell with base-bleed unit is more than 40 km. TC-F modules contain wear reducing agent and cold nitroguanidine powder which extend the life of the barrel.

(\*Zones mentioned above are according to JBMoU.)

During 2015 the military acceptance tests of BMCS took place in Poland, including shooting tests on the new Polish 155 mm self-propelled gun-howitzer KRAB. Due to the lack of suitable space in Poland, two vehicles were relocated to Slovakia, where there were at a shooting range in VTSU Zahorie tested to the maximum range of the system, which overcome the distance of 40 km. Currently we realize of long planned large contract for Polish company Dezamet which will, after partial "polonisation", supply BMCS along with shells from Slovak company ZVS Holding to the Polish Army.

The demand for modular propelling charges BMCS is not waning and there are prepared supplies also for Slovak company KONŠTRUKTA Defence, which currently tests the newly introduced weapon systems EVA, first presented at IDET 2015 in Brno, and DIANA, presented at MSPO 2015 in Kielce.

The field of large caliber ammunition also includes production of solid propellants for various rocket motors. Here it is worth to mention the delivery of more than 30,000 elements for German company Rheinmetall, which are essential for small rocket engines, for example in flares.

It is necessary to mention two large areas in the segment of specialties. The first area of specialty are the elements of the aircraft rescue systems for light training and combat air-



**Spherical powders plant and different types of Lovex<sup>®</sup> smokeless powders manufactured by EXPLOSIA a.s.**

craft Aero. The second area of specialty are demolition charges based on the plastic explosive Semtex<sup>®</sup> PI SE M, mainly cutting charges Semtex<sup>®</sup> RAZOR. Semtex<sup>®</sup> RAZOR is a flexible linear shaped charge capable to cut various materials by directional jet of metal. Currently Semtex<sup>®</sup> RAZOR charges are produced in seven different sizes - 6, 10, 15, 20, 25, 30 and 40 when the number corresponds to the cutting ability of the charge in the steel. The charges Semtex<sup>®</sup> RAZOR are used by special army units and police bomb disposal experts.

The Bundeswehr and Polish special forces are the large buyers of special demolition charges. Also the brick charges from plastic explosives are good commodity for sale. The plastic explosives portfolio of company EXPLOSIA a.s. contains many types, including tried and tested old Semtexes, surrogates of American composition C-4, British PE-4 and PW-4, or new types of plastic explosives, like sheet explosive Semtex<sup>®</sup> PI SE M or Semtex<sup>®</sup> 90 applicable in extended range of temperatures. Last mentioned Semtex<sup>®</sup> 90 is the part of large contract with Czech Army.

**The special products portfolio of company EXPLOSIA a.s. is wide - more information on company web [www.explosia.cz/en/](http://www.explosia.cz/en/) - and it can expand by relevant requests of customers.**

[www.explosia.cz](http://www.explosia.cz)



**Polish 155mm SpGH KRAB during maximum range shooting (left) and shooting tests of new Slovak 155mm SpGH EVA (right).**

# AURA has Successfully Implemented MC CATALOGUE – the Codification Software for the Australian Department of Defence



*Brno based company AURA, which develops and implements software to support codification has been successful again. Its codification system MC CATALOGUE docked on another continent – after Europe, Asia, America and Africa, there is now also Australia.*



## **AURA has successfully won a public tender announced by the Australian Government**

In July 2016, live operation of MC CATALOGUE, AURA's software for materiel codification, commenced in Australia. This software is based on the standards of the NATO Codification System. A contract was signed between the Australian Department of Defence and a Czech company AURA, s.r.o. (Ltd.) after AURA successfully won a Public Tender announced by the Australian Government. The Australian National Codification Bureau and other areas within the Department of Defence are now using the latest version of MC CATALOGUE 5 in the form of "Software as a Service" (SaaS). Suppliers of the Department of Defence are now also users of MC CATALOGUE which enables greater efficiency and increased productivity. The implementation of MC CATALOGUE in the form of SaaS for the Department of Defence of Australia is one of the first SaaS projects for Australian Defence. AURA

worked closely with the Department of Defence project team to implement MC CATALOGUE, which was developed exclusively by AURA, to ensure all the requirements of the Australian Department of Defence were met. The Australian National Codification Bureau, one of the largest and most important institutions of this kind in the world, has become an important member of the MC CATALOGUE User Group.

## **MC CATALOGUE 5 – aimed at users**

The journey from the first version of an information system for cataloguing MC CATALOGUE to the codification system MC CATALOGUE 5, which is now being used by the Australian Armed Forces and AUS NCB was very difficult, but also entirely consistent, continuing and progressive. It has always been a high quality codification tool with a rich array of features, built on the latest technologies. The new version of MC CATALOGUE 5, however, is truly exceptional in several aspects. AURA aims to promote in it maximum productivity, efficiency and the best comfort for users. The aim is to make MC CATALOGUE not only a quality instrument, but also a convenient helper for codification. In the narrow area of specialized information systems, where the most important asset is data, the user comfort focus is not a common thing. MC CATALOGUE 5, however, is marching this way. In today's highly competitive environment there is no option to stagnate on one spot and offer software, which insufficiently reflects workflow and user comfort. The development of the new version took a few years, but some first signs of a re-design already appeared in previous versions. This included only small changes not visible to end users. Fundamental changes came up with the current version. MC CATALOGUE 5 is developed to directly communicate with the user and guide him towards a positive result. Users are then shown, for example,

only the fields and option menus, which are relevant the very moment. Automation of frequently performed tasks and an option of bulk data operations have been added to the application. The search form was noticeably changed too, which is one of the most used features in the codification systems. The work environment across the whole application was together with User Experience specialists redrafted to create a modern, clean and intuitive graphical interface with an emphasis on efficiency and user comfort. The overall stability of MC CATALOGUE has improved too and the software has undergone intensive stress and safety tests. This allows the application to provide customers not only with the traditional way in the form of installation on a local server, but also with a highly available and secure service (SAAS) via the cloud. Both variants are able to handle hundreds of concurrent users, while maintaining system performance and user comfort when working with the application.

\* \* \*

*MC CATALOGUE is currently the most used software of this type worldwide – it is used in 16 countries on 5 continents. The quality of the software and the constantly growing interest in it multiplies not only excellent services, but also comprehensive systems of training and education of users at all levels. AURA not only provides individual training to everyone who is interested in corporate codification software, but also supports the education and training of the entire NATO Codification System. In this respect, AURA is one of the founders and supporters of the international course NCS (NATO Codification System) College, whose third edition takes place in August and September this year at the University of Defence in Brno with the participation of lecturers and students from many countries.*

**Antonín Svěrák**  
[www.aura.cz](http://www.aura.cz)



# OMNIPOL – Partner with Tradition and Experience



CEO of OMNIPOL a.s. Michal Hon

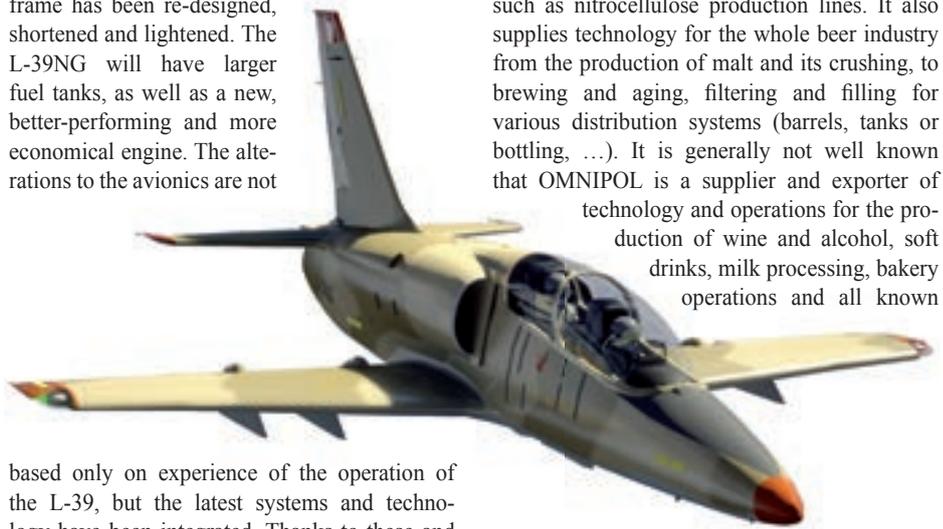
Photo: Anna Vacková

*Until 1990 OMNIPOL was the sole exporter of Czech aircraft produced by Aero Vodochody. Today, OMNIPOL is a strategic business partner for sales of the L-39NG aircraft. Since its establishment in 1934, OMNIPOL has exported and imported more than 9,000 planes and has exported almost 3,000 L-39 aircraft in diverse modifications.*

*“Business experience, contacts and long-term professional reliability is our strategic contribution to the project for the new generation L-39 aircraft. But that is not the only thing. Because we genuinely believe in the project, we are contributing half of the financing for its development,”* said Michal Hon, CEO of OMNIPOL group.

The project for a new generation of the now-legendary jet trainer follows on from a forty-five year manufacturing tradition. The first mass-

produced L-39 was manufactured at Aero Vodochody in 1971 and since then it has become one of the most popular training planes in the world. Its great flight properties are shown by the fact that 15 world-famous demonstration teams use it for air shows. The new generation of the L-39 follows on from a traditional, reliable aircraft, but the L-39NG can be regarded as a new plane. In addition to this, the airframe has been re-designed, shortened and lightened. The L-39NG will have larger fuel tanks, as well as a new, better-performing and more economical engine. The alterations to the avionics are not



based only on experience of the operation of the L-39, but the latest systems and technology have been integrated. Thanks to these and a whole number of other alterations, the L-39NG will be among the best in the world. *“I am very proud that the OMNIPOL group, as a strategic partner, is actively participating in this project,”* added CEO Hon.

OMNIPOL always focused its activities on building and developing business links between Czech companies and the global market. It was established as a part of Škodovy závody in Plzeň in 1934 and today is a stable and reputable business partner. It is active in more than 60 countries around the world and companies such as ERA and RAMET are part of the

OMNIPOL group. The company therefore covers a very wide range of defence and security electronics.

However, the group does not merely focus only on defence and security industry products. OMNIPOL is active on the market as a business systems integrator and supplier, for example, of food production equipment or complete technology units for the chemicals industry, such as nitrocellulose production lines. It also supplies technology for the whole beer industry from the production of malt and its crushing, to brewing and aging, filtering and filling for various distribution systems (barrels, tanks or bottling, ...). It is generally not well known that OMNIPOL is a supplier and exporter of technology and operations for the production of wine and alcohol, soft drinks, milk processing, bakery operations and all known

systems for filling and bottling drinks of all types. In the case of filling plants for soft drinks, our customers are mostly from the Russian Federation and countries from the Commonwealth of Independent States. The high professional standard of the OMNIPOL group is shown by the fact that in this industry alone the company has exported and supplied equipment worth more than CZK 1bn.

**By Milan Řepka, company spokesman of the OMNIPOL a.s.**

[www.omnipol.com](http://www.omnipol.com)



# ERA Introduces the Novelty in its Portfolio: ERIS C2 – Integrated Air Command and Control System

*ERA Company has acquired R&D company C.D.K.K. REAL and thereby broadened its product portfolio – up until now focused on passive radiolocation sensors - with command and control systems and civil and military Air Traffic Management systems. ERA's strategy has been to approach the market with its own C3i and ATM solutions and the abilities of C.D.K.K. REAL experts precisely satisfy its demands and expectations, because they have a great deal of previous experiences with developing such systems. With a long term focus on civil and military surveillance and reconnaissance technology, ERA has now strengthened its market offerings.*

Cooperation between ERA and C.D.K.K. REAL has already brought about some results: the brand new AirC2/ATM system called ERIS (ERA Integrated Systems) providing enhanced architecture, central configuration and a new approach to software interface. The ERIS C2 System is primarily intended for performing Air Force Command and Control (C2) functions as an essential part of national sovereignty. One of the main functionalities is providing a Global Recognized Air Picture (GRAP) for an early warning and fast decision-making process during Air Defence operations at both tactical and operational levels.

ERIS C2 is based on a modern sophisticated and modular design to meet all the requirements for a support end to end solution from planning and execution up to analysis. Each C2 system is tailored for the specific needs of the end user composed of standard modules. Thanks to the modularity and scalability of the C2 system, ERIS can be configured from regional C2 posts



to nation-wide C2 systems adaptable to any radar/sensor and to any national air defence need including Air Traffic Control (ATC) functionalities.

ERA has already offered the command and control system to defence and security company Saab to use it with their Giraffe radar in hope that the integration into one advanced, comprehensive system will have significant export potential. ERA and Saab have recently signed an agreement for future cooperation in research and development of air defence surveillance and air command technologies. This agreement involves a strategic partnership

between Saab and ERA regarding the integration of active and passive radar systems and includes calling a tender for 3D Mobile Air Defence Radars (MADR) for the Czech Republic.

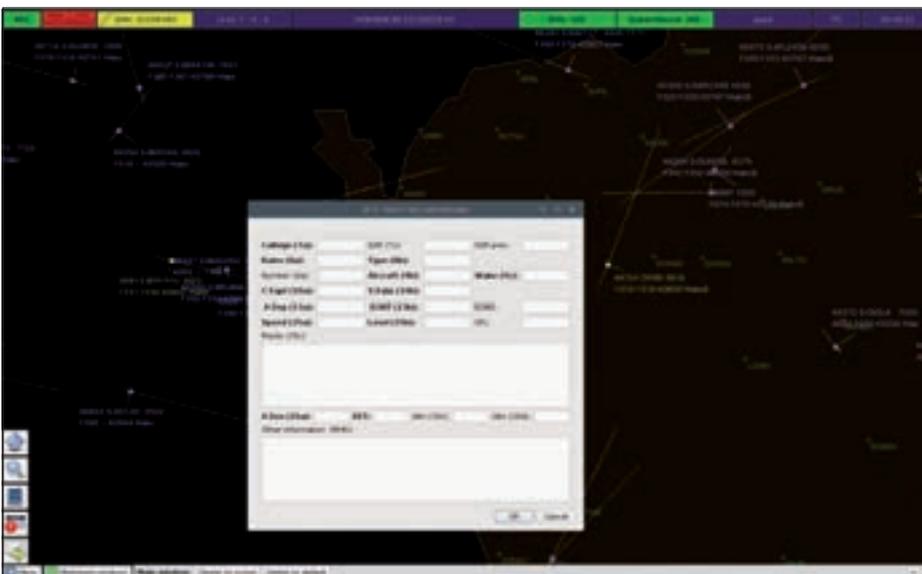
#### Operational functions:

- C2 Resource Management.
- Surveillance.
- Providing a Global Recognized Air Picture (GRAP) for an early warning and fast decision-making process and high accuracy local RAP supporting Weapon Systems activities.
- Force Management (Supporting the decision-making process of the Air Force Commander in operations and missions during the whole Air Tasking Cycle.
- Airspace Management.
- Air Mission Control (incl. transmission of C2 text messages, Orders, Reports & Requests).
- Military ATC.

#### Benefits:

- The modern sophisticated and modular design of the system.
- End to end solution from planning and execution up to analysis.
- Compliance with NATO and non-NATO Command and Control Procedures, data exchange solutions and system architecture.
- Excellent military-oriented Multi Sensor Tracker.
- User-Friendly and Configurable HMI.

[www.era.aero](http://www.era.aero)





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# Invitation



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# EXCALIBUR ARMY Delivered Modern RM-70 Vampir Multiple Rocket Launcher Systems to the Indonesian Marines

*EXCALIBUR ARMY, a part of the CZECHOSLOVAK GROUP (CSG) holding, recently delivered modern RM-70 Vampir MLRSs to the first customer. This is the first time in decades that a modern artillery system capable of operating and communicating in today's digital battlefield has been developed and manufactured in the Czech Republic and fielded by one of the world's armies.*

From the viewpoint of the Czech and Central European defence industry, this is an extremely important project. As a matter of fact, the delivery of the Vampir MLRS to the Indonesian Army was a result of cooperation with Slovak enterprises which supplied support vehicles. The development and characteristics of the RM-70 Vampir system, which permit building up complete artillery units linked to digital command and control systems show that, after 25 years, the Czech Republic again possesses manufacturing and technological capacities capable of designing, manufacturing and selling advanced combat systems. The Vampir system is also an example of cooperation of enterprises belonging to CSG Holding and truck manufacturer TATRA TRUCKS. Moreover, the sale of a complete artillery system to the Indonesian Army brings a high added value to the Czech economy, as well as references for future customers.



## **Complete Artillery Batteries for the Indonesian Marines**

The complete package delivered to the Indonesian Marines includes RM-70 Vampir MLRSs, munitions vehicles, AV 15 recovery vehicles, and TATRAPAN armoured vehicles used as fire control system carriers, all on TATRA chassis. The package also include Alligator II light armoured vehicles. EXCALIBUR ARMY also arranged the training of soldiers who will serve the multiple rocket launchers.

Another component of the package is a fuel bowser on a TATRA TRUCK chassis. It is worth mentioning that the Indonesian Marines have been using dozens of TATRA T815-7 logistic support vehicles for quite a few years. The price of the contract has not been disclosed, but the contract is definitely a financially attractive project both for CSG Holding and the Czech industry.

Apart from other things, EXCALIBUR ARMY has for many years been specializing in

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upgrades of proven combat systems and development of their new versions. Let us mention, for example, the upgraded DANA M1 CZ self-propelled howitzer or the JACKAL IFV.

Many armies, including the Army of the Czech Republic, phased out their artillery systems in the past. However, recent conflicts show that they are still valuable fire support assets. There are thus many potential customers, especially among the armies which previously used the original version of the RM-70 MLRS on the TATRA T813 chassis. This is also the case of the Indonesian Army, which purchased decommissioned original RM-70s, previously in the inventory of the Army of the Czech Republic, in the past. Now its soldiers have acquired their successors.

### A Modern Rocket Launcher on a Proven Chassis

The original RM-70 multiple rocket launcher was mounted on a TATRA T813 chassis, but the Vampir is installed on a brand new platform, TATRA T-815-7. It is equipped with an armoured cab, which also guarantees protec-

tion against chemical and biological weapons and is designed to enable the installation of add-on armour. The drive train consists of the eight-cylinder TATRA T3C engine delivering 270 kW, whose output is transferred to wheels by the TATRA 10TS 210N gearbox with the semiautomatic TATRA Norgren gear-shifting system and the TATRA 2.30TRS auxiliary gearbox. The tactical range and maximum road speed of the Vampir are about 1,000 km and 90 km/hour, respectively. The RM-70 Vampir multiple rocket launcher can provide concentrated fire on areas occupied by the enemy and destroy both personnel and combat equipment. It can fire single rockets or salvos; the crew operate the weapon system from the vehicle's cab, or from a protected trench nearby, using remote control. The Vampir carries a set of 40 launch tubes with 122 mm rockets loaded even when the vehicle is in a travel configuration. An additional supply of 40 rockets is stored in a loading device mounted on the vehicle, bringing the total basic load to 80 rockets.

The rockets are high-explosive projectiles,

spin-stabilized as they exit the tubes, and kept on course by primary stabilization fins. The maximum range is 20,381 m; a single rocket can effectively achieve a destructive effect on an area as large as 3,000 m<sup>2</sup>. If all rockets are launched in a single volley, they can cover an area of up to 3 hectares. The weight of the empty launcher vehicle is 18,080 kg; with the full basic load (80 rockets), it increases to 24,140 kg. The basic configuration of the vehicle is the same as that of the original RM-70 Grad MLRS, but most of its electronic systems have been either overhauled or completely upgraded. All the cabling is new as well.

The building of the first prototype started in February 2015 and the Vampir successfully passed firing tests eight months later. Now the company has manufactured complete MLRS batteries, including battery command vehicles and a vehicle of the battalion commander. The vehicles are interconnected by a modern fire control system and the equipment of each battery also includes a Forward Observer's (FO) kit.

[www.excaliburarmy.cz](http://www.excaliburarmy.cz)



## RETIA Participation in the Alliance Ground Surveillance System Production



AGS ground segment

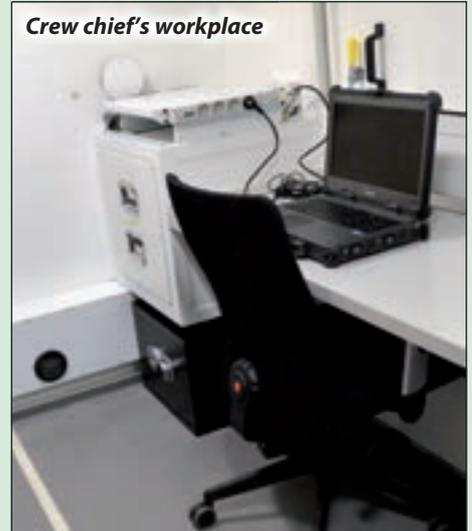
NATO is acquiring the Alliance Ground Surveillance (AGS) system that will give commanders a comprehensive picture of the situation on the ground. A group of Allies, including the Czech Republic, is acquiring five Global Hawk remotely piloted aircraft and the associated ground command and control stations that make up the AGS system. NATO will then operate and maintain them on behalf of all 28 Allies.

The AGS will be able to contribute to a range of missions currently emerging in the world such as protection of civilian populations,

border control, fight against terrorism, crisis management and humanitarian assistance in natural disasters.

The AGS system consists of an air segment, a ground segment and a support segment, performing all-weather surveillance in near real-time.

The air segment consists of five RQ-4B Global Hawk Block 40 aircraft and remotely piloted aircraft (RPA) flight control element. The ground segment consists of a number of ground stations in various configurations, such as mobile and transportable, which will provide data-link connectivity, data-proces-



Crew chief's workplace



Operator's workplace



MGEC on the ground



MGEC installed on TATRA truck

sing and exploitation capabilities and interfaces for interoperability with C2ISR systems. The Czech company RETIA, a.s. member of the Czechoslovak Group, has been participating in NATO AGS programme since year 2012. RETIA has produced the Mobile Ground Exploitation Component (MGEC) which is part of the ground segment. This asset will process information arriving from the air segment and other sensors and will disseminate this information to the commanders in the field.

The MGEC equipment is integrated into a standard ISO 1C 20 foot container. The IT equipment is divided into RED and BLACK zones. The MGEC operators can evaluate situation on 24" ruggedized displays.

The MGEC was completely designed, developed, tested and finally produced by RETIA. The MGEC successfully passed all required tests, e.g. severe weather conditions tests, information security test, dynamic test, etc.

In year 2015 RETIA successfully accomplished AGS System Design Development and Qualification phase and currently is producing one Mobile Ground Exploitation Component every third month.

Based on experience gained during the NATO AGS project RETIA is offering MGEC modification which could be used by any national crisis management staff for monitoring situation and for taking the right decision in the right time.

[www.retia.cz](http://www.retia.cz)

# IAI ELTA & RETIA

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ELM-2084 MMR combines:  
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The ELM-2084 MMR is the key component of the air defence system called "IRON DOME".

## Global Surveillance System

*The system is designed for covering entire countries or, as the case may be, large compounds, state borders, high-voltage distribution lines, gas pipelines, etc. It provides the possibility of real-time video monitoring of air and ground surveillance in special control centres or by means of mobile equipment.*

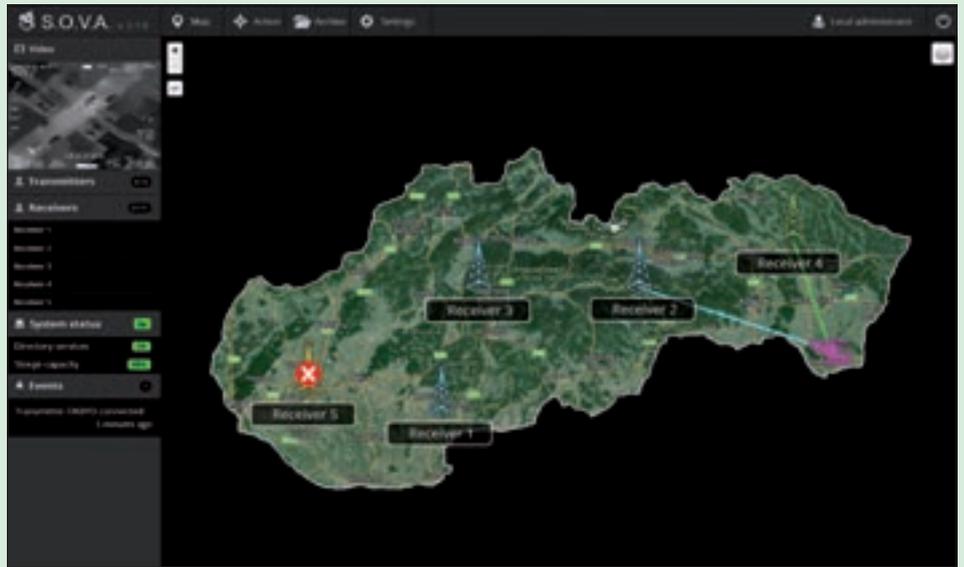
The transmitting system comprises surveillance equipment (helicopters, airplanes, UAVs, ground vehicles, etc.) fitted with digital video transmitters and cameras; customer's existing systems may be implemented as well.

The receiving system comprises several receivers, installed within a monitored area, a central server and the special S.O.V.A. application.

**Special Operational Video Assistant – S.O.V.A.** - provides a full integrated video solution for air and ground units alike.

It includes video distribution and a recording system that is highly flexible, scalable, interoperable and easily configurable. The user interface of the system offers a wide range of functions and monitoring parameters whilst maintaining the controlling simple, well-arranged and intuitive. This system provides great assistance especially in border surveillance activities, but also in solving emergency situations where timely reaction of a control centre to actual conditions is especially needed.

It fully integrates all supported video equipment into a web platform accessible from any device connected to a secured network. User's access is secured by encrypted con-

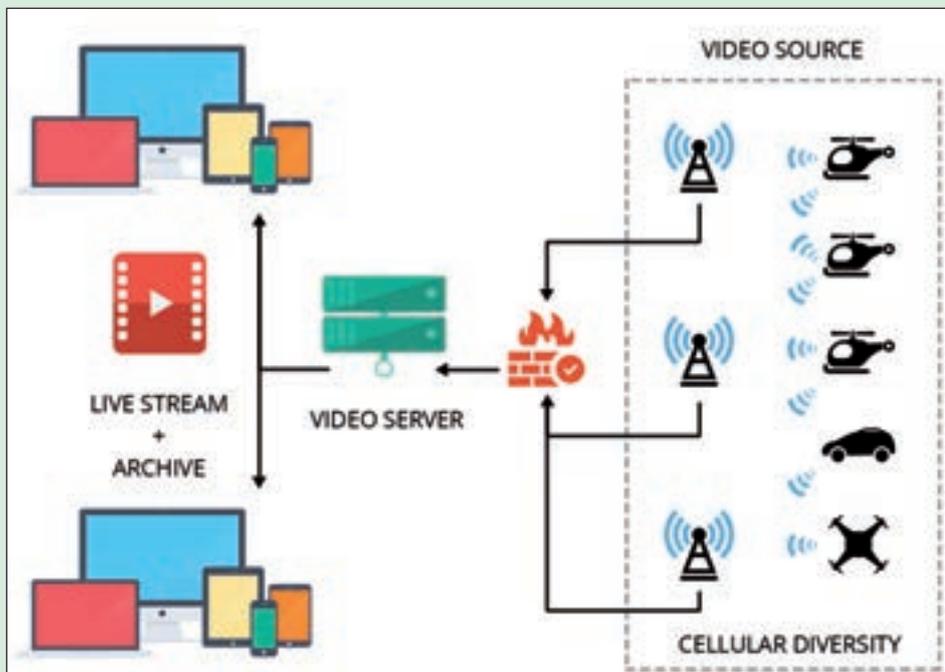


nection enabling single sign on login by integrating directory services of the Microsoft Active Directory and LDAP types. Individual users may be granted access to video content based on fully definable access rights.

The platform includes a high performance and fully autonomous map server, which enables users to carry out visual monitoring (connection indication, signal strength, selected channel) of active video devices, including their geographical position and infrastructure status.

It provides to users live-transmitted HD video, supporting advanced encrypting (AES) and with minimum time response. Video can be automatically or manually archived for later playing and it is immediately available when a mission has been completed. When archived, video records can subse-

quently be played, downloaded and edited (script).



The full diversity core of the system, processing the video signal, ensures continuous video transmission free of undesirable connection failures. In this way it prevents subsequent degradation of video content and it makes efficient use of infrastructure transmission bands.

This system can be integrated into an existing infrastructure, among other, by connecting to outputs of external applications. The modular design of the platform enables its extending by further functions, as requested by the client.

The representatives of company Audiopro which has developed whole the system are ready to introduce it to you and share the experience they already have from real deployment of this system.

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**Contact Person:**  
Michal Jágrik – Head of Marketing



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The main activity of Prototypa-ZM, s.r.o. company is research, development and production of the ballistic test equipment for testing of cartridges, weapons and protective materials according to standards C.I.P., SAAMI, STANAG, MOPI, MIL, NIJ, AEP etc. Prototypa-ZM, s.r.o. is NATO qualified supplier with code number 0461G. Company is a holder of the quality management system certificate EN ISO 9001:2009 and AQAP 2110.

**Contact Person:**  
Mr. Vít Nezval – Head of Ammunition & Ballistic Department

MSPO 2016 – stand G-1 company Forcepol sp. z o.o.



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# Meeting of Leading Representatives of the Visegrád Group Countries Responsible for Civil Protection

*On May 17 and 18, 2016, the Czech presidency of the Visegrád Group hosted a meeting of leading representatives responsible for civil protection. The main topic of the meeting was the assessment of risks at the national level and its use within the Union Civil Protection Mechanism.*

The introduction of the article provides basic information on the Visegrád Group (also known as the Visegrád Four, or simply V4). It is an alliance of four Central European countries: Czech Republic, Hungary, Poland, and Slovakia. The Visegrád+ format also includes Slovenia and Austria. The V4 alliance is inspired by the meeting of three kings in the Hungarian town of Visegrád in 1335. At that time, Hungarian king Charles I of Hungary, Czech King John the Blind, and Polish king Casimir III the Great had agreed to close cooperation in political and trade matters and eternal friendship there. 656 years later, their meeting was a source of inspiration for yet another successful Central European initiative. The modern-history Visegrád Three was born on February 15, 1991, ten days before the demise of the Warsaw Pact, at a meeting of Hungarian Prime Minister József Antall, President of the Czechoslovak Federative Republic Václav Havel, and Polish President Lech Wałęsa in Visegrád, where the three politicians signed a declaration of close cooperation of their respective nations on their way to European integration. The Visegrád countries jointly strove the demise of the COMECON and the Warsaw Pact. After the division of the Czechoslovak Federative Republic, the name of the alliance changed to the Visegrád Four (V4), as the membership passed to both successor states, Czech

Republic and Slovakia. For six years, cooperation within the Visegrád Group was dwindling and was restored only in October 1998. When all the four nations joined the European Union on May 1, 2004, activities of the group in the field of international policy increased even more, and the alliance was focusing on promotion of stability and cooperation in a broader region of Central Europe. Cooperation with Austria and Slovenia has been taking place in the framework of the so-called Regional Partnership; as to other central and eastern European countries, there is a so-called V4+ programme. The term of presidency of the Visegrád Group is one year, and the office is always handed over to the next nation at midnight of June 30/July 1. In 2015/2016, the presidency was held by the Czech Republic; in 2016/2017, the office will be held by Poland, and in 2017/2018 and 2018/2019 by Hungary and Slovakia, respectively, which means the Czech Republic's next presidency will fall into the 2019/2020 period.

Insofar as the area of civil protection is concerned, there is an unwritten rule that the V4 presidency organizes a meeting of General Directors on a topical issue, which is discussed with relevant responsible experts. The meeting is concluded by a memorandum or joint declaration signed by all the parties. Recently discussed topics included:

- Principles of preparation and execution of exercises of crisis management bodies (2008),
- Cooperation in the field of implementation of relevant elements of the Union Civil Protection Mechanism at the EU level; Uses of the

financial tool of the Union Civil Protection Mechanism for the implementation of joint projects in the field of prevention of and preparedness for emergencies; and Exchange of information on structural changes in national civil protection systems of the V4 countries (2009),

- Variability in united Europe, various tools and common objectives of V4 (2010),
- Safety and security against CBRN threats, improved prevention, detection and response to emergencies and serious incidents involving CBRN substances; and Cooperation in the preparation and implementation of joint projects focused on improving V4 civil protection capacities and preparedness for potential cross-border emergencies (2011),
- Discussion on disputable points of the draft of the Union Civil Protection Mechanism (2012),
- Enhancement of capacities and capabilities reacting to disasters occurring both on and outside own territory (2013),
- Critical infrastructure – national and European legislation, exchange of lessons learned in this field; and Cooperation in the field of crisis management during floods (2014),
- Prevention of, preparedness for, and reaction to natural disasters caused by geophysical changes (2015).

The topic chosen by the Czech presidency for 2016 was “The Assessment of Risks at the National Level and Its Use within the Union Civil Protection Mechanism”. The meeting was attended by General Director for Crisis Management of the Republic of Hungary, Major General Tibor TOLLÁR, Deputy Commander-in-Chief of the National Fire Service of Poland, Colonel Marek JASIŃSKI, and Director of the Civil Protection and Contingency Planning of the Ministry of Interior of the Slovak Republic, Colonel Miroslav IVICA, all with their respective entourages. The meeting was chaired by General Director of the Fire and Rescue Service of the Czech Republic, Major General Drahošlav RYBA, as the representative of the host nation. Presentations of the Fire and Rescue Service of the Czech Republic were delivered by managers responsible for different civil protection sectors.

The first presentation dealt with reasons why the European Union demands risk assessments from its member states and what it intends to do with the data. Delivering results of national assessments was also a condition for the disbursement of structural funds under the so-called ex ante 5 conditionality, and the European Union thus made sure that the task was fulfilled by most of its member states. The obligation to send national risk assessments is stipulated in Article 6 of Decision No 1313/2013 EU of the European Parliament and the Council of 17 December 2013,





on a Union Civil Protection Mechanism; this is not the only obligation the decision imposes upon EU member states.

The natural disasters considered to pose the highest risk include:

- Floods – 25 member states;
- Extreme weather – 21 member states;
- Wild and forest fires – 18 member states;
- Pandemics and epidemics – 18 member states;
- Livestock epidemics – 14 member states;
- Earthquakes – 14 member states;
- Droughts – 12 member states;
- Landslides – 10 member states;
- Volcanic eruptions – 7 member states;
- Cosmic weather – 4 member states.

The man-caused disasters considered to pose the highest risk include:

- Industrial disasters/elimination of energy sources – 18 member states;
- Terrorism – 17 member states;
- Nuclear/radiological accidents – 17 member states;
- Traffic accidents – 17 member states;
- Cyberattacks – 14 member states;
- Loss of a critical infrastructure element – 12 member states;
- Coastal, marine and environmental pollution – 10 member states;
- Refugees/uncontrolled migration wave – 6 member states;
- Major public riots – 6 member states;
- CBRN attacks – 5 member states.

Furthermore, the presentation mentioned statistical conclusions of a report published by the risk prevention and assessment group, which show that natural disasters which occurred between 2002 and 2014 killed more than 80,000 people and caused economic losses exceeding EUR 100

billion. Another piece of information contained in the report is that each euro invested into prevention will save EUR 4 to 7 in disaster response and relief costs. The issue of prevention has spread into many political areas of the Union, namely: health, environment, adaptation to climatic changes, development, cohesion, agriculture, transportation, and research and innovations. Some of the discussion was also dedicated to EU's support of and initiatives parallel with the Sendai Framework for Disaster Risk Reduction 2015 – 2030, as well as the steps the European Union intends to take towards its implementation.

The next item on the agenda was information about the analysis of risks in the Czech Republic. An analysis of threats for the Czech Republic and a conversion of its conclusions into methodological and strategic documents in the field of national security are determined in the Concept of Protection of Population until 2020, with a view until 2030. The deadline of the task is the end of 2016, and the responsible authority is the Ministry of Interior, which cooperates with other ministries and central administrative authorities concerned. The analysis was prepared by a team of experts consisting of members of the Fire and Rescue Service of the Czech Republic, who used analytical information provided by and discussed with relevant ministries and other central administrative authorities. The analysis has identified 22 threat types in respect whereof a declaration of an emergency can be reasonably expected. In such situations, it will be necessary to adopt, within the contingency planning system, measures eliminating risks and mitigating impacts of emergencies. The next step should be a preparation of a new generation of type plans replacing the existing documentation.

The next presentation was delivered by our



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Hungarian colleagues who stated that the first national risk assessment in their country had already taken place in 2011, with just 6 principal risks identified. The next national risk assessment round, whose results were sent to the European Commission, took place in 2014; the updated assessment identified 12 principal risks. The Hungarian presentation also described the assessment

methodology and risk categories used. It was interesting to hear that the Hungarian government receives a regular quarterly report containing percentage estimates of emergencies which may occur.

The next presentation was that of Poland. In Poland's case, the risk assessment preparation was co-

ordinated by the Government Security Center (Rządowe Centrum Bezpieczeństwa – RCB) and the Polish National Fire Service only provided some supporting information and documents. The Center was established in August 2008 by the Polish Crisis Management Act as a supporting organ of the Prime Minister, Council of the Ministers, Ministry of Interior, and Public Crisis Management Administration. The Center also acts as a secretariat of the Polish Central Crisis Management Staff. In 2015, a national risk assessment report was drafted, but it is a classified document. As it was necessary to send risk assessment information to the European Commission, an unclassified version of the report was also created. The report lists about fifty threats, evaluates the level of risk posed by each of them, and defines preventive and preparatory measures. Conclusions of the report have been implemented into national crisis management measures and will also be used in the development of new measures.

The last presenters were our colleagues from Slovakia. Their presentation was approached in a somewhat broader form, containing general information about Slovakia, legal framework of civil protection, number and types of emergencies, responsibilities of various ministries for emergencies, and Slovakia's civil protection system organization. The next part consisted of maps showing average precipitation, snow cover, wind-threatened areas, avalanche risks, seismic risks, and risks of floods and forest fires. The final part focused on the preparation of risk assessments in Slovakia; the risks are divided into natural disasters, man-caused disasters, sociogenic disasters, and risks related to disruptions of critical infrastructure.

The event took place in the Spiritka facility of the Ministry of Interior and its programme also included visits to the Firefighting Unit of the Prague Castle and to a new facility in Jihlava, the latter including a demonstration of special vehicles and equipment and a sightseeing tour of the humanitarian aid base. Foreign representatives appreciated the quality of the event and the visits, and the Polish colleagues promised to organize another meeting of general directors of civil protection during their V4 presidency.

All in all, it is possible to say that each of the V4 nations has approached the national risk assessment in a somewhat different way, although the risks that may be encountered in Central Europe are similar. Each V4 country can draw from experience of its neighbours, which can be used, for example, for an analysis of deficiencies in capacities and capabilities needed to respond to large-scale disasters and emergencies. According to Decision No 1313/2013 EU of the European Parliament and the Council of 17 December 2013, on a Union Civil Protection Mechanism, the analysis should be prepared and sent to the European Commission by the end of 2018.

**Colonel Mgr. Jiří Musílek**  
**Photo František Špaček**



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Our Daily (24h) and Individual (8h) Food Rations were originally developed to meet complete daily nutrition needs of combat troops working under demanding conditions, but in principle can be used by an individual in environments where standard food cannot be supplied by common means, i.e. during natural disasters, war conflicts, humanitarian crises etc. These food rations can be supplied as a part of emergency relief programmes on the UN level, but also as a field catering for humanitarian teams and their technical crew members. Kinds and types of meals contained in our ration packs are carefully selected, with respect to dietary habits of different parts of the world. Our meals are either ready to eat or easy to prepare and store for long periods. Besides, we constantly try to widen our offer for new items, in reaction to demands of our customers or even by using their own recipes.

Our Humanitarian Aid Kit is appreciated by our customers for its universal usage. Above all, it contains a set for treatment of biologically safe drinking water, and can serve as a suitable tool for international humanitarian aid worldwide. It may be also used as a component of global emergency management system. Single contents of the kit are stored in a portable plastic box with a safety lid, specially designed as a measuring container for preparation of drinking water.

MEDIAP LLC has a quality assurance system built for internal control of products (the company holds ISO, AQAP, GMP and GDP certificates). The quality system is a tool that meets the company's goal regarding food safety and proper product quality, in accordance with customer and public requirements. Moreover, each delivery for the Czech Army is additionally approved by the governmental Certificate of Conformity.

The quality system respects ISO and AQAP principles and includes procedures, descriptions, instructions and control schedules throughout the production process to ensure a quality final product. This means valuing subcontractors, purchasing, goods receiving, inspection routines, storage, production, personal hygiene, cleaning, special treatment, remedial measures, registration and internal audits. Our corporate philosophy is based on integrity, best product quality and the highest level of services!

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## SOKOL™ 2.0 - Parachute Training Simulator

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*SOKOL™ 2.0 was developed by e.sigma for the multi-stage and holistic training of parachute-jumpers from beginner right down to paratrooper, Special Forces and amphibian troops. The training on SOKOL™ 2.0 covers the operational spectrum from HALO (high altitude – low opening) to HAHO (high altitude – high opening) jumps.*

The system provides parachute training capability and functionality as required for free-fall, mission exercises and emergency procedures. The safe simulator environment allows the trainee to fully concentrate on his/her jumping skills without distracting thoughts of injury and dangers posed during inclement weather jumps, or critical operational problems with chute, its lines, or other auxiliary equipment. Utilizing customer-specific parachute types, trainees learn to master dangerous situations while using the familiar equipment in 3D-Virtual-Reality training prior to their first live descent.

In contrast to real jump, training on SOKOL™ 2.0 offers an optimization, as exercises can be repeated under the same conditions as often as desired. Exercises can be expanded by making all sorts of adjustments, such as to wind and weather conditions, daytime and nighttime, thereby making the situational difficulty selectively harder for the trainee.

The training program is rounded off by the use of auxiliary simulation equipment such as GPS, (audible) altimeters (e.g. Pro-Dytter, Visio), automatic activation devices (e.g. Cypres, Vigil), radio and compass.

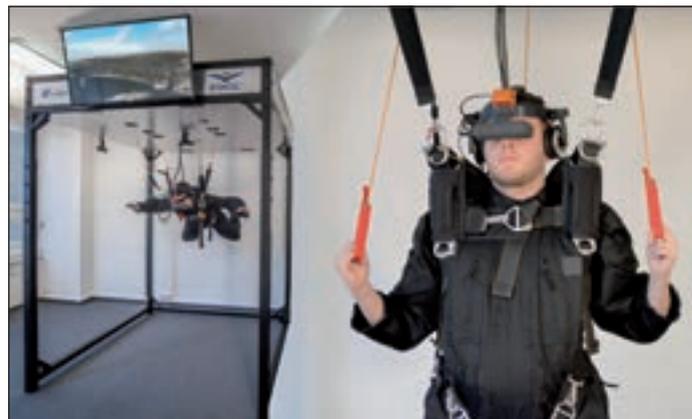
The simulator features realistic representations of environments,

horizon and descent movement. It utilizes photorealistic geo-specific visual databases with typical environmental scenes such as desert, mountains, shorelines, urban landscapes.

SOKOL™ 2.0 can be networked within the SOKOL™ product range, but also with other simulators from e.sigma or third party providers, thus enabling multi-stage group training.

Thanks to the broad spectrum of training possibilities, SOKOL™ 2.0 superbly closes the gap between theoretical learning and practical exercise. It represents a useful and cost-effective supplement to traditional training devices, such as pendulum-rigs, suspension rigs, jump-towers and wind-tunnels.

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## Eurosatory 2016 – Confirms its Leading Position

**Eurosatory has just closed its doors and is once again a success: 1,572 exhibitors from 56 countries and 57,018 visitors from 151 countries came as well as 1,241 journalists received accreditation to take part to this well-balanced exhibition between Defence and Security.**

This world leading event continues to develop with an increase in attendance of Asian exhibitors, a high expansion in cyber, unmanned global systems and robotics.

An important growth of high-profile visitors has

been recorded: 212 official delegations from 96 countries (i.e. 821 delegates VIPs) visited the exhibition. Eurosatory has also been honored by the visit of 13 Defence ministers, 30 Defence Vice Ministers and State Secretaries. 18 National Armaments Directors and 26 Armed forces and Army Chiefs of Staff were also welcomed.

179 Eurosatory Guests from 26 countries (experts, Program Executive Officers, Program Managers, Chiefs of "Operations" and/or "Logistics" Divisions, etc.) attended the exhibition.

Already recognized as an international exhi-

bition, a technology showcase and a business platform, Eurosatory is now identified as a strong pole of reflection, with the organisation of more than 80 conferences where military, manufacturers, politicians, media and researchers have thought together on ways of making a safe world for the future.

The organisers thank all the participants who have made this 2016 edition a brilliant success and invite you for the 26<sup>th</sup> edition of Eurosatory, which will be held in June 2018, from the 11<sup>th</sup> to the 15<sup>th</sup>.



### Czech presence – opinions of exhibitors

**This year's presence of Czech defence and security industry can be viewed very positively. There were altogether 26 companies present at the fair; the Czech pavilion hosted 17 of them, and we also visited SVOS's own stand traditionally located in Hall 6 and open-air stands of TATRA TRUCKS and KARBOX. We will bring more detailed information about the fair in the Czech version of the Review magazine.**

**Milan Jurek, Deputy CEO i/c Business Development, OMNIPOL:** "The OMNIPOL Group presented an integrated business offer of defence and security systems and technologies, including passive surveillance and radiolocation, at this year's EURO-SATORY. In my opinion, our participation this year was very successful, thanks mainly to ample presence of our business partner. I have just one complaint concerning the organization, namely that our expectations and promises about the number of official delegations which were supposed to visit our stand were not met."

**Igor Valníček, Chief Executive and General Manager, EVPÚ Defence:** "Traditionally one of the biggest exhibitions in the world, whose size impresses every time. As years go by, it is increasingly difficult to see everything and find what our competitors offer. This year's EURO-SATORY was more focused on heavy equipment and vehicles than on

demonstrations of sophisticated electronic devices. Compared to previous years, there were many more experts among visitors, who came with a clear idea what they wanted to buy and were prepared for discussions with representatives of our company. The appearance of and impression made by the Czech pavilion is a specific issue. Its preparations and standfitting were indeed demanding this year; the concept was changed many times, and the final overall impression was significantly different (and in our case worse) than that suggested by the initial design. Still, the five days in Paris were full of interesting experiences, we came to know a number of new potential customers and had a number of pleasant

meetings with our colleagues both from the Czech Republic and from abroad."

**Česká zbrojovka:** "Česká zbrojovka, a.s., presented the complete military programme and a portfolio of ballistic vests at the EURO-SATORY fair in Paris. Actually, it was the first time ever that its new modern automatic assault rifle, CZ Bren 2, was presented to the public. It was received very positively and there was a lot of interest among visitors in this weapon. The CZ Bren 2 assault rifle has been designed for the most demanding users from the ranks of special units and armed forces operating anywhere in the world."

**By Šárka Cook  
Photo: Miloš Soukup**





## Photogallery Czech Participation



# IDET, PYROS and ISET 2017: Security Fairs will Open New Opportunities for Business

*Security has become a clear priority these days. At this time of increased risks deriving from new outbreaks of war, terrorist attacks as well as other threats, governments do not hesitate to invest in defence and security technologies. Along with that is growing the importance of the defence industry, which has traditionally a strong position in the Czech Republic. Companies present their new products aimed for security forces at trade fairs, to which the Brno's IDET has belonged since 1993.*

Next year on the verge of May and June, its fourteenth edition will be held, once again in partnership with the PYROS and ISET fairs, which present fire and safety equipment and services. There is considerable interest in participation already long time before, because both the Ministry of Defence and the Czech Police and Fire Rescue Brigade of the Czech Republic increase their budgets for medium-term purchasing plans.

IDET forms an essential platform for the presentation of the Czech defence and security industry. Just like in previous years, it will offer the exhibiting firms direct contacts with both domestic and international customers. As an exhibition of defence technologies for Central and Eastern Europe, it is regularly attended by the Ministries of Defence of Poland, Hungary, Slovakia and other countries; NATO is usually directly represented with an exhibition stand here, and defence sector delegations from come dozens of countries all around the world. A partner of this trade fair, the Association of Defence and Security Industry of the Czech Republic brings together 110 member companies that are very successful in foreign markets with weapons, security systems and technologies. Already nowadays they export about 80 percent of their products and their application possibilities continue to grow; in fact, sales of armament companies grow globally, and the fastest growth is right in Europe, where the year-to-year sales grew by 8.2 % in 2015. Exports of Czech armament companies amounted to 11.8 billion crowns in 2014, while in 2015 it was already 15 billion.

The attractiveness of the IDET International Exhi-

bition of Defence and Security Technologies is enhanced by its interconnection with the PYROS International Trade Fair of Fire Fighting Equipment and Services and the ISET International Security Technology and Services Fair. This shamrock of SECURITY FAIRS hence covers with its range of exhibits the entire integrated rescue system, consisting of the army, police and fire brigade. All three components of the Integrated Rescue System work together very closely and often use the same equipment, information technology, communication means, weapons and vehicles. The Brno trade fairs hence give an overview of the entire military and civilian security and above all multiply the possibilities for exhibitors to establish themselves as suppliers for the various components of the integrated rescue system. Recently published purchasing intentions in the medium term open a variety of opportunities for that.

A series of modernization projects have been announced by the Czech Army, which in the context of the deteriorating security situation increases the investments into its technical equipment. By 2020, the Czech Republic defence expenditure should rise to 1.4 % of GDP; already in 2016 it will grow by 9 %, i.e. CZK 4 billion. The goal is namely the modernization of ground forces, and the priority objectives include the modernization or replacement of obsolete BMP-2 armored vehicles and a purchase of 50 NATO caliber cannons, which will replace the ending Dana howitzers. The main armament projects of the Army of the Czech Republic in the medium term include also purchases of mobile radiolocators (8 units from 2017), light multipurpose helicopters (12 pieces from 2017), command-staff and radio communication wheeled armored vehicles (62 units from 2018) and special vehicles for the chemical unit (40 pieces from 2017). At the same time project named 'Soldier of the 21<sup>st</sup> Century' continues, the RBS air defence system modernization is under preparation, as well as the acquisition of SHORAD air defence systems, development of a new global data network and others.

The Fire Rescue Brigade of the Czech Republic is also preparing an extensive modernization of its

individual components virtually in all covered areas. Replacement of firefighting rescue vehicles, equipment and material, as well as investments into information technology and control centers are counted on. The announced purchases also affect the means and material for the protection of property against floods, as well as engineering and other equipment for the elimination of consequences of explosions and other disasters, equipment for detecting and removing the effects of chemical and industrial accidents, and last but not least, equipment for rescue and humanitarian operations.

The Police of the Czech Republic in the medium horizon will be purchasing multipurpose helicopters, off-road vehicles, information technology and means of communication. In the pipeline are also modifications of guns and investments into optical apparatuses, vehicle replacements and basic equipment for police officers, as well as purchases of new means of personal protection – helmets and bullet-proof jackets. The ISET 2017 fair, with its highlighted topic of cyber security, will be an opportunity for a comprehensive presentation of technologies for the protection and safety of life and property.

The whole shamrock of SECURITY FAIRS 2017 will then demonstrate the capabilities of individual components of the security system to face the current threats in case of emergency events in the Czech Republic. Great interest in the exhibits is expected from the public and above all from domestic and international professionals. Moreover, the Brno Exhibition Centre allows presenting the equipment directly in action in a unique outdoor terrain polygon, where attractive demonstrations of various opportunities of utilization take place. The fairs will also feature a traditionally high-quality extensive specialized sideline programme, and a prestigious competition for the best innovative exhibits 'Golden IDET'. During the last edition in 2015, the SECURITY FAIRS were attended by more than 27 thousand visitors from 51 countries, and official army delegations arrived from 32 countries.

[www.idet.cz](http://www.idet.cz)

Photo Šárka Cook and BVV Trade Fairs Brno



# EXPLOSIA a.s.

Explosia a.s. is a production and trading company operating primarily in the field of production of explosives and services associated with application of energetic materials for commercial as well as military use. The company was established in 1920 and since then it has existed in a series of various forms and business groups - from an independent joint-stock company through the plant within greater company units back to self-managing company (since June 1<sup>st</sup>, 2002). Company holds an important position in the field of explosives and propellants in the Czech Republic market, and it is also an important exporter, primarily to EC countries.

- Production of Explosives
- Production of Propellants
- Special production
- Research and Development of Explosives



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# 14<sup>TH</sup> INTERNATIONAL DEFENCE AND SECURITY TECHNOLOGIES FAIR



31. 5. – 2. 6. 2017

BRNO, CZECH REPUBLIC



31. 5. – 3. 6. 2017

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