

# Czech Defence Industry & Security REVIEW®



2/2016

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The Media Platform of the Defence and Security  
Industry Association of the Czech Republic



2016  
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13 - 17 JUNE 2016 / PARIS

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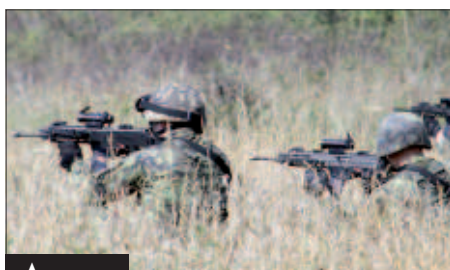
Opening Speech to EUROSATORY 2016



16-19 CZECHOSLOVAK GROUP



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## CONTENT

FUTURE FORCES FORUM to Host a Record Number of Experts and Industry...	6
Invitation to EUROSATORY 2016	8
Opening Speech by Mr. Tomáš Kuchta	10
Opening Speech by Mr. Jiří Hynek	11
Czech and Slovak Exhibitors at EUROSATORY 2016	12-14
CZECHOSLOVAK GROUP – Traditional Czechoslovak Companies along...	16-19
Protection of TATRA Vehicle Crews at a New Level	20
M10, M10A Personal Headsets	21
The Air Defence Solution at Hand: Easily Deployable Passive Tracker...	22-23
CZ 805 BREN – Famous Name, Cutting-Edge Weapon	24-25
Our Forte is Our Own Development	26-28
Critical Infrastructure Protection by VOP CZ, s.p.	30
Expansion of the Production of Electric Subassemblies for Military and...	32-33
AURA Trains Algerian Officers in the NATO Codification System	34
FIDAE 2016	36
Publication Plan of CDIS Magazines in 2016	37
Fire Rescue Service of the Czech Republic	39-57

## Advertisement at CDIS Review 2/2016

AURA – page 35, CZECHOSLOVAK GROUP – page 1, ČESKÁ ZBROJOVKA – page 62, DSIA CR – page 59, EUROSATORY – page 15, EXPLOSIA – page 35, FUTURE FORCES – page 7, MESIT DEFENCE – page 21, MIT CR – page 9, MS LINE – page 58, M.S.P.O. KIELCE – page 36, NATO DAYS – page 38, OMNIPOL + ERA – page 2 and 3, OPTOKON – page 37, QUITTNER & SCHIMEK – page 31, RETIA – page 29, SVOS – page 29, TATRA TRUCKS – page 20, VELETRHY BRNO - IDET 2017 – page 60 and 61, VOP DOLNÍ BOUSOV – page 37

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2/2016

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# EDITORIAL



Dear readers,

Two years have passed like the turning of a palm and another EUROSATORY exhibition is awaiting us. Last November, Paris experienced what was perhaps the cruelest terrorist attack ever, and the event will therefore take place under strict security measures. The Villepinte exhibition site is close to the neighbourhoods of Le Bourget and St. Denis with numerous Muslim communities, where the National Stadium will also host final rounds of the 2016 European Football Championship.

You are now holding this year's second issue of the English version of the CDIS Review magazine whose mission is to provide maximum possible media support to the Czech defence and security industry at this international exhibition. The defence and security industry is represented here by almost 30 companies.

The magazine offers many interesting articles in which the companies present their product portfolios and also some exhibits and innovations. On this occasion, I would like to highlight the information provided by CSG (EXCALIBUR ARMY, RETIA, TATRA TRUCKS), OMNIPOL, ERA, EVPÚ Defence or CZUB. You will also find here basic information about the autumn FUTURE FORCES exhibition in Prague or the spring 2017 IDET fair in Brno.

The magazine's exclusive subscriber list includes mainly selected representatives in NATO and EU structures, all Czech embassies and consular offices, defence attachés, senate and parliament committees, leading government representatives, business and industrial partners at home and abroad, and many others.

The next issue will be published in August, on the occasion of the M.S.P.O. Kielce 2016 fair, where area-wide distribution will be arranged by the event's management and our magazine. However, this issue will also appear, along its Czech counterpart, at other major events, including the NATO DAYS in Ostrava and the FUTURE FORCES exhibition in Praha – Letňany. For the first time ever, the MS Line publishing house and the CDIS Review principal media partners of the event for the Czech Republic, and will again be responsible for prizes for the best exhibits, which will be awarded by an international panel of journalists.

On this occasion, I would also like to inform you again about our new activities which have prompted a lot of reactions. These include on-line electronic English and Czech versions of the magazine from where you can click through to websites of companies presented in the magazine.

Dear readers, the editorial team looks forward to meeting you at EUROSATORY from June 13 to June 17 at the MS Line stand, Hall 6, BA 258, close to the main entrance.

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



## FUTURE FORCES FORUM to Host a Record Number of Experts and Industry Leaders in Defence and Security



*This October, Prague will traditionally become the venue of a meeting of domestic and foreign defence and security leaders on the occasion of Future Forces Forum (FFF). The project consists of a compilation of events and activities at high political, military, security and expert level, supported by many national and international institutions.*

For the first time in its history, it will present not only elements of national capabilities, but also the ability to meet interoperability goals in different areas of defence and security. FFF will cover not only traditional topics, such as **soldier equipment and protection, CBRN, Medical, Unmanned Systems & Robotics, Logistics, Cyber Defence**, but also **Hydrometeorological, Geospatial and GNSS**. FFF also focuses on **protection of critical infrastructure, counterterrorism**, management of **non-military crises** and emergencies, **CIMIC**, or importance and need to involve **R&D and education**.

FFF presents interests and needs of armies, law enforcement and security forces, or elements of the Integrated Emergency Management System on the one hand, and capabilities of industry and R&D on the other hand. This long-term project supports efficient international cooperation of government authorities and local government bodies, industry, science and education in defence and security.

FFF will this year culminate on **19 - 21 October** at **PVA EXPO PRAGUE** by **Future Forces Exhibition** and the outstanding expert programme, including **World CBRN and Medical Congress, Future Soldier Systems Conference, Military Advanced Robotic Systems Conference, Future of Cyber Conference, CBRN Workshop, Medical Workshop, Geospatial, Hydrometeorological and GNSS Workshop** and **Logistics Capability Workshop**.



The FFF participants will have the unique opportunity to meet experts from the whole world, industry leaders in the field of defence and security technologies, leading scientists, but also high-ranking government and military officials from NATO, EU and other partner countries. During the event, official **NATO expert working groups' sessions** will take place on 17 - 21 October in Prague and at PVA EXPO PRAGUE. Among the participating groups are **NATO CBRN Medical Working Group, NATO Military Committee Medical Standardization Board Medical Material Military Pharmacy, NATO Army Armaments Group (NAAG) Land Capability Group Dismounted Soldier Systems (LCG DSS), Combat Clothing, Individual Equipment & Protection (CCIEP), C4I & System Architecture, Ammunition Interchangeability, Soldier Capabilities Analysis Group, Power and Connectors, Head Borne Systems TOE, Weapons & Sensors, Non-Lethal Capabilities and SAS Panel**.

Many leading representatives of different international organizations have already confirmed their participation at FFF, including General Petr Pavel, **Chairman of the NATO Military Committee**, who will deliver a keynote speech on 19 October.

The FFF project includes **static and dynamic demonstrations** that will give the event attendance an opportunity to make a **first-hand acquaintance with the latest technologies**.




Organizers expect more than 8000 participants, approx. 200 exhibiting companies, more than 1000 experts and VIP guests from over 60 countries.

**Register till 31 May and get an Early Bird discount!** More information and on-line registration are available on [www.future-forces-forum.org](http://www.future-forces-forum.org)





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-  **Mr. Martin Stropnický** – Minister of Defence
-  **Mr. Jiří Hynek** – President of Defence and Security Industry Association

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**FUTURE SOLDIER  
SYSTEMS CONFERENCE****Speakers:**

-  **BG Thomas H. Todd III** – Commanding General, NATICK, Soldier Systems, (ARDEC), USA
-  **Mr. Mark Richter** – NATO LCG DSS Chairman, USA
-  **Mr. Marek Kalbarczyk** – Project Officer Land Systems Technologies, EDA – European Defence Agency, POL

and others

**WORLD  
CBRN & MEDICAL  
CONGRESS****Speakers:**

-  **MG Jean-Robert Bernier** – NATO COMEDS Chairman, CAN
-  **MG Jeffrey Clark** – Defense Health Agency Director, USA
-  **Dr. Roger Van Hoof** – Secretary General, International Committee of Military Medicine (ICMM), BEL

and others

**MILITARY ADVANCED  
ROBOTIC SYSTEMS  
CONFERENCE****Speakers:**

-  **MG John W. Charlton** – Vice Director for Joint Force Development, US Joint Staff J7, USA
-  **Mr. Paul D. Rogers, Ph.D** – Director of U.S. Army Tank Automotive Research, Development and Engineering Center, USA
-  **Mr. Berndt Körner** – FRONTEX Deputy Executive Director

and others

**LOGISTICS  
CAPABILITY  
WORKSHOP****Speakers:**

-  **MG Trond R. Karlsen** – NATO Logistics and Resources Division Director, NOR
-  **Mr. Timo Koster** – NATO Defence Policy and Capabilities Director, NLD
-  **LTG Jiří Baloun** – First Deputy Chief of the General Staff, CZE

and others

**GEOSPATIAL,  
HYDROMETEOROLOGICAL  
AND GNSS WORKSHOP****Speakers:**

-  **Mr. Ray Swider** – Chairman NATO Capability Panel 2 (Identification and Navigation), USA
-  **Mr. David Grimes**, President, World Meteorological Organization (WMO); CAN
-  **Mr. Pascal Legai**, Director of European Union Satellite Centre, FRA

and others

**FUTURE of CYBER Conference 2016  
CYBER  
TRENDS**  
3<sup>rd</sup> edition of Future Cyber Security & Defence Conference**Speakers:**

-  **Mr. Oldřich Martinů**, EUROPOL
-  **GEN (Ret.) Mieczysław Bieniek**, Security and Defense Advisor, POL
-  **Mr. Dušan Navrátil**, director National Security Authority, CZE

and others

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- NATO Dismounted Soldier Systems
- NATO CBRN Medical Working Group
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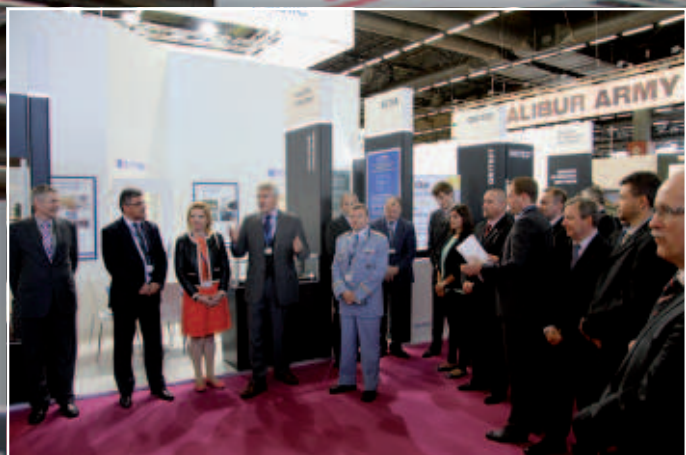


# Invitation



## 2016 EUROSATORY

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EURO SECURITY PRODUCTS – Hall 5, stand K535  
EVPÚ DEFENCE – Hall 5, stand K547  
GUMOTEX – Hall 5, stand K553  
ORITEST – Hall 5, stand J540  
PROAMMO CENTRAL EUROPE – Hall 5, stand K541  
REDO – Hall 5, stand J578  
SELLIER & BELLOT – Hall 5, stand J520  
STV GROUP – Hall 5, stand J556**

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#### CZECHOSLOVAK GROUP

- EXCALIBUR ARMY – Hall 5, stand K512
- RETIA – Hall 5, stand K512
- TATRA TRUCKS – Outdoor Area, stand D320
- KARBOX – Outdoor Area, stand D320
- SVOS – Hall 6, stand E352
- MEOPTA SYSTEMS – Hall 5a, stand LK778
- NOVITEX FASHION – Hall 5a, stand LK552
- RAY SERVICE – Hall 5a, stand LK778
- MS LINE – Hall 6, stand BA258

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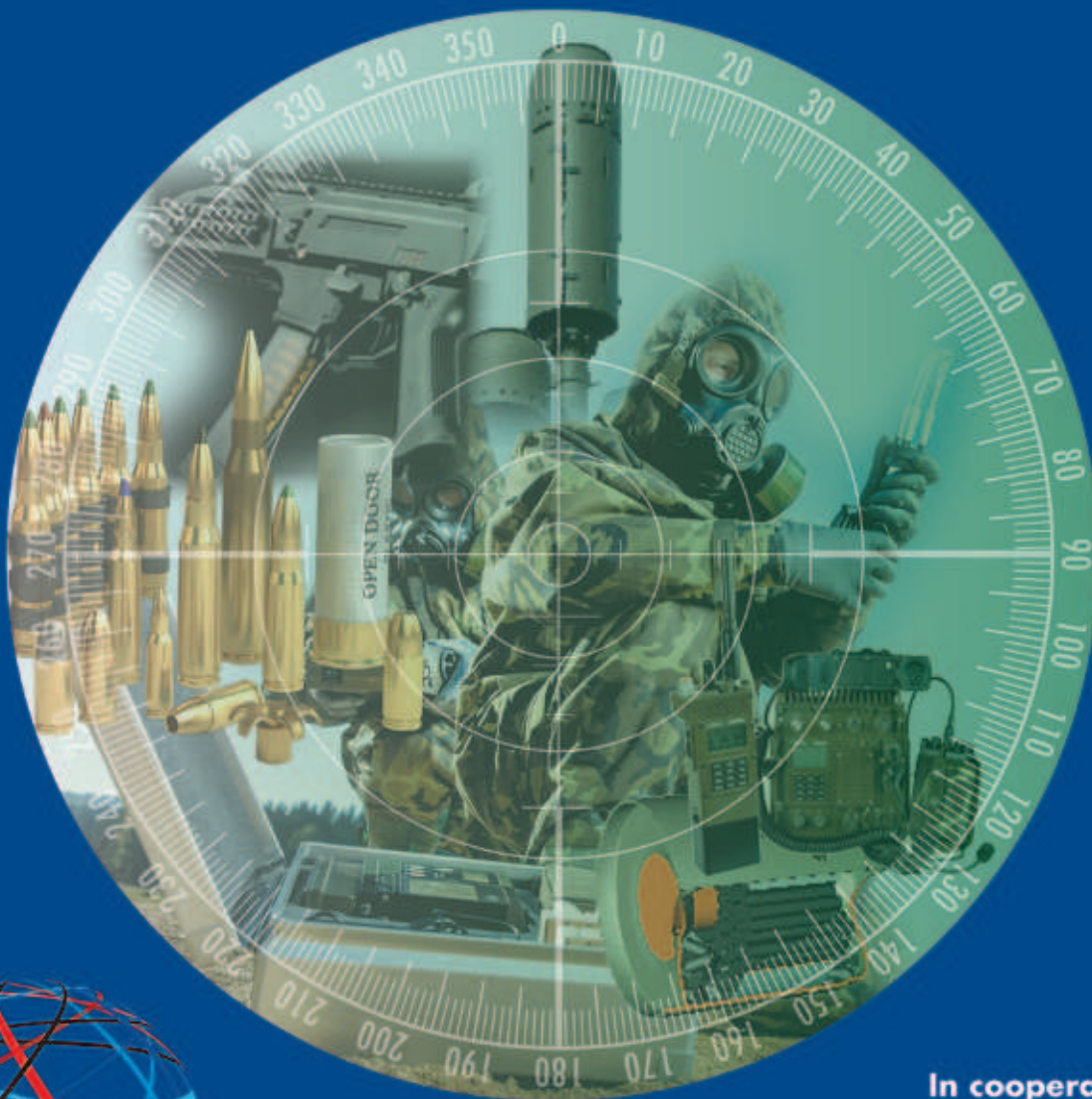




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## Opening Speech by Mr. Tomáš Kuchta Deputy Minister, Ministry of Defence of the Czech Republic

## Discours inaugural de M. Tomáš Kuchta Le vice-ministre de la Défense de la République tchèque

It is my distinct honour and privilege as Deputy Minister of Defence of the Czech Republic to say a few words on the occasion of this year's EURO-SATORY Exhibition in Paris, France. The Paris exhibition has been a world leader of its kind since the 1960's when the French military procurement agency started organizing a regular meeting place for companies offering their production to the French Armed Forces.

Since 1967 when around 30 companies were present, this event has evolved into the most important and prominent defence and security technology exhibitions in the whole world. From 13 to 17 June 2016, once again this prestigious event awaits a broad representation of leading global defence manufacturers and official governmental and military delegations in their hundreds.

Last time in 2014, 1,507 exhibitors from 59 countries were covering around 176,000 m<sup>2</sup> indoor and outdoor exhibition surface with 36 national pavilions. 70 % of the exhibiting companies were international as was the event as a whole with 55,784 visitors from 143 countries, 172 official delegations from 87 countries, 176 experts or program executive officers from 36 countries and 707 accredited journalists from five continents. This year, it is expected that the numbers will grow even more.

This obviously represents a great opportunity for Czech producers of defence equipment. EURO-SATORY 2016 is going to provide multiple opportunities to confront the cutting-edge of Czech made products with what their foreign competitors can offer, providing the Czech industry with a comparison that will enable them to keep up with prominent worldwide operating defence and security contractors.

Being responsible for supporting our high quality defence and security industry products abroad as a Deputy Defence Minister, it makes me proud to note that it truly deserves its place in such a respected company. Our industry's rich tradition dates back to the interwar period, when Czechoslovakia was one of the leading arms producers and exporters on a global scale. In recent decades, it has primarily focused on aircraft and aircraft support equipment, ammunition, and small arms and light weapons. Also, it is excelling in designing the most advanced passive surveillance and radar systems chemical, biological, radiological and nuclear defence systems and equipment, high-tech radio communication systems, special fabrics for military applications and many other products.

The long-term experience that Czech manufacturers have gathered paves the way for coming up with innovative and modern products and services that meet the highest quality standards necessary for successfully competing in NATO and European Union member states as well as in other parts of the world. In this regard, Czech defence and security industries have enjoyed vital support from the Czech Defence and Security Industry Association as well as from the Ministry of Industry and Trade, the Ministry of Foreign Affairs and the Ministry of Defence.

This time, the Czech national display at Eurosatory is going to show a wide range of passive surveillance systems, weapons and ammunition, advanced telecom systems, optronics as well as highly effective chemical warfare agents and industrial contaminant detection systems, camouflage systems and other attractive items on display. Altogether, more than 20 Czech companies are going to present their skills and equipment, including Omnipol, ERA, Mesit aerospace, Mesit defence, STV Group, AVEC CHEM, Oritest, Česká zbrojovka, Sellier & Bellot, evolving systems consulting, Redo, EVPU Defence, Gumotex, Euro Security Products, Prototypa-ZM and PROAMMO Central Europe.

Besides the stands of the exhibitors, visitors will have the opportunity to engage in discussions with senior armed forces officials in dozens of specialized panels and expert roundtables.

It is my sincere pleasure to wish the organizers, exhibitors and visiting decision-makers success, inspiration, fruitful exchange of information and indeed everything they expect such an important event to deliver.



C'est un grand plaisir pour moi, en tant que le vice-ministre de la Défense de la République tchèque, de pouvoir dire quelques mots à l'occasion de l'ouverture de l'exposition parisienne EURO-SATORY de cette année. Depuis des années soixantes cette exposition représente un leader mondial de ce type d'événements organisés régulièrement. Elle concentre les sociétés offrant leur production aux Armées françaises.

Depuis l'année 1967 quand elles étaient présentes à peu près de 30 sociétés, cet événement devanait une exposition la plus importante des technologies de défense et de sécurité dans le monde entier. Cet événement prestigieux de 13 au 17 juin 2016 attend de nouveau la représentation vaste des leaders mondiaux de producteurs du matériel de défense et des délégations gouvernementales et militaires.

La fois dernière, en 2014, 1,507 exposants de 59 pays prendraient environ 176,000 m<sup>2</sup> de superficie intérieure et extérieure avec 36 pavillons nationaux. 70 % des

sociétés exposantes étaient internationales de même comme tout cet événement avec 55,784 visiteurs de 143 pays, 172 délégations officielles de 87 pays, 176 experts des programmes d'armement de 36 pays et 707 journalistes accrédités de cinq continents. Cette année, on attend que les chiffres seront encore beaucoup plus imposantes.

L'exposition EURO-SATORY 2016 représente sans doute une occasion importante pour les producteurs tchèques du matériel d'armement quoi offrira des opportunités multiples de confronter les produits de haute qualité de la production tchèque avec ceux de top concurrents étrangers et permettra aux producteurs tchèques de suivre le train avec les fournisseurs promineurs du matériel de défense et de sécurité.

En tant que le vice-ministre de Défense et tenant compte de mes charges de promouvoir la production de l'industrie tchèque de défense et de sécurité de haute qualité à l'étranger, je suis fier de pouvoir dire que notre industrie mérite sa place dans le milieu des sociétés aussi respectueuses. Notre industrie de défense a une tradition riche datée de l'époque d'entre-deux-guerres quand la Tchécoslovaquie appartenait aux producteurs et aux exporteurs les plus éminents d'armement dans le monde. Durant les dernières décades, notre industrie se concentrait au domaine de l'aviation et du matériel aérien supportant, à la munition et aux armes légères et à main. Nous sommes forts aussi quand il s'agit du développement des top systèmes de surveillance passive et des radars, du matériel de la protection contre les armes chimiques, biologiques, radiologiques et nucléaires, du matériel radio et de communications de haute qualité, les tissus spéciaux et beaucoup d'autres produits d'utilisation militaire. L'expérience de longue date permet aux producteurs tchèques de développer les produits et services innovatifs et modernes correspondants aux standards de la haute qualité, nécessaires pour pouvoir concurer les pays-membres de l'OTAN et de l'UE, et aussi le reste du monde. Dans cet égard, l'industrie tchèque de défense et de sécurité est fortement soutenue par son Association, par les ministères de l'Industrie et du Commerce, des Affaires étrangères et de la Défense.

Cette année, l'exposition nationale de la République tchèque à EURO-SATORY présentera toute une gamme des systèmes de surveillance passive, des armes et de munition, les top systèmes de télécommunication, d'optronique et aussi d'agents effectifs contre les armes chimiques et les systèmes de détection de la contamination industrielle, les systèmes de camouflage et d'autres produits attirants. Au total, plus de 20 sociétés tchèques vont présenter leurs capacités et équipement, notamment Omnipol, ERA, Mesit aerospace, Mesit defence, STV Group, AVEC CHEM, Oritest, Česká zbrojovka, Sellier & Bellot, evolving systems consulting, Redo, EVPU Defence, Gumotex, Euro Security Products, Prototypa-ZM and PROAMMO Central Europe.

A côté des stands à voir, les visiteurs auront la possibilité de discuter avec les hauts représentants des forces armées pendant les douzaines de débats et de tables rondes d'expert.

Aux organisateurs, aux exposants et aux visiteurs décideurs, j'aimerais bien de souhaiter du succès, d'inspiration et d'échange fructueuse d'informations et la réalisation de leurs attentes.



## Opening Speech by Mr. Jiří Hynek President of Defence and Security Industry Association of the CR

## Discours inaugural de M. Jiří Hynek Président de l'Association de l'industrie de Défense et sécurité de République tchèque

**Dear exhibitors, dear visitors,**

The defence industry of the Czech Republic has always ranked among the best ones in Europe. Its long-standing tradition, excellent experts and their invention and creativity are the properties the Czech defence and security industry can be proud of. Unfortunately, the Czech market is too small for the local defence industry, which is why we cannot do without exports. The exclusive exhibition EUROSATORY 2016 can make a significant contribution in this respect. It provides a comprehensive idea of the Czech industry's capabilities and its broad portfolio of products and services. Thanks to the high technological standard of the products presented at the exhibition, the Czech defence and security industry can contribute to the elimination of globally growing security risks.

Many companies presenting their products and services during this exhibition are members of the Defence and Security Industry Association of the Czech Republic (DSIA). Since its origin, the Association has earned a deserved place in the defence and security system of the Czech Republic. It has become an important communication hub and platform of cooperation between the industry and the state authorities of the Czech Republic or security structures of other countries. It is an important partner of the Ministry of Defence of the Czech Republic, as well as of other ministries and agencies responsible for national security and defence. Last but not least, it cooperates with the Parliament of the Czech Republic, in particular with the Foreign, Defence and Security Committee of the Senate and the Defence Committee of the Chamber of Deputies.

The Association maintains numerous international contacts with its partner associations or similar organizations in the European Union, NATO member countries and other parts of the world. Representatives of the Association speak in support of the interests of our country in the NATO Industrial Advisory Group (NIAG) and are also present in the structures of the Aerospace and Defence Industries Association of Europe (ASD).

These relations are a springboard for efforts of the Czech defence and security industry to be involved in specific international projects. The quality of products and services of the Czech defence and security industry can be seen not only in the domestic market, but in different parts of the whole world to which the products and services are exported to satisfaction of their users. The satisfaction is always the best reference. I wish to all visitors and exhibitors to enjoy the exhibition and Czech defence and security products and services.



**Chers exposants, chers visiteurs,**

L'industrie de Défense de la République tchèque s'est toujours classée parmi l'une des meilleures en Europe. Sa longue tradition, ses excellents experts, leur inventivité et leur créativité sont des qualités, dont l'industrie de Défense et sécurité de République tchèque peut être fière. Malheureusement, le marché tchèque est trop petit pour l'industrie de défense locale, c'est pourquoi ne pouvons pas nous passer des exportations. Et, à cet égard, le salon exclusif EUROSATORY 2016 peut y contribuer de manière significative. Il permet de se faire une idée globale des capacités de l'industrie tchèque et de son large éventail de produits et services. Grâce à la haute technicité des produits présentés au Salon, l'industrie tchèque

de Défense et sécurité peut contribuer à l'élimination des risques sécuritaires qui s'accroissent globalement.

Nombre des sociétés qui présentent leurs produits et services sur ce salon sont membres de l'Association de l'industrie de Défense et sécurité de République tchèque (DSIA). Depuis sa fondation, l'Association a su gagner une place de choix dans le système de Défense et de sécurité de la République tchèque. Elle est devenue un pôle de communication et une plate-forme de coopération importante entre l'industrie et les pouvoirs publics de la République tchèque ou les structures de sécurité d'autres pays. Elle constitue un partenaire essentiel pour le Ministère de la Défense de la République tchèque, ainsi que pour d'autres ministères et agences en charge de la sécurité nationale et de la défense. Et ce qui n'est pas le moins important, elle coopère avec le Parlement de la République tchèque, en particulier avec le Comité des Affaires étrangères, de la Défense et de la Sécurité du Sénat, et le Comité de Défense de la Chambre des Députés.

L'Association entretient de nombreux contacts internationaux avec ses associations partenaires ou des organisations similaires dans l'Union européenne, les pays de membres de l'OTAN et d'autres régions du monde. Des représentants de notre Association soutiennent les intérêts de notre pays au sein du Groupe consultatif industriel de l'OTAN (NIAG) et participent aussi aux activités de l'Association européenne des industries aérospatiales et de Défense (ASD).

Ces relations constituent un tremplin permettant à l'industrie tchèque de Défense et sécurité de participer à des projets internationaux spécifiques. On peut se convaincre de la qualité des produits et services à l'industrie tchèque de Défense et sécurité non seulement sur le marché intérieur, mais aussi dans diverses régions du monde entier, où ces produits et services sont exportés pour la plus grande satisfaction de leurs utilisateurs. Le degré de satisfaction est toujours la meilleure référence. Je souhaite à tous les visiteurs et exposants de bien profiter de l'exposition des produits et services à l'industrie tchèque de Défense et sécurité.





Visit us:  
Hall 5,  
stand K521

CZ has long been the most important Czech manufacturer of firearms, and at the same time, also one of the most significant arms factories in the world. The company was founded in 1936 and this year celebrates its 80<sup>th</sup> anniversary. For 80 years, we proudly support and cooperate with many military and law enforcement agencies. Our products are used in more than 100 countries worldwide and they also serve together with NATO soldiers. Our goal is to deliver reliable tool for everyday, heavy duty service.

**Contact Person:**

Mr. Radek Chaloupka – Senior Sales Manager



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Visit us:  
Hall 5,  
stand K577

ERA a.s. (a member of OMNIPOL Group) is a supplier of next-generation surveillance and flight tracking solutions for the air traffic management and military markets. ERA has over 100 installations at a series of airports and military organisations in 57 countries on 5 continents. ERA has delivered multilateration based solutions to ATC controllers and developed the unique passive radiolocation system VERA-NG - an essential part of any modern defence surveillance network and advanced border protection.

**Contact Person:**

Mr. Milan Starý – Marketing Manager



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Visit us:  
Hall 5,  
stand K547

EVPU Defence a.s. is a specialist in own development, design, production and service of special monitoring and surveillance systems, special monitoring vehicles, two-axis intelligent pan/tilts and multi-sensor heads.

**Contact Person:**

Mr. Marek Soviš – Business Director



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Gumotex Rescue Systems is a long term reliable manufacturer of quality inflatable products designed especially for rescue teams and army. We supply inflatable tents, halls and decontamination sets for many purposes of use, e.g. accommodation, material storages, garages, hospitals etc. The decisive factor is the speed with which they can begin to use our products and quality of design, on which they can rely.

**Contact person:**

Mr. Radim Krmíček – Key Account Manager



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akciová společnost**

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WEBSITE: [www.gumotex-rescue-systems.com](http://www.gumotex-rescue-systems.com)



Visit us:  
Outdoor Area,  
stand D320

Company produces wide range of ISO containers and shelter with customized internal integrations. According to purpose of use, containers can be equipped with various interior integrations: kitchen, ablution, laundry, waste collection, water distribution, office, command&control posts, storage, cooling, medical, etc.

**Contact Person:**

Ms Ilona Menclová – Sales Representative



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**MESIT defence:** A complete range of leading-edge products for voice and data communication, GPS satellite navigation, precise time and frequency measurement, specialized avionics.

**Contact person:**

Mr. Přemysl Večeřa – Managing Director

**MESIT aerospace:** Digital intercoms, personal headsets, tactical loudspeakers, PA systems and aircraft instruments.

**Contact person:**

Mr. Jaroslav Hovorka – Managing Director



**MESIT**

**MESIT holding, a. s.**

Subsidiaries:

MESIT defence, s.r.o.

MESIT aerospace, s.r.o.

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**OMNIPOL** is a global reliable supplier and system integrator of defence, security and aerospace systems with a tradition since 1934.

We provide solutions in the following areas:

- Unique passive surveillance, reconnaissance systems and border monitoring systems
- Land and Airborne systems – new generation jet trainer L-39NG and turboprop commuter and cargo transporter L 410 UVP-E20
- Production systems and solutions for ammunition and components
- System integration as well as sales and marketing services for manufacturers of all the above listed

**Contact Person:**

Mr. Jiří Škrabal, MBA – Marketing Director



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**Contact Person:**

Ms Lenka Orlová – Company Executive, Director



**ORITEST spol. s r.o.**

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Visit us:  
Hall 5,  
stand KJ577



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



**Prototypa-ZM, s.r.o.**

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Visit us:  
Hall 5,  
stand K512



RETIA is a leading Czech company in the field of military electronics, security and recording systems. RETIA is a technology company which develops, manufactures and implements radars (ReVISOR – short range radar, ReVEAL – early warning radar), C4I2 systems, UWB detection and localization systems (ReTWis “through-wall” radar) and recording and communication systems marketed as ReDat. RETIA assures modernization projects focused on radar systems (P-18, P-19, P-37, PRV-17, ST-68), SAM systems (SA-13, SA-6) and other weapon systems. These products have been delivered to the Czech Armed Forces, NATO, armed forces of NATO members and other military and civilian customers.

**Contact Person:**

Mr. Petr Tichý – Sales and Marketing Director



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





Visit us:  
Hall 5,  
stand J520

The company Sellier & Bellot belongs among the oldest companies in the shooting and defence industry. Advanced technology throughout all operations guarantees quality of product portfolio, which includes production of ammunition for pistols and revolvers, rifles, shotguns and rimfires for hunting and sporting purposes. Integral parts of the assortment are products for Law Enforcement and military applications. Quality management establishes ISO 9001, ISO 14001 and military standards accompanied by variety of specific certifications. Focus on research and development brings number of innovations like NONTOX primer mixture, lead-free projectiles or infra-red tracer bullets.

**Contact Person:**

Ms Vladislava Dubová – Sales Manager

*Sellier & Bellot* ®

**Sellier & Bellot, JSC**

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Visit us:  
Hall 6,  
stand E352

SVOS company is a producer of integrated armouring solutions for both military and civilian platforms or systems. With large experience, SVOS incorporates the highest level of ballistic and blast protection in the products, including special purpose military and police armoured vehicles (Armoured personnel carriers, Armoured ambulances, Light armoured patrol vehicles, Anti-riot vehicles, Armoured trucks, Armoured heavy-duty cross country vehicles).

**Contact Person:**

Mr. Jaroslav Černý – General Director  
Mr. Štěpán Černý – Business Director



**SVOS, spol. s r.o.**

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Visit us:  
Hall 5,  
stand K552

SPINEA is a modern Slovak engineering company, engaged in development, manufacturing and sales of high-precision reduction gears, which are sold under the trademark TwinSpin. Thanks to their revolutionary technical design and excellent properties, the TwinSpin reduction gears have become products demanded by the global leaders in every field in which precision down to hundredths or thousandths of a millimetre is required.

The products are suitable for applications, which require high reduction-gear ratio, high kinematic precision, zero-backlash motion, high torque capacity, high rigidity, compact design in a limited installation space as well as low weight. They are widely used in an automation and industrial robotics, in the field of machine tools manufacturing, in the navigation and camera equipments, medical systems and in many other fields.

**Defence application of TwinSpin:** Remote weapon station (azimuth and elevation), UAV, Electro-optical airborne, monitoring systems, Pedestal and launcher systems-drive system/brake system



**SPINEA, s.r.o.**

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Visit us:  
Hall 5,  
stand J556

STV GROUP is one of the greatest Czech ammunition manufacturer, capable of manufacturing the entire spectre of munition, from bullets for hand-held weapons all the way to heavy calibre cannon ammunition, air ammunition and engineer ammunition, including the manufacture of mechanical parts. The manufacturing portfolio currently also includes plastic explosives, AK type hand-held weapons, and anti-tank weapons RPG-7 and SPG-9. We are also one of the leaders in the area of general repairs of military engineering and the supply of spare parts for both ground and air engineering. In the area of ecological ammunition disposal, the Company has earned the position of a well-tested and reliable supplier of Czech Army and NSPA thanks to its professional approach and consistent work.

**Contact Person:**

Mr. Jan Dědký - Commercial Director



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WEBSITE: [www.stvgroup.cz](http://www.stvgroup.cz)



Visit us:  
Outdoor Area,  
stand D320

TATRA - heavy-duty and high mobility AWD off-road vehicles and chassis of special design with independent suspended half-axes allowing extremely high twist and bending resistance. They can drive with high speed off-road with low vibrations for crew as well as sensitive loads. Configuration from 4x4 up to 12x12 allows universal usage. 815-7 series is certified according NATO standards, with possible armouring and transportability in C-130 Herkules.

**Contact Person:**

Mr. Karel Ritschel – Director - International Defence Programs



**TATRA TRUCKS a.s.**

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2016

# EUROSATORY

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# CZECHOSLOVAK GROUP – Traditional Czechoslovak Companies along with New Ventures and Manufacturing Capacities

**CZECHOSLOVAK GROUP (CSG in short)** is a holding building upon Czechoslovak industrial tradition which is being supported and further developed by activities of traditional Czech and Slovak companies in fields of both military and civilian industrial production. Its portfolio includes production and sales of military and special vehicles, all-terrain cargo trucks, weapons and weapon systems, ammunition, engineering products for automo-

bile, railway and aerospace industries or transport and logistical services. The Group emphasizes top-class quality of its products and services as well as export activities. The Group's products can be encountered across all continents and the number of its customers keeps growing. The **CZECHOSLOVAK GROUP's** companies have been employing close to 4000 people in 2015 and generated revenue of 12 billion CZK.

## New Rocket Artillery System Vampir – Modern, Yet Proven Fire Support System

**RM 70 GRAD** used to be the backbone of Czechoslovak and Czech rocket artillery units for many years. Even though it is no longer able to hold its own on the modern battlefield, it still is an effective fire support system. **EXCALIBUR ARMY**, which is a part of **CZECHOSLOVAK GROUP**, has created a next generation of the system designated **RM 70 Vampir**. Many military forces retired their rocket artillery systems in past few years. However, recent conflicts show that they are still in demand. **EXCALIBUR ARMY** offers **Vampirs** as a modern system with high combat value and a very attractive price tag.

The original **RM 70** was installed on Tatra T-813 chassis. The new **Vampir**, however, utilizes a completely new platform Tatra T-815-7. The new chassis is fitted with an armoured cabin with biological and chemical weapons protection capability, which also enables the installation of additional ballistic protection. The vehicle is propelled with an eight-cylinder Tatra T3C engine with 270 kW output,



which is assisted by a Tatra 10 TS 210 N gearbox with semi-automatic TATRA NORGREN drive system and additional gearbox Tatra 2.30TRS. **Vampir's** range is about 1000 km with a maximum speed of up to 90 kph.



The **Vampir** rocket launcher is capable of deploying concentrated bursts of fire into larger areas occupied by the enemy and destroy personnel as well as combat machinery. It allows single or multiple rocket fire modes. The rocket launching is carried out by an operator in the vehicle's cabin or from a nearby shelter with a remote control device. The **Vampir** is equipped with a bundle of 40,122 mm pods which are loaded while the vehicle is in cruise configuration. Another 40 rockets are placed in the loading mechanism of the rocket launcher, so the immediate firing capacity is 80 rockets.

The rocket projectiles are highly-explosive, rotary with collapsible stabilizers. The maximum firing range is 20,381 m, aerial effective range of one projectile can reach up to 3000 square metres and with the multiple rocket launching the area is up to 3 hectares. The weight of the chassis with the unloaded rocket launcher is 18,080 kg, with the complete firing capacity (80 rockets) 24,140 kg. The basic configuration of the rocket launcher itself on the vehicle's chassis corresponds with the original **RM 70 Grad**, but the majority



of the wiring has been extensively rebuilt or completely modernized. The cabling is completely new as well.

Construction of the first prototype began in February 2015 and successful gunnery trials

were held in October 2015. To this day, two complete batteries of Vampirs have been produced; including two battery commander vehicles and one battalion commander vehicle. The vehicles are interconnected with

a state-of-the-art fire control system and each battery comes equipped with a Forward Observer's set.

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

## ReTWis – Unique Radar that sees Through Walls

*The technological company Retia has recently become a part of the CZECHOSLOVAK GROUP holding and is a reputable producer of special electronic systems. The company's portfolio includes radars, command and control systems or special localization systems. The products of the company are a part of the weaponry of the Army of the Czech Republic, but the company is also a proficient exporter, having already supplied military and civilian customers in more than 40 countries around the world. The company presented its modernized radar for behind barriers human searching – ReTWis – at the end of the last year.*

New ReTWis is a lightweight, easily portable microradar used for detecting living human beings behind walls or other non-metal barriers. The ReTWis system is an applicable tool for police and army intervention units, with which they gain the ability to monitor an area they are trying to get into, uncover hidden threats and ambushes. The system significantly helps to specify a planning process and reduces risks of injury or loss of human life among police officers and soldiers, as well as among suspects or their hostages. The rescue units can use the system during/after natural disasters and building collapses, as it enables quicker and easier localization and rescue of victims.

The ReTWis has exceptionally compact proportions and low weight allowing it to be used by hand, or be installed on a tripod. The radar is commonly attached directly to a wall, but also includes a stand-off function, which enables usage of the radar from a secure distance. In this case the radar can be valuable to immigration police that can create mobile controlling posts and search for illegal immigrants in truck trailers, which do not need to be opened or entered.

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



## TATRA DEFENCE VEHICLE – New Member of the CZECHOSLOVAK GROUP

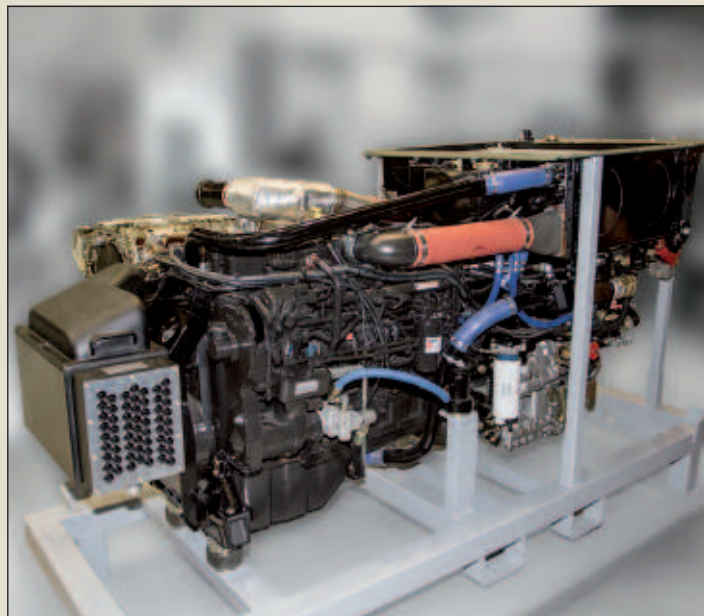
*The CZECHOSLOVAK GROUP holding has grown bigger. The new subject is The TATRA DEFENCE VEHICLE company located in Kopřivnice industrial site close to the Tatra automobile factory. It's commercial premises were officially opened at the end of May, with many important guests attending.*

TATRA DEFENCE VEHICLE is a company that is committed to the development and production of special new modern land cars on wheel or belt chassis. Besides the production of special military cars, the company also conducts car repairs and is open to future commissions from the civilian

sector, for example firefighters, rescuers or police.

The TATRA DEFENCE VEHICLE company is, in the context of the Czech defence industry, significant not only for its specialization, but also because it is the first brand new company of the traditional defence industry that has





been created in the last 25 years. The production capacities are represented by two newly reconstructed manufacturing halls in the industrial area of Kopřivnice. The company currently produces armoured vehicles such as Pandur II 8x8 CZ, conducts general repairs of T-72 tanks, and works as a service center for the off-road Land Rover chassis. The CZECHOSLOVAK GROUP holding and General Dynamics European Land Systems (GDELS) signed a contract of cooperation in January 2015. The contract provides the company with exclusive entitlement for promotion, sales, production and service of the Pandur II 8x8 CZ armoured vehicles family for the Czech Republic and other Eastern European and Asian countries. The production of Pandurs will be one of the crucial fields of the TATRA DEFENCE VEHICLE activities. The company is now preparing for the anticipated contract of the command versions of Pandurs for the Army of the Czech Republic. They are also developing and preparing production of the new Pandur equipped with a turret for a foreign client.





TATRA DEFENCE VEHICLE will also cooperate with the TATRA TRUCKS company on the production of the armoured TITUS® vehicle. The TITUS® is a result of the TATRA TRUCKS and NEXTER (a French arms factory) cooperation, and the Army of the Czech Republic is inter-

ested in the special version of the vehicle. The cooperation between the CZECHOSLOVAK GROUP and General Dynamics European Land Systems companies now also involves the family of the ASCOD armoured vehicles. Their possible production could be provided

by the TATRA DEFENCE VEHICLE company. There are 60 employees in the company today, but the number should gradually rise to 200.

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

## MSM GROUP - The Slovak Part of the CZECHOSLOVAK GROUP

*The MSM GROUP has a long term contract with the Ministry of Defence of the Slovak Republic on hiring military repairs companies in Banská Bystrica, Nováky and Trenčín. It runs a joint venture with the Czech arms factory producing handguns in Nováky. The group's company portfolio covers the life cycle of ammunition, military wheel and belt machinery and radio-navigated electro-technologies. The company's activities include not only development, construction and production, but also subsequent services, repairs, revisions or modernization, with the offer of technologies transfers.*

One part of MSM holding is the ZSV company located in Dubnica. ZSV is a machinery company of defence and civilian industry dating back to 1937 and concerned with the development, production and marketing on the field of mechanical engineering, electrical engineering and special production focused on the ammunition of small, middle and large caliber and handguns. In 2015 the company presented a 9mm pistol and an air rifle PERUN of its own production. The company is able to

produce large quantities of ammunition and offers technology of the production transfer and installation. Besides small-bore ammunition, the portfolio also includes mortars, roc-

kets and tank ammunition of different calibers.

[www.msm.sk](http://www.msm.sk)



## The Companies of the CZECHOSLOVAK GROUP and TATRA TRUCKS invitation to EUROSATORY 2016

*The Companies of the CZECHOSLOVAK GROUP and TATRA TRUCKS holding will represent the Czech Republic and the Slovak Republic at the international trade fair EUROSATORY 2016, which will take place in*

*Paris from 13<sup>th</sup> to 17<sup>th</sup> June 2016. The EXCALIBUR ARMY, RETIA, MSM GROUP, ZVS companies will present the innovations from their portfolio at K-512 stand in the hall no. 5 of the trade show, which is one of the most*

*prestigious and significant European events in the field of defence and security technologies. The companies TATRA TRUCKS and KARBOX will be represented at the outdoor D-320 exhibition space.*

**We cordially invite all those who are interested to visit our expositions!**



## Protection of TATRA Vehicle Crews at a New Level

*When, in 2004, the Kopřivnice truck maker introduced the T815-7 model range, it was evident by the cab design that emphasis was placed on additional ballistics protection for the crew. Even the excellent mobility features of TATRA vehicles cannot protect the crew against the danger of projectiles or improvised explosive systems.*

Simple flat surfaces, sharp edges, ready grips – at that time these were basic preconditions for the implementation of additional crew protection. The armoured plates and special armoured glass could thus provide the crew with a higher level of safety compared to a standard cab. This armouring complies with the STANAG 4569 standard, where, in the case of TATRA, any cab certification proceeds pursuant to the latest edition of STANAG 4569 Edition 3 and AEP-55. The system is relatively affordable and available, variable and easy to implement, and virtually any vehicle from the T815-7 model range, today designated TATRA FORCE, can feature it. With the development of the security situation in the world, it is necessary to protect crews by ever more sophisticated means. A very effective way is the use of composite materials in combination with the cab equipment, where they are

capable of very effectively absorbing the energy released by the explosion of improvised explosive systems or resist the penetration of larger calibre bullets. This version of a crew protection was applied to the TATRA chassis in cooperation with foreign supplier. One of the first vehicles that stood out thanks to this project was a four-wheeled logistics vehicle – the dropside truck. This vehicle features crew protection against bullet and explosive systems pursuant to STANAG 4569. The armoured cab has a completely new and original design, which includes integrated components of mine explosion protection and has a modular armour system that can be composed of multiple layers of different ballistics resistance. The development of ballistics and mine protection systems was based on the fundamental needs of the crew for the highest level of protection, while placing emphasis on the crew's comfort and cab utility features. The cab is equipped with a hydro-pneumatic door opener and three seats that can absorb pressure wave energy from the explosion of mines. Due to its specific characteristics, this vehicle is especially suited for expeditionary forces and foreign missions. The developments within defence projects in TATRA TRUCKS focus on a larger cockpit and its

enlargement to contain up to 5 people (1+4), and in 2015, the first "long" armoured cab was built, undergoing a number of challenging tests. Again, we start here from tried and tested cooperation with the Israeli specialist PLASAN, who supplies kits for the new vehicle that will turn the assembly line at Kopřivnice into a four-door cab for a larger crew.

And so, a workshop vehicle on the TATRA FORCE 8x8 chassis is being created for the Czech Army, with its premiere at the Eurosatory exhibition in Paris from June 13 to 17. The design, which is primarily intended for the armed forces, offers a wider potential application. A four-door cab can be used for anti-riot vehicles and rescue vehicles, and even its use in civil applications seems to be feasible, as their crews in the countries of the Middle East are often exposed to the danger of explosive booby-trap systems or sniper fire. Thanks to the new four-door armoured cab, the TATRA FORCE model range is successfully expanding its potential and use in standard logistics vehicles, chassis for weapons systems, specialized vehicles for the technical support services, and other versions.

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



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# TATRA MILITARY VEHICLES



## M10, M10A Personal Headsets

*The MESIT aerospace, s.r.o. company's primary business activity is the development and production of electronic equipment, instrumentation and precision mechanics designated for both civil and military technology. In the 1970's, the company produced the first intercom system as well as its own personal headsets primary used within the L-410 aircraft. MESIT have been subsequently produced several communication systems and headsets generations like VICM 180 mainly intended for ground military applications up to state of the art M10, respectively M10A. Based on this experience the company achieved the rank of the world's most advanced manufacturers especially of military personal headsets with thousands units exported all over the world during recent years.*

Unique modular concept of M10 and M10A headsets offers a wide range of variants in accordance with the purpose of their use. Headsets can be adjusted to any intercom system to provide a clear communication in various types of military tracked or wheeled vehicles including heavily armoured personnel carriers and main battle tanks. Each communication set excels in its very rugged design suitable for extreme environment. The detachable noise-cancelling flexible boom microphone with associated wind sock or throat microphone together with sturdy swivelling earphones containing replaceable soft ear cushions to perfectly fit each head shape fulfil the requirements of intelligible and reliable communication in a very noisy environment with a great protection for the ears by very high noise reduction while maintaining maximum comfort for the users. The headset total attenuation performance is specified by its passive and active attenuation characteristic. The passive attenuation performance which increases with the frequency is determined mainly by the mechanical aspects of the headset. The ambient acoustic noise spectrum within an armoured vehicle has nearly all of its energy at the low frequency end of the spectrum, typically in the range of 100 Hz to 500 Hz. Due to the passive attenuation limitations of the headset over the low frequency band (typically around 10 dB at 125

Hz) the active noise reduction (ANR) is used to enhance the overall attenuation performance. The headset M10A includes ANR system provided by an electronic feedback circuit built on an independent printed circuit board fitted into each earshell. A small noise sensing microphone as well as a loudspeaker is also a part of ANR system to provide low frequency acoustics communication signal to compensate for the effect of ANR cancellation. M10A headset reduces the A-weighted sound pressure level (dB(A) SPL) at the ear by more than 30 dB in an average armoured vehicle noise spectrum when the ANR is operating to cancel ambient noise up to 135 dB at 125 Hz (ANR linearity) with no spurious sound. M10A headset is equipped with the binaural Talk-Through (TT) function for situational awareness to monitor surroundings ambient sounds with an external sound reproduction ratio 1:1 and electronically compressed output level (it amplifies weak sounds and attenuates the strong ones) whereas the headset need not be taken off the head. TT microphones are integrated in both left and right earshell. Furthermore, M10A can contain the voice operated audio output feature to receive the ambient noise with the boom/throat microphone whereas a threshold level to activate the audio output is derived from this noise. This feature allows the operation of the headset without having to continually activate the Push-to-talk (PTT) switch or inline pressel box. All mentioned functions can be easily (de)activated by the integrated control button.

M10A headset requires power supply in a range of (6.5 to 37.5) V DC, while M10 headset is a passive version which does not need any power supply – M10A has integrated the automatic fully passive mode capability which ensures its continuous usage even without power supply. In addition, M10A contains integrated MCU driven self-test mode, acoustic indication of operation modes and Bluetooth connectivity. Both headsets M10 and M10A meet the military specification like MIL-STD-810G, MIL-STD-461F. They can contain different types of flexible boom or throat microphones, additional input for the connection of a second microphone or a gas mask adapter, integrated PTT switches or inline pressel boxes, connectors, bailout cables, carrying bags etc. Personal headset can be also equipped with Crewman's Helmet Protective Harness consists of a comfortable soft-liner or a hardshell (bump protective or ballistic helmet) with liner. Adjustable liners can be supplied in a summer, winter or tropic version. Ballistic protection hardshell meets NIJ standard, helmets can be supplied in a different colours including textile camouflages.



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



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TACTICAL COMMUNICATION AND AVIATION EQUIPMENT



## The Air Defence Solution at Hand: Easily Deployable Passive Tracker VERA-NG and the New Generation Aircraft

*Air defence surveillance is a critical element of all military and security operations nowadays. Deployable Passive ESM Tracker (DPET) VERA-NG by ERA addresses this by providing the highly mobile passive surveillance system for detection, location, identification and tracking of air, ground and naval targets.*

The system's design is fully mobile in all three versions ERA offers to its customers – military bodies all over the world. The sensors could be placed either on masts of two different heights (12 and 25 metres) with tubular telescope structure or light weighted tripods or quadpods. They can be easily transported either in special lorries of different brands as an integral part of the delivery or in general purpose vehicles. It has been delivered in a "roll-on/roll-off" configuration including a fully configured mobile command centre containing all the processing, analysis and observation equipment. This ensures rapid tactical deployment in any terrain circumstance, approximate time of deployment of the whole system is only 60 minutes.

**Mobile version of passive surveillance system VERA-NG**



**DPET VERA-NG allows flexible relocation thanks to its weight reduced to 100 kg**



These advantages along with the VERA-NG basic ability to detect intrusion or movements as well as gather detailed information can make a significant difference to the outcome of any battle/military mission situation. The need to silently and covertly be aware of the activities of potentially belligerent neighbours is a long-standing ideal for military commanders. The need for early warning and detailed target identification are also game-changing aspects to support fast decision-making for successful military and security operations.

The passive surveillance system, specifically DPET, is currently recognized as an essential sensor for any air defence surveillance network. DPET VERA-NG by ERA is a unique, proven deployable air command and control system component (DAC) and processes radars, jammers, SSR/IFF transponders, TACAN/DME interrogators, DataLinks and uncooperative targets based on transmission signatures and individual emitters. This passive technology allows for a virtually undetectable operation, provides long term



ELINT information and has no need for frequency allocations. Because it emits zero electromagnetic energy, VERA-NG offers a covert, electronic and physical, surveillance capability that is not vulnerable to anti-radar weapon systems allowing armed forces to conduct cross-border long term surveillance without alerting neighbouring states. This makes VERA-NG to be the last line of defence if primary radars are destroyed in a conflict situation.

Traditional active surveillance solutions, while effective at detecting, locating and tracking air, ground and naval targets, are susceptible to detection and either jamming or even destruction due to their active nature. Moreover, traditional radars are unable to detect all targets, particularly targets based on low observable technology and electronic counter-measures to trick or deceive traditional radar. There has consequently been a long-term need for a covert, effective, mobile, solution to the surveillance requirement. Electronic Support Measure (ESM) systems based on electromagnetic emissions from targets are not new but have in recent years become based on the TDOA principle. Such systems are collectively known as Passive ESM Tracking systems (PET) or more generally passive surveillance. TDOA based PET systems tend to be faster to resolve target information, more accurate than previous passive technologies such as direction finders (DF) and last but not least easier to deploy!

## Aircraft for Modern Air Forces

From the land right into the air now – great aerodynamic concept, excellent maneuverability and ability to operate in all climatic conditions. All these advantages make **the new jet trainer L-39NG** one of the most popular aircraft among both military and civil users.



*The first flight of the L-39NG technology demonstrator in September 2015*

This new generation aircraft developed by AERO Vodochody AEROSPACE is a follower of the legendary L-39 Albatros and has been chosen by 15 world aerobatic teams for its performance by now. L-39NG is equipped with the latest technologies and offers unified and comprehensive training system for modern air forces. The air forces will appreciate high modernity components, a single engine conception and fully implemented condition based maintenance which includes full service concept "support by the hour" for such components like engine. All these make the

jet trainer efficient and reliable with minimal maintenance. The aircraft is provided by OMNIPOL which has delivered more than 3,400 training jets all around the world so far.

This company provides also **the L 410 UVP-E20 aircraft**. It is a twin turboprop commuter and cargo transporter developed by traditional Czech aircraft manufacturer Aircraft Industries. With its 19 seat concept the transporter is suitable both for civilian and military purposes. Thanks to the outstanding technical parameters and operational reliability, the aircraft is perfect for operation in difficult local terrain. Whether it is the Sahara desert or Siberian tundra, with its robust landing gear and low pressure tires L 410 UVP-E20 can operate anywhere needing just a few hundred metres of unpaved, rain soaked and undeveloped airstrips. It has been already chosen by the Nepalese airline Goma Air and was successfully tested at JOMSOM airport (2,783 m above sea level and runway length of 745 m) and accomplished successful take-off and landing at LUKLA airport which is the most difficult airport in the world.

The aircraft is available in various versions: flying ambulance, paratrooper version, photogrammetric scanning, maritime patrolling and surveillance. It is also certified on the basis of FAR 23 regulation and has received full EASA Type Certificate valid for all EU (EASA) countries. With all above mentioned Czech products you really have the air defence solution at hand.



*Turboprop commuter and cargo transporter L 410 UVP-E20 for the Army of Slovak Republic*

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



## CZ 805 BREN – Famous Name, Cutting-Edge Weapon

*The basic individual weapon in contemporary armies is an assault rifle using a medium ballistic performance cartridge. It is a little known fact that the predominant 5.56 x 45 mm NATO cartridge poses a major challenge for both designers and arms factories. Meeting all the requirements of the armed forces while also ensuring that the serially produced model be fully functional in all modes of fire under all conditions is a tough nut to crack, for many a truly difficult task. Česká zbrojovka a.s., a company with a tradition dating back to 1936, belongs into the elite club of companies that have managed to accomplish this.*

The CZ 805 BREN weapon system is the result of several years of development based on extensive analysis of the real needs of the end users. The final design of the weapon has been significantly influenced by the feedback from the participants of foreign operations, which often take place in extremely challenging climatic conditions and frequently constitute asymmetric conflicts.

Česká zbrojovka has devised its new assault



a rotating breech block with six locking lugs. Due to the locking being placed in the extended rear end of the barrel behind the chamber, high accuracy is ensured while the stress on the receiver is limited.

Regarding the automatic fire, Česká zbrojovka went for the tried and tested collection of gases from the bore through a channel

leading to a gas tube located in the gas attachment. The force from the gas emissions is transferred onto the breech block carrier face via the piston assembly. To ensure reliable function, the gas collection can be regulated in two stages.

The hammer striking mechanism has an automatic firing pin block. Spent cartridge cases are ejected through a large ejection port on the right side of the receiver by a spring-loaded extractor located on the right side of the breech block and a spring-loaded ejector that extends out from the left side of the breech block face.

In accordance with the requirements of the end users, CZ 805 BREN rifles and carbines have the option to fire single shots, limited two-round burst and full

rifle as an automatic weapon to be customized during production and partly by the user. It entered a serial production in two basic configurations: a rifle (A1 version with a 360 mm barrel) and a carbine (A2 with a 277 mm barrel), in 5.56 x 45 mm NATO calibre. In both cases, the CZ 805 BREN model is intended for aimed fire, targeting lightly armoured, land and air targets with an effective range of up to 500 m for the A1 version.

When deciding on an optimal breech system, after considering several options the company opted for the most proven solution with







automatic. The fire mode is set by an ambidextrous lever located on the trigger mechanism housing, which also serves as a manual safety. The firing modes may be partly modified on the customer's request. New Brens are equipped with the 'locked-open position' feature; after firing the last cartridge, the breechblock carrier remains caught by the bolt catch in the rear position. The manual control to lock the breechblock in the rear position is located on the left of the magazine well. To release the breechblock, the control lever must be briefly pulled backward.

Available as standard is the standardized mounting interface MIL-STD-1913. The longest rail on the CZ 805 BREN weapons is integrated into the top of the receiver – it goes along its entire length and apart from being used for a variety of optoelectronic sighting devices, it is usually used for the mounting of the folding mechanical sights with a height-adjustable front sight and side-adjustable dioptre rear sight. Each of the shorter mounting rails on the sides of the front end of the receiver is fixed by three screws which also grip the freely oscillating barrel assembly. Apart from other things, these side rails are used for the sights adapter for shooting from an underslung grenade launcher, the CZ 805 G1 of 40x46 mm calibre, which has been developed by Česká zbrojovka concurrently with the new assault rifle. The lower rail is part of the barrel assembly and serves as an anchor point for the trigger mechanism housing and the magazine well. It is usually used to mount a grenade launcher or a front vertical grip.

Both current serial versions of the CZ 805 BREN are uniformly equipped with an ergo-

nomie shoulder stock folding to the right side of the receiver. They are available in a telescopic and non-telescopic design with a double-sided cheekpiece. All shoulder stocks can be easily removed, for example for transport.

The CZ 805 BREN rifles and carbines of 5.56x45 mm NATO calibre have interchangeable magazine wells with various types of catches (lateral, base) that allow the use of all standardized NATO magazines, as well as the original transparent plastic magazines made by Česká zbrojovka. These have a capacity of 30 cartridges and a double stack mouth. In addition, using removable plastic clips, a second magazine can be attached to them.

The muzzle of all existing CZ 805 BRENs is threaded, allowing the attachment of a standard flash hider with six side slots, a compensator or a blank firing adapter, which is a standard accessory. Other variable features include the extended fire mode selector/manual safety levers or a different design of the cocking handle. The basic equipment of each

weapon includes a new assault/combat knife UN/BN CZ 805 that can also act as a bayonet, it has a plastic scabbard and a fabric carrier system. Also available are the carry sling, magazine pouches made from impregnated fabric for two or three magazines with the option of variable interconnection, and an extensive range of optical sights.

The CZ 805 BREN rifles and carbines have been in serial production since 2011. They are continuously improved with regard to the extensive knowledge from deployment in various regions, including extremely adverse climatic areas, and are currently ranked among the most reliable weapons in its category. Because of this, the new Brens have become the new basic individual weapons of the Czech armed forces and they have also been purchased by several foreign armed forces, including the Slovakian Army, with more and more interest coming from other countries too.

**Photo CZUB and Michal Zdobinský**

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

CZ 805 BREN A1/A2	
<b>Calibre:</b>	5.56 x 45 mm NATO
<b>Overall length with shoulder stock unfolded:</b>	870/787 mm
<b>Overall length with shoulder stock folded:</b>	670/582 mm
<b>Width with shoulder stock unfolded:</b>	77 mm
<b>Width with shoulder stock folded:</b>	112 mm
<b>Length of barrel:</b>	360/277 mm
<b>Sight radius (with Troy Ind. sights):</b>	395 mm
<b>Weight of firearm without magazine and sling:</b>	3.49/3.41 kg
<b>Weight of empty magazine (CZUB):</b>	0.195 kg
<b>Magazine capacity:</b>	30 cartridges



## Our Forte is Our Own Development



***EVPÚ Defence, a.s., ranks among leading defence and security companies of the Czech Republic. It regularly participates in major global fairs and exhibitions, and collected many awards there, including ones of international panels of journalists. It has also received many awards at the IDET fair. These successes are backed up by many factors, including high professional standards of most of EVPÚ Defence's employees, advanced and sophisticated products, increasing market demand, and – first and foremost – own know-how and development capacities. We have asked EVPÚ Defence's Chairman of the Board and CEO Igor Valniček about the company's history, presence and future.***

**Mr. Director, can you tell our readers something about the history of EVPÚ Defence?**

In mid-2016, exactly fifteen years will have elapsed from the day when the Slovak company EVPÚ, a.s., established, together with its partner Mr. Barnet, its subsidiary EVPÚ Defence, s.r.o., in Uherské Hradiště, Czech Republic. The choice of Uherské Hradiště was not accidental – the town is renowned not only for its wine, slivovitz and cultural traditions, but also for its rich history in the field of precision engineering focused on manufacturing of aerospace and defence products and electronic devices. The

proximity of the city of Zlín with its Tomáš Baťa University provided good conditions for further development of EVPÚ Defence. Our company initially had just a few employees and was basically a trading entity. We then became agents of several important manufacturers of optoelectronic devices; deliveries of their products to the Army and Police of the Czech Republic helped us learn more about needs and requirements of our customers and suppliers. Using the know-how, a dual-axis manipulator was developed, which we started producing in cooperation with our parent company and delivering to our customers. The partners – natural persons – had changed in the course of time, but the parent company, EVPÚ a.s., remained. The connection with the Slovak parent company was crucial for the development of EVPÚ Defence, which gradually evolved from a purely trading company into a manufacturing enterprise focusing on the production of specialized long-range monitoring and surveillance optical systems.

**Can you briefly characterize principal milestones of the evolution of your young company?**

The last fifteen years included some important events which have ultimately led to a dynamic development of EVPÚ Defence, a.s. In the end

of 2005, we moved from a small office in the centre of Uherské Hradiště to our own building with some manufacturing facilities. Another important moment in the history of our company was the acquisition of ISO 9001 and AQAP 2110 certificates, which unquestionably led to improved quality of our products; thanks to being able to meet army quality standards, we could compete for and participate in orders of the Ministry of Defence of the Czech Republic, as well as in acquisition projects in other countries. In 2008, we launched an information system which interlinked all stages of the process, from orders, manufacture and storage to shipments of complete products, and thus made a significant contribution to higher productivity of labour. Another thing that should be mentioned is the change of the legal form of our company, which took place in 2011; the limited liability company became a joint-stock company, EVPÚ Defence a.s. The lack of space in our building, which was located amidst family houses, permitted no further development. This was why we decided, eight years ago, to buy a land lot in the Jaktáře Industrial Zone, situated close to the Morava River, where we built a new production site to which we moved in mid-2014. Our decision was proven correct by the results we achieved in 2015. The sales of our own products reached a record level and we were able to satisfy all orders thanks to the new production facility.

**The history of EVPÚ Defence is relatively short, but its achievements are remarkable. How does its situation look today?**

Due to the research and development base and test facilities of the parent company in Slovakia, we can be sure that our products meet quality standards and can succeed in international competition. Our company now has some 65







employees and its own development department with engineers specializing in HW and SW of manipulators and electronic devices, optics and design of mechanical components and electric cabling. We also focus on the development and manufacture of HD daytime cameras, uncooled thermal cameras and complete optical systems. Our commercial department is now able to offer a complete "family" of small and large manipulators and complete optical systems, stabilized and unstabilized, mobile or stationary, designed for a variety of environments, from deserts to marine applications. We also offer supplementary perimeter protection devices and can react flexibly to various wishes of our customers. Our devices can operate as standalone installations or in collaboration with other equipment, e.g. networked radars and cameras, even in a wireless mode.

#### **Mr. Director, how would characterize the current portfolio of EVPÚ Defence?**

It depends on what portfolio you have in mind. If we talk about our employees, we have a team of highly skilled, industrious people who all pull together and are motivated to deliver good work so that their company can present the best quality worldwide. And it does not matter at all whether they are blue collars or white collars.

If we look at the portfolio of products, our dual-axis MSO, MST and NERO manipulators account for most of our production and sales, followed by other manipulators. We can certainly say that whoever wants a good pan-and-tilt manipulator, he will surely contact us, no matter which part of the world he comes from. Another proven product line is represented by complete electro-optical systems integrated on vehicles or in turrets.

Our product portfolio also includes "elevators" designed for vehicle applications, special system cables, control panels with monitors and computers, and also control software of all electro-optical systems. I also have to mention our cooperation with the parent company EVPÚ in Nová Dubnica in the manufacture of weapon stations.

#### **Can you briefly inform us about your international and domestic activities?**

Recapping the last fifteen years, I should not forget our meeting with the company FLIR in 2003, which ultimately developed into cooperation which still exists now. The development of our company was positively affected by contracts for the protection of the Schengen Area, in which we participated as direct suppliers or subcontractors of stationary and mobile border protection equipment in the Czech Republic and neighbouring countries. We have also learned from other contracts for equipment protecting airports, transport infrastructure, economically important sites, military installations and camps in army missions, or borders of different countries of the world. We also present our products at exhibitions at home and abroad.

#### **Which are your top-priority territories?**

Our priorities include mainly European countries, Central Asia and Middle East, but also Southeast Asia and North America. We were trying to establish ourselves in Russia, but the promising business there was reduced due to sanctions, and we can see now that Russia has been looking for other suppliers or developing its own technologies. However, we keep looking for other potential partners, which was why we participated, under the flag of the Czech pavilion and with support of Czech Trade, in the FIDAE 2016 exhibition in Chile.

#### **Which of your products are essential for the defence and security of the Czech Republic?**

It is definitely our cooperation with companies preparing various equipment for special military monitoring vehicles which should be mentioned. We are interested in taking part in tenders of the Czech Police for various types of monitoring vehicles with long-range equipment, as well as for portable containers with medium-range electro-optical systems. We want our police to be able to effectively protect our country and its citizens against unwanted visitors and all those posing a risk to the safety of our homes. In doing so, they should have the latest and most modern equipment there is.

#### **What is your opinion regarding your membership in and support offered by the De-**

#### **fence and Security Industry Association of the Czech Republic to activities of EVPÚ Defence?**

EVPÚ Defence has been a member of the Defence and Security Industry Association of the Czech Republic for a long time, and our membership in the association is important for us because of at least two reasons. First, our partners want to know whom we cooperate with and on which platform in the Czech Republic, and cooperation within the association is a very good reference for them. Second, we as a member receive a lot of information, and we also have an opportunity to present ourselves in the framework of the association both internationally and locally.

#### **Can you briefly outline your future plans?**

Of course, we want to make a more significant breakthrough in the manufacture of complete electro-optical systems. We are developing HD optical systems and we definitely want to focus our company on the manufacture and integration of different types of long-range and medium-range cameras, which will require not only more knowledge and equipment in the field of optics on our part, but probably also cooperation with other Czech partners.

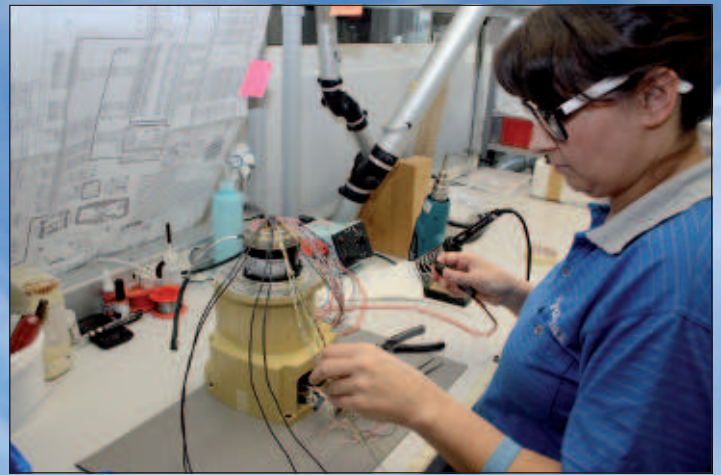
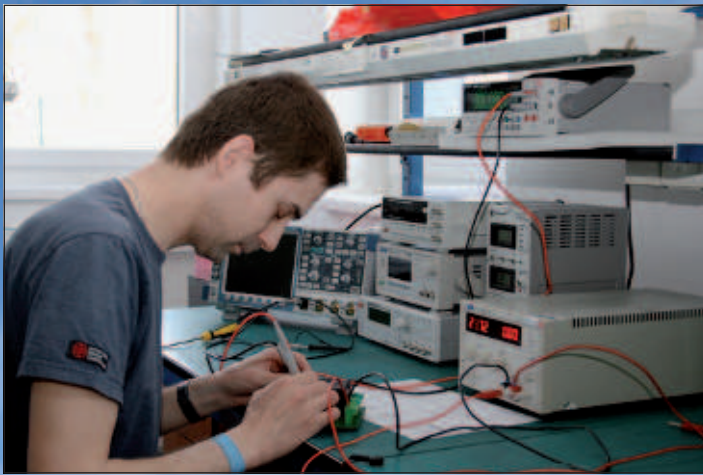
#### **Mr. Director, thank you for the interview.**

*What to say on our visit at EVPÚ Defence by way of conclusion? First and foremost, we would like to thank the company's CEO for a personal presentation of EVPÚ Defence and a sightseeing tour of practically all workstations of the new site. We were also pleased with communicative employees and their very positive opinions. The sightseeing tour made a very positive impression on us, as it reflected both high professional standards and the company's efforts to create a pleasant and esthetic environment for its employees, including attractive designs of social facilities, e.g. a canteen or relaxation areas in optimistic colours. We would like to wish EVPÚ Defence every success in its activities and its CEO, on the occasion of his birthday anniversary, much health and all the best in his personal life.*

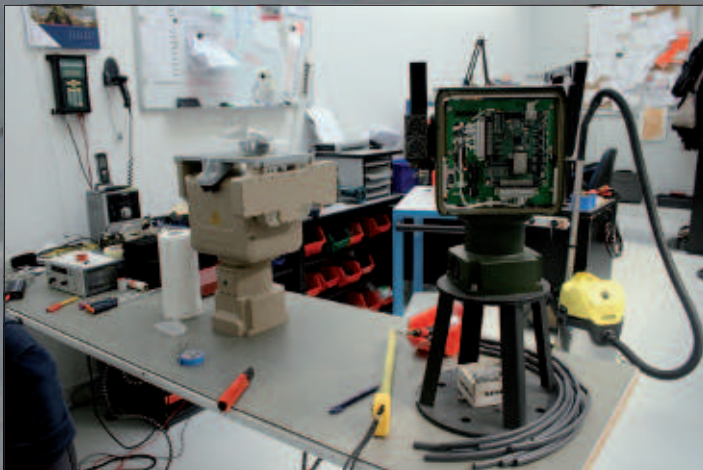
Written by: Miloš Soukup

Photos: Miloš Soukup and Eva Soukupová





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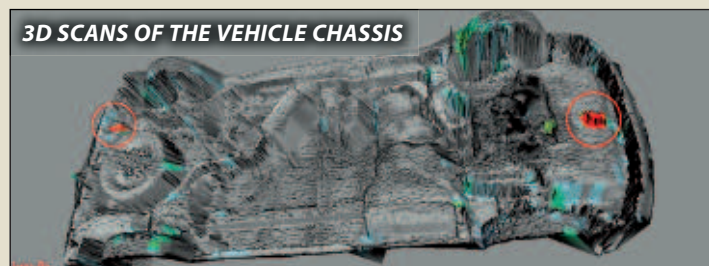


## Critical Infrastructure Protection by VOP CZ, s.p.

*VOP CZ, s.p., is a major Czech defence company and a recognised partner of foreign enterprises in the field of mechanical engineering manufacturing cooperation. As to research and development, the company focuses on new defence and security products, as well as on products earmarked for civilian applications. Its designers participate in many projects implemented in cooperation with both domestic and foreign experts. One of the areas which the designers of VOP CZ, s.p., focus on is the protection of critical infrastructure (CIP).*

The CIP portfolio offered by VOP CZ includes solutions and products used to protect points of entry to sites and buildings, to identify and track vehicles, or to check undercarriages of vehicles, as well as mobile checkpoints, perimeter protection equipment, advanced perimeter video analysis, TAROS V2 UGV unmanned robotic system, or watchtowers.

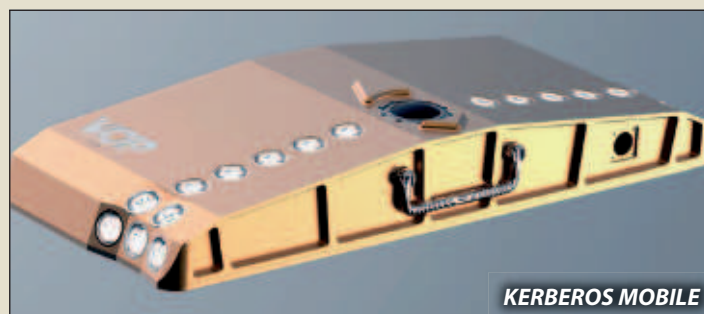
One of the key projects in this respect is the unique KERBEROS 3D VISION system used to check bottoms of vehicles, i.e. chassis of passenger cars and trucks entering the premises.



The system provides a semiautomatic scan of a high-intensity, deep 3D image of a passing vehicle in both visible and close IR spectrums. The result is a spatial 3D model of the checked chassis, which is automatically compared to previous scans of the same vehicle. In addition to the 3D scan, the operator of the system can also make use of a conventional high-resolution photograph of the chassis which

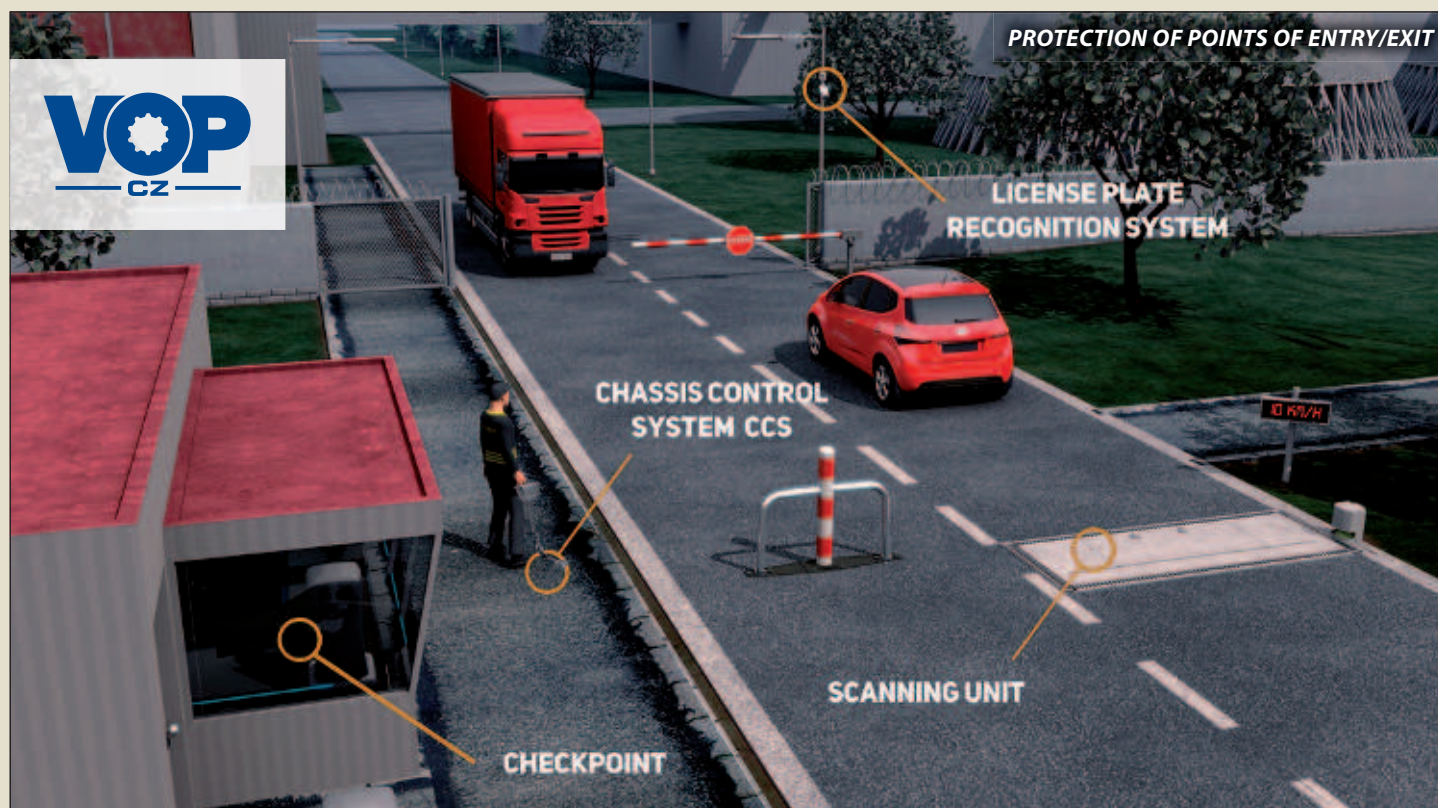
is used to detect and identify potential undesirable objects on the chassis or for the purpose of a visual inspection when the vehicle enters the premises for the first time. The KERBEROS 3D VISION system is capable to detect and identify a potential threat very efficiently, and react to it quickly and effectively without having to move around the checked vehicle. Another attractive feature of the system is its high throughput, which is up to 10 vehicles a minute.

If the situation demands visual inspections of vehicles in the field, VOP CZ, s.p., offers a mobile version of the system known as KERBEROS MOBILE. The unit allows a very quick visual check of the vehicle's chassis, including an automatic archiving of the scan and a possibility to compare it against previous scans of the same vehicle. The system is very compact and its deployment takes just a few minutes.



Another product of VOP CZ, s.p., is a system designated SKP, a Czech abbreviation for a "chassis check system", which fully replaces still used inspection mirrors. An analog camera is used to take a digital picture of the chassis and transmits the image online to the operator's display. The camera features a LED-based system permitting the operator to illuminate dark spots or to work under deteriorated light conditions. If the customer wishes so, the system can be optionally supplemented by archiving scans for later use.

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







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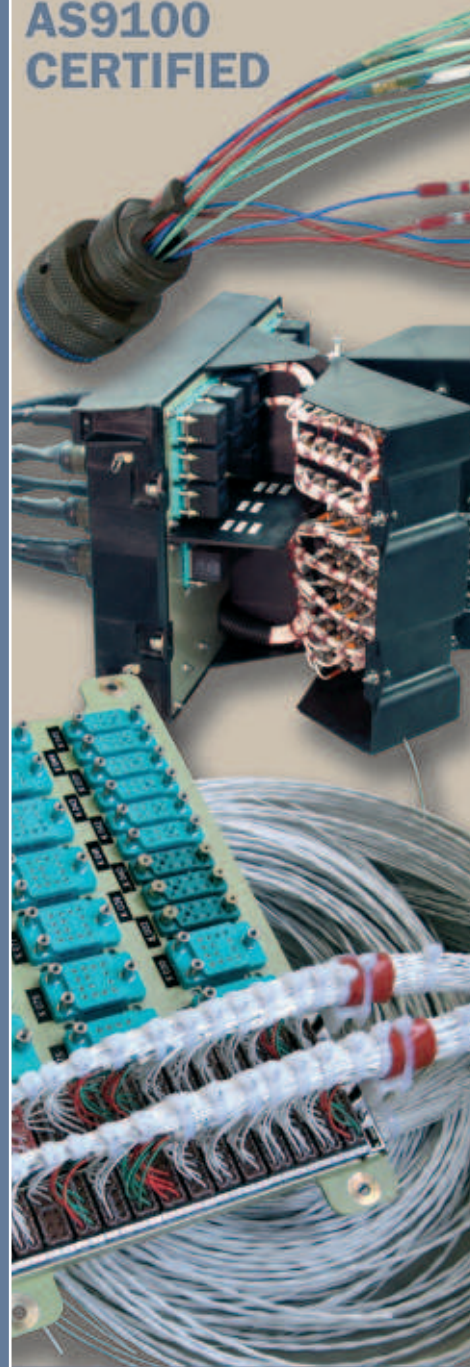
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## Expansion of the Production of Electric Subassemblies for Military and Aerospace Equipment in Nová Paka

*We asked Mr. Jiří Šimek, CEO of the company Quittner & Schimek based in Nová Paka, for an interview.*

**Mr. Šimek, a year has elapsed since our last meeting and I would therefore like to ask you what your company has been through during that time.**

The last year was very hectic for us. Due to the increased number of orders and the growing volume of production of cable bundles and electromechanical subassemblies, we had to expand our production facilities and hire more workers. As a matter of fact, the number of our employees has increased by 50 since our last meeting, which means we now employ 230 people. The expansion concerned mainly production activities, which fact of course meant an increased workload for our process engineers, production managers and quality control teams in terms of training, preparation and management of production, and naturally also full quality control. Unfortunately, we are able to recruit just a few people that we need from local vocational training schools which we cooperate with. Others come from other industries and have to be requalified. As most of our customers are from the defence or aerospace industries and are very demanding, the quality of our products is our primary priority, and this fact makes the training of new employees all the more difficult. Unfortunately, hiring 50 new employees does not mean just hiring and training 50 people; the success rate of the recruitment process is only 60 to 70 per cent, which means we have to hire more than 70 people. Only the training process then shows that not all of them can comply with our working procedures or master our production technologies. Our production is not an assembly line operation for which you can recruit workers through a job agency, train them for one day, and they can fully perform the next day. Our growth in the past has been steady and regular. Dealing with the recent growth was not easy, but now we can say we have managed it.



**What, then, are you focusing your workforce recruitment efforts on?**

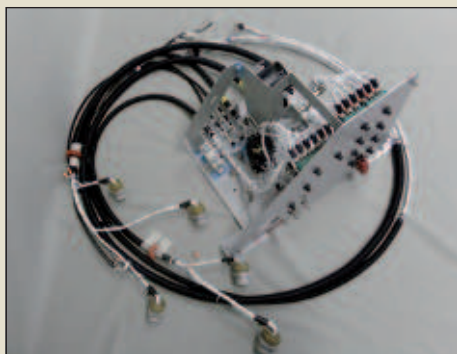
As our company is relocating now, we have to concentrate on stabilization of processes and our team, which means we cannot dramatically increase the number of our employees at the moment; however, we have enough candidates ready for the next stage, whom we will gradually train to satisfy the growing interest of our customers in our products to the maximum extent possible. We would be happy if we were able to hire more employees from vocational schools in our neighbourhood, which is why we are preparing some activities of our own as well, including lectures or internships for students, etc. Unfortunately, the government offers no radical solution of the problem, having long underestimated the problem and not giving the matter of vocational education a high enough priority. If we fail to attract enough – and also better – students to vocational schools, the Czech industry will have a big problem.

**You mentioned an expansion of your production facilities. Can you be more specific?**

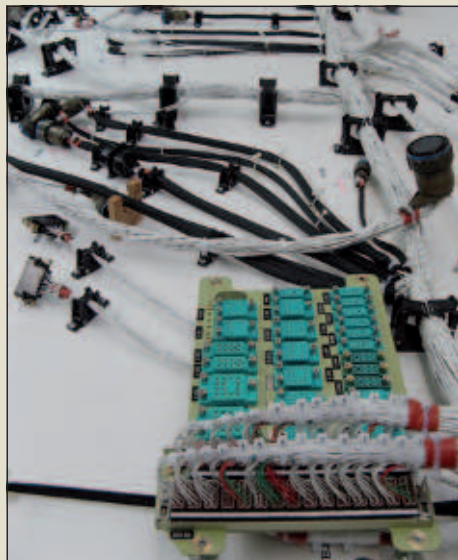
Until recently, we were located in five different buildings in Nová Paka, which was an unacceptable situation from the viewpoint of our further development. Last year we purchased a site of more than 5 hectares close to our existing production facilities, where we have two production halls the aggregate area of which is nearly 20,000 m<sup>2</sup>. The renovation of one of them is almost completed and we are now relocating our production there. The second phase, just a few months from now, will consist in relocating our commercial department and completing the relocation of our warehouse. Having all activities under a single roof is expected to facilitate communication among different departments and to bring about an overall streamlining of all processes.

**Coming back to your projects – how has the cooperation with important customers been developing?**

Historically, our principal field of business is aerospace industry. There are many new and interesting projects launched in the Czech Republic, but most of them have recently been focusing on cooperation in metal work-







king or metal processing etc. Complete projects requiring electric equipment (which we could offer) and advancing to the mass production stage are absent.

**The not-so-good situation in the domestic market should not affect your cooperation with foreign partners. How have you been doing in this field?**

Our most important foreign partners include, for example, the Zodiac Aerospace group, although we mostly deliver to their subsidiary in Pilsen. The cooperation with the group is very successful for us and has brought about, inter alia, a shift of a part of our production from electric to electromechanical subassemblies. Thanks to our quality, reliability and flexibility, the scope of cooperation has been expanded, and we now deliver our products to Zodiac's subsidiaries in Germany and United States as well. We thus now deliver subassemblies not only for Airbus A319/320/321, A330/A340 and A380 aircraft, but also for Boeing B-737 or B-777 jetliners.

Other long-standing customers of our company also include, for example, Technify Motors (formerly TAE-Thielert Aircraft Engines), which manufactures diesel aircraft engines for General Aviation. One of our new customers is the Swiss company Marengo SwissHelicopter, which is preparing a brand new modern helicopter for which we are supposed to deliver complete cable bundles and other components.



**What is your participation in defence projects, which must also be very important for you?**

Military equipment constitutes the second pillar of our manufacturing and commercial activities. During the previous interview, I mentioned our excellent cooperation with the Rheinmetall group, especially insofar as the PUMA Infantry Fighting Vehicle project was concerned. The vehicle is intended for the Bundeswehr, the planned number of vehicles is 350, and our company will supply almost all cable bundles and some of the electric boxes for it. Last year, the PUMA project also opened a way to another major German defence company, KMW (Kraus-Maffei Wegmann). It also participates in the PUMA project and has handed over a part of its production of cabling and electric equipment to our company.

In addition, our successful cooperation with the companies Honeywell (Germany, Czech Republic, United States), Sagem (France) and particularly Thales (The Netherlands) is continuing. We have fairly broad experience in the field of audio connectors, thanks also to our close ties with the company Amphenol, which manufactures almost all product lines in its subsidiary plants. We rely on this experience very heavily in the abovementioned cooperation with Thales, but also in our cooperation with the renowned manufacturer Harris or in our deliveries for the domestic company Mesit.

**Do you have any other interesting products for military equipment?**

It is a well-known fact that our company also deals in components using optical fibers, in cooperation with the sister company SQS Fiberoptics. In this respect, we make use of the support of the companies TE Connectivity, Amphenol and Glenair as their official partners. These companies cover the full spectrum of optical components used in aerospace and military/defence products, including necessary certifications. With their product portfolios and also with the use of our MIL connector assemblies, we are able to meet most of the requirements we have encountered in the market so far, delivering the best quality products with modern assembly and diagnostic technologies of SQS. An example is the AGS project, for which we have delivered more than 5,000 optical termini of different technology. Our end customers include, for example, the Italian company Selex/Finmeccanica. However, we also supply optical elements to a number of Czech companies, such as ERA, Retia, Dicom, and others.

**Your continuing growth and development undoubtedly requires substantial amounts of money. Do you make use of government subsidies?**

Insofar as this matter is concerned, I have to admit that, after lengthy in-house discussions, we came to a definite conclusion that we



would not make use of any subsidies or any other form of support provided by the government or the European Union etc. The investment into the new site was about CZK 150 million, and we decided to finance it using our own resources and a bank loan. There are more reasons for our decision. We regard the whole system of subsidies and grants as essentially bad, as it favours certain subjects in the market, supports incorrect allocation of resources, and, in a way, make businessmen gundek reality. In addition, we have no intention whatsoever to support wasteful use of resources through their redistribution, or their siphoning off by various non-transparent consulting firms. With subsidy programmes, it is difficult to accurately define the availability of funds in time and, first and foremost, their control mechanisms are not clear enough. The manufacturing sector has recently found itself under pressure of bloated state administration authorities which exert incessant pressure and add to the administrative workload of businesses. In our opinion, spending dozens and hundreds of hours on additional checks and audits or activities that produce nothing makes no sense. We believe the time that would otherwise be spent on the preparation and administration of subsidized projects can be used more effectively!

**Mr. Šimek, thank you for the interview.**

*The company Q & S ranks among leading manufacturers of electric subassemblies for aerospace, defence, and security applications not only in the Czech Republic, but also on an international level. In 2016, the company from the region at the foot of the Krkonoše Mountains celebrated 25 years of its existence. It gradually expands its technical capabilities and production capacities. The visit to Nová Paka was very inspiring and interesting for our magazine. We wish Q & S many successes at work and in business in the years to come.*

Miloš Soukup

Photos by Quittner & Schimek



# AURA Trains Algerian Officers in the NATO Codification System



*The main priority of the Brno based company AURA, s.r.o is providing comprehensive services in the field of materiel codification according to the NATO Codification System (NCS) standards. MC CATALOGUE – a highly sophisticated system for NATO codification developed by AURA – is currently in use in addition to the Czech Armed Forces and Ministry of Defence, in the armed forces of other 15 NATO and non-NATO countries on five continents. MC CATALOGUE thus became the world's most widely used software for NATO codification. Part of this export strategy is the NCS training that is interesting especially for countries, which decided to implement the NCS or are considering its implementation. This is also the case of Algeria and its armed forces.*

## Cooperation between AURA and the Ministry of National Defence of Algeria

AURA has been cooperating with the Main Armament Authority of the Ministry of National

Defence (MoND) of Algeria for 10 years. The very first significant joint action took place in 2007, when AURA organized a highly successful conference for NATO codification in Algeria under the name "NATO Codification System – a cornerstone of modern logistics". The conference was attended by about 70 Algerian logistics experts and specialists from all branch services of the armed forces.

In the year of 2008, Algerian officers attended an international NCS course, which AURA organized in collaboration with the University of Defence and Codification Department of the Defence Standardization, Codification and Government Quality Assurance Authority (CZE NCB) at the University of Defence premises in Brno.

The interest in cooperation with AURA in the NCS area has been affirmed at the highest ministerial bilateral level also by the delegation of the Ministry of National Defence of Algeria in Czechia, which was attended also by the delegation of AURA.

## Training of the Algerian officers

Systematic and high-quality approach by AURA, their lecturers and other professionals involved in the cooperation with the Algerian partner resulted in the decision of the Main Armament Authority of the MoND of Algeria to carry out series of NCS courses with tutors from AURA for Algerian logistics specialists. This year, the basic and advanced training courses for logisticians and codification experts of the Algerian armed forces continue in Algeria and also in the Czech Republic in Brno, where additionally Algerian codification trainers will be trained. The current codification training contract includes also the codification software MC CATALOGUE, which is an important tool for practical codification exercising and for maintaining and expanding the skills acquired during the training.



The prime contractor for the Algerian Main Armament Authority and the business partner of AURA while supplying the codification products to Algeria is the Czech company PAMCO INT. a.s. already well established in this country.

\* \* \*

*Algeria becomes AURA's second business partner in the African continent right after Morocco, whose armed forces already use MC CATALOGUE for their needs. Algeria has been involved in relations with NATO for a long time, for example it is a member of the Mediterranean Dialogue. The connection of this country to the NATO Codification System (currently includes more than 60 countries worldwide) that Algeria is considering would certainly be a step forward towards the convergence of different cultures around the world and would also create a more favourable security environment.*

by Antonín Svěrák

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





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University of Defence, Czech Republic  
&

NATO – Group of National Directors on Codification (AC/135)

in cooperation with

National Codification Bureau, Czech Republic

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composed of

NATO Codification System Course for Managers & Logisticians

29 August – 2 September 2016

NATO Codification System Course for Codifiers

5 – 23 September 2016



### NCS Course for Managers & Logisticians

#### Participants

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### NCS Course for Codifiers

#### Participants

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#### Contact Information

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## NATO Codification System Training

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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.

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# FIDAE 2016

*XIX FIDAE 2016 International Air & Space Fair took place in Santiago de Chile between March 29 and April 3, 2016. The fair with 60 participating nations and more than 110,000 visitors has thus strengthened its position among the top five global events in this field and confirmed itself as the most important aerospace industry fair in Latin America.*

At the joint stand of the Czech Republic organized by CzechTrade in cooperation with the Czech Republic's embassy in Santiago, altogether seven Czech defence companies made their presentations, the biggest of them Omnipol, with passive radars manufactured by its subsidiary ERA, an upgraded version of L-39 NG jet trainers from Aera Vodochody or L-410 UVP E-20 aircraft by Aircraft Industries Kunovice. Česká zbrojovka Uherský Brod, which is one of the traditional exhibitors at the fair, introduced new pistols and long firearms, including the Scorpion Evo submachine gun. The Pardubice-based company RETIA displayed its radar and security systems, while EVPÚ Defence from Uherské Hradiště focused on monitoring and surveillance systems. ZLIN Aircraft was offering small aircraft designed for monitoring applications and aerobatics. Czechoslovak Ocean Shipping presented its logistic services and a selected portfolio of other



Czech products, such as TATRA trucks or container handling systems.

A major contribution to a high level of interest in the Czech stand was a visit of Brigadier General Libor Štefánek, Commander of the Czech Air Force, which was viewed very positively by representatives of the Czech exhibitors.

The **FIDAE 2016** International Air & Space Fair both helped to promote the Czech Republic in the region and confirmed a substantial potential of Latin America for the Czech aerospace and defence industry.

It is safe to assume that of the fair had been inclu-

ded on the list of official Czech Republic's events – which was what both the Czech embassy and the CzechTrade office initially proposed – the participation and interest of other Czech companies could have been supplemented by presentations of their respective export programmes by functional exhibits, including aircraft, off-road vehicles and other military equipment.

**Jaroslav Pecháček, a participant at the fair and Vice President of the DSIA CR, and Josef Kunický, Head of the Czech stand at FIDAE 2016 and Director of the CzechTrade office in Santiago de Chile**

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# Publication Plan of CDIS Magazines in 2016

## Review for Defence and Security Industry 3/2016

Deadline: 26. 8. 2016 Put into print: 9. 9. 2016 Expedition: 16. 9. 2016

### EXHIBITIONS:

NATO Days (Czech Republic) September 17 – 18, FUTURE FORCES (Czech Republic) October 19 – 21

## Review for Defence and Security Industry 4/2016

Deadline: 8. 12. 2016 Put into print: 22. 12. 2016 Expedition: 11. 1. 2017

## CDIS Review 3/2016

Deadline: 12. 8. 2016 Put into print: 26. 8. 2016 Expedition: 2. 9. 2016

### EXHIBITIONS:

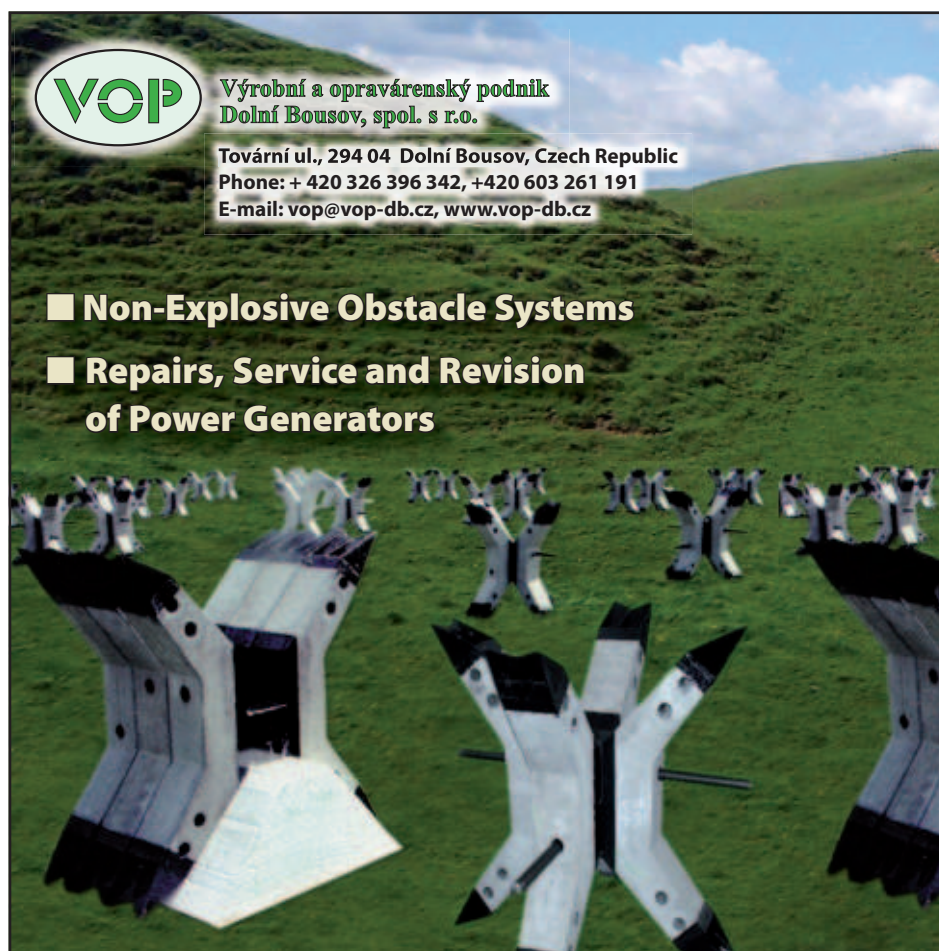
MSPO (Poland) September 6 – 9, NATO Days (Czech Republic) September 17 – 18

## CDIS Review 4/2016

Deadline: 23. 9. 2016 Put into print: 7. 10. 2016 Expedition: 14. 10. 2016

### EXHIBITIONS:

INDO DEFENCE (Indonesia) November 9 – 12



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


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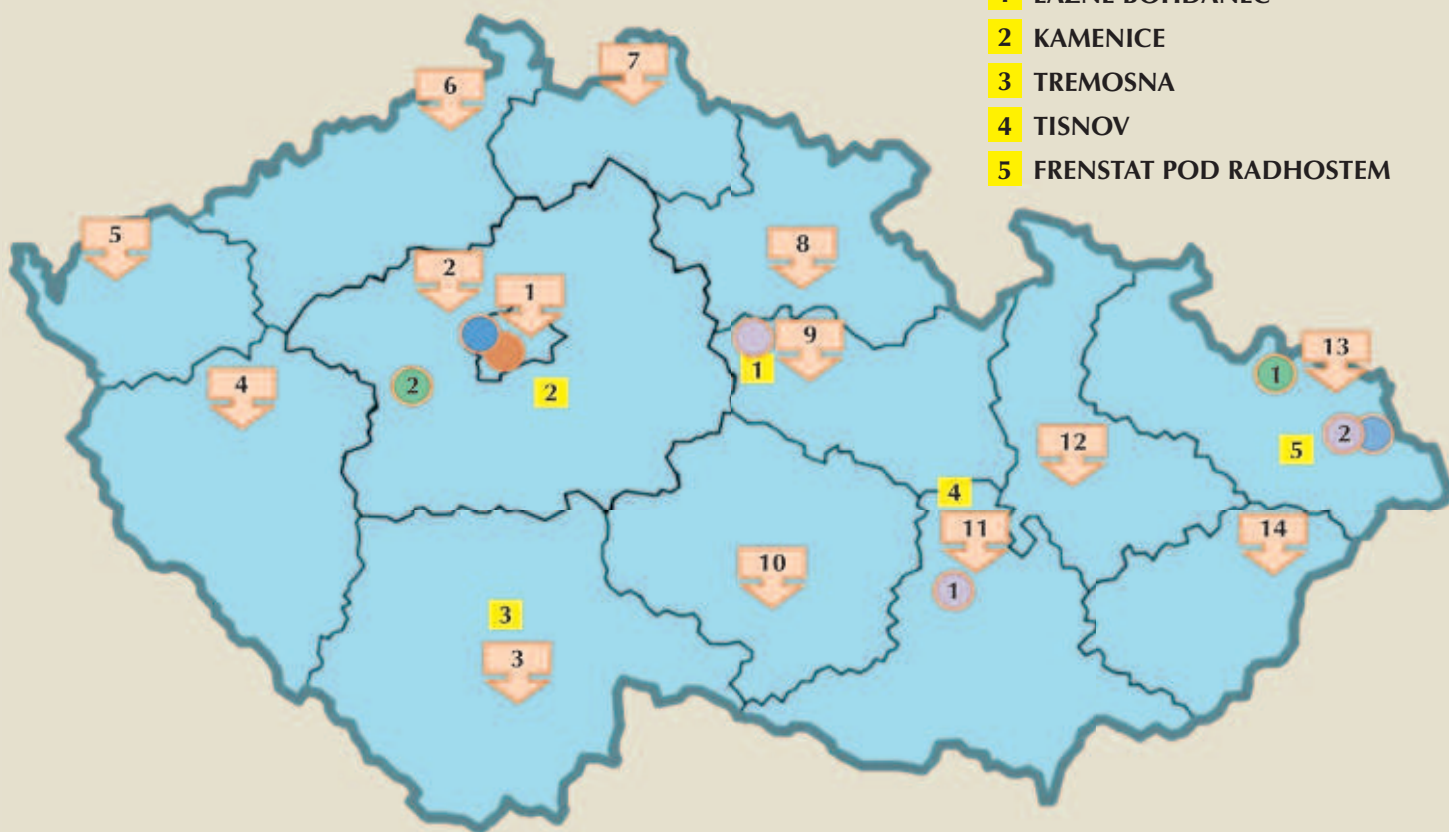
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- 2 KAMENICE
- 3 TREMOSNA
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- 10 FRS of Vysocina Region Jihlava
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- 13 FRS of the Moravian-Silesian Region Ostrava
- 14 FRS of Zlin Region
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- 1 Education and Training Center Brno
- 2 Education and Training Center Frydek-Mistek
- Fire Service College Frydek-Mistek



# Opening Speech by Brig Drahoslav Ryba, General Director of Fire Rescue Service of the Czech Republic



**Dear friends,**

Europe and the whole world have been recently facing new, in many cases, global threats caused by climate changes, negative anthropogenic activities, and also by deliberate behavior of specific groups of citizens. Whether these are sudden changes in meteorological situation affecting European temperate zone such as extreme temperate fluctuations resulting in flooding and flash floods, heavy storms, snow bursts etc. At the same time the consequences of human activities have been more and more significant with regard to safety of people, their health and property such as great fires, industrial breakdowns, traffic accidents with hazardous materials transportation, contamination of surface and ground waters by oil products and many others.

Current interconnected and networked society has become more and more vulnerable and has to face new challenges such as protection of population and its infrastructure as a result of these threats. This means new approaches of the society to address not only consequences of mentioned negative events

but above all the prevention, and material and technical preparedness for those events. A close international cooperation in the area of prevention and rescue operations is a significant and an increasingly important factor that contributes to reducing the consequences of adverse events.

The Fire Rescue Service of the Czech Republic plays a significant role not only in fighting fires but also in responding to various consequences of natural disasters, industrial and transport accidents and other adverse situations. Within the frame of the Integrated Rescue System of the CR this Fire and Rescue Service cooperates with other security sections in order to rescue lives, health and material values of the population.

The Fire Rescue Service of the Czech Republic has a wealth of experience with disastrous floods, the latest ones striking the country in June 2012. During these floods 1,090 municipalities were affected, 26,000 people were evacuated and unfortunately 15 people perished. Nevertheless the preparedness for these recent floods was much more efficient than in the past. Not only the firefighters but all sections of the Integrated Rescue System,

public administration and non-governmental organizations learned how to manage these situations with much higher effectiveness. Substantial improvement of technical equipment of the Fire Rescue Service of the CR occurred thanks to the projects of the European Union and last but not least the advances in the equipment of responding entities. International cooperation, involving both bilateral and multilateral aid after the occurrence of a disaster and also in material or humanitarian assistance, has become increasingly important.

The purpose of this bulletin is to provide the widest possible scope of an extensive portfolio of firefighters' activities which includes fighting fires, consequences of natural disasters, industrial breakdowns, and assistance in eliminating and dealing with consequences of various threats.

I am convinced that even when there is an increasing intensity, range and frequency of these adverse situations of non-military origin, we will be successful in coping with them and minimize the loss of lives. This is also indicated by an improved preparedness of population to cope with incurred emergency situations.



## Fire Rescue Service of the Czech Republic

*Predominant share of the activities such as fighting fires, natural and anthropogenic emergency events consists, unlike the majority of West European countries, in the Fire-Rescue Service of the Czech Republic (FRS CR) which is a part of the security forces and whose founder is the state.*

The FRS CR was established by the Act on Fire and Rescue Service and its primary mission is to protect lives and health of the population and the property against the fires, and provide effective assistance during emergency events. The Fire Rescue Service of the Czech Republic performs its tasks within the range and under the conditions determined by related to the specific legal regulations, especially by the Act on Fire Protection, Act on Integrated Rescue System and the Act on Crisis Management.

The FRS CR consists of the General Directory of the FRS CR which is a part of the Ministry of Interior of the CR; fourteen Regional Fire Rescue Brigades, Specialized Se-



condary School of Fire Protection and Specialized College of Fire Protection; and the Emergency Unit of the Fire Rescue Service of the Czech Republic. Educational, technical and purpose-built facilities are a constituent part as well.

General Directory of the FRS CR performs the tasks of the Ministry of Interior of the Czech Republic which is a central body of public administration for fire protection, crisis management, civil and emergency planning, and integrated rescue system.

### Major activity areas of the Fire Rescue Service of the Czech Republic are:

- population protection
- crisis management and civil emergency planning
- fighting fires, dealing with consequences of natural disasters, technical breakdowns and anthropogenic catastrophes
- state fire supervision
- humanitarian assistance at home and abroad
- regulatory and legislative activity





## Executive Sections of Fire Protection



**Executive sections of the fire protection are Fire Protection Units – firefighters equipped with fire technologies and material means of fire protection. Their main mission is to protect lives, health and property against fires and consequences of emergency events originating in natural disasters or anthropogenic activities.**

Firefighters in Fire Protection Units are organizationally divided into

platoons, squads and in some cases into groups. Each organizational level is commanded by a commander with respective powers and responsibility.

A significant intervention section, primarily regarding fighting fires, is a Unit of Volunteer Fire Brigades set up in municipalities and smaller companies. Members of these units are well trained, equipped with a modern technology and effectively structured.





## Integrated Rescue System and the Role of Fire Rescue Service of the CR in this System

*Integrated Rescue System (IRS) is an open system of coordination and cooperation, legally defined by the Act on IRS of appointed basic and other sections, predetermined to deal with everyday negative events, natural and anthropogenic catastrophes; it is a part of the internal state security system. Its stable structures are formed especially by current institutional parts of its basic sections whereas a bearing structure is formed by the Fire Rescue Service of the Czech Republic. The sections of IRS are prepared and trained at 14, so called, typified activities during a joint intervention.*

The FRS CR and Fire Protection Units are basic sections incorporated into area coverage of a region together with providers of Emergency Health Care and the Police of the Czech Republic. These sections are capable and obliged, according to special regulations (acts), rapidly and permanently intervene within the entire territory of a state. In case that within the municipality there is a unit of volunteer fire brigade which is incorporated into area coverage of a territory, this unit becomes a basic section of the IRS.

The other sections allocated into the IRS would be armed forces, other armed security brigades, other rescue brigades, bodies of public health protection, accident, emergency and other services, facilities of civil protection, non-profit organizations, civil associations, possibly also legal and natural persons. These other sections of the IRS are called upon to the rescue and liquidation works according to events, based on their licenses for such activities, which are determined by the law.





## Great and Large-scale Fires



*High demands on the coordination of managing and executive sections of the Fire Rescue Service of the Czech Republic and at the same time on the synergy of intervening units are necessary for fighting great fires, especially large scale industrial and commercial buildings.*

Fighting forest and grass fires belongs to difficult tasks with high demands on the transport of water. They occur mainly during the period of long-term drought and often also due to the negligence of people. Even if these kinds of fires are not typical for the Czech Republic, the firefighters have to occasionally deal with them.







## Floods

*The most destructive consequences of natural catastrophes on the CR territory, due to extreme weather changes at the end of the last century and at the beginning of this century are caused by floods originating as a result of extremely high precipitations. The most devastating floods were in the CR territory in 1997 and 2001 and their occurrence has become almost a regularity in recent years.*

Performance of rescue and liquidation works during large-scale floods requires high demands on managing and organization activities of crisis staffs on all levels and also on practical cooperation of both basic and other sections of IRS.





## Explosions



*Developed industrial society cannot avoid, from time to time, industrial accidents, connected to explosions of various products during their production, transport, storage, etc. Mostly these incidents occur within a chemical industry and are usually accompanied by the fire.*

Almost regularly, although, not with high frequency, there are the explosions of gas which leaks from gas distribution systems in residential areas caused both by a human factor and as a result of obsolete household distribution systems especially in historical parts of towns. During the explosion of leaking gas there are losses of lives and sometimes also considerable destruction of buildings, in rare cases also their collapse and the origination of fires.





## Extreme Weather Changes



Extreme weather conditions could be heavy rainfall, sometimes only local precipitations, hails, storms and in winter months snow burst, and icing. These occur with growing frequency and cause extensive

damage to road and rail-way transport and power supplies. They damage forests and cause large damage to buildings with a number of secondary consequences.





## Train Crashes and Mass Road Accidents



*Train crashes, mainly connected with the death of pedestrians on the rail-road tracks, or the crashes of vehicles with trains at unprotected crossings have already become regular. However, major train accidents occur only sporadically at the present.*



One of the most serious train accidents in modern history of the Czech Republic occurred in 2008 in Studenka (Moravian-Silesian Region). The road bridge under reconstruction crashed into the track of an international fast train EuroCity Comenius going from

Warsaw to Prague. As a result of the train crushing into the collapsed bridge construction, the train set was torn apart, the locomotive and the first three carriages derailed. The tragic accident caused the death of 7 people and 70 people were injured.





## Poisonings, Mass Contaminations of People, Veterinary Infections and Detections of Hazardous Substances

*In 2012, in connection with illegal alcohol trade and its adulteration with methanol "a methanol affair" broke out and claimed casualties. The task of chemical laboratories of the FRS during the outbreak of this affair was quantitative determination of methanol in liquors and spirits through a gas chromatograph with a mass detector.*

From time to time, we face, in our country epizooties due to the importation of infection. It is especially a so called mad cow disease (bovine spongiform encephalopathy) and so called bird flue (avian influenza). In both cases these are highly contagious diseases and all afflicted livestock including a neighboring one have to be slaughtered and all buildings and areas where infected animals and birds are kept have to be carefully decontaminated. Elimination of these infections is also performed by fire-fighters together with the Veterinary Administration. Firefighters together with the Police of the CR also participate in the detection and transport of discovered suspicious substances, e.g. enve-

lopes with unknown powdery materials, often used to jeopardize the lives of persons or for their blackmailing purposes.





## Accidents Involving Leakage of Oil and Hazardous Chemicals

*Most frequently, firefighters assist at road accidents which have become everyday events. Less frequent is a situation when a tanker transporting oil is involved in a road accident with overturning and damaging the mantle of a cistern, which causes leakage of oil. The first, firefighters' task together with specialized companies is to pump the content of a cistern. In case of the leak of oil it is necessary to capture it, or, which is more frequent, to decontaminate the soil.*

Less frequent are the accidents connected with the leak of oil on water surface. Generally the consequences of such accident are the higher, the larger is the amount of oil substances leaked into water and the larger is the contaminated water flow or water surface. In all cases the firefighters do their best to minimize the size of contaminated water surface by using submersible walls and subsequently removing oil products from the water surface by an appropriate sorbent.





## National Emergency Management Center



*Within the frame of the General Directorate of the Fire Rescue Service of the Czech Republic, the Operation and Information Center (hereinafter OPIC) was established. It performs the tasks of operation control and coordination of rescue activities on a nationwide level. Furthermore, it is a contact point of the Czech Republic for requests and provision of humanitarian assistance from abroad. Its activities are ensured 24 hours a day by operation officers and technicians in shift operations. Responsible members of this center prepare also rooms for crisis staff of the Director General of the FRS, crisis staff of the Minister of Interior and for central (government) crisis staffs.*

OPIC permanently receives, evaluates and classifies information on serious emergency events and organizes responses to them. In this context it is a cooperation partner to a number of operation centers



of ministries and central bodies of the CR such as the Ministry of Interior, Ministry of Defence, Police of the CR, etc. At the same time it is a partner to similar centers abroad and in neighboring states based on bilateral agreements and the establishments within the EU, NATO and other international institutions. Through this Operation and Information Center the humanitarian assistance to abroad is carried out together with the involvement of the IRS sections in the international rescue operations.

Technology level of the OPIC for the nation-wide launch of warning system enables to secure tasks in the area of notification of relevant authorities and warning of population and to distribute information, notifications and warnings of the Czech Hydrometeorological Institute. Within the frame of the General Directorate, the OPIC is a superior body to 14 regional operation and information centers of regional FRS (ROPIC).





# Humanitarian and Rescue Activities Abroad



***The Czech Republic is actively engaged in international rescue operations, or sends self-contained rescue units abroad. Rescue humanitarian assistance is provided through the FRS CR which has special detachments for these operations (Urban Search and Rescue Team – USAR), registered in the database of the EU, and it is also able to provide purposefully assembled teams.***

The main task of the USAR detachments is the rescue of persons from buildings, collapsed as a result of natural disasters or anthropogenic catastrophes; but they can also be adapted to other kinds of



rescue operations. Members of the detachment are trained according to the international standards and the Czech USAR detachment obtained the certificate of the United Nations Office for Coordination of Humanitarian Assistance.

One of the examples of a recent provision of humanitarian assistance abroad was the involvement of a team of firefighters in Serbia during the floods in May 2014. Having used a high capacity pump with the capacity of 650 l.s<sup>-1</sup> they pumped the water from the area of a flooded power station and this way they managed not to interrupt the electricity production for almost 1 million of citizens.





## International Exercises



*One of the ways how to verify and deepen the cooperation during the management of deployed units on international level are regular cooperation exercises of the IRS sections with international participation. These exercises, held in the CR territory with the participation of firefighters*

*and other rescue sections both from the neighboring states and other member countries of the EU are many and some of them are repeated periodically.*

They are e.g. International Meetings of Cynological Teams of USAR detachments with



the topic "Search and Rescue of Persons from Collapsed Buildings" with the deployment of the rescue unit of the FRS CR, for this purpose predetermined – so called detachment USAR (Urban Search and Rescue Team) which is held in the CR territory regularly in the two-year intervals.





# Protection of Cultural Monuments

*The Czech Republic has been paying a permanent attention to the protection of cultural monuments, which is proved by regularly held topic exercises of the IRS sections in which the professional and volunteer firefighters, rescue workers, policemen and the public take part.*

The objective of these exercises is usually deepening of the operability of the IRS during a joint intervention, e.g. the fire of a cultural monument. The following activities are particularly trained:

- basic tactics of the IRS sections during the fire of a cultural monument
- management and coordination of the IRS sections
- rescue works during the fire
- traffic control including the organization of the diversion
- evacuation of people from endangered areas
- provision of emergency care for evacuated persons





## Fire-Fighting Sport

*Due to a permanently expanding spectrum of firefighters interventions in increasingly difficult conditions, the requirements for practical skills and physical conditions of the firefighters have been growing. One of the ways how to gain these skills is an active participation in the fire-fighting sport – disciplines which are closely connected to the activities performed by firefighters during their real engagements.*

Within the frame of the fire-fighting sport there is a number of competitions both on national and international level which are held

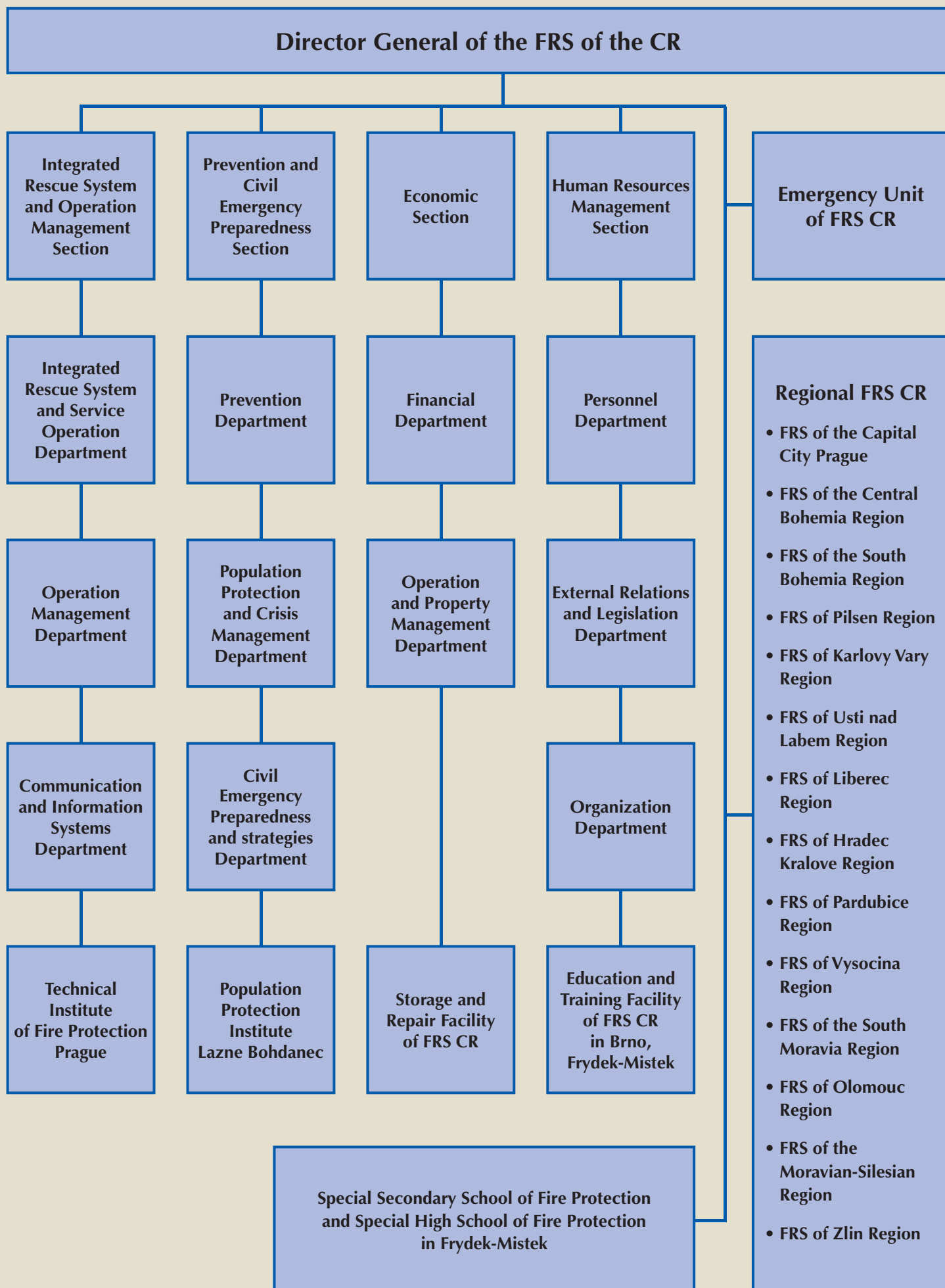


regularly, and accomplished results are evaluated on the base of internationally recognized criteria aimed to achieve the highest objectivity. The most prestigious competition is the competition in fire attack, the competition "the toughest firefighter", and others. There are also competitions for children and youth in the fire-fighting sport, which contribute to their enhanced interest to become a volunteer or professional firefighter.

Last but not least, the competitions within the fire-fighting sport arouse public interest and this way they promote the firefighters as an indispensable rescue unit during the response to various anthropogenic accidents and natural catastrophes.









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