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# EDITORIAL

Dear readers,

this edition is published on the occasion of the events held on September 16<sup>th</sup> -17<sup>th</sup> at the Leos Janacek Ostrava Airport, the 23<sup>rd</sup> NATO Days, and the 14<sup>th</sup> Days of the Czech Air Force. The third weekend of September under the partnership of Poland, which will play its special role for the second time already. And our Publishing House values the role of the media partner. The purpose of this event is to increase general awareness of the importance of international cooperation for ensuring Czech security, with an emphasis on partnership with the states of the North Atlantic Alliance. The main means of achieving this goal is a public display of the widest possible range of means available to the Czech Republic and its allies in the field of security. Some of the exhibiting companies at this event are also presented in this edition, as well as other no less interesting companies from the field of both defence and security, whether it is land engineering, aviation, UAVs, logistics, cybernetics, communications, research, development, weapons and equipment, training, chemical equipment, etc. We offer all of this in this packed Review. I would also like to mention the interviews held with representatives of the state administration, namely with a Senator and,

at the same time, a member of the Committee for European Union Affairs, the Minister for European Affairs of the Ministry of Foreign Affairs of the Czech Republic or the Director of the Municipal Police of the Hradec Králové Region, and we also requested an interview with the re-elected President of the DSIA, who was recently awarded CZECH TOP 100 Award. In the next edition, we would like to introduce the newly elected Vice Presidents of DSIA, whom we look forward to seeing at the upcoming annual meeting of the Editorial Board and the subsequent meeting of friends of the Review magazines. We are already starting the preparation of the next issue published for the mentioned traditional January event of our MS Line Publishing House. Furthermore, we will present to you in more detail the award-winning companies, products, and personalities at this year's annual meeting of the Representative Editorial Board of Review magazines for the Defence and Security Industry, but we will also look back at the successful and largest IDET 2023 in its thirty-year history and the GOLD IDET and GOLD IDET NEWS 2023 Awards received.



**Šárka Cook, Editor in Chief**



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# Exclusively with the New Minister for European Affairs

Martin Dvořák has a rich work history both in regional authorities and in the sphere of state administration. It is pleasing for our magazine that, with a short break, he is a long-term member of the Representative Editorial Board, and therefore this implies that he also has a very warm relationship with the Defence and Security Industry. At the last annual Editorial Board meeting and the meeting of the magazine's friends in April, he was still speaking in the position of a Deputy of the Minister, a member of the Government at the Ministry of Foreign Affairs. However, in the following days, the President of the Czech Republic, Petr Pavel, appointed him to the position of the Minister for European Affairs, and then the Prime Minister, Petr Fiala, put him into office. As it was said on this occasion, his priorities will include the support of Ukraine at the European level, intensive communication with representatives of the member states to significantly strengthen the position of the Czech Republic, and participation in solving the issue of EU enlargement, which is one of the priorities of the Czech Foreign Policy. The discussion with the European Commission on the extension of the national recovery plan and its financing from EU funds, i.e. the activities in which the Czech Republic officially expressed interest at the end of March this year, is also an important task. We asked the new Minister for a short interview.







# Dallmayr

COFFEE AT ITS BEST



Dear Mr. Minister,

**Can you briefly summarize the main tasks you performed as a Deputy, a member of the Government at the Ministry of Foreign Affairs?**

As a result of Russian aggression against Ukraine, this agenda gradually came to me. Even before the War began, the Minister, Lipavský, entrusted me with the management of a working group that daily evaluated the situation on the Russian-Ukrainian border and suggested possible steps toward the safety of our citizens in Ukraine or our Embassies there. Later, I was also entrusted with the coordination works to prepare a review of our relations with Russia and with the resolution of property rights issues with real estate owned by the Russian Federation in our territory. Both of these tasks have already been completed, the relevant materials have recently been introduced to the government.

I also dedicated part of my capacity to the leadership of the Commission for the Unified Presentation of our country abroad, which has existed at the Ministry of Foreign Affairs for a long time, but has not yet been very effective. Unfortunately, I am still waiting for the material for the Government, which was almost ready when I moved from Černín to the Government Office. It should unify not only the use of the name of our country abroad but also establish a new marketing strategy.

In addition, of course, especially during our

presidency in the Council of the EU, I stood in for the Minister, or the Czech Government, at many events both at home and around the world. It was a very difficult time for all of us.

**What are the main activities and responsibilities imposed on you by your new position, i.e. the position of the Minister for European Affairs?**

I should be the coordinator and mediator of all the EU-related agenda, which is otherwise the responsibility of a whole range of institutions, ministries, and other authorities. Of course, this means that there are sometimes disagreements or different views on specific issues between them. Such a situation is signalled by the regular meetings of the Working Committee for the EU, which I chair, followed by negotiations, or I ask the government for a final decision. The big challenge of the nearest period is to complete the negotiations with the European Commission on the details of drawing funds within the framework of the National Recovery Plan, including the possible drawing of a preferential loan from European funds. And then, of course, the implementation of approved projects.

I also want to devote a lot of time to questions about the future of the EU, its priorities, and its goals. I think that the Czech Republic would also benefit greatly if, after many years, we were finally able to formulate some long-term visions and strategies to achieve them. And then, of course, implementing



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them, but that will be the task for the future governments...

**Is this scope of activities similar in some respects? In which respects? And how these differ?**

The point of contact for both positions is undoubtedly Ukraine. A war so close to the borders of the EU cannot but be a priority for all the efforts of the Czech Republic and the entire EU. From my previous position, I also brought a great interest in the Western Balkans, which must be the focus of our interest even in the context of the EU and its possible future ex-pansion.

**What is crucial for you within the issues of resolving the War in Ukraine?**

There are probably more answers to that, it depends on the point of view. One point of view is probably focused on how and when the War will end, and there I can't imagine any other good solution than the complete restoration of Ukraine's territorial integrity within its original borders, including Crimea, and its absolute freedom and sovereignty. Another task will be the question of how to reconstruct Ukraine as quickly as possible

after the War and re-pair the terrible damage caused by the War. And we should not even ignore the question of future relations with Russia.

**The content of your activities also affects the area of the Czech Defence Industry, for example its involvement in European armaments projects or issues of support for Ukraine?**

Of course, as a member of the Government, I participate in debates and in making decisions on a specific form of aid; among other things, I was also present at the meeting between the Prime Minister Fiala and the President Zelensky, where this topic also resonated strongly, but our Ministry has no control over these tasks.

**How is the defence treaty between the Czech Republic and the USA affected in the context of European activities?**

We were one of the last NATO countries that did not yet have a similar agreement. The relations between the defence of the EU, its individual members, and the North Atlantic Alliance are certainly not and must not be competitive, but on the contrary, must be

synergistic. There is no doubt that responsible leaders on both sides of the Atlantic are aware of this.

**The problems with the accession of the Baltic countries and Ukraine are obvious to everyone. Can the Czech Republic somehow contribute to changing the attitudes of Hungary and Turkey toward accession to NATO?**

Diplomacy is primarily the art of acting and negotiating, influencing partners during negotiations in such a way as to achieve agreement or at least eliminate disagreement. It is our duty and at the same time a challenge to deal with those who, unlike us, see the accession of other countries into NATO as a problem, because of which they are willing to block our common progress. Negotiations should certainly be unified or coordinated within the EU, but each member state can and should raise similar issues during bilateral negotiations and repeat our position. Of course, Czech diplomats and government representatives also do it.

*Thank you for the Interview, Eva Soukupová  
Photo: Government Office*

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# A Few Topical Questions for Mr. Nytra, the Senator

Senator, Ing. Zdeněk Nytra is a graduate of the University of Mining in Ostrava. Between 2001 and 2016, he worked as the Director of the Fire Rescue Service of the Moravian-Silesian Region. He has been a Senator (ODS) since 2016, and in 2022 he defended his six-year tenure in this position. Since 2020, he has been the Chairman of the Senatorial Club (ODS and TOP 09). He is also a member of the Committee on European Union Affairs and a member of the Subcommittee on Internal Security and Integrated Rescue System and the Committee on Foreign Affairs, Defence, and Security. He mainly focuses on energy and internal security. Mr. Senator agreed to a short interview.



**Dear Senator, can you briefly comment on your former work in the years 2001 to 2016 in the position of the Director of the FRS of the Moravian-Silesian Region?**

That period followed my work as the Director of the Ostrava Fire Brigade during the years 1994 - 2000.

From the point of view of an organization, it was the period of forming the regional organization of firefighters, and not only at the professional level. In the case of Ostrava, it was also a transition from municipal government to the state. Firefighters joined the group of security forces. From the point of view of the performan-

ce of the service, we continued to improve the quality of the work of firefighters, and thus also to increase their prestige. We assumed that firefighters are here for citizens 24 hours a day, 365 days a year, not only when there is a fire, but in many other situations.

Last but not least, we managed to build new fire stations including a common operations centre, reconstruct the original ones, and buy new and high-quality equipment.

For me personally, it meant learning a lot of new things, for example in the field of law or economics, but also gradually moving away from the pure "firefighting" that I was used to at the beginning of my career.

**You served as CTIF Vice President for eight years. Can you describe this stage of your activities to our readers?**

CTIF is a global organization, bringing together representatives of firefighters from 40 countries, from Australia and Japan to the USA. It deals with all aspects of firefighters' activities - starting with prevention, through equipment and technologies, work procedures, youth education, sports, and also the employment of women - more at [www.ctif.org](http://www.ctif.org).

As Vice President, I was directly in charge of the Competitions Commission and the Youth Leaders Commission, so that was where the focus of my activity was. How-

ever, my work in the CTIF does not end here, because the Assembly of Delegates in June approved my proposal to establish a new Commission of Firefighting Sports, where I want to continue working.

**With what goal and resolution did you enter the Senate, and how are you managing to fulfil these goals so far?**

I did not have any specific goals; the victory in the elections in 2016 was quite a big surprise for me. On the other hand, I was very well aware of the irreplaceability of the Upper House of Parliament in the protection of democracy and the Constitution. I brought many years of experience in municipal politics to the Senate. Although it is beneficial to know local problems, legislation cannot be built on just one municipality, city, or organization.

**You are currently the Chairman of the Senatorial Club. What is the current main focus of the Club?**

The Club simply brings together Senators elected for or with the support of a certain political entity, or those who agree with this entity. This is generally true for any club.

And the Club then tries to realize its political intentions and goals. Specifically, this means the preparation of documents for individual points and then sometimes a complex discussion at a club meeting. It is





worth noting that the ODS and TOP 09 Senatorial Club is the strongest club with 36 members, and thanks to this, we succeed to a large extent in promoting our views on the draft laws being discussed, their amendments, or the Senate's opinions on the European press.

**The Senate is discussing defence cooperation, which regulates the basic rules for the stay of American soldiers**

**if for some reason they were in Czech territory. In your opinion, why does the Czech Republic need this defence cooperation agreement?**

The reason is simple - it is a kind of "framework agreement" that builds on the multilateral agreement between all NATO member states. There are dozens/hundreds of such crossings, exercises, etc., and thus individual cases will no longer be

necessary to negotiate in this agreement. However, it should be emphasized that the agreement does not establish a kind of "blank cheque" for the stay of American soldiers in our territory. Each individual case will still have to be approved by both Chambers of the Parliament of the Czech Republic. And it does not even establish the possibility of building an American military base in our territory.

**Can you tell our readers the fundamental standpoints of the Club on the key issues of the current international situation (at least some)?**

Recently, the Club, as well as the entire Senate, has been very actively involved in supporting Taiwan, and especially in condemning Russian aggression in Ukraine and in supporting Ukraine in its struggle to restore territorial integrity.

Thank you for your helpfulness and I look forward to further cooperation.

*Thank you for the Interview, Eva Soukupová  
Photo: archive of Zdeněk Nytra, Senate*



# Innovative Logistics Solution from Czech manufacturer Rescue Trailer

In October last year, Rescue Trailer introduced its trailer for transporting people and material, which is used by firefighters, rescue services and the military, offering them the possibility of individual fitting and equipment for their specific needs. The Rescue Trailer can, for example, be equipped with third level ballistic protection or air filtration. As the type designation EFT, Extreme Folding Transport, suggests, it is a trailer with a folding design that saves the logistical requirements and associated costs of transporting the trailer to the deployment site. Two people without special equipment can fold or unfold the trailer in less than two hours. All parts are hinge-mounted, so handling is easy. When folded, the trailer meets the NATO standard pallet 463L.



LENGTH 2m

In folded state - ready to transport



LENGTH 5m

In unfolded state - ready to GO

The Rescue Trailer is homologated for road use up to 3.5 tonnes, so it can be towed behind the popular Toyota Hilux, for example, but also behind trucks thanks to the adjustable drawbar. The mechanism is simple and robust and preparation is a matter of minutes at most. The trailer design is rated for a technically permissible weight of up to 7 tonnes, so the payload, i.e. as much as it can carry, is more than 4 tonnes. The trailer has a rockinger at the rear, so that it is possible to hitch up another Rescue Trailer or, for example, a water tank or an electric power pack

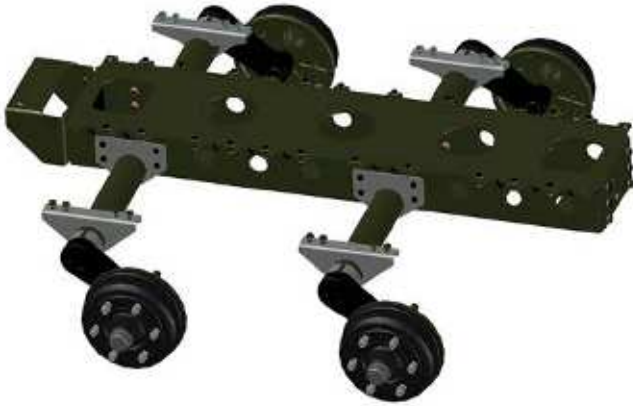


Currently, two trailers are also being produced for Slovak rescuers, one of which will serve as a mobile first aid station and the other as a command facility. The rescuers have defined all the equipment and also the modifications to make the trailers fit their needs, so the Rescue Trailer can be used as a universal platform and the manufacturer will modify it according to the requirements and the purpose. The trailer is also equipped with a traction battery and an electric generator, so it provides a back-up outside the infrastructure.



# Comfortable and safe

Due to its focus, i.e. transport of people, injured and evacuation during natural disasters, Rescue Trailer places great emphasis on the quality of the chassis, which must provide comfort to the transported crew, but at the same time be robust enough to avoid damage during operation in difficult terrain. This is achieved by independent suspension without external parts such as shock absorbers and springs. Everything is safely integrated directly into the axles and dimensioned for the required load.



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Comfortable and safe in difficult terrain

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Mobile stations



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# After the Devastating Fire in the Czech Switzerland National Park, Firefighters are Changing their Approach to the Issue of Extinguishing Forest Fires

Record-breaking numbers of fires in the natural environment, persistent soil drought, and experience from abroad. The Fire Rescue Service of the Czech Republic (FRS CR) reacts to all this and applies current knowledge within a new approach to the issue of extinguishing forest fires. At the same time, the reforms affect not only tactical procedures but also put emphasis on changes in legislation in the field of fire prevention.



The aerial firefighting service has undergone the most significant change since last year. During its development, Czech firefighters were primarily inspired by the experiences of their colleagues in extinguishing large-scale forest fires abroad. Hand in hand with aerial firefighting goes the work of ground units, which are also equipped with equipment and tangible technical means, which are intended specifically for extinguishing forest fires. Thanks to this, firefighters are able to perform the initial intervention in the event of a forest fire more quickly and efficiently. An important part of the entire system of changes is also the area of prevention, where the FRS CR strives to change legislation and regulations that will lead to the anchoring of fire safety rules specifically for forests.

## Aerial Firefighting Service

Aerial support of the Aerial Firefighting Service is proving to be crucial when extinguishing large-scale forest fires. The existing capacities of the Aviation Service of the

Police of the Czech Republic (2x Bell 412 helicopters with 900 l Heli-buckets), which are the basis of aerial firefighting in the Czech Republic, will be provided for the summer period until mid-September 2023 with two private operator Black Hawk helicopters with large-volume Heli-buckets, each with a volume of 3 000 l of fire-fighting water. At the same time, these helicopters became part of the aerial firefighting module within the Union Civil Protection Mechanism and, if necessary, can be used for firefighting in other European countries. In the future, the FRS CR wants to purchase its own helicopters for the Czech Republic with European financial support. The Czech Republic would provide a Central European helicopter base for aerial firefighting within the framework of mutual European cooperation. When deploying them, we would like to build on the previous excellent cooperation with the Aviation Service of the Police of the Czech Republic, which could be their operator. At the same time, the vision is part of the concept of the development of the Police Aviation Service, which we would like to fulfil.

## Modernization of intervention techniques and firefighting tactics

After last year's experience, the use of equipment and material-technical means, which are developed specifically for the purpose of extinguishing forest fires, has proved successful. The effort is to deploy a greater number of forces and resources at the very beginning, which can act not only on the perimeter but also on the area of the fire. At the same time, it is important to have secured access roads, water, and standoff distances so that the fire can be

contained in a limited area. The maximum effort is to prevent the fire from spreading uncontrollably and due to the spread of flammable particles causing further outbreaks, as was the case with the fire in the Czech Switzerland National Park.

Firefighting departments are progressively equipped with engineering tools, rucksacks, and narrower-diameter hoses. The equipment of the FRS CR already includes so-called flexitanks - free-standing water tanks with a volume of 54,000 litres or 36,000 litres of water. All three troops of the Rescue Department of the FRS of the Czech Republic have a total of three pairs. The reservoirs can be used to supply water to cisterns in the field or to fill Heli-buckets for aerial firefighting.

During the extinguishing itself, a hose line consisting of hoses with a reduced diameter is being used, which is particularly advantageous for interventions in areas that are difficult to access for firefighting equipment and are limited or have no water sources. Their advantage is not only less water consumption but also better handling. Various types of fire extinguishers (wetting agents) are also applied.

In addition to normal investments, firefighting equipment was purchased last year or will be purchased this year, among other things in the form of tanks for large-volume firefighting (24 units) or four-wheelers with firefighting equipment (44 units). For the units of the volunteer firefighting brigades (VFB) of the municipalities, the total allocations were increased to provide a subsidy for tank car fire engines or for transport cars with the possibility of purchasing a firefighting trailer equipped with a new portable fire engine. VFB units in the Czech Republic



will thus be equipped with at least 107 units of new tank car fire engines and at least 232 units of transport vehicles (104 units) or fire trailers (128 units). From a conceptual point of view, it is also necessary to purchase tank car fire engines specially developed for interventions in forests for the FRS.

### The area of prevention and changes in legislation

The fire in the Czech Switzerland National Park showed that there is a need to change the approach to fire prevention not only in national parks but in forests in general. After these experiences, an interdepartmental working group was created, which has the task, among other things, to propose legislative measures to increase the fire prevention in the natural environment. One of the main goals is the possible amendment of the Fire Protection Act No. 133/1985 Coll., but also the preparation of other conceptual materials and implementing regulations. In the same way that objects or activities are assessed concerning fire hazards, the territory must also be assessed in a new way.

Specifically, the firefighters strive to create fire sections in risk areas, in which the degree of risk will be evaluated and the fire hazard of the given area will be determined. Based on this, the owner (manager) would be forced to take preventive measures leading to the reduction of these risks, for example by creating or opening access

roads, creating standoff distances, and sources of water for extinguishing or limiting the movement of people. In national parks, the FRS of the Czech Republic strives for increased monitoring of risky places, either with modern means such as stationary detection systems, or mobile means such as drones. The patrol activity and the initial firefighting intervention by the national park guards must be strengthened. The Czech Republic wants to use experience from abroad and look for common solutions with other countries, which is why it joined together with Croatia, Germany, and Slovenia in the project **"WILDFIRE PREVENTION AND CAPACITY BUILDING IN CROATIA, CZECH REPUBLIC, GERMANY AND SLOVENIA"** financed by the European Commission.

### The number of forest fires is record-breaking

Figures from the statistics of FRS CR clearly prove that the number of interventions in extinguishing forest fires is constantly increasing. Firefighters register the largest number of forest fires and fires in the natural environment in the last 10 years.

In 2022, Fire Protection Units (FPU) intervened in a total of 20,813 fires (16,162 in 2021), of which about a third – 6,816 fires – were in the natural environment (3,588 in 2021). Forest covers were affected in 2,473 cases (1,517 in 2021), which corresponds to about 12 % of the total number of fires.

Fires that engulfed forest covers last year caused damages of about 46.5 million CZK; the FPU managed to save values representing almost 300 million CZK. The area affected by forest fires was a total of 1,715.2 ha (411 ha in 2021).

Last year, aerial equipment was also used in 71 cases of intervention, of which almost a third of the events (23) involved the deployment of aerial equipment to extinguish forest fires (Note: the fire in the Czech Switzerland National Park in July and August 2022 is listed as one event).

### Conclusion

If we summarize everything mentioned above, four main conclusions emerged from the experience of the past years from the point of view of the repression. Early detection of fire proved to be crucial, which should be ensured by both technical systems and the strengthening of human resources in the case of national parks. It is necessary to resolve sufficient access roads and standoff distances within all forest areas and ensure sufficient water sources. The findings also have an impact on the very tactics of extinguishing forest fires, which need to be adapted by the FRS CR to current trends. It is also necessary to deepen cross-border cooperation in the field of preparedness for extinguishing fires in forest covers and to involve funds from Interreg programs.



# SVOS Přelouč will Present the New MARS Combat Vehicle with RBS 70NG at the NATO Days

The company SVOS Přelouč will present a conceptually brand new MARS 4x4 (Multi-role Armoured System) combat vehicle at the NATO Days. Specifically, it will be the MARS 4x4 Hard-Top variant with RBS 70NG from the Swedish company SAAB Dynamics AB. It was this vehicle that won the highest Golden IDET Award together with the prestigious IDET News Award at the IDET 2023 International Trade Fair for Defence and Security Technologies in May.



## Excellent cooperation between SVOS and SAAB Dynamics

The close cooperation of the Czech company SVOS Přelouč with the Swedish armaments company SAAB Dynamics AB dates back to 2019. Its concrete result is the new MARS 4x4 combat vehicle with an integrated RBS 70NG anti-aircraft system of the new generation. A very modern ground-based air defence system capable of meeting the requirements of all NATO and third-country customers was thus created within the cooperation of both companies.

Two years ago, the first MARS 4x4 vehicle was transported to Sweden for installation and testing of the MSHORAD system, which then underwent ground functional tests and later live-firing with RBS 70NG anti-aircraft missiles. In August 2022, the world premiere of the MSHORAD system took place in Swe-

den, which was attended by 150 representatives from 15 armed forces from around the world, who are either already users of RBS systems or potential customers. The SAAB company then organized a series of other action presentations for potential interested parties from armed forces around the world. Except for the presentation with anti-aircraft fighters in the Czech Republic and Slovakia and at IDET 2023, the MARS vehicle with the RBS 70NG is still in Sweden, where it undergoes further presentations and dynamic tests for invited representatives of the armed forces of NATO member countries.

SAAB Product Director Paul Wooldridge commented on the project: "Cooperation with SVOS has been a pleasure and has proven its ability to be flexible and responsive in the development and finalization of our so-

lution. The MARS 4x4 is an excellent armoured vehicle providing a stable and capable platform for the proven RBS 70NG weapon system. The combination of this weapon and this vehicle capability provides a very effective and formidable mobile air defence capability that will meet and exceed our customers' requirements." And as declared by Dipl. Eng. Štěpán Černý, the Commercial Director of SVOS, the Czech company is interested in further developing this cooperation. According to him, the format of such a project, which was fully developed without the financial participation of both states, testifies to the trust of SVOS and SAAB in the potential of this system.

## MSHORAD (Mobile SHORt Range Air Defence)

SAAB has many years of experience in the development of ground-based air defence systems. However, its RBS 70 laser-guided short-range anti-aircraft missile system was not entirely mobile.

The much-needed mobility is ensured by the MSHORAD set, which is based on the sight of the portable air defence system RBS 70NG and the Giraffe 1X multipurpose 3D radar integrated into the MARS armoured vehicle, together with the MFU (Mobile Firing Unit) and the MRU (Mobile Radar Unit), supplemented by its own command and control system.

MSHORAD provides several significant tactical advantages to its users. Above all, it is the high mobility of the system and the ability to move it quickly to the desired location, or the ability to escape from enemy fire. Thanks to one of the functions of the Giraffe 1X radar, called "Drone Tracker", the system can track



low-flying, slow and small targets and provide a situational overview of the presence of not only unmanned vehicles at a distance of 75 km, in a 360° range. The ability to destroy the enemy's offensive equipment is provided by the RBS 70NG anti-aircraft missile system, which launches missiles resistant to interference. The RBS 70 NG can operate day and night, can be quickly ready to fire even in field conditions, and has an effective range of 9 km while being able to engage targets up to 5,000 meters. The missile reaches a maximum speed of Mach 2.

#### **MARS 4x4 HARD TOP and DOUBLECABINE**

Excellent technical parameters, variability, and high utility characteristics of the MARS 4x4 vehicle predestined it to become a platform for various weapon systems. At the same time, the modular concept of the MARS 4x4 allows the creation of many versions.

In addition to the modification with a fully armoured large-volume cabin, which was decided by the SAAB company for the integration of the new triple launcher of the RBS 70NG anti-aircraft system, the SVOS company also produced the MARS 4x4 Doublecabine, i.e. a flatbed with a four-seater armoured cabin and a rear cargo area. This version can be equipped, for example, with a mortar and serve as a self-propelled mortar system. And SAAB Dynamics used the MARS 4x4 Doublecabine for the MRU (Mobile Radar Unit) radar vehicle with the SAAB Giraffe 1X multipurpose 3D radar installed.

The modularity of the MARS 4x4 (Multi-role ARmoured System) is also confirmed by the



installation of other weapon systems. SVOS installed a MANTIS MINI remote-controlled weapon station with a 7.62mm machine gun from the Czech company EVPÚ Defence on the MARS 4x4 HardTop. The MARS Doublecabine version was then fitted with a remote-controlled MANTIS weapon station with a 12.7mm machine gun from the same company.

#### **MARS: own design and production by SVOS**

The MARS 4x4 combat vehicle is the newest line of armoured vehicles of our own design and production.

MARS vehicles widely use the main aggregates such as the engine or transmission introduced into the alliance system with the relevant NSN codes, while these units are also verified by operational function-

ing with other armoured vehicles of users from NATO member countries in combat missions in Afghanistan or Iraq. The MARS 4x4 vehicle is powered by a liquid-cooled turbocharged in-line six-cylinder 7.2-liter diesel engine with an output of 240 kW. The transmission is a six-speed automatic from ZF. The total weight of the basic version is approx. 14,000 kg, the payload limit is 2,000 kg. The maximum speed on the road can reach up to 110 km/h, and the range with a full tank is up to 800 km.

The MARS 4x4 combat vehicle has an optionally steerable rear axle, which enables a low turning radius of 6 m. The vehicle thus has a high degree of manoeuvrability in a limited space, for example in urban areas, mountainous terrain or otherwise difficult-to-access areas.

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The MARS series vehicles represent a highly modern platform that benefits from SVOS' long-term experience in the development, production, and operation of armoured vehicles. These are modular military vehicles with the option of integrating various superstructures according to customer requirements. The chassis group is dimensioned for various types of superstructures and, regardless of them, ensures high cross-country ability and operational reliability.

The specific combination of the MSHORAD anti-aircraft system of the Swedish company SAAB Dynamics and the MARS 4x4 vehicle by SVOS Přelouč, which both companies will present at the NATO Days, created a modern and very effective means of mobile air defence.



*Photo: SVOS, SAAB and EVPÚ Defence*

# The Gripen – Always Combat Ready. Anytime. Anywhere.

The Czech MoD is currently deciding about the future of its supersonic fighter program. While the US is cooling overheated F-35 engines, the Kingdom of Sweden is offering to continue defending Czech airspace and that of our NATO partners – for better price and with proven solution that is available right now.



Gripen C with Meteor missiles.

The Gripen fighters have defended Czech airspace for 18 years, 24 hours per day, 7 days a week. The Czech Air Force has flown more than 35,000 flight hours on the Saab-made jets, took part in 7 NATO missions, and are able to defend the airspace of not just the Czech Republic, but also Slovakia (which is still waiting on delivery of F-16 from Lockheed Martin).

When the lease of the JAS-39 Gripen C/Ds ends in 2027, the aircraft will still have more than 50% of their lifecycle ahead of them and have great potential for further upgrades. There is thus no reason to get rid of one of the most capable combat systems operating today. The following text will describe the benefits Czechia would acquire if it decided to continue using the Gripen.

## The Potential for Upgrades of Gripen C/D

The JAS-39 Gripen is known for its versatility and high level of operational availability. The jets have been designed to adapt to various combat situations and conditions, even within a single mission. That's why Saab continues to upgrade its aircraft to react to changing threats and remain at the technological forefront. That is important for the Swedish Air Force, which plans to operate the Gripen C/Ds at least until 2035. Therefore, fears the Gripen fighters operated by the Czech Republic will become outdated are completely off-base. They can still be modernized, and the Czech Air Force would still have aircraft able to fulfil all its demands.

The plan to further develop the Gripen C/D currently includes upgrades labelled MS Block 3 and MS Block 4 also available for the Czech Gripen fleet. The contract Saab signed in December of last year with the Swedish MoD will further increase the aircraft's capabilities, adding a new engine with a higher output. "A more effective electronic warfare system will also be added, and the upgrade will create the conditions to increase the attacking capabilities with new weapons and combat systems that the Gripen C/D will now be equipped with," Saab said in December.

Besides improving the General Electric/Volvo Flygmotor RM12 (F404-GE-400) engine and integrating the Arexis EW set, the order includes an upgrade to the Saab PS-05/A radar with expanded detection and monitoring ranges. A modernized avionics system is also in the package that allows for quick and continuous software upgrades to the sensor functions. "This modernization will offer the Swedish Air Force much stronger fighter capabilities. The order is a major step forward in terms of performance and radar capabilities, both in terms of hardware and software, assuring the Gripen C/D's operational capabilities into the future," Saab Aeronautics Vice President Jonas Hjelm said.

The contract will also improve radar capabilities by extending the detection and monitoring range. As is usual with Saab, the upgrade will include further software upgrades to the Gripen C/D. These take place regularly and in shorter intervals than with the US fighters.



The Czech Gripens can also choose from a wider range of weapons including air-to-air thermal-guided IRIS-T missiles for targets within visual range (WVR), modern laser-guided GBU-49 bombs, as well as long-range air-to-air laser-guided Meteor missiles used for beyond visual range (BVR) targets, which exceed all other missiles in its class. With this investment, the Czech Armed Forces would acquire all the capabilities it needs to defend the country.

Another unique feature of the Gripen is the ability to work from dispersed bases, including those that do not have permanent infrastructure. In other words, the Gripen can land on a regular road and take off from it on another mission, as the Swedish armed forces regularly demonstrates (which also amazes the leadership of the USAF). This makes the Gripen unique, as no other comparable aircraft can offer this capability.

If a war is going on in Europe, there is the question whether it is wise to operate supersonic fighters from a single base as the Czech MoD is currently planning to do with the F-35. There is no other base in the country other than Čáslav AB where the aircraft could operate from. Does this mean Czech Republic will not be able to launch its fighter jets if the base is inoperable?

### Money talks...

Before we go into the capabilities of 5th generation fighters compared with the Gripen, we should first consider the price of the F-35s; not just their acquisition costs, but also their long-term operating costs. The Gripen has no equal in this case. In the most recent report from the American GAO (which must be considered a relevant source of information), the cost of one F-35 flight hour in the same version the Czech MoD plans to buy is \$41,986. That is several times more than the Gripens, both for the Gripen C and the latest Gripen E.

The extreme operational and equally high maintenance costs are one of the reasons why many of the militaries that ordered the F-35 use other aircraft for daily operations and have the F-35 as sort of window dressing for its air forces. A prime example is Poland, which along with



Gripen can be operated from ordinary roads and does not need any demanding infrastructure.

its F-35s ordered older F-16s and is acquiring new South Korean FA-50s that will handle the "regular" defence of Polish air space. Norway is another country where the flight hours of the F-35s is being limited because of the extreme operational costs. The fact that Norway, with a completely different budget than Czech Republic, cannot afford to operate them to the planned extent should be a warning for the country.

Similar differences can be found in the acquisitional costs themselves. It is truly difficult to make any direct comparisons in this matter, but it's more than obvious that the CZK 122 billion (not counting other necessary investments needed in this case) planned for the 24 F-35s could be used to purchase a great deal of other equipment for the Czech Armed Forces. This includes air defence systems experts speak about often. Furthermore, it should be noted the CZK 122 billion certainly isn't the final sum the Czech Republic would have to spend if it purchases the F-35s. These are only the acquisition costs that do not include upgrades to air bases the aircraft will operate from, special training for personnel, and the high costs of operating the platform itself. The Czech Republic should learn from other countries as the costs for base upgrades to operate the F-35s were in the hundreds of millions of euro. Specifically, the price reached €650 million per base in Norway.

It's not just the price and the simplicity of operation that makes the Gripen to stand out. One of its main advantages is its peerless operational availability, which

expresses how often the aircraft is prepared to fulfil a mission. This figure reaches 85% in the case of the Gripen. When compared to the competition, the F-35 is somewhere between 35%-50% (according to a US Congress report, the figure is 48% for the F-35A the Czech Armed Forces is planning to buy, 19.2% for the F-35B, and only 7.5% for the F-35C). Eurofighter Typhoon and Dassault Rafale are at about 60%. If an air force thus wants a reliable aircraft that is almost always ready, the Gripen is once again the best choice.

### The Gripen Isn't a 5th Generation Fighter – Good!

Many could object that the Gripen E/F isn't a 5th generation aircraft. It's not. But let's first ask how these fighters are classified. What are the criteria? As former elite Swedish Air Force and Saab test pilot Jussi "Miyagi" Halmetoja said: "The classification of fighter aircraft into generations today is losing its importance. It's a marketing term. The development of technology has made the generation subjective. For example, Lockheed Martin first defined a 5th generation fighter as having stealth and supercruise capabilities. However, the F-35 lacks supercruising, and the 5th generation definition was adapted to this aircraft and focused only on stealth systems." Halmetoja added: "The operational importance of stealth is being reduced. Advancements in radar and sensor technologies, processing signals, computing power, and expansion of networking capabilities significantly reduced the benefit of radar stealth technologies. Furthermore, the demands made by ste-



Czech defence industry could be involved directly in the Gripen supply chain and participate in MRO.

alth technologies such as high acquisition and maintenance costs, limited weapons systems, and reduced electronic warfare capabilities could actually be detrimental to the result of the mission.”

Instead of extremely expensive stealth technologies, Saab chose smart solutions, such as an excellent air combat system that focuses on the overall performance of the aircraft. The Gripen uses bleeding-edge sensors, electronic warfare capabilities, and a wide range of weapons options. Thanks to the AESA radar, Gripen pilots have a 360° overview of the battlefield. The aircraft’s adaptability, flexibility, and cooperative tactics allow it to face all the risks of air combat. The fighter’s new electronic equipment allows a group of Gripens working together to be connected and share information about targets. The system chooses a weapon from one of the connected fighters that is the most effective at that moment. The F-35s also boast of this ability.

Thanks to advanced communication and data systems, the Gripens are also able to effectively share information and cooperate with other military units, including ground and naval units. This is where the F-35 lags and sharing information with other NATO aircraft, such as Eurofighters, is practically impossible. This integration makes for more effective use of resources and improves coordination and quick reactions to enemy threats.

The Gripen’s “Human Machine Collaboration” system should also be mentioned. Modern air combat is mostly about information. Generating, analysing, and chiefly leveraging data gives the best change for victory and therefore for survival. It is a highly-effective information system that the Gripen pilot has at the touch of a button. While in the past pilots had to decide which contradictory information to use in fractions of a second, the new Gripen allows them to rely on constant updates from a expertly secured and extremely precise information support network.

### **Incorporating Local Industry and Benefits for the Czech Economy**

When the Gripen lease was signed for the 2004-2014 period, Saab promised orders worth CZK 25.5 billion for Czech companies. The entire value of the investments generated by the program exceeded CZK 31 billion in the end, or about 130% of the amount the Czech Republic was to pay for the Gripen lease. Almost a third of orders were directly connected to the fighters themselves, while other industrial cooperation was indirect. The program included 58 transactions with participation of companies such as Aero Vodochody, GE Aviation Czech, Brush Sem, Brisk Tábor, Meopta, and Jihlavan. It also included investments, exports, and technological transfers that generated income on the Czech side.

“We continue to actively seek out Czech partners for industrial cooperation because of the good experience from the offset program. An example is the cooperation with Přelouč-based armoured vehicle maker SVOS on our new MSHORAD missiles system,” Saab Deputy Head of Marketing and Sales Richard Smith said. Cooperation with military optics maker Meopta, an offset program partner from 2004-2014, continues to this day. Today, Meopta is part of the Carl-Gustaf and UTAAS program. “We always concentrate on broad industrial cooperation with our customer countries. It’s also natural for a country to demand developing industrial cooperation when deciding about strategic investments, which the purchase of new supersonic fighters certainly is. We see it as an opportunity to expand our partner base and share the latest technologies across those countries,” Smith added, noting: “We are prepared to offer the Czech Republic solutions tailored to the local defence industry.” The intention to continue in the course set up with Czech suppliers was made clear by Saab when recently signing a memorandum with JOB AIR Technic, a regional leader in aircraft maintenance.

The Saab JAS-39 Gripen has established itself as a fighter for the future, which has many advantages over its competition and is unrivalled in many aspects. The Gripen is an example that defining aircraft according to generations need not reflect their precise benefits. Its overall affordability including operational and maintenance costs, versatility, and potential for upgrades, as well as high operational availability, should convince Czech political and military leaders to ask whether it is really necessary to spend billions on US aircraft whose main task is to make bombing runs deep into enemy territory, especially at a time of fiscal cuts and an unsure economy.



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# OPTOKON Expands the Production of Connectors for Demanding Applications

OPTOKON has been offering special HMA optical connectors based on Expanded Beam Technology for more than 25 years. The use of this technology means our HMA connectors offer superior transmission characteristics during many pairing cycles. The excellent optical performance remains unchanged even under mechanical stress, environmental influences and harsh ambient conditions. As there is no direct contact between the contact ends, the Expanded Beam joints are relatively insensitive to contamination. Under normal conditions, there is almost no need for cleaning every 5000 pairing cycles. This ensures reliable and undamaged transmission.

The OPTOKON HMA Expanded Beam connector series in accordance with the MIL-DTL-83526 specification is designed for harsh environment applications such as military tactical communications, avionics, offshore systems, outside broadcasts, mining, heavy industry connections, and petrochemical applications and plants. The innovative design ensures the ability for deployment in the toughest environments where high performance and complete reliability are critical. By benefiting from expanded beam technology, the precision optical alignment system provides immunity against water (IP 68), mud, dust, oil and other contaminants.

The HMA Hermaphroditic coupling eliminates the need for adaptors and male and female mating halves. Hermaphroditic housings allow for rapid deployment, creating low loss Single mode and Multimode daisy chained links in a variety of platforms ranging from simplex fiber to eight fibers - and with a new design of up to 16 fibers



The OPTOKON HMA is ideally suited for environmental extremities where low maintenance and quick repairs are required. The HMA connectors are available in three basic types:



While the HMA-M and HMA-J are designed for termination for up to 4 fibers, Multimode or Single mode, the HMA-S can accept up to 8 optical fibers for high-speed signals and additionally copper wires for control data transmission and powering remote optoelectronic devices.

There are two basic modifications of the HMA connectors: the HMA plug type – designed for terminations on tactical cable and the HMA bulkhead, designed for installation into panels, vehicles, and communication systems.

For example, tactical cables with expanded beam HMA plug connectors enable a rapid connection between headquarters and subaltern points in field conditions. The flexible 2 – 6 fiber 6 mm outer diameter optical cables have a high crush and strain relief resistance and a rugged field repairable connector design.



**HMA-S3x special hybrid connector, HMA-S style – 2x FO + 3x Cu contacts:**

- HMA-S3S 2x FO + 3x Cu contact (socket)
- HMA-S3P 2x FO + 3x Cu contact (pin)



The non-contact design of the optical surfaces in expanded beam connectors provides an insertion loss of less than 0.7 dB for multi-mode and less than 1.0 dB for single mode. However, the optical performance of expanded beam connectors is consistent throughout the product life and the likelihood of product failure at a critical point is greatly reduced.

**HMA-JF connector ferrule HMA connector**



The HMA-JF connector has been developed for applications where the lowest insertion loss is required. The OPTOKON HMA-JF connector complements the existing and wide range of harsh environment products and uses 1.25 mm ferrules, already industry proven in both single mode and multimode applications. The HMA-JF ideally suits long-distance applications where excellent transmission parameters are desired. The unique design of the HMA-JF allows users to ensure the high performance of Small Form Factor optical connectors in field conditions. The coupling sleeves are removable by using a special tool for easy cleaning and ferrule end face inspection.

Rapid deployment and ‘daisy chaining’ is achieved with hermaphroditic designs, eliminating the need for adaptors or male and female mating halves. Hermaphroditic interconnection; facilitates the expansion of cable distances by inserting standard cable harnesses. The HMA-JF is IP68 rated and fully sealed.

**HMD3-17 modular connector, MIL-DTL-D38999 standard**

**FIBER OPTIC EXPANDED BEAM TERMINI**

The OPTOKON D38999 Series III derived Expanded Beam fiber optic connectors are designed for use in the most demanding civil and military electronic equipment interface applications. The connector features the generic MIL-DTL-38999 Series III tri-start thread and a one-turn self-locking anti-vibration coupling mechanism making it ideal for use in vehicles, aircraft, and naval environments. Plug and receptacle connectors are available with straight or 90° back-shell options and a choice of shell materials including Aluminum alloy (Zinc Cobalt, Olive drab), Aluminum alloy (electroless Nickel plated), Nickel Aluminum Bronze (shot blast, non-reflective) and Stainless Steel (passivated). Receptacle connectors are available with jam-nut or square-flange mounting and strain relief for zip cords or tactical cables.

The terminated ferrules are simply terminated with an Expanded Beam socket and removably fixed in the body of the connector. OPTOKON D38999 Series III Expanded Beam connectors offer high performance, flexibility, and cost-effectiveness.

- Size 17 Shell: 8 or 16 Optical or Cooper Channels
- Single mode or Multimode fiber optic expanded beam termini
- According to ARINC845 expanded beam specification
- Low insertion loss / high return loss
- Aluminum, nickel aluminum bronze or stainless steel shell options
- Copper / optical hybrids
- IP67



Technical performance for expanded beam connectors

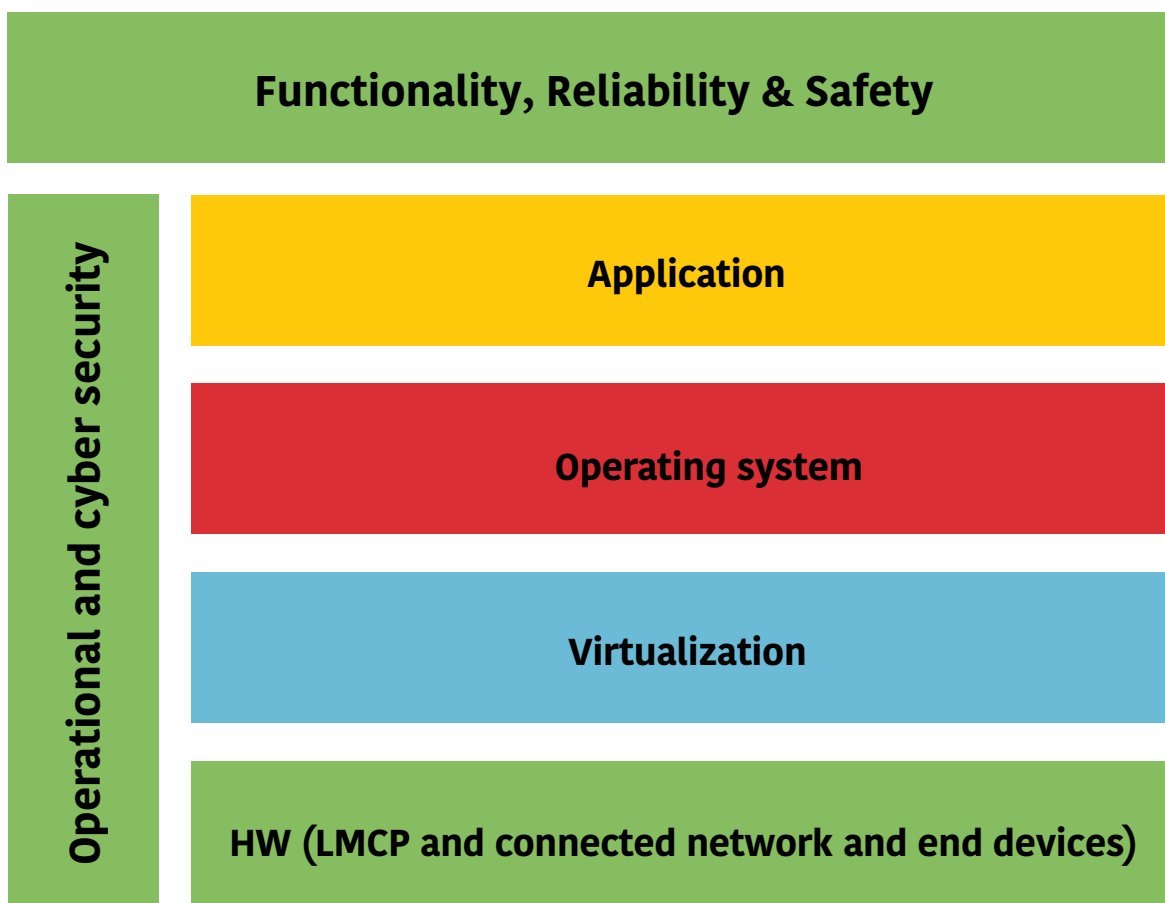
| Fiber Optic        | Expanded Beam Performance                   | Physical Contact                            |
|--------------------|---|---|
| Contact Type       | Expanded Beam                               | PC / APC                                    |
| Insertion loss     | <1.0 dB (SM) / <0.7 dB (MM)                 | ≤ 0.5 dB                                    |
| Return loss        | ≥ 35 (SM)                                   | > 45 dB (SM) / > 35 dB (MM)                 |
| Mating cycles      | 25,000                                      | 1,000                                       |
| Cleaning           | Every 5,000 mating cycles                   | Before each mating cycle                    |
| Temperature range* | -60 °C to +85 °C                            | -25 °C to +75 °C                            |
| Fiber types        | Multimode 50/125 µm<br>Single mode 9/125 µm | Multimode 50/125 µm<br>Single mode 9/125 µm |
| Water immersion    | Up to 20 m                                  | Up to 5 m                                   |

\*) Conditioned by cable type

# LMCP platform for reliable but secure operation of applications and services

OPTOKON, a.s. is a long-standing supplier of ruggedized server platforms Land Mobile Computing Platform (LMCP-7, LMCP-28), as well as ruggedized network elements and other products for use in military field conditions (field phones, optical-metal converters, etc.). In addition to the requirements for functionality and high reliability, more and more attention is being paid to security, early detection and subsequent rapid response to operational or cyber incidents in our own development and implemented projects.

The basic element of a secure environment is a clearly defined architecture. This includes both the entire software superstructure (virtual environment, operating systems, etc.) and individual early detection and response applications developed in cooperation with OPTOKON, a.s. partners.



Similarly to the selection of hardware elements, the software components used are subject to an initial analysis from the perspective of operational and cyber security in order to exclude or substantially eliminate possible future incidents. The operational states of the operating systems and the applications running on them are continuously monitored and the resulting metadata describing these states can then be archived for future state analysis, either for runtime optimization or by traversing potentially dangerous states. Furthermore, they can be used, for example, as a source for automated algorithms generating security audits.

Penetration tests are also becoming a standard part of development, primarily to identify and subsequently remove security weaknesses, but also to use their output as input for further development and optimization, e.g. monitoring potential points of attack. The system needs to be prepared not only for possible attacks from the outside, but also for attacks from the inside.

Functionality, reliability and operational and cyber security are now inseparable elements of the LMCP platform.



# KOMPLEXNÍ BEZPEČNÁ ŘEŠENÍ PRO ZÍTŘEK



Tým techniků a specialistů ATS-TELCOM PRAHA se věnuje výstavbě a servisu rozsáhlých hlasových a datových sítí.

IT analytici a architekti nabízejí optimalizované řešení, profesionální a individuální přístup při řešení problematiky kybernetické a informační bezpečnosti.

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**Hlasové sítě  
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LAN/MAN/WAN infrastruktura**



**Kryptografická  
ochrana informací**



**Bezpečnostní certifikace  
NBÚ ČR a NATO  
na stupeň „TAJNÉ“**



**Měření  
rychlosti**



**Systém komunikační  
a informační bezpečnosti,  
služby SOC, CSIRT**

# The Czech Brand CleanAIR Offers the Highest Level of Respiratory Protection

Company MALINA - Safety s.r.o. focuses on the design, development and manufacturing of CleanAIR® respiratory protection systems, which can be used in industry, agriculture, civil protection and healthcare.



The President of the Czech Republic, Petr Pavel, during his election campaign, with Jiří Jankel, head of the development department.



The company was founded in 1990 as a wholesale company and in 1993 developed the first powered air respiratory unit, which was approved for the European market in 1996.

CleanAIR® products have been successfully exported to more than 40 countries in Europe, Asia and Australia. The company's long-term goal is to provide technically advanced and reliable respiratory protection solutions for use in different areas. The quality management systems ISO 9001: 2015 and ČOS 051672 (AQAP 2110) ensure the high quality of CleanAIR products.

CleanAIR® personal respiratory protection systems are based on the principle of overpressure of the filtered air in the breathing zone. The powered air purifying respirator on the user's belt drives the air through a particulate or chemical filter and delivers it to the protective hood, mask or suit. An alternative source of air can be an external compressed air supply. The overpressure prevents pollutants from entering the breathing zone. This slight overpressure also ensures high user's comfort even when if the equipment worn for a long time without having to overcome the breathing resistance of the filter.

This respiratory protection system and complete sets CleanAIR based on this principle are meeting the highest demands on respiratory protection. For example, the new Panoramate lite full-body coverall achieves a minimum protection factor of 10,000.

Thanks to our own team of designers and production facilities in the Czech Republic, the company is able to respond very flexibly to specific customer requirements and deliver exactly the solution that is needed for a specific activity. In 2006, for example, the company participated in the OPCH-05 ventilated chemical protective clothing project for the Czech Armed Forces by developing the CA Military powered air purifying respirator. CleanAIR products have also recently been massively tested during the covid crisis. Healthcare professionals across the Czech Republic have been equipped with MedicaER sets, which offer the highest level of respiratory protection and at the same time are very user-friendly and easy to use. The set, which is delivered in a transport case and contains everything needed for immediate use, can be used in a few minutes without the need of major preparation. Medical facilities were able to easily and effectively protect their staff from covid-19.



CleanAIR®

# Panoramate Lite

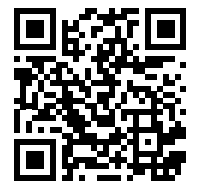
## EXCEPTIONAL BODY AND RESPIRATORY PROTECTION

Freedom of breathing and movement guarantee exceptional comfort for the user

High durability, low weight and excellent field of vision



Designed for use with powered air purifying respirator CleanAIR® Chemical 2F



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# Explosia Needs Clear Direction, Says its New CEO

For four years, the state-owned joint-stock company was managed by a three-member Board of Directors. The explosives manufacturer from Pardubice went through a recovery period, at the end of which it achieved record turnover and profit. Explosia has decided to enter the next phase of the competitive battle in the field of explosives, smokeless powders, and energy materials with a new leader - Kamil Dudek, Ph.D., a long-time employee of Explosia, for the past 5 years also the Director of the Research Institute of Industrial Chemistry and the Member of the Board of Directors, took the lead.



**How do you read such words as an entrée, a leader, and the like, isn't it binding?**

Not only binding, but I would say it is a little exaggerated. Although I am newly in the position of CEO, I have new responsibilities, but it is still me, Kamil Dudek, who joined Explosia after graduating at the Department of Theory and Technology of Explosives and has been working there for 26 years. Binding, or rather committing, is mainly the whole responsibility for the 600 employees of Explosia who dedicate several hours of their time and a lot of energy to it each day.

**Do you know them all?**

Of course not, it's a lot of people. Moreover, with the current fluctuation. But when I move around the company, the employees

are easily recognizable by their clothes, because each production section has its own colour, so I know who is from which section.

**Let's go back to your new position as CEO, why?**

As already stated in the introduction, Explosia was undergoing restructuring, within the Board of Directors we had divided competencies, but we always solved everything together. It was not an easy period, because there were a lot of difficulties and, above all, decisions that had an impact on the direction of Explosia. That's why we three acted together, that's why we informed each other about everything. We are a well-coordinated team, we know each other well, know that we can trust each other, and above all, that the benefit of Explosia comes first. At the same time, we are also aware that a compa-

ny like Explosia needs a leader. It is good for business negotiation as well as for employees. And why it is me? Of the members of the company's management, I am the closest to the field of explosives, I studied the field of explosives, I joined Explosia immediately after the university, I have been connected to our Research Institute for a long time, which I perceive as a good basis for coordinating cooperation between development and production. In addition, as part of my work for the Research Institute, I gained a lot of professional experience and established many personal contacts, which I would like to use in my new position.

**How do you currently perceive Explosia's position on the explosives market?**

I think that there is no stronger player in Central Europe, and I will explain why right now. First, Explosia has a wide product portfolio. Other manufacturers focus on the production of powder or the production of explosives, but almost no one has such a complex production as Explosia. Secondly, next year our Research Institute of Industrial Chemistry will celebrate seventy years of its existence. That's seven decades of development and experience; again I dare to say that probably no one has such a research base in Europe apart from Explosia. And the quality of our products is also related to this. Thanks to the fact that we have precise development and testing, we also have quality products that meet the highest standards, certificates, ISO standards, etc. Yes, the competition may undercut us on price now and then, but if the user of explosives is making decisions based on the price only, it may not turn out well. After all, we guarantee the





functionality of Semtex for ten years! But we have experience that even after this time it is fully functional.

**You talk about the quality of the products, but the quality you just mentioned is often mentioned in the media, although always only superficially.**

Yes, superficially, without any concrete examples or even evidence, it is such a light kicking of our ankles. As you know, success is not forgiven, and we allowed ourselves to achieve it with a record profit of two hundred million CZK last year. And journalists get information about how many things are wrong in our company, how we are not able to respond flexibly and the like. But when journalists turn to us to get our comments, they find out, for example, that there is so much demand for our products that we don't have them in stock, so when an unplanned demand comes in, they have to wait for their turn. They will also find out, for example, that in the last two years, we have not had a single justified complaint. These are the facts. I assume that if any of our customers had a problem with the quality of our products, they would be the first to come to us to solve it, as it is also guaranteed by law within the claims procedure. Instead, vague pseudo-complaints repeatedly appear in the media with the aim of damaging or at least discouraging us.

**It looks like it's bothering you.**

It's not so much a worry but we'd much rather spend our time developing Explosia, instead of spending time and energy parrying various attacks. The company's current management knows exactly what direction it wants to proceed with Explosia, and it needs

time and peace to do so. We understand that we are all replaceable, but when I look back at what we have been able to do with Explosia over the last few years, from economic results to quality and safety, and how well we are doing, it is hard for me to imagine doing such a job with anyone else.

**So what is the direction? Where is Explosia headed now under the new CEO?**

Among the world's most important producers of explosives. We are already among the seven most important players in the field of production of fully combustible propelling charges in the world; there are only five of us in Europe. Concerning the planned expansion of the production capacity of these products to more than double, we will be a strong player. Similarly, we want to expand the production of spherical powders, for which there has been a great hunger in recent years and the market cannot be satiated. We must not forget the production of explosives either, because as we know from history, the stability of a company is not created by just one product group, but a wide range of products. Our Fospol section can also be a kind of promise for the future, which, using our own explosives, already provides complex blasting work in many quarries, and we are also ready to provide our services for the planned extraction of other minerals such as gold or lithium.

**You mention the expansion of production, also often mentioned in the media. What stage are you in?**

This year we have doubled our investments compared to previous years, we have the funds at our disposal, so financing is definitely not a problem. But if someone has the

idea that we will build a new hall, equip it with technology, and recruit and train additional employees in a matter of months, then either they are unable to perceive reality or they are overlooking it - out of ignorance or on purpose. We make explosives, safety comes first here, and we have to be sure that what we build here is going to be safe and functional for the next few decades, and that's just going to take time. Personally, I would be very happy if production, in the new premises, started within three years.

**In your opinion, should Explosia be in the hands of the state or should it have a private owner?**

First of all, I would like to point out that we are a joint-stock company; the same rules of the game apply to us as to any other joint-stock company or private entity. We don't have any advantages from the state being the executor of property rights, but it doesn't discriminate us in any way either. Therefore, I see absolutely no reason to change the given situation. We have to understand that with the sale of Explosia, the state would also lose a lot of know-how, patents, trademarks, the Semtex brand, it would lose a strategic enterprise designed for the defence of the state, and let's admit, it is quite a lot. That first of all. And secondly, let's ask ourselves what would you, as a private owner, do with the Explosia? Would you focus on the best and sell off the rest of the production, close it down? We've seen this phenomenon happen many times, and I would be quite concerned about it.

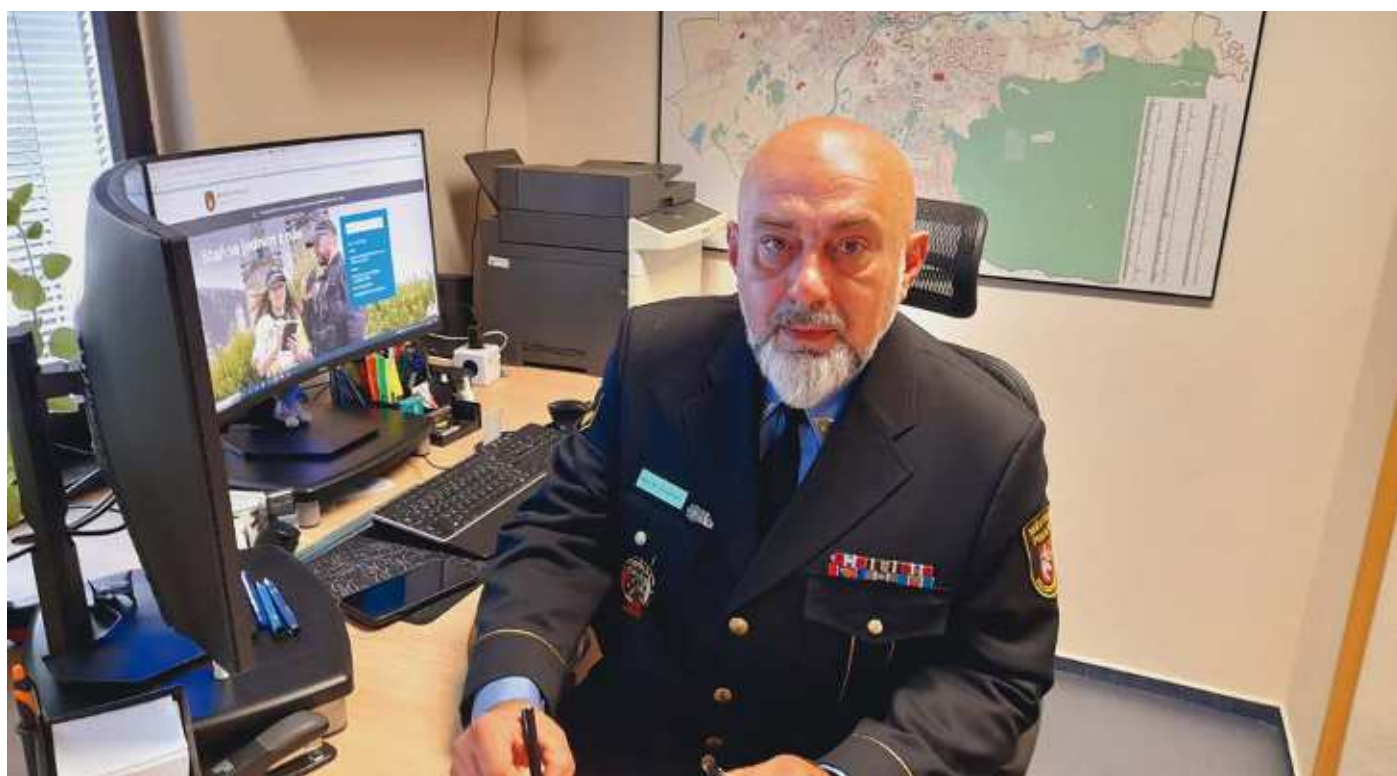
**So where do you see Explosia in five years?**

I see it as a healthy and successful company that gradually and regularly increases profits, and returns most of the money back to production, both in the form of investments in technologies and people, as they are the energy of every living organism, and I consider Explosia to be a living organism. I see it as a producer of reliable, high-quality, and safe products that rely on a professional background in the form of the Research Institute of Industrial Chemistry. And I also see it as a reliable employer who treats its people with respect and humility.

*Dipl. Eng. Martin Vencel*

# Interview with Mgr. Martin Žďárský, the Director of the Hradec Králové Municipal Police

Mgr. Martin Žďárský comes from Hradec Králové, he graduated from the Faculty of Physical Education at Charles University, majoring in military physical education. In 1995, he joined the Police of the Czech Republic and, after completing the basic course, transferred to the Security Information Service (BIS), where he worked until 2005. In 2005-2006 he worked at the National Anti-Drug Headquarters and in 2006-2007 at the Directorate of the Order Police Service of the Police Presidium of the Czech Republic. Then he worked at the Crisis Management Department of the Police of the Czech Republic in the Hradec Králové Region. After transferring to the Municipal Police of Hradec Králové in 2020, he served as an instructor for the training of police officers. In December 2022, he was appointed to the position of the Director.



**Mr. Director, you have worked in various positions at the Police of the Czech Republic for a quarter of a century, and you have gained a lot of professional experience there... What was the reason for the transition to the Municipal Police?**

There were several reasons. After thirteen years in the role of the Chief Commis-

sioner of Crisis Management and after coping with the difficult "Covid period", I felt that I needed a professional change. At that time, I received an offer from the Municipal Police (MP) Hradec Králové to work there as an instructor for the training of police officers. I already performed the role of an instructor at BIS, and I have been cooperating with the Municipal Police Hradec Králové for a long time

within the scope of security measures. So I knew many policemen and also got to know how well this MP is functioning. For me, the transfer offer became a new challenge, an opportunity to pass on experience and contribute to safety in my hometown.

**Are you planning any major changes in the functioning of this service? If so,**



**will they affect the citizens of Hradec Králové? What are your priorities in this position?**

Firstly, to the first question. As I stated after taking the office, I am not planning any major changes. I mean such changes that would affect the functioning of the MP. However, I have already made some partial changes, and then it is more about the realization and implementation of my experience in the service of the Hradec Králové Municipal Police officers.

And the changes that will affect citizens? For example, I would like to purchase another, so-called mobile office, which will be used in problematic locations and as part of security measures, such as high-risk sports matches and other social and cultural events of a larger scale, which will contribute to increasing the safety of citizens. In cooperation with the Municipal Office, we are now preparing to introduce a mobile application for cashless payments of fines through communicators available to police officers. This application should facilitate the work of the police officers and give citizens the opportunity to pay their fines on the spot even if they do not have cash with them. And now to the question of priorities. I have several priorities, but probably the most important one is to keep the MP at least in the same "condition" in which I took it over. The MP is being perceived positively by the citizens of Hradec Králové, despite its repressive role, and this is my priority for further functioning. Above all, it is about fulfilling the tasks given to us by law, but it is also necessary to respond flexibly to the current problems and needs of citizens in a given place and time.

**As for the number of police officers, is it adequate for a regional city with a population of one hundred thousand people?**

The summary of all activities that the Municipal Police ensures based on its authority is very extensive. Police officers are on duty 24 hours a day and you can see them in the streets of the city as foot patrols, car patrols, and bicycle patrols. They supervise, for example, compliance with municipal ordinances and regulations, public order, compliance with the rules of civil coexistence, participate in the supervision of road traffic safety and smoothness, and



deliver official documents at the request of an administrative body or court, but also deal with, for example, car wrecks, black dumps, catch stray or injured animals or ensure public order in emergency situations, sports or cultural events. Regularly, every weekday, police officers supervise the safe road-crossing of children near primary schools. I would like to present a few statistics again for clarity... Emergency line 156 is available to citizens 24 hours a day. Operations officers on line 156 receive almost 140 calls per day, and in 2022 the municipal police recorded 49,058 incidents in which an intervention or action took place.

Number of policemen? I have enough positions available, but the actual numerical status shows a slight understaffing. We are trying to correct this both with a new targeted recruitment campaign that takes place in secondary schools and also in the form of recruitment leaflets and spots placed on social networks. Keeping the existing police officers is also related to this. This is where incentive elements come into play, such as high-quality equipment and weapons, conditions for the performance of the service, and, of course, adequate financial remuneration and benefits. We are now negotiating with the municipal authorities about the possibility of allocating municipal official apartments, which is a great incentive element during the current housing crisis. However, given the current increase in issues that the MP is dealing with and as part of improving the quality of our work, I would welcome an increase in the number of police officers.

**Do you cooperate with the Police of the Czech Republic?**

Yes, sure. Cooperation with the state Police is, in my opinion, at a very good level, and several cities in the Czech Republic envy it. Even when I was working for the state Police, cooperation with other security forces was my priority and I tried to develop it. The cooperation is mainly applied in the provision of security measures in the city, exercises of the Integrated Rescue System (IRS), provision of camera recordings during the search for wanted or missing persons, and in the area of crime prevention.

**And what about cooperation within the IRS units?**

Cooperation within the IRS units was and is one of my priorities. All units and organizations ensuring the safety of citizens should absolutely cooperate, and this is at an above-standard level in our city. As an example, I would like to mention the issue of "First responder"\* and cooperation with the Emergency Medical Service (EMS). Eighteen officers of the Hradec Králové Municipal Police have become First Responders and are ready to respond to a possible call and provide citizens with the necessary assistance before the arrival of paramedics. On average, police officers are involved in saving up to 20 people a year. In 2022, sixteen of them were awarded for this by the Mayor of the city!



**During the interview, you mentioned crime prevention several times... How does this issue work within all your activities?**

Of course, the biggest prevention of crime is the constant presence of police officers in the streets of the city, and we place great emphasis on this. Police officers are not burdened with unnecessary administration, so 90 % of their working time is physically outside the office. But you probably meant our Department of Crime Prevention, which mainly deals with primary prevention. As part of this, lectures and discussions are held on the issue of socio-pathological phenomena, the issue of safe behaviour, road traffic safety, and raising legal awareness.

All lecture topics take current risks into account, and the teaching concept aims not only at the conceptually increasing education of the audience but at the same time aims to "prepare children, students, seniors, and the general public" for meeting police officers in the streets. For children and students, police officers become not only guardians of order but also partners in difficult life situations, to whom it is possible to turn with confidence.

The activity of this department is concep-

tually focused on all age categories, from preschool children, through primary and secondary school pupils, to senior citizens and fellow citizens with disabilities. Lectures, discussions, and teaching on the traffic playground, which is our jewel, are always adapted to the given age category.

For the general public, the municipal police also organize traditional events such as:

**"Children's Day"** with the participation of around 3,500-4,000 children, which is implemented in cooperation with the IRS units, Armed Forces of the Czech Republic, the Hradec Králové Municipal Office, local self-government commissions, and other entities. This annual event is called "Hradec Králové - a Safe City" and is primarily aimed at children from kindergartens and primary schools in Hradec Králové.

**"Sports Day with HK Municipal Police"**. This is a cross-country running competition of three-member mixed teams of boys and girls of 6th-9th classes of primary schools in Hradec Králové. The goal is to teach growing children teamwork while completing challenging tasks together. In this competition, all Hradec Králové primary schools have been competing together in a friendly manner for 10 years.

**"Seniors' Academy"** - a project that is primarily aimed at seniors and persons with physical or other health disabilities. These people are often victims of crime and fraud. They are an easy target due to their low defence ability, and slower reactions, but also the fact that many of them live alone, without contact with family, friends, or acquaintances. In case of emergency, they hardly call for help. The project is built on a series of current topics lectured in individual blocks and aims to increase legal awareness. At the same time, seniors will also acquire a range of practical knowledge that leads to their greater safety and defence against so-called "scoundrels".

The interest in preventive programs implemented by the Municipal Police is extraordinary and often exceeds the department's capacity. In 2022, the crime prevention department held 634 lectures for 10,097 listeners of all age categories. I think these numbers speak for themselves and when you consider that the above activities will involve only 4 officers, this is a more than good result.

**Are you satisfied with the material equipment, accessories and weapons of the police officers? Does the Municipal Police, i.e. the City of Hradec Králové, cooperate in some way with Czech companies, do they apply for tenders?**

I am satisfied in this sphere. The police officers are equipped, in my opinion, really well. In 2022, we managed to re-arm with new, more modern, and safer weapons (CZ P 10 C pistols), including modern, high-quality cases from the company DESIGN TECH, s.r.o., and this year we are implementing new modern weapon storage. This spring, all police officers were equipped with new, and especially more modern, communicators and personal cameras. Within the vehicle fleet, this year we competed for 3 new Škoda Karoq cars and we have already received 2 new Octavia cars. We have also launched a tender for a new modern "Metropolitan Audio and Data Network" in cooperation with the company Dopravní podnik města Hradce Králové, which will contribute to improving the quality of radio traffic.

As for the equipment, in the autumn we will announce a new tender for the complete clothing for the police officers, where we will place the greatest emphasis on



the quality and comfort of wearing it in any climatic conditions.

And to the second question? Yes, of course we cooperate with Czech companies that are able to offer adequate quality. I will not name specific companies, there are many and I would not like to leave any out.

**It is known about you that you always tried to push things forward and not stagnate in one place. Does it also apply to this position of yours?**

This question should be answered primarily by my subordinates and probably also by my superiors. I can say that I am trying. I like changes for the better and I try to keep up with new technologies which I try to implement in the work of police officers. I indeed want things to move forward, without unnecessary delay if possible. I also require that the solution is always sought, instead of looking for reasons why it doesn't work, it gets really complicated sometimes. Fortunately, I have like-minded colleagues around me, so together we manage to put innovations into practice.

**I heard that, practically immediately after your appointment, for example, you showed an interest in trying out a modular shooting range from the Czech company LEDIC MSR as one of the first interested parties...**

Of course, for several reasons. I have conducted marksmanship training and know how important a safe shooting range is. I know that there are not many high-quality and modern shooting ranges in the Czech Republic, and many security forces are struggling with the problem of where to conduct training. Unfortunately, the problem with the number and availability of shooting ranges also affects Hradec Králové. Therefore, the idea of a modular shooting range immediately attracted my attention. Personally, I have already discussed this possibility with representatives of the Police of the Czech Republic, and together we would like to advocate for our city to have such a modern and safe facility.

**Undoubtedly, the Municipal Police did not avoid activities aimed at refugees from Ukraine. What main tasks do they perform?**

Of course, the Municipal Police of Hradec Králové also participated to an increased extent in helping people fleeing the war. In front of the Regional Assistance Centre for Help to Ukraine (KACPU) located in the ALDIS Cultural Centre, it focused mainly on the control of public order in its surroundings, supervised the safety of road traffic in the immediate vicinity of the centre, and at the same time monitored the safety of road traffic and public order in the wider perimeter. The police officers helped these people with their orientation in the city, in finding offices and institutions, and informed them about accommodation options. Currently, when the situation has stabilized, we no longer carry out any special activities.

*\* The term "First responder" refers to someone who is able to implement a quick intervention to save person in direct danger of life before the Medical Rescue Service arrives.*

*Mr. Director, thank you for the interview Jaroslav Jonák*

*Photo: Jaroslav Jonák and archive of the Municipal Police HK*

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# IDET 2023 Was the Biggest in its 30-Year History

The 17<sup>th</sup> IDET International Defence and Security Technologies Fair confirmed its position among the most important European trade shows of its kind. Together with the PYROS and ISET fairs, it was a comprehensive showcase of new technologies and options to counter various security risks. A total of 551 exhibiting companies from 29 countries presented themselves this year, and more than 30 thousand trade visitors from dozens of countries visited the fairs over three days.



*"This year's edition of the security fairs was a record-breaker in all of its 30-year history. The exhibition area was sold out long in advance and the exhibition centre was visited by 30 thousand trade visitors, including members of foreign delegations from 35 countries. We thank all the exhibitors for this, and our thanks also go to the Ministry of Defence of the Czech Republic, the Armed Forces of the Czech Republic, the Defence and Security Industry Association and other institutions for their active approach and cooperation in organising the fair,"* said

**Michalis Busios**, Director of IDET, PYROS and ISET.

The extent of the fair reflects the complicated security situation the world is facing today. *"We are living in a period when there are more and more security risks around us, and the need to preserve our own freedom also means having a strong defence and security industry,"* emphasised in Brno **Jiří Hynek**, President of the Defence and Security Industry Association, and continued: *"I am convinced that IDET gives a chance to strengthen our defence and se-*

*curity industry, to show that it is important, that it is capable, that it is innovative and that it has a security effect. If this trade fair is commercially successful, we will be a rich country, if we are a rich country we will be a safe country, and if we are a safe country we can preserve our freedom."*

## **Under the sign of 30, major Czech acquisitions and new international collaborations**

Thirty years have passed this year since the establishment of the Czech Repub-



lic, the Czech Armed Forces and the first holding of IDET. This history was commemorated by the exhibition of the Ministry of Defence and the Armed Forces of the Czech Republic, which showed the rapid development of weapons and other military equipment by comparing the equipment used in the 1990s and today, underlining the importance of investment in the modernisation of military equipment. Of course, investments were once again a topic this year. The Czech government approved the long-prepared giant contract for the purchase of new infantry fighting vehicles just in time for IDET, where the manufacturer of the 246 CV90 armoured vehicles to be purchased, the Swedish company **BAE Systems**, as well as the five main Czech partners of the project – **VOP CZ, Excalibur Army, VR Group, Ray Service and Meopta** – were exhibiting. At the same time, the Czech government announced the start of negotiations for the purchase of about seventy Leopard tanks in the new version; these were also on display at IDET in the stand of the German company **Krauss-Maffei Wegmann**.

Another Czech acquisition in the pipeline is the F35 fighter aircraft, which the partner of this year's fair, the US company **Lockheed Martin**, presented in the form of a model and a Hotas desktop computer simulator of the new flying system with two levers.

Thanks to the presence of delegations from 35 countries at IDET, intensive business negotiations were also taking place. An example of successfully concluded negotiations is the signing of a memorandum of cooperation between the Czech company **Excalibur Army** and the Turkish institute **Türkiye Defence Industries** in the field of development and production of ground-based weapon systems. Another memorandum was signed during the fair by **Thales** on cooperation with the state enterprise **VOP CZ** and the company **PRAHACOM-HT** for the modification of Bushmaster vehicles as the basis for a universal wheeled platform of the engineer troops of the Czech Armed Forces.

#### **An overview of cutting-edge technologies and innovative solutions**

A traditional part of IDET was the awarding of the best exhibits. This year, the evaluation committee awarded five **GOLDEN IDET 2023** prizes, which went to: the



**SUMO-C900HD** cooled thermal imaging camera from the manufacturer and exhibitor **EVPÚ Defence a. s.**, the modularly designed container loader on the **TATRA PHOENIX 8x8** chassis from the manufacturer and exhibitor **Tatra Trucks a. s.**, modular vehicle **MARS 4x4** produced in international cooperation of the Czech company **SVOS** and the Swedish company **SAAB**, mobile tactical **STARKOM communication jammer** produced by the Military Research Institute and exhibited by the Czech Armed Forces and **DAPH highly sensitive cholinesterase inhibiting agent detector** produced and exhibited by the Military Research Institute s.p.

As part of the **GOLD IDET 2023** competition, the committee also awarded **two honourable mentions to innovative exhibits**, namely the modular design of the trainer part of the **F/A-18 C Hornet Flight Simulator** by the manufacturer and exhibitor **Dogfight Boss s.r.o.** and the **mobile firefighting robot MRAZ 3 FFI** by the Slovak manufacturer and exhibitor **Mraz Robotics**.

The award for the **Personality of the Defence and Security Industry Association** of this year was received by **Ladislav Říha**, senior research and development worker at **EXPLOSIA a.s.**

At the same time, two prestigious **GOLDEN IDET NEWS 2023** journalists' awards were presented to. In the logistics category, the jury of expert journalists awarded the company **AGADOS** for its wide range of multi-purpose and special trailers, including amphibious off-road trailers for

the armed forces and the integrated rescue system. In the weapon systems category, a joint project of the Czech company **SVOS** and the Swedish company **SAAB** was awarded, resulting in the new **MARS 4x4** combat vehicle.

Of course, there were many more interesting and innovative exhibits at IDET. For example, **Retia** presented the first Czech comprehensive **ReCas anti-drone solution** at the Czechoslovak Group stand. At the same stand, the **Morana howitzer** – the latest artillery system from **Excalibur Army** – had its Czech exhibition premiere. **Glomex MS** presented the **Toyota Hilux Chamois** – a specially modified version of the car included in the armament of the Czech Armed Forces. In cooperation with the Defence and Security Industry Association, the **Start-up Innovation Pavilion** project, where six innovative start-ups from the fields of defence, security, aviation and aerospace presented their solutions, was held for the second time.

New products were also present at the **PYROS** International Fire Fighting Equipment and Services Fair and **ISET** International Security Technology and Services Fair. **Tatra Trucks**, in cooperation with **THT Polička**, presented a new generation of **Tatra Force** model series vehicles **in a firefighting version** in a world premiere. The **latest version of the SMV monitoring vehicle**, which can detect a person at a range of more than 20 kms, was on display at the stand of the Police of the Czech Republic; the manufacturer is **EVPÚ Defence**. The police also demon-



strated other interesting features at the fair, such as a system in their vehicles that automatically detects online while driving whether surrounding cars have a valid MOT and whether they are under search.

#### **Technology in action and expert conferences**

The Brno Exhibition Centre allows large exhibits to be presented both statically and dynamically. The outdoor **IDET ARENA** with its off-road polygon **was the venue for demonstrations of dynamic use of military, firefighting and police equipment in action throughout the security fairs.**

**Two important conferences organised by the University of Defence** were held during IDET. **The International Conference on Military Technologies (ICMT)** was an international forum for sharing innovations in military technology, while **the International Conference Defence & Strategy 2023** was subtitled Strategic Decision Making in a Changing Security Environment.

**The next season of IDET, PYROS and ISET will take place in May 2025.**

#### **What was said about the fair**

##### **Daniel Blažkovec, Deputy Minister of Defence of the Czech Republic**

IDET is a key event, thanks to which we gain a comprehensive understanding of the latest technologies and trends; it also provides us with the opportunity to develop existing and new partnerships.

I firmly believe that the presented technologies, new business opportunities and partnerships will lead to further strengthening of our readiness and security in these difficult times.

##### **Karel Řehka, Chief of General Staff of the Armed Forces of the Czech Republic**

The Armed Forces of the Czech Republic has been supporting and participating in this fair since the very beginning. Events like IDET help explain citizens why we need to modernise and where modernisation is going, which is extremely important.

##### **Radek Hasala, Chief of the Military Office of the President of the Czech Republic**

The Czech defence industry has maintained a high standard of quality in the long run, which makes our manufacturers competitive even on foreign markets. That is why I am very pleased that this international trade show gives an important overview of defence and security technologies in Central Europe and shows new directions not only to exhibitors but also to trade visitors.

##### **Jiří Hynek, President of the Defence and Security Industry Association**

I am convinced that IDET gives a chance to strengthen our defence and security industry, to show that it is important, that it is capable, that it is innovative and that it has its security effect. If this trade fair is commercially successful, we will be a rich

country, if we are a rich country we will be a secure country, and if we are a secure country we can preserve our freedom.

##### **Markéta Vaňková, Mayor of the Statutory City of Brno**

The most important Czech companies present themselves at IDET and the city of Brno offers the best conditions for these events and their exhibitors and visitors. I would like to thank BVV Trade Fairs Brno for its work, without which our city would lose one of its symbols.

##### **Martin Vondrášek, Police President of the Czech Republic**

The Police of the Czech Republic is a traditional participant of the ISET trade fair, in our stand my colleagues guide visitors through the system of operational control of forces and resources. I would like to thank all the companies present who have been helping the police to develop new technologies for fighting crime in order to ensure the highest level of internal security for our citizens.

##### **Vladimír Vlček, Director General of the Fire and Rescue Service of the Czech Republic**

I am delighted that the Fire and Rescue Service can again present itself at PYROS after two years. We do not acquire new and modern equipment for vanity or out of a desire for a better presentation. We want to give firefighters the best equipment for the most difficult task – to protect our health, lives, property and environment. The world around us is developing constantly, and firefighters, whether professionals or volunteers, must be prepared for this.

##### **Czechoslovak Group, Andrej Čírtek, spokesman**

We are truly satisfied. It is said that we live in a virtual age, but events like IDET show that classic trade shows, where people can meet personally, make a lot of sense. The Defence Technology Fair is one of the few places where users and suppliers, meaning the defence industry and armies from all over the world, can meet officially and unofficially. This has undoubtedly been achieved here. We have had a number of meetings with our potential business partners and end customers, that is, armies from different parts of the world. We have had a number of foreign delegations visit us and the fair has therefore served its purpose.



**LOM Praha, Jitka Šuláková, PR manager**

We are very satisfied with the course of the fair, both with the facilities and services of the expo administration and the event as such, and with its great attendance. I have to say that our door has not shut for a second in the whole three days.

**OMNIPOL, Marika Přinosilová, Marketing Manager**

It has been a remarkably successful trade show for us, we have returned to a very active time after the covid; the exhibition hall is completely full and really alive, even in terms of foreign companies. For us, it is an important meeting point both with foreign customers and with Czech colleagues within the industry. And I consider our participation greatly beneficial, the first two days were really busy with meetings.

**GLOMEX MS, Lukáš Dědina, President**

As Glomex, or rather as the SKUPINA, we are always at the fair and we are happy to be part of it this year as well. I think it is a very good year, there are quite a lot of exhibitors and a lot of visitors. I'm sure we will be able to get some new contacts and possibly new business.

**VOP CZ, Marek Špok, Director**

This year's IDET was highly successful for us in all respects. Not only did we enter into significant international cooperation with partners such as the French company Thales, but also with Czech partners such as VTÚ and Czech Technical University. We appreciate the excellent work of the organizers of IDET, whose worldwide fame brought a record number of visitors

and interesting contacts for VOP CZ.

**Lockheed Martin, Jonathon Linn, International Business Development**

The atmosphere here is really great. We have a large conference room at our stand, which gives us sufficient facilities for all the partnerships and relationships we are building here in the Czech Republic.

**Česká zbrojovka a.s. Uherský Brod (CZUB), Jiří Horák, Head of Sales**

We are very satisfied. Finally, after the lockdown, we were able to show ourselves again on home soil and we are thrilled. The visitor turnout was really high, we didn't expect it. We are very satisfied and will definitely be happy to participate in the next season.

**Sellier & Bellot, Josef Strnad, Sales Director**

We are traditional exhibitors here and we expected from IDET to strengthen our ties with our customers, which I think actually happened. We are very satisfied with the visitor turnout and are already planning on next season.

**Trade FIDES, Jan Buček, Product Manager**

IDET is always a great opportunity to meet with long-standing partners and clients, discuss future directions of development, where our cooperation could move forward. We are happy to present a new generation of our product here.

**Saab, Markéta Maršálek Čadková, Communications Manager**

It has been a remarkably successful ex-

hibition for Saab. We appreciate the opportunity to meet with our users from the Czech Armed Forces, as well as many delegations from around the world and, of course, representatives from the Ministry of Defence.

**STV Group, David Hac, Chairman of the Board**

For us, IDET is the most important exhibition because our customer was and is the Armed Forces of the Czech Republic, together with the Ministry of Defence of the Czech Republic. It is evident from this year's turnout that interest in this technology is growing in the context of the ongoing crisis in Ukraine. It's not just about technology, it's about ammunition and all products of the defence and security industry. We are seeing a sharp increase in both the number of visitors and the number of our meetings.

**Agados, Ivo Uchytíl, Head of Sales Department**

This year's IDET perfectly met our expectations. We had exactly the customers we are looking for. This means that it was not just about introducing our products and presenting our brand. Already companies and clients were coming with specific requirements of what they would be interested in. The current geopolitical situation seems to make individual units take on specific tasks. They are therefore asking us for specific designs of our products and already have a clear idea of the orders.



# The challenge of the decade for the logistics of the Czech Armed Forces

The year 2023 is a turning point for the Czech Armed Forces (CAF) in the extent to which the modernisation of armament and equipment is accelerating. In addition to the finalisation of several modernisation programmes, major decisions have been made as a result of the war in Ukraine that will affect the equipment of the CAF for decades to come.



CAF received the first units of Leopard 2A4 tanks, TITUS armoured vehicles and Scania tractor units. The MADR mobile 3D radar has passed military trials and will be deployed by the end of this year. The first two AH-1Z Viper helicopters are currently being assembled in the workshops, and in September the base in Náměšť nad Oslavou will receive another two, along with two Venom UH-1Ys.

Over the next three years, signal troops will gradually receive modern radios and cryptographic equipment. The Ministry of Defence is to acquire the Caesar artillery system. This will be followed by CV90MkIV tracked infantry fighting vehicles and F-35 Lightning II aircraft.

The provision of ammunition, spare parts and maintenance is also a necessary part of the introduction of new equipment. This is where logistics comes in.

Chief of the General Staff of the Czech Armed Forces, Karel Řehka, said at the 14<sup>th</sup> Logistic Support Regiment in Pardubice in July 2023:

"Current conflicts show us that logistics

plays one of the key roles in real combat and has long been neglected. This, among other reasons, is why it is one of the army's priorities and why we need to modernise it."

## The CAF logistics is facing an enormous burden

Modern military logistics represents a complex and versatile support for the activities of the armed forces, thereby determining their combat capability. Therefore, the NATO terminology uses for logistics the synonyms "support" or "sustainability".

What does logistic support mean in terms of armaments and equipment?

The operation and use of armaments and equipment is continuously monitored. In the Logistic Information System (LIS), used by the CAF for this purpose, the operation of each piece of equipment is recorded in defined operating units. These are indicators characteristic to the specific type of equipment. Typical examples are kilometres travelled, engine hours, number of shots fired, number of take-offs, etc. For example, the operation of the Pandur II 8x8 wheeled

armoured personnel carrier is monitored using nine operational indicators.

To achieve the required combat capability and operational reliability, regular maintenance is planned based on operation. Mandatory maintenance intervals are specified by the manufacturer for each type of equipment. These intervals define when the maintenance tasks should be performed based on the number of operating units. Detailed data on the status of each piece of equipment is available at any time (e.g., remaining operating units until the next maintenance).

## The introduction of new weapons and equipment is an opportunity for logistics to make a qualitative leap

At present, the collection of operating data is very laborious, as it is mostly done manually. Older equipment is either not equipped with adequate electronics or does not have a data interface compatible with NATO standards. The only exception is the JAS-39 Gripen aircraft with a proprietary interface to the LIS.

Fortunately, the situation is different in 2023. New equipment usually allows for electronic data exchange. A significant impetus is the STANAG 4754 standard - NATO Generic Vehicle Architecture (NGVA). Vehicle electronics will enable the acquisition of operating, location and diagnostic data in a unified way. It is the implementation of NGVA and the connectivity to the Logistics Information System that can be the qualitative leap with an impact on streamlining life cycle management.

*Text: Roman Kapinus*

*Photo: Bohuslav Hrubý*



# GLOMEX Military Supplies – night vision specialist

Night vision devices has become a critical component of modern warfare. The ability to see in night conditions makes it possible to carry out virtually unlimited military, security and even rescue operations without the need for artificial lighting. These night vision systems rely on the very low light levels of starlight, night sky illumination (called "atmospheric nightglow"). Current third-generation night vision systems using photocathodes made of gallium arsenide can amplify residual light up to 50 000 x. GLOMEX Military Supplies is the exclusive supplier in the Czech Republic of a wide range of night vision devices from Elbit Systems North America and Steiner eOptics, whose night vision devices are considered the best in the world.

The company offers night vision devices of all available platforms (monoculars, bioculars, binoculars) with a wide range of optional accessories for mounting on a helmet or headset, designed especially for pilots



of aircraft, helicopters, drivers of military vehicles and members of special operations forces (SOF). The company also supplies monocular and binocular thermal night vision devices, or the latest generation of fusion optics. The absolute leader in this category AN/PVS-21 Low Profile Night Vision

Goggle (by Steiner eOptics) is designed for special operations capability in air, water, and land environments. For the needs of special operations forces, they can be equipped with an external add-on module that is able to distinguish figures and objects even in the deepest night based solely on their thermal energy using so-called fusion vision.

GLOMEX Military Supplies also specializes in warranty and post-warranty servicing and calibration of night vision devices from virtually all the world's renowned manufacturers. In 2023, the company opened a new service center equipped with state-of-the-art diagnostic instruments and specialized and manufacturer-certified technical equipment that allows these sensitive devices and equipment to be maintained in proper condition throughout their service life.

<https://glomex-ms.com/en/products-and-services/service/>

## SOKOL™ parachute training systems

The training system for special forces HAHO/HALO mission preparation and paratrooper Free Fall training.

SOKOL™ Parachute Training Simulators from e.sigma, s.r.o. are in operation by a large number of international customers, including NATO and NATO associated countries.

SOKOL™ is used from beginner training to advance paratrooper training in a safe operating environment at 24/7 operational availability. With SOKOL™ all phases of a jump can be simulated – from airplane exit thru free fall and glide phase until landing. Along each phase various malfunctions can be injected either by preprogrammed scenarios and/or instructor interaction. Scenarios can be enriched by various geospecific geographic locations and dynamic 3D virtual airborne objects, such as virtual jumpers. Any environmental condition, including time of day, weather effects and complex cloud layers can be interactively set by the instructor.

The virtual representation of the 3D environment to the trainee is provided thru a very high-resolution wide-angle FOV head mounted display. Along with the highly immersive visualisation, a powerful force feedback system and realistic wind simulation for both free fall and glide phase it provides optical and tactical cues for outstanding training realism resulting in **"train as you fight"**.



# MOBILE SOLUTION OF MEDICAL GAS DISTRIBUTION (FROM MZ LIBEREC)

The joint-stock company MZ Liberec, among others a member of DSIA and AVDZP associations, has been designing, manufacturing, supplying, installing and commissioning medical & technical gas distribution systems since 1957. Its production scope includes gas consumption units, such as bed head units, medical beams, rotary ceiling pendants, and other medical devices that are used in operating theaters, intensive care units, anaesthesiology & resuscitation departments and standard patient's wards worldwide. The company is also able to supply and to commission medical gas sources, i.e. oxygen generators, compressors, vacuum, reduction & evaporation stations.



MZ Liberec responds to specific requirements focused on field / containerized hospitals as well as their medical gas distribution fed from mobile oxygen generators that ensure the production and distribution of oxygen throughout the medical facility. Furthermore, mobile intensive care units incl. source columns are serving as a mobile carrier of gas cylinders and/or operating lights, including UPS backup sources. Thanks to the above-mentioned technologies, it is possible to secure the production and distribution of medical gases even outside stationary medical facilities, to bring medical care closer to the patients and thus to contribute to a higher level of care provided in extreme conditions.

# Tovek software platform

Professional solution enabling the processing of very diverse data and information sources (documents, multimedia, databases, logs, tables, OSINT resources and services, internal systems of the organization, etc.).

- unique search and monitoring of information on persons, organizations, things, places, events or very precisely defined topics
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- creation of various analytical outputs or information services to support decision-making and various activities.

the processing of large data volumes, for the collaboration of analytical teams or

for sharing and distributing information within the organization.

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## ACTIVE TRANSPORT TRAY CART WITH BATTERY POWER

The cart is designed for transporting meals directly to the diners. Its usage is straightforward. Simply fill the cart with food tablets. Upon pressing a button, the heating elements will warm the plates, which in turn warm the porcelain in the tablets.

Subsequently, transport the cart to the serving area, allowing for transportation in vehicles, even over longer distances, while maintaining the food's temperature throughout the journey. As a result, the food remains warm without any loss of thermal value.

The transport cart is compatible with the Thermoline A1 and A2 tablet system. It consists of an insulated tablet equipped with electronics for actively maintaining the temperature. The bottom part of the tablet contains recesses for holding the main course plate, soup bowls, and salad bowls. High-quality porcelain containers are used for the tablet. The main course plate and flat-bottomed soup bowl have provisions for plastic covers. The porcelain containers are stackable. The cart's capacity is 30 food tablets.



## ARMY FIELD CUTLERY

In recent years, we have established exclusive cooperation with the Czech Army, Czech security forces and the German Army (Bundeswehr), both of which we supply with our ARMY field cutlery sets.

Our ARMY 2020 field cutlery set is a compact 4-in-1 set consisting of dining spoon, dining fork, hardened dining knife and hardened universal opener, which is designed as a practical case holding all 4 pieces together. Spoon, fork and knife can be easily pulled out of the case and after use safely folded back again.

We use first-class stainless steel or titanium, which complies with all requirements of TS EN ISO 9445-2, ASTM A240 / A240M and ASTM A480 / A480M.

We currently aim to expand the supply of our exclusive product to the armed forces and integrated rescue systems of NATO and the EU countries.

It is possible to place any type of laser engraving on the ARMY field cutlery set, either in black or colour. We mainly engrave logo signs, trademarks and initials.



# Reliable detection and destruction of enemy targets using optoelectronics

Today's combat vehicle crews are faced with the need to detect and destroy a variety of targets on the battlefield. This includes enemy troops, armored vehicles and increasingly also UAVs. EVPÚ Defence's electro-optical defence systems can support the soldiers in this task. The company develops and produces its own range of remote-controlled weapon stations (MANTIS 12.7 mm, MANTIS MINI 7.62 mm) as well as various commander and gunner sights.

The MANTIS family of weapon stations enable operators to carry out surveillance, reconnaissance and target acquisition tasks. Detected ground or low flying targets can then be fired at with high precision. All functions are controlled by an easy-to-use software. Located in a well-protected inside area, the operator workstation consists of a rugged control and display terminal and a joystick, so it does not take up much space in the vehicle or weigh it down unnecessarily.

Compact dimensions and low weight are a common feature of all MANTIS weapon stations. Both MANTIS (<160 kg) and MANTIS MINI (<90 kg) are among the lightest products of their kind on the market.

Both weapon stations use CRANE gunner sights for reconnaissance, aiming and firing. Various CRANE sights are available for use in short, medium and long range applications. These multi-sensor containers typically consist of a day zoom camera, a cooled or uncooled thermal imager and a laser rangefinder. Optionally, other sensors may be added. EVPÚ Defence also produces the CMS-1 commander sight. The system offers up to 360° range of movement in azimuth and can be installed on turrets as well as directly on the vehicle. Besides an observation range of up to 18 km, the CMS-1 also boasts an increased level of ballistic protection.

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



# Captive Insurance: Mitigating Risks for Defence Industry Firms

The defence industry faces complex challenges such as high costs, stringent regulations, and diverse liabilities. These challenges are mirrored on the insurance market; limiting the appetite to provide adequate coverage. To address these issues, many firms turn to

captive insurance. This tailored solution offers unique benefits within the sector.

Captive insurance involves creating an in-house subsidiary or renting a cell in an existing captive company to cover risks. This provides greater control over insurance strategies, allowing companies to underwrite their own risks.

Captives enable customized policies for unique risks in the defence industry and help with the consolidation of diverse risks into a single strategy. Directly managing claims and reserves leads to better cost management. Captives align with the defence industry's long project timelines, which are common in this sector. Finally, companies can retain some risk in-house, leading to cost savings and retained earnings in a scenario of low loss ratio.

To set up and run a captive requires solid insurance and risk management understanding. Risk evaluation is mandatory, which

could be challenging in the light of defense industry complexity. Therefore, one of the key pillars to success is the involvement of experienced insurance brokers / insurance consultants from the beginning in order to guide and protect the client's best interest. RENOMIA GROUP, in cooperation with its strategic partner Gallagher, navigates clients through the whole process including further management of captive insurance that goes hand in hand with careful navigation of regulatory oversight, provided by a specialized team of professionals.

Captive insurance empowers defence firms to manage unique risks, tailor coverage, and save costs. Whilst requiring planning and expertise, in cooperation with experienced insurance brokers / insurance consultants it's a compelling option for enhancing risk management in the defence industry.

*Yevgeniy Tatusov*  
Head of Placement Division  
RENOMIA, a. s.

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Inflatech is a manufacturer of inflatable military decoys. The products are custom designed according to our client's requirements and are manufactured in the Czech Republic, EU. Our product portfolio includes tanks, radars, rocket launchers, trucks, aircraft, naval targets and more. Inflatech products have a low probability of recognition. Development is focused on deception of advanced reconnaissance assets. The products are similar in size and appearance to real military equipment. On top of that, the realistic appearance is complemented by radar and infrared signature. Low weight of the decoys allows simple transport and high speed of installation. Military decoys protect real valuable targets, save human lives, and are an indispensable part of modern warfare.

- 1

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- 2

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# We are Producing High Quality Patches for the Bravest of Us. Already for 30 Years!

Soldiers are known like heroes all around the world. What is the real symbol of their bravery and heroism? Not only received honors, but also a small details like formation patches. This patch has much more important meaning than only estetical accessory. They evoke memories on colleagues and friends and are often reminder on served years by the service. Formation patches are simply evoking the emotions. Let's check them out closer.

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You will probably believe me if I tell you that the army is one of the most demanding customers. And not only because of high quality needs but also in the way of strict delivery rules and big amounts of production.

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Patches, we are currently producing and delivering for Czech Army, could be divided in two groups according to their purpose:

- **military rank patches - whose are made and delivered in two sizes**
- **embroidered name tags - in three colour variations and two sizes**

All patches are equipped with velcro fastener for simply application on clothes.

## **Formations patches and flags**

Very important part of our large offer of products ( and also army uniform ) are the formation patches also equipped with velcro fastener. Those patches show the belonging to a certain unit, type of army or type of served service.

For our Czech army are we producing also big amount of woven labels with symbol of Czech flag which has every member of the army on the sleeve of his uniform. And we are delivering them already for 25 years!

Next to highest quality and following the delivery terms are we offering another benefits.

One of those is the possibility to produce the goods again and again but still with the same precision and high quality. Another benefit is our long year experience.

**We are following specific army norms and we are still working on development.** That makes from our company a high reliable partner not only for army, but also for every other state service in our country. If you want the best service for your employees or customers, our patches are the right choice. For more informations please visit [www.kriz.cz](http://www.kriz.cz)

*Author: Ing. Libor Kříž  
KŘÍŽ, spol. s r. o.*





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