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The Media Platform of the Defence and Security
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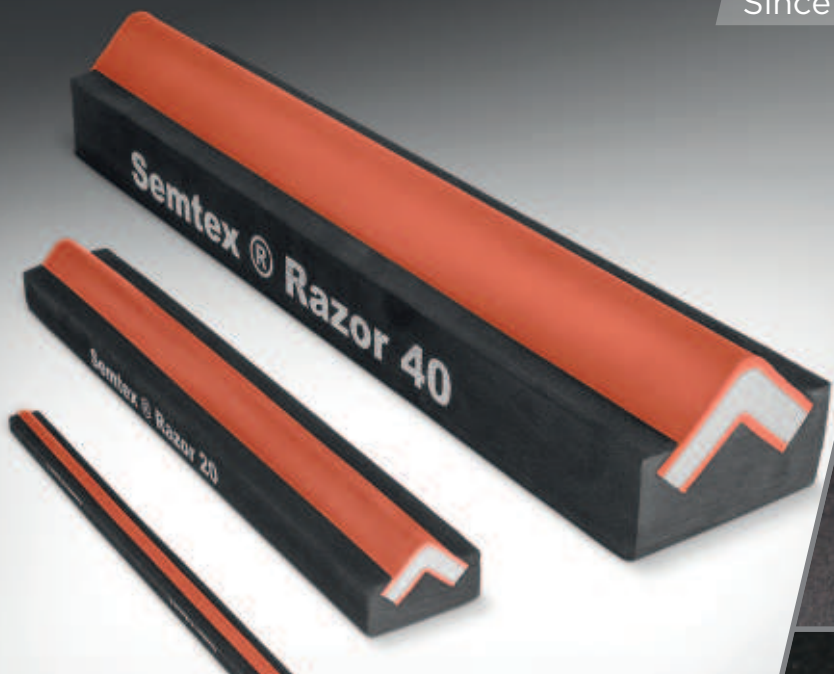
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EDITORIAL

Dear readers,

In the beginning of the year, a traditional meeting of the representative Editorial Board of the "Czech Defence Industry and Security Review" and "Review pro obranný a bezpečnostní průmysl" magazines was held in the conference room of the Army House in Dejvice to take stock of the previous year and to discuss the future concept and details of the development of both periodicals in the years to come. New members of the Editorial Board were introduced and some changes of the Editorial Board announced, including Mr. Miloslav Stašek, who has been appointed the State Secretary of the Ministry of Foreign Affairs. On this occasion, we asked him for an interview to discuss, for example, the implementation of the new Foreign Service Act or Economic Diploma-

cy Projects. Following the Editorial Board meeting, a ceremonial event, attended by numerous invited guests from all spheres of the Czech defence and security community, during which outstanding personalities, managers, companies, or projects of the Czech defence and security industry received awards. More on Page 34. The introduction of the Czech companies which will be present at the May 2018 IDEB Fair in Bratislava is an integral part of this issue. Our publishing house as the media partner of the event will be present as well and do its best to support the Czech defence and security industry as much as possible there.

Šárka Cook, Editor in Chief



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Interview

with State Secretary of the Ministry of Foreign Affairs of the Czech Republic

Dipl. Eng. Miloslav Stašek, a member of our Editorial Board, was appointed the State Secretary of the Ministry of Foreign Affairs of the Czech Republic in the end of 2017. Although he is obviously very busy, he agreed to give us this interesting interview. Apart from other posts, Mr. Stašek has also been Ambassador Extraordinary and Plenipotentiary to Egypt and India. Since returning from India in September 2015, he was the Director of the Department of Economic Diplomacy of the Ministry of Foreign Affairs in Prague. Between March 2016 and November 2017, he held the post of the Deputy Minister of Foreign Affairs i/c of the Economic and Operational Section.



Mr. State Secretary, can you tell us what your job is about and what goals you have set for yourself? Could you characterize the new Foreign Service Act and its benefits for the Czech diplomacy for us?

The present implementation of the new Foreign Service Act, which took effect on July 1, 2017, was the main challenge in 2017 not just for the Section of the State Secretary, but for the whole Ministry of Foreign Affairs. I firmly believe that it is also a “door of opportunity”. Please trust me that the Czech diplomacy indeed deserved this act, as it had been previously lagging behind other Central and

Western European states in this respect. Until then, there had not been any systematic and consistent Foreign Service legislation in the Czech legal system. The Service’s organization used to be based on the Labour Code or the Civil Service Act, neither of which, however, took specifics of the Foreign Service sufficiently into account.

In addition to stipulating how the headquarters of the Ministry of Foreign Affairs should work, the Foreign Service Act also deals with administration activities of our embassies abroad and sets forth comprehensive principles, practices and rules of the Foreign Service of the Czech Republic, including regular rotation of diplomats and clerical or technical staff members of the Ministry of Foreign Affairs. The Civil Service Act was not working well and made the process of mass rotation and more than 300 hundred tenders and auditions related thereto, which we have to struggle with every year not just at the headquarters, but also at embassies, very difficult.

The consular service, which provides necessary contacts between the state administration and our citizens abroad, is an important segment of the Foreign Service. And it was precisely in this area that deficiencies in, or rather the absence of, legislation governing the Foreign Service was felt most. Embassies had been providing such services without actually being explicitly authorized to

do so by the Czech internal law, doing so only under international conventions defining competencies of consular offices vis-à-vis the host state (Vienna Convention on Consular Relations, bilateral agreements).

My great ambition is to bring the Ministry of Foreign Affairs and the entire range of activities performed by the Section of the State Secretary fully into the 21st century. In this respect, a successful implementation of the Foreign Service Act is a permanent challenge; and a potential implementation of an amended Civil Service Act may await us as well. Last but not least, my ambition is also to fine-tune the network supporting economic diplomacy, including efficient functioning of the Joint Instrument for Financing Economic Diplomacy Projects, with an aim to create a transparent and sustainable system in which relevant ministries and the Office of the Government of the Czech Republic will participate.

Earlier this year, you and the Deputy Minister Martin Tlapa undertook a business trip to the United States where you mentioned that 2017 had indeed been a breakthrough year for the Czech diplomatic service. In what respect? Can you be more specific?

The United States continues to be one of our most important allies. The cooperation is taking place at multiple levels – apart from the political and defence

ones, there is also one of trade. On the one hand, we are collaborating closely within the NATO, in combatting terrorism. The Czech Republic is an active member of the Global Coalition against Daesh, and as such has been participating in projects of police cooperation. The role of the Czech Republic in Syria, where we have been acting as a so-called protecting power of the United States, is very much valued.

Our exporters to the United States were very successful last year, which is something that we are naturally very pleased about. It is great that our companies can succeed in a market as competitive as that of the United States. The mutual trade exchange has been growing, and the United States has even become our most important trade partner outside the European Union, and the 12th largest export partner overall. In 2017, Czech exports to the United States amounted to USD 3.761 billion. US investments in the Czech Republic have long held the first place among non-European investments, and are estimated to have provided a total of 49,000 jobs. We keep trying to strengthen our economic cooperation in different sectors, including, inter alia, energy. I could mention projects focused on civilian uses of nuclear energy. We have been successful in

promoting and supporting scientific and research cooperation. Since last year, there has even been a diplomat specializing in science and research at our embassy in Washington.

We also believe the celebrations of the 100th anniversary of the birth of Czechoslovakia will provide an impetus for a higher number of top-level visits and contacts. As a matter of fact, one such visit took place in the end of March, with Speaker of the House of Representatives Paul Ryan arriving to the Czech Republic.

Is there any cooperation between the Ministry of Foreign Affairs and the Ministry of Industry and Trade insofar as the selection of commercial counsellors for different regions of the world is concerned? If so, what are its essential principles? Are there any priorities applied to the selection process and could you give us an example?

Such cooperation naturally exists and many staffers of the Ministry of Industry and Trade are now working at our offices abroad. Today's system is set so that it opens third rounds of auditions also for colleagues from other ministries, not just the Ministry of Industry and Trade, but also, for example, the Ministries of

Finance or Agriculture. Specialized sectoral economic diplomats are serving at our embassies as well. These are, as of now, mainly agricultural or scientific diplomats coming from the Ministry of Agriculture or the Office of the Government, whose purview sciences and research fall within.

I believe it is absolutely essential that only the best candidates are sent abroad. Of course, this applies not just to the economic and sectoral diplomats, but to any officer of any Czech embassy abroad. Thus, the quality of the candidate – in addition to compliance with formal requirements, such as knowledge of languages, education, security clearance, etc. – is the main selection criterion. We of course keep thinking how the system could be further improved. I would be very happy if we succeeded, for example, to involve professional and business associations in the selection process.

In any case, companies can even now have a say in whether a particular diplomat will be sent to work at an embassy again. Every year, we ask industry associations to send us their opinions concerning to work of our colleagues abroad. In addition, every company participating in an Economic Diplomacy Project or seeking a specific service from any of



our embassies receives a questionnaire from us. The evaluation process is by no means formal. We are really very grateful for every feedback, as it helps us improve our network abroad and increase the quality of services that we as the state provide to firms and enterprises.

As mentioned earlier, you were also the Director of the Department of Economic Diplomacy. This is an interesting post, in particular for the Defence and Security Industry Association of the Czech Republic and activities of our members abroad. What can the Ministry of Foreign Affairs do in the way of supporting Czech companies in different regions of the world which may be of interest for the Czech Republic?

At the time I was the Director of the Department of Economic Diplomacy, we started steering economic diplomacy toward being focused on different sectors. As a matter of fact, it is the most effective way of helping our companies. There are several tiers of economic diplomacy, starting with missions which are, in my opinion, most effective if they are sectoral and as much as possible tailored to needs of participating companies.

Many members of the Defence and Security Industry Association of the Czech Republic have already tried active participation in Economic Diplomacy Projects. These are one of the main tools of the export promotion policy of the Czech Republic and they are, without doubt, an attractive opportunity for Czech enterprises to find an easier way to foreign markets, present their products or services there, and establish contacts. The Economic Diplomacy Projects can have many different forms. Embassies can organize a presentation of companies, a specialized workshop, a sectoral mission of businessmen, or a participation of firms at fairs and exhibitions abroad. The many advantages which the involvement in the Economic Diplomacy Projects brings to Czech companies include, inter alia, an often unique opportunity to meet leading representatives of companies, industry associations, or state authorities in the target country. In many territories and regions, it is very difficult, if not impossible, to organize such meetings without a diplomatic aegis. The

projects are almost invariably sectoral and they are co-funded by relevant ministries. In 2016, a so-called Joint Economic Diplomacy Fund was established, which is the primary source of funding of the Economic Diplomacy Projects. I have to say that the Ministry of Defence not only ranks among the ministries that contribute most to the Fund, but is also among those which identify themselves most with the export promotion concept.

Year by year, the Ministry of Foreign Affairs notes an increasing level of interest of embassies in organizing the Economic Diplomacy Projects. The amount of funds allocated to them is also growing. In 2015, 83 projects were implemented at an aggregate cost of CZK 8.8 million; the numbers for 2016 and 2017 were 161 and CZK 17.4 million, and 252 and CZK 37 million, respectively.

Of course, forms of economic diplomacy are very diverse, depending on the market where they are implemented. In non-European countries, for example, it is very important that local embassies assist companies with contacts with state authorities, particularly at the government-to-government level. In some Middle East or South East Asian countries, the ambassador opens the door to spheres where companies would otherwise have great difficulties to get into. In other states, our offices help overcome tariff barriers; in EU and other developed countries, they typically look for opportunities and provide their local know-how and support in B2G (business-to-government) deals. The list of activities and options is long.

The best way is always to contact our colleagues at the relevant embassy. In the last week of June, we always hold consultative meetings with all economic diplomats and directors of CzechTrade offices in Prague. 2017 was the first year that we also had a consultative meeting with ambassadors in the end of August. In addition, we organize regular meetings with new ambassadors before they depart for the country they have been assigned to.

You certainly know that Czech defence and security industry companies have often had major problems with transit licenses, especially those is-

sued by Poland or Germany. What is your opinion of the present situation in this area?

It is true that some EU countries, unlike the Czech Republic, make a transit of export consignments of military equipment through their territories subject to a special transit license. For exporters from landlocked countries, which depend on connections via major ports, this naturally means an extra administrative load above and beyond requirements they need to comply with to obtain a domestic export license. Not to speak of cases when the transit license is not granted, and the exporter must therefore look for a different, and usually more expensive, transport arrangement.

We open this issue with neighbouring countries every now and then. When doing so, we emphasize the quality of our own export control mechanisms – if our authorities issue an export license for a non-EU country after a thorough examination of the application, they do so in full awareness of their own responsibility for such a decision. Nevertheless, we respect specifics of export control mechanisms of our EU partners. However, continuous communication with companies indicates that the problem may not be as urgent as, say, two years ago. In many cases, a good way to solve it was to communicate with export control authorities of neighbouring states, and this is also the way we intend to pursue in future.

Do you have any other interesting information for our readers?

I have already mentioned the Economic Diplomacy Projects; in the defence sector, the first selection round of this year has chosen 33 projects with aggregate costs of CZK 8.8 million. You can find a list of approved projects on the website of the Ministry of Foreign Affairs, under the “Economy” bookmark. We anticipate that the second selection round will be launched in May. For firms that are interested in a specific market and wish to either join an existing Economic Diplomacy Project or propose a new one, the ideal time to contact our economic diplomats at relevant embassies is now. In addition, our colleagues from the Economic Diplomacy Department organize

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a number of mostly territorially focused seminars in the Czech Republic, to which economic diplomats from embassies are invited. We also try to hold as many of these events as possible outside Prague, so that exporters need not travel too far to attend them.

And I also must not forget that we are looking forward to the next International Engineering Fair in Brno. The Ministry of Foreign Affairs traditionally has a common outdoor stand, the "Export House", together with EGAP and other partners. It is located in Outdoor Zone K, next to Pavilion P. The Ministry of Defence joined us last year for the first time, so we had a "defence day" on the stand on Wednesday, October 11, 2017. We plan to stick to the last year's format, and my colleagues from the Ministries of Foreign Affairs and Defence will be happy to welcome all members of the Defence and Security Industry Association in the Export House this year as well. And if there is even the slightest opportunity, I will be happy to come too.

The Ministry of Foreign Affairs has also made a major step in the field of presentation of the Czech Republic abroad. Until recently, presentations of the Czech Re-

public in foreign countries were fragmented and no one was coordinating them. This was why we decided, in cooperation with public and economic diplomacy departments of the Ministry of Foreign Affairs, to create a videoclip that would be able to address a broad spectrum of people abroad and presented the Czech Republic in a respectable manner, as a modern country with rich culture, long history, strong industrial base, but also top-notch technologies and leading scientists and researchers. This is why the video is titled "The Czech Republic - the land of excellent people". The clip has been pegged on the website of the Ministry of Foreign Affairs. Other cooperating parties included, for example, the Confederation of Industry of the Czech Republic and the Czech Chamber of Commerce; the latter had been trying for quite some time to initiate a new consistent presentation of the Czech Republic. The new videoclip will be used by Czech embassies during top-level visits of state and constitutional representatives of the Czech Republic, business missions, Economic Diplomacy Projects, and public diplomacy events abroad as a short intro that would give the audience all essential information about our country in a nutshell.

All we have to do now is to invite people to use the videoclip as much as possible and to share its positive mood with as many people abroad as possible. The beauties of the Czech Republic and skills of our people are worth it!

A short biography

Since November 8, 2017, Dipl. Eng. Miloslav Stašek (46) has been the State Secretary of the Ministry of Foreign Affairs. He has been a career diplomat of the Ministry of Foreign Affairs for many years; apart from other posts, he has also been Ambassador Extraordinary and Plenipotentiary to Egypt and India. Since returning from India in September 2015, he was the Director of the Department of Economic Diplomacy of the Ministry of Foreign Affairs in Prague. Between March 2016 and November 2017, he held the post of the Deputy Minister of Foreign Affairs i/c of the Economic and Operational Section. Miloslav Stašek is a graduate of the Czech Agricultural University in Prague. He speaks fluent English and Arabic.

*Mr. State Secretary thank you for the interview
Šárka Cook*



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Interview

with the General Director of the Fire Rescue Service of the Czech Republic

During the past few years, we have been meeting top representatives of the Integrated Rescue System of the Czech Republic on the pages of our magazine. At the end of 2017, we asked General Director of the Fire Rescue Service of the Czech Republic to recap the year 2017.



Major General Drahoslav Ryba

Director, can you recap the year 2017 in a nutshell? Which were the key tasks that the Fire Rescue Service of the Czech Republic had to fulfil?

2017 was again a year of hard work in every field of activity of the Fire Rescue Service. And not only in terms of the number of actions; many conceptual and strategic documents dealing with protection of population and crisis management were prepared as well.

However, I will start with what people tend to associate us with most frequently, i.e. interventions. Compared to 2016, the number of events that required our response rose by 20 %. However, this does not mean that there were more fires; fires no longer represent the most frequent cause of an intervention, and accounted for only 13 % of all responses in 2017. The bulk of our work now comprises technical interventions and other types of assistance, which account for more

than 50 %. The main reasons why the number of intervention was higher were the Herwart storm and activities related to avian flu and African swine fever. The longest-ever intervention in the history of the Fire Rescue Service was also going on throughout the year in the munitions depot in Vrbětice, where our members were participating in the removal of debris and remnants of unexploded ordnance left by the explosions in October and December 2014.

Every intervention starts with an emergency call. The emergency call system has undergone a major upgrade during the last three years, and we added a new functionality to it in 2017, namely the reception of distress calls from vehicles, known as eCall. It can significantly reduce the response time of rescue services, thus saving lives or making consequences of injuries less serious. If all vehicles in the EU were equipped with the eCall system, the number of fatal road accidents could be reduced by as much as 10 %, which translates into saving 2,500 lives a year.

The Fire Rescue Service of the Czech Republic does not operate only in the territory of our country, but its activities also extend into the area of long-term international assistance. The MOLDEX exercise last year concluded a five-year assistance programme in Moldova provided under a project known as "Improvement of readiness and capabilities of Moldovan firefighters". During its first phase, a fire-fighting simulator was built in Ghisinau; the second part of the project was focused on training in dealing with hazardous substances (Moldovan firefighters were provided detectors and received training

in this field). Furthermore, cooperation with psychological services and experience sharing between operations centers of both countries are also planned.

As to protection of population, we have successfully completed a project named "Pilot proposal of a system solution of the inclusion of soft targets (shopping centers) in the agenda of protection of population", which we have accomplished in cooperation with the Chodov and Černý Most shopping malls. The aim of the project is to improve safety of visitors and personnel of shopping centers. We want people who visit the centers to shop or to have fun to feel safe not only while there, but also on the way home. The project also involved threat analyses for both shopping malls and their immediate surroundings. The analyses produced risk levels, consequences, IRS alert level, and circumstances under which an emergency can be declared for each threat. Results of the analyses have been used to draft instructions (guidelines) for the shopping malls' personnel and visitors. In addition to the new documents, an additional 19 existing sets of instructions have been amended to include and reflect various emergencies (terrorist threat, fire, power/gas/heat supply breakdown or disruption etc.). The project was concluded on November 23, 2017, when authorized personnel of each shopping center received their training certificates as "experts in the field of protection of population in shopping centers". A joint exercise of the shopping malls and the Fire Rescue Brigade of the Capital City of Prague will take place this year.



MESIT

As to the prevention, we continued to draft a Fire Prevention Concept laying down fundamental development trends in the fields of building prevention, inspections, and determination of causes of fires. The conceptual document will be linked to specifications of the "Determination of fire safety of buildings in the Czech Republic" safety research project, which will include a thorough analysis of the domestic environment and selected countries of Europe and of the world and a subsequent proposal of a new approach to these issues. The Prevention Department also played a significant role in the development of international cooperation with experts in the field of investigation of fires from the Netherlands, United States, United Kingdom, and Albania. Members of the Prevention Department were also at the cradle of the Fire Investigation working group established under the aegis of the CTIF (International Technical Committee for the Prevention and Extinction of Fire), where the Czech Republic has got the Vice President's seat, thanks to which the next meeting will be hosted by Czechia. A week-long training course for fire investigators was organized for Albania.

Due to changing needs of the society and the necessity to react to new legislation, there were changes of requirements applying to the education and training of safety experts. The government has therefore approved an updated "Concept of Crisis Management Education" this year, which sets new education rules reflecting current trends, legislation, and develop-

ments in this area. The Concept was discussed by the Civil Emergency Planning Committee and the National Security Council, and subsequently approved by the government in June 2017.

Since a few years ago, the Fire Rescue Service of the Czech Republic has been attempting to improve the preparedness of population, in particular of pupils of kindergartens and elementary schools. The Ministry of Interior - General Directorate of the Fire Rescue Service of the Czech Republic undertook a major analysis of the current state of teaching of safety- and security-related subjects at schools last year. Its results are presented in the "Report on results of a detailed analysis of the current state of teaching of all safety- and security-related subjects at schools, including proposals for future actions", which has been approved by the government of the Czech Republic this year. The report describes the current state of teaching of all safety- and security-related subjects at schools; in particular, it focuses on the teaching process, training of teachers, support of education and training by various ministries, or possibilities of a feedback, and also outlines deficiencies in this area. On the basis of the report, the government of the Czech Republic has tasked the Ministry of Education, Youth and Sports to optimize the inclusion of safety- and security-related subjects into framework education programmes of elementary and secondary schools, including regular measurements of their results. To this end, an interdepartmental expert



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working group was established, which started working in September 2017 and will continue also in 2018.

Psychologists of the Fire Rescue Service have issued cards for communication with hearing-impaired people present at emergency sites. The card is a methodological aid for firefighters and will be issued to all response vehicles. Cooperation with colleagues abroad, whether under international projects of the European Union, or on the basis of partnership and experience sharing, in particular with V4 countries, Germany, and Moldova, is also well on its way.

The equipment and materiel of the Fire Rescue Service of the Czech Republic is now, more than at any time in the past, dependent on funds provided by the EU. Can you give us some examples of major projects financed from EU funds in 2017?

Last year saw the ongoing implementation of the "Improving the preparedness of the Fire Rescue Service of the Czech Republic to deal with and manage risks caused by climatic changes". The project is co-financed by European structural and investment funds, namely by the 2014 – 2020 Integrated Regional Operating Programme. The projects reacts to an increasing incidence of risks related to climatic changes – drought, cyclones and windstorms, snowstorms and massive ice buildup – in the Czech Republic, which require the Fire Rescue Service of the Czech Republic to be adequately prepared for such emergencies. To this end, special equipment and materiel are being procured. In 2017, initial deliveries of high-capacity fire tenders and special truck-mounted articulated ladders with a basket took place.

In 2017, the Fire Rescue Service of the Czech Republic was also using vehicles, equipment and materiel procured under projects co-financed by structural funds of the European Union in previous years, i.e. prior to 2017. These included, for example, equipment for dealing with emergencies such as flash floods, floods or other natural disasters, improving the efficiency and quality of responses to emergencies, or ensuring efficient voice and data communication. In addition, the Fire Rescue Service of the Czech Republic was using outputs of projects in the area

of information technologies and systems, namely operational control and reception of emergency calls. The total volume of the projects co-financed by structural funds of the European Union in the 2007 – 2013 programme period was more than 3.5 billion CZK (with 85 % of the costs financed by structural funds of the European Union).

Improving the quality of vehicles and equipment of fire rescue brigades is practically a permanent and ongoing necessity. Have you been successful in this respect? And can you give us a few examples?

In this respect, I would like to mention the issue of replacement of firefighting equipment, in particular rapid response vehicles. The Fire Rescue Service of the Czech Republic operates almost 1,700 rapid response firefighting vehicles the average age of which is 12.2 years. Approximately 500 of these vehicles are even older than 16 years, i.e. beyond the technical and engineering lifetime, and replacing them is an absolute necessity. Assuming a price of CZK 7 million per vehicle, this means that we urgently need to purchase equipment worth more than CZK 3.5 billion. The annual equipment replacement costs, i.e. minimum costs needed to prevent further ageing of the equipment, amount to CZK 900 million. It must be mentioned that the Fire Rescue Service of the Czech Republic has not yet been receiving necessary funds from the government budget. We must therefore do our best to raise them elsewhere. In the last five years or so, for example, we have been able to make use of European structural funds. Under the last two of these programmes, we have either purchased or will buy, by the end of 2018, equipment worth almost CZK 2 billion. Furthermore, we have managed to push through an amendment to the act on liability insurance for damage caused by operation of motor vehicles, and the Fire Rescue Service of the Czech Republic can thus draw money from the so-called Damage Prevention Fund of the Czech Bureau of Insurers to the tune of more than CZK 300 million for the purpose of equipment procurements. Regional Fire Brigades also strive to raise additional funds from other sources, such as regional governments or businesses. The outcome of these efforts is that the average age of rapid response fire tenders

of professional firefighters is just slightly above 8 years. However, the average age of high-capacity fire tenders and ladder/basket trucks continues to be a problem, being 16.5 and 17.7 years, respectively.

However, we should not speak only about firefighting vehicles. The Fire Rescue Service of the Czech Republic invests a lot into equipment that facilitates the firefighters' job and makes it more efficient, such as thermal cameras, various detectors, personal protection aids, pumps, overpressure fans etc. It may be interesting to note that the rapid response fire tender mentioned above is equipped with more than 200 items of accessories the approximate value of which is CZK 1.5 million.

Funds are also invested into buildings and facilities of the Fire Rescue Service of the Czech Republic; existing fire stations are renovated and new ones built, and each project of this type generally represents an investment of several hundred million of Czech Crowns. Two new bases for rescue companies of the Fire Rescue Service of the Czech Republic have also been recently built, one in Zbiroh, the other in Jihlava.

The above notwithstanding, lack of operating and particularly investment funds continues to be a major headache of the Fire Rescue Service of the Czech Republic. On the other hand, it should be noted that the election programme of the ruling party calls for an increase of these funds.

General, does the Fire Rescue Service of the Czech Republic have a consistent long-term acquisition policy? If so, what is its priority?

The Fire Rescue Service of the Czech Republic is currently working on a long-term strategy of the service until 2021, with a view until 2030. It is expected to provide a comprehensive insight into where our organization should move in order to maintain and improve the services we provide to all inhabitants of the Czech Republic in the field of security and safety. It is also necessary to bear in mind that the role of the Fire Rescue Service of the Czech Republic is not limited to responses to emergencies, although one of our long-term objectives is to achieve a stabilized cycle of reproduction of firefighting



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vehicles and equipment where we currently have a substantial internal debt. Our service is also responsible for answering emergency calls, in respect of which we would like to improve the localizing of callers by 2021, operates two Integrated Rescue System radio networks, and also the warning and notification system (the well-known sirens). The radio networks will have to be upgraded by 2021 so that they meet current requirements.

Director, almost all top representatives of executive military, security and rescue organizations have given our magazine an interview this year. Can you, by way of conclusion, evaluate cooperation with other elements of the Integrated Rescue System of the Czech Republic and tell us whether the Czech Republic has again made some progress in this field?

In 2017, we made an assessment of the 25 years since the birth of the idea and initial activities in the field of coordination of various elements and public authorities dealing with emergencies. I am glad we came to a conclusion that the Integrated Rescue System had proved its value, both when dealing with day-to-day emergencies and when facing major natural disasters, such as floods or cyclones

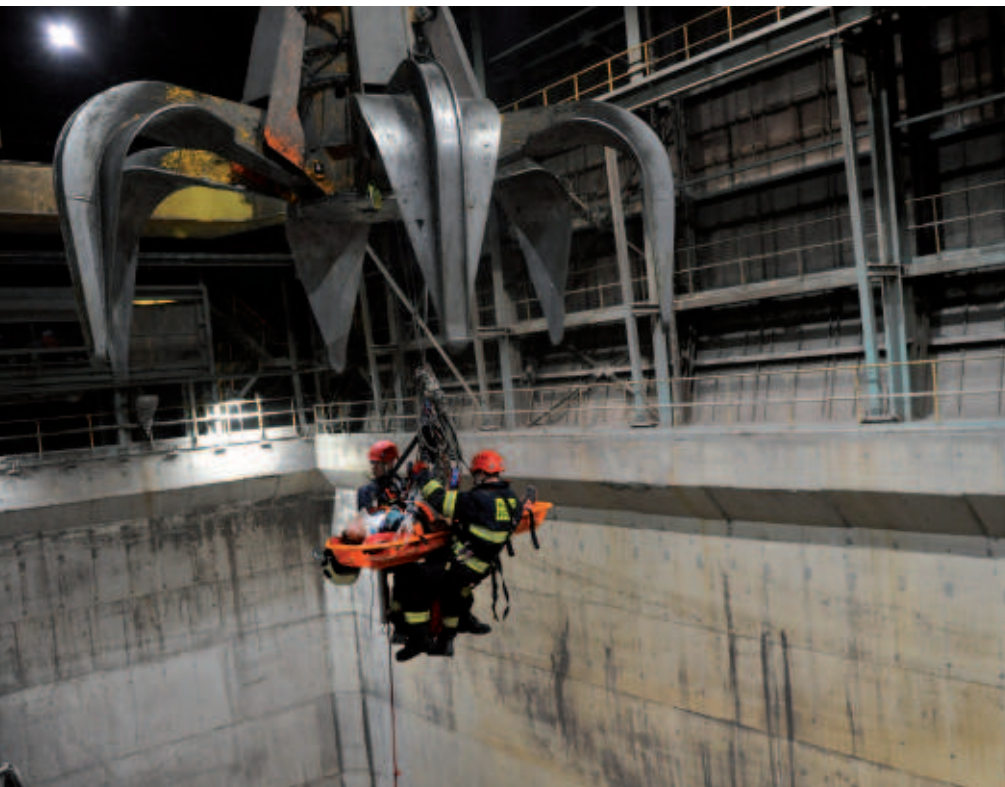
we can still remember. The division of emergencies into three coordination levels – tactical, operational, and strategic – is functional, easy to find one’s way in, and acceptable by all elements involved in the Integrated Rescue System. Basic IRS documents, such as IRS alarm plans, emergency plans of regions and potentially dangerous industrial facilities, or standard operating procedures for each element participating in a joint response, have been prepared and implemented. IRS operating centers can make use of the National IRS Information System. The reform of civil defence and competencies in the field of protection of population which the Fire Rescue Service of the Czech Republic acquired in 2000 have unquestionably contributed to more efficient rescue and disaster relief measures. We have literally resurrected the area of evacuation, warning and emergency survival which today comprises modern and usable emergency-handling procedures.

As of now, the Integrated Rescue System has signed some 350 agreements on planned assistance upon request, which open the door to the IRS for different organizations, institutions and authorities (termed “other IRS elements”). Their number is fairly high, and it is a great challenge for us to employ them properly

when dealing with an emergency. This is, as a matter of fact, our latest task. Although it may not seem so, it is an ongoing and permanent task because of the never-ending exchange of personnel in various IRS elements. This is why we run a number of exercises of the IRS elements, whose topics are related to the emergency plans and standard operating procedures on the emergency site; this is why we meet with leaders of IRS elements or run training courses and education programmes in our IRS training facilities. We are trying to implement educational programmes employing virtual reality, e-learning etc. The work in this particular field of professional education and training is very hard, as it involves potentially high numbers of people. It is a well-known fact that it is too late to explain basic principles of cooperation during an emergency response in which multiple elements are involved.

To answer your question, i.e. whether we have made any progress, I have to say, we have made a great leap forward during those 25 years. Last year, for example, we were making, together with other IRS elements, steps toward better cooperation by introducing new information technologies, equipment, amendments of regulations, and professional training. To put it figuratively, we are not that much interested in the length of the step forward; it is its imprint and the imprint’s depth in our everyday rescue and firefighting work. The imprint in the form of more than 100,000 joint responses, hundreds of rescued and thousands of evacuated people, and saved property worth billions is indisputable, and it is the result of our collective work, the work of all elements of the Integrated Rescue System. I think that our people know very well whom they can turn to for help and that they trust us.

Director, thank you for your answers and good cooperation of the Fire Rescue Service of the Czech Republic with the media during the previous period.



Eva Soukupová



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ReTWis 5

the latest version of radar detecting people behind solid obstacles

RETIA Company from Pardubice is a leading Czech manufacturer of radar technology and special electronics, which is at the forefront of technological development in its field, even on a global scale. Among its newest and most interesting products is a small portable radar, ReTWis 5.

RETIA introduced the first version of the small portable radar ReTWis (RETIA Through-Wall Imaging System), which is able to track people's activities behind solid obstacles, as early as 2008. However, the designers continued to develop the concept and today the ReTWis 5 is available. The radar is able to detect live beings behind the wall, both in motion and without moving.

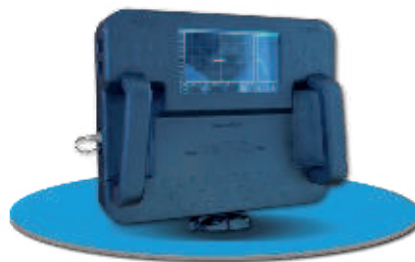
The ReTWis 5 radar uses the ultra-broadband (UWB) radar technology. UWB technology is specific with its high resolution ability, difficult to be disturbed and virtually does not interfere with other radio systems.

Another advantage is an easy signal breakthrough, through the wall or through other non-metallic barriers. The visual outputs of the hidden objects behind the walls are displayed on the basis of impulses processing which are emitted from them. The signal processing of the radar ReTWis 5 is optimized to detect small changes caused by human or animal movement, allowing the location of, for example, a person just by breathing.

The use of ReTWis 5 is versatile – it can be used, for example, by security and armed forces. It can provide the police or soldiers with a situational overview of the number and location of people in a room or in a building before any intervention; giving them tactical superiority while reducing the risk of their own losses and negative consequences for civilians. ReTWis 5 can be also used for long-term, hidden surveillance of certain

areas, which is enhanced by the possibility of remote transmission of signal and data on the display units. Moreover, the radar signal is difficult to detect thanks to the Step Frequency Continuous Wave (SFCW) technology. The radar is also very useful, for example, to control the presence of hidden people in trucks, and it is not necessary to physically open the truck's semitrailers while using it. Thanks to the Stand-off capability, it is possible to create an improvised transit control post using the ReTWis 5 radar.

The visual output from the ReTWis 5 radar can be displayed in 2D or 3D with a range of



The use of the radar ReTWis 5 is versatile and its range is up to 40m.

up to 40 m and can be positioned up to 20 m from the obstacle behind which searched persons become visible. The radar is a highly mobile device and with its weight of 3.25 kg it is easily portable and quick to use. In addition to the manual manipulation, the radar construction also allows the installation of a telescopic rod, on a tripod or on special remote-controlled reconnaissance robots. The radar construction is water and dust resistant and complies with the IP 67 standards. It will be possible to transfer the radar output remotely to various display and data devices, so that it is not will be a problem to

connect a computer, notebook, smartphone or tablet using LAN or Wi-Fi connection. The software and hardware equipment allows up to two hours of recording and then it is possible to work with these records, for example to transfer them to external devices for their playback or further processing. The Radar is ready for use only 20 seconds after it is switched on and with its powerful batteries it is able to operate continuously for 5 hours. An external charger is also available as an option. ReTWis 5 is also resistant to interference, so several radars can be used at the same time to monitor the same space.

The features and capabilities of the radar ReTWis 5 are at the top in their field due to the high level of development and production capabilities of the RETIA Company, based in Pardubice. RETIA has been building its position and its abilities for a long time; this year it is celebrating its 25th anniversary of the company's establishment. In 1993 it was founded by engineers from the former Tesla from Pardubice. During its existence, RETIA has focused on the development, manufacture and modernization of radars, anti-aircraft rocket systems, electronic command and control systems, recording systems, UWB locating devices and communication systems. These products are supplied to the Army of the Czech Republic, as well as to NATO allied armies, directly to the North Atlantic Alliance and to other military and civilian customers in the Czech Republic and in more than 40 countries.

Last year, for example, RETIA completed a long-term contract for radar sensors REVISOR for the Czech Army, or completed deliveries for the unique system Alliance Ground Surveillance (AGS) of North Atlantic Alliance, which serves to monitor the ground situation in a designated area and to locate land and sea targets. RETIA also cooperates with the Israeli company ELTA on the current radar project for the Czech Army – MADR. In the past, RETIA has upgraded for the Czech army, for example, the anti-aircraft missile systems 2K12 KUB or has developed, manufactured and ensured the implementation of the fire command and control system RACCOS.



The radar ReTWis 5 is extremely light, it weighs just 3,25 kg and is ready for action in 20 seconds.



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AURA in the Year 2017

Expert on Military Information Systems



General Director of company AURA, s.r.o.,
Dipl. Eng. Filip Engelsmann

Mr. General Director, you have looked back upon the results of the year 2017 for sure. Could you give the readers an idea about the last year's strategy of the company and fields in which AURA, now perhaps the biggest Czech exporter of specialised military information systems, achieved the most important success?

I don't know whether we are the biggest Czech exporter of the military information systems. However, I can confirm that the last year in cooperation with NSPA – the NATO Support and Procurement Agency – we gained the 20th customer who uses our information system for support of codification MC CATALOGUE, MCC in short, that we have developed and provide it to countries involved in the NATO Codification System – NCS. The newest MCC user is the Jordanian Armed Forces.

Last year in March, AURA set MCC into operation also in the Armed Forces of the UAE. Historically, the first NSN – NATO Stock Number – of the UAE was created, that is a unique identifier of an Item of Supply and at the same time an inter-

national data exchange was launched among the countries involved in the NCS. Currently, the UAE exchange codification data with more than 30 countries, total amount of transactions exceeded 500 thousands, what is probably a historical record in this brief time in this specific field. In the United Arab Emirates in Abu Dhabi there stays an AURA team including foreign experts which supports the operation of the NCS and building the National Codification Bureau – NCB in short. Besides this excellent success, which auspiciously opens our way to the Near and Middle East, after several years of demanding cooperation with South African partners, AURA has been contracted by the South African National Defence Force to provide MCC. The implementation project is going to be carried out this year.

However, to finish the answer to your question, for the whole team of our co-workers I must show off the decision of Japan to join a high number of countries who have chosen MCC as a codification tool for its national military logistics that was officially announced during the Pacific Area Cataloguing Seminar held at the end of the last November in Tokyo. This year a basic version of our information system had already been installed and now other implementation works are carried out. Thanks to all involved for this excellent success in the Promised Land to ICT!

Mr. Engelsmann, last year at the end of November in Brno, where your company is based, the 22nd MC CATALOGUE User Group meeting took place. What this event meant to you, did it set out new lines to a modernization of this codification tool and development of cooperation of all member of MC CATALOGUE User Group?

This meeting of MC CATALOGUE User Group was held with widespread support

of our company, of course. MC CATALOGUE User Group, MCC UG in short, has been found upon the initiation of Finland, Czechia and Slovakia already in 2006 in the founding meeting in the hotel Velká Klajdovka in Brno. The 22nd MCC UG meeting took place in Brno again, this time in Hotel International and it was chaired by director of Australian NCB, Paul Kenworthy.

At the MCC UG meeting in Brno there were discussed questions of the next development of MCC according to experience of each country, but also according to the planned innovations in the NCS. Great attention was paid to new functionalities, redesign with use of up-to-date so called UX – User eXperience attitude and different forms of education of managers and codifiers entering into the codification processes in each country. In this regard, the participants of the meeting in Brno welcomed the possibility to take part in the international NCS College 2018 composed of the NCS Course for Managers & Logisticians and the NCS Course for Codifiers, which is organised by the University of Defence in Brno and the Czech NCB with a great support of AURA in August and September 2018.

Relating to the MCC UG meeting and use of MCC, I would like to remind that AURA has been preparing a new generation of the information system for support for military logistics – LIS, thus Logistical Information System for present and new customers. I am not going to mention more about this project, because we have already discussed it in the article "AURA successfully gains its goals" in the last Review for Defence and Security Industry and certainly we will talk about it during this year again.

It is hard to imagine that a company of high international reputation like AURA would not be present at important international trade fairs orientated to

defence and security and at analogous conferences and workshops. How was the last year from this point of view, did AURA use for advertising also periodicals as for example Czech Defence Industry & Security Review or Review for Defence and Security Industry?

I would like to use this occasion to thank the editorial staff of MS Line s.r.o. for the opportunity to advertise in their magazines, which are present at all important world arms trade fairs. Except the regular presentation of AURA in the mentioned quarterly edited magazines, AURA participates in important events and international trade shows abroad and home. Last year in May, AURA was a silver partner with own stand at the World Codification Forum in Melbourne held by the Alliance Committee for Codification AC/135 and Australian National Codification Bureau. We were honoured to welcome also Mr. Martin Pohl, Czech ambassador in Canberra, at this event. In September AURA also presented itself

at the international fair Defence and Security Equipment International 2017 in London through its strategic partner in the field of materiel codification – Allan Webb Ltd. from Great Britain. Last year's presentation of AURA at LAAD Defence & Security trade fair prepared in cooperation with our Brazilian partner ProDeal from Sao Paulo was a part of exposition of ABIMDE (Associação Brasileira das Indústrias de Materiais de Defesa e Segurança – author's note).

At the forefront regarding the home events there was the 14th International Defence and Security Technologies Fair – IDET in Brno in May. Our stand was fully utilised during the whole 3 days – there took place negotiations with representatives of the Czech Ministry of Defence and Armed Forces of the Czech Republic, as well as with visitors from abroad. Also, the general director of Danish company BRUHN NEWTECH visited us, a long-standing partner of AURA in the field of CBRN evaluation, who led negotiations about

further cooperation. Great attention was paid to the offer of codification services, relevant negotiations were led with tens of present and prospective customers. Our company is also proud of the fact that our codification agency was appraised in 2017 as only agency with zero failure rate! Even though the total amount of codification orders was almost the same as the amount of orders of all other certified agencies together.

At the end I would like to express an immense pleasure that the last year, the MS Line s.r.o. apprised AURA with a prestige reward "Management Team of the Year" during announcement of the appraised personalities, companies and products of the Czech defence industry for excellent results of team managerial activity. Thanks for the merits for obtaining the reward belong to the whole AURA team.

Thanks for the interview by Antonín Svěrák



Explosia Pardubice Relies to Bi-modular Charges

She is slowly preparing to celebrate 100th years anniversary, he works with explosives nearly 25 years. She is one of the world's leading manufacturers of propellants and explosives, he among the world's leading full-service ammunition experts. Explosia, a state-owned company, and Dipl. Eng. Zbyněk Akštein, Ph.D., Head of Department Chief Engineer, together forms an inseparable pair, which represents the latest Bi-modular charges.



In the introduction, let's explain what are Bi-modular charges.

Full-combustible Bi-modular charges are designed for gun-howitzers. The purpose of howitzers is in most cases indirect shooting on area targets. Simply put, depending on the distance you want to shoot, so many charges you should use. In the history metallic cartridges were used for propelling charges, which formed not an insignificant portion of unusable weight. Full-combustible Bi-modular charges thus not

only allow the use of the total weight to deliver energy to the shot, but after the shot the chamber can be immediately charge with another shot without waiting for the cartridge to be removed.

How long has Explosia been engaged in developing Bi-modular charges?

The evolution of full-combustible propelling charges in Explosia has been in progress since the 1990's. But it didn't come from scratch, but we already had experience with

Today's charges are in accordance with ballistic memorandum (JBMoU - Joint Ballistics Memorandum of Understanding, the convention unifying requirements for 155mm guns and ammunition). The memorandum divides the basic range of up to 30 km into six zones defined by the muzzle velocity, and currently it means that two types of modular charges are used. One type is used for short ranges and the other type serves to reach large ranges, usually over 15 km. So far, the original concept of the Memorandum has not been fulfilled, namely the creation of a uni-modular system, a system of only one type of modular charges for all zones.

Explosia currently produce the second generation of Bi-modular charges made up of the two types of modular charges just mentioned. The system is called the 155 mm BMCS (Bi-Modular Charge System) and consists of short-range BC-E modules (zones 1 and 2) and TC-F modules (zones 3 to 6).

Do Pardubice's charges have any competition? And how they stand in comparison with rivals?

Of course, competition is, and although we don't have a financially supported research base like some of our competitors, we are able to withstand a direct confrontation. Such a confrontation was a few tenders in India and a direct rivalry over the Polish customer where we won.

What's the principle of the charges? What are their "intestines"? Is it a



as powder charges are concerned, we are working on higher temperature independence than standard smokeless powders, that is, their basic internal ballistics parameters, such as maximum chamber pressure and muzzle velocity, will not depend on ambient temperature. And, of course, we would like to reach the highest level, creating the uni-modular system.

*Mr. Zbyněk Akštein thanks for the interview
Miloš Soukup*

secret, or can something be revealed?

Every producer of modular charges has own secrets, mainly the composition and technology of the three most important parts. The most obvious is of course a full-combustible casing, which must meet several contradictory requirements. He must be mechanically strong to withstand military treatment, he must be safe for a lot of external stimuli and, on the other hand, after the initiation in the chamber, it must burn out completely. The second major part is the ignition set, a tube leading through the center of the charge, which allows almost instantaneous ignition of all charges in the chamber. Well, and last but not least, it is the powder charge with smokeless powder itself. For low muzzle velocities a vivid nitrocellulose powder is used, while for high muzzle velocities a powerful triple-base powder is used, the main component of which is nitroguanidine in our case.

The Pardubice's producer of explosives has also launched a new development center built in tens of millions of crowns. Why and what will it serve?

Developments in this area haven't stopped and new requirements are still emerging. It is necessary to keep up with the competition. The new development center is used to develop new and optimize existing production technologies for full-combustible ammunition parts. Not only for 155 mm cali-

ber charges, but also for containers of supplement mortar charges. In the near future, new technologies for the production of current 125mm APFSDS-T tank ammunition will be tested in this center.

How do you personally see the future of this area? Is it where to move? And if yes, what does the Explosia do for it?

In the field of combustible ammunition parts we would like to have a total inertia to moisture. In the field of powerful smokeless powder we would like to achieve even greater performance but at the same time reduce its negative impact on the wear of the barrel. As far



Traditional Annual Meeting of Review's Editorial Board

In the beginning of the year, a traditional meeting of the representative Editorial Board of the "Czech Defence Industry and Security Review" and "Review pro obranný a bezpečnostní průmysl" magazines was held in the conference room of the Army House in Dejvice to take stock of the previous year and to discuss the future concept and details of the development of both periodicals in the years to come. Following the Editorial Board meeting, a ceremonial event, attended by numerous invited guests from all spheres of the Czech defence and security community, during which outstanding personalities, managers, companies, or projects of the Czech defence and security industry received awards.



The first to enter the discussion at the annual meeting of the Editorial Board of the Review magazines was Dipl. Eng. Miloš Stašek, State Secretary of the Ministry of Foreign Affairs of the Czech Republic, who was talking mainly about the future of Economic Diplomacy Projects and, in this regard, also on strengthening the cooperation between the Ministry and the Defence and Security Industry Association of the Czech Republic and promotion of exports of the production of Czech defence industry. He appreciated the role of the Review magazines, particular-

ly at defence fairs, and promised a further increase of the distribution of the two periodicals to the Ministry's offices and facilities abroad. Police President of the Police of the Czech Republic Major General Mgr., Bc. Tomáš Tuhý gave his opinion on the cooperation between the Police of the Czech Republic and the Defence and Security Industry Association of the Czech Republic, in particular from the viewpoint of the Concept of the Development of the Police of the Czech Republic until 2020. He praised the work done on different projects and effecti-

ve cooperation in upgrading the equipment and weapons used by the Czech Police. He also mentioned this year's 25th anniversary of the membership and involvement of the Czech Republic in the Interpol organization and its promotion in the Review magazines. Major General Dipl. Eng. Drahoš Ryba, Director General of the Fire Rescue Service of the Czech Republic, stated that cooperation with the Czech defence industry was one of the key areas of the development of technical and logistic support of the Fire Rescue Service and the acquisition of new sophis-

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Acknowledgment

General (ret.) Dipl. Eng. Pavel Štefka, Advisor of the General Manager of BVV, For his long-standing support of media activities of the MS Line Publishing House, s.r.o., for supporting the Czech defence and security industry abroad, and for his personal efforts in supporting the Czech industry at the IDET, ISET, and PYROS fairs.

Acknowledgment

Dr. Jiří Hynek, President and Executive Director of the Defence and Security Industry Association of the Czech Republic, For his long-standing support of media activities of the MS Line Publishing House, s.r.o., for supporting the pro-export policy of the Czech Republic and activities of the Czech defence and security industry abroad, and for his personal involvement in supporting the Czech industry at major international defence fairs.

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MANAGEMENT TEAM OF THE YEAR 2017

Award

GORDIC, spol. s r.o.

For excellent management team performance in the defence and security industry sector.

COMPANY OF THE YEAR 2017 Award

ERA a.s.

For excellent results in the development and manufacture of, and trade in, equipment and materiel designated for defence and security of the Czech Republic.

COMPANY OF DECADE Award

ČESKÁ ZBROJOVKA a.s.

For excellent results in the development and manufacture of, and trade in, equipment and materiel designated for defence and security of the Czech Republic during the last decade.

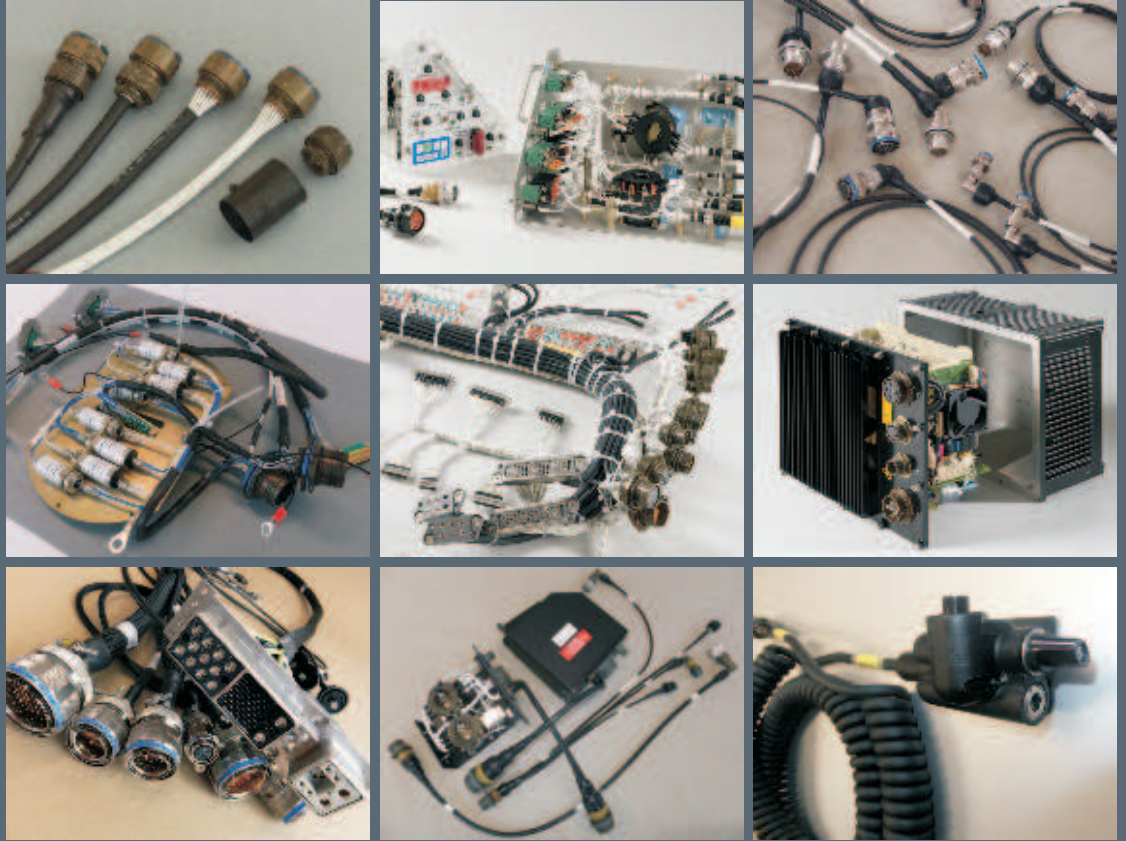


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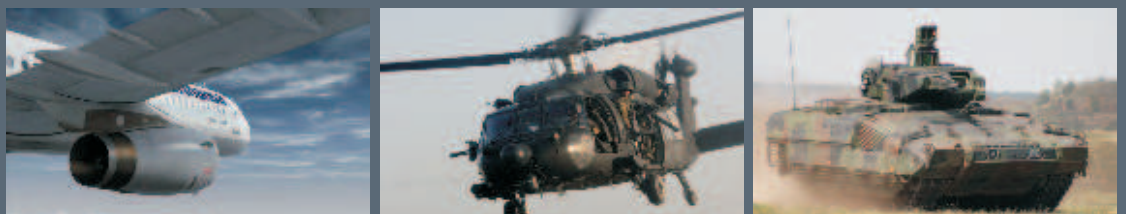
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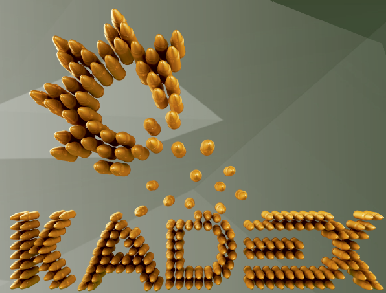
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General Bečvář in Brazil to Boost Defence Cooperation



Chief of the General Staff General Josef Bečvář had talks last week with senior Brazilian military officials having received a formal invitation from the Chief of the Joint Staff of the Armed Forces of Brazil, Admiral Ademir Sobrinho.

The aim of the visit was to reinforce military cooperation between the two countries and to discuss measures to promote and boost joint defence industry co-operation. General Bečvář was accompanied by Deputy Air Force Commander Brigadier General Petr Hromek and representatives of the Association of Defence and Security Industry.

During their visit, the Czech delegation met with the Chief of Staff of the Brazilian Air Force, General Ten Brig Botelho, visited the 6th

Missile Artillery Battalion and were given a tour of the training and logistics centres and a demonstration of equipment and materiel.

„Cooperation with the Brazilian Army is continuing to grow, especially within the Air Force. Our Brazilian partners have expressed an interest in active collaboration in the form of ‚working groups‘, notably in training development programmes for the Mil Mi-type helicopter pilots and the Gripen and CASA pilots, cyber defence operations, and working with the VERA passive surveillance system,” explained General Bečvář.

Logistics Cooperation

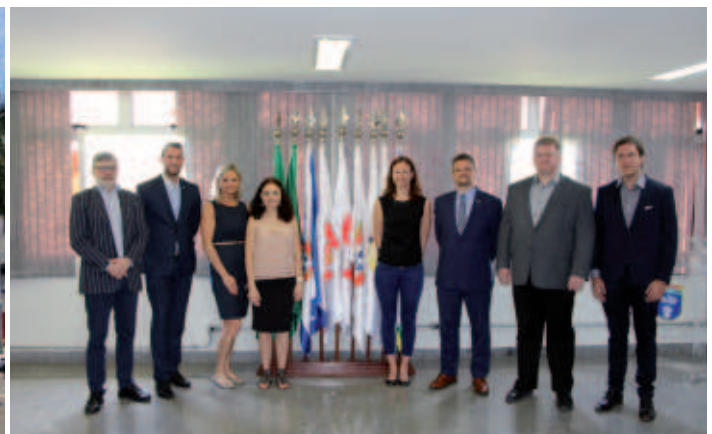
During negotiations with the Commander of the Operations Centre and Deputy Land

Force Commander, General Paulo Humberto, General Bečvář became familiar with various ongoing and upcoming strategic projects and military training programmes. Future cooperation in logistics services and support in areas such as training and development is a promising area for the Czech-Brazilian military partnership.

„Brazil is a significant partner for us, especially in relation to our defence industry, and we are confident that, going forward, we will continue to develop further activities in this area,” General Bečvář summarized at the end of his visit.

– MoD –

Foto: Šárka Cook



ERA was Awarded a Contract to Install its WAM System to Cover the TMA of Sulaimaniyah Airport in Iraqi Kurdistan

ERA (a member of OMNIPOL group) announced that it had been awarded a contract to implement a WAM and ATM system covering the Terminal Manoeuvring Area of Sulaimaniyah International Airport in Kurdistan, an autonomous region of the Republic of Iraq. ERA will deliver a composite multilateration and ADS-B system for surveillance of aircraft approaching the airport, covering the lower flight level to an extension of 50 NM. ERA won the tender and will supply eight ground stations of its tried and tested MSS (Multi-sensor Surveillance System) and the ATM system ERIS. The contract was signed by the prime contractor, the company Waypoint and Kurdistan Regional Government in December 2017 as a result of a tendering process organized by the end user - Sulaimaniyah International Airport. "This is an important project which ensures that Sulaimaniyah International Airport has the best available technology. The newly implemented multilateration system will operate independently without any support of traditional radar and is hereby a full-fledged replacement for the procedural air traffic management used until now," stated Mr. Taher Abdallah, Director of Sulaimaniyah airport. MSS by ERA is a modular system easily adaptable to any terminal and wide area requirements as well as all terrain challenges. Due to their resistance to adverse weather conditions, low power consumption and their minimal impact on the environment, the WAM sensors can be easily mounted in the Kurdistan mountains and will therefore be able to cover the TMA of the airport, which is located in the middle of the valley. The team of ERA experts carried out a site survey and chose appropriate locations for the stations in January 2018. The Factory Acceptance Tests are planned for June 2018. The new equipment will be installed at the end of the year and is supposed to become operational in the first quarter of 2019. Sulaimaniyah International Airport is a new airport established in 2005, located 15 kilometres outside the city of Sulaimaniyah, in Iraqi Kurdistan and has three terminals. Kurdistan, literally „homeland of the Kurds“ or Greater Kurdistan, is a roughly defined geo-cultural region where the Kurdish people form a prominent majority population and where their language, culture and national identity have historically been based. It encompasses the north-west Zagros and the eastern Taurus mountain ranges. Current use of the term refers to the following areas: south-east Turkey, northern Iraq, north-west Iran and northern Syria. Iraqi Kurdistan first gained autonomous status in a 1970 agreement with the Iraqi government, and its status was re-confirmed within the Federal Republic of Iraq in 2005.

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Military Intelligence will Operate Czech National Satellite Centre

The National Satellite Centre (SATCEN CR) will be officially opened on July 1st 2018 by the Czech Military Intelligence as a pledge to NATO to provide Imagery Intelligence (IMINT) for military and civilian use.

„By opening the National Satellite Centre, we have effectively met one of our obligations to NATO and, at the same time, we will be supporting the work of the Integrated Rescue System and other Czech national institutions,” said Brigadier General Jan Beroun, Director of the Military Intelligence.

The Czech SATCEN will provide intelligence support to Czech military units and NATO command structures and, consequently, the Czech Republic will rank among the most important players in the field of space reconnaissance, not only in Europe but also worldwide.

The Czech Minister of Defence, Ms Karla Šlechtová, also had high praise for the system. “It is not only due to the extra capabilities of this system which relays requested information in a manner of minutes.

It is also proof that our specialists do not lag behind their peers in the rest of the world. By establishing this centre for cosmic reconnaissance, we are assuming an important role in the NATO Defence Planning process for the 21st century, as well as fulfilling NATO's Capability Targets. I am extremely proud of our technicians and managing officers,” said Šlechtová.

The National Satellite Centre (SATCEN CR) will be fully operational by the end of 2019.

Manufacturer of night vision devices for hobby and professional purposes, company ZÁHOŘÍ TRADE s.r.o. introduced the long awaited new thermal clip-on Night Pearl SEER designed according to end-user requirements at the IWA Outdoor and Classic 2018. Night Pearl SEER is focused on excellent image quality, which is accompanied by intelligent display of color background in iColor color mode. Thanks to this mode, the user can more easily recognize background details from the target. Night Pearl SEER currently uses a 384x288px image resolution, but the 640x480 px version also has a variety of features, especially for professional and security users. The advantage of the Night Pearl SEER is its versatility when using one adapter it can be deployed on a day-sight and used to hunt game or protect people's property. The high-quality aluminum body delivers the required resilience of the device, as well as the thermal sensor from France (ULIS manufacturer, member of Sofradir) guaranteeing the best possible picture in the given category.

ZÁHOŘÍ TRADE s.r.o. introduced the long awaited new thermal clip-on Night Pearl SEER





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There are two basic models BC-1, smaller, lighter version of BC, up to 11000J and the „army“ model BC-2, up to 17000J, the bigger brother of BC-1, made of SSAB HARDOX STEEL.

Both models are portable and can be wall, table car mounted, or supplied with the stand. Offering various upgrades, colors, prints as per the clients requests.

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The ORTHOS systems are a solution for the protection of persons during transport and in a place. They mutually complement and form so complex protection system.



3 | SPECIAL APPLICATION

-  **MOBILE CHECKPOINT**
mobile persons
and vehicles inspection

MOBILE CHECKPOINT is a complex system of mobile inspection station enabling security inspection of persons, luggage and vehicles when entering guarded area.

-  **UGV TAROS**
robotic system

UGV TAROS is an autonomous robotic vehicle designed for guarding strategic areas or individual properties. This robotic system provides more specific means of usage, in particular in complicated operating environments posing a high degree of risk.



Společnost REDO je předním výrobcem vysoce kvalitních produktů, zejména Modulárních nosných systémů navržených pro armádu a ozbrojené složky. Redo vyvíjí a vyrábí výstroj pro armádu, speciální jednotky, policii, hasiče a bezpečnostní agentury. Mezi naše produkty patří batohy, neprůstřelné vesty, přilby, tašky, taktické vybavení a vybavení pro speciální jednotky armády a policie, obaly na zbraně, polní lůžka a další vybavení.

REDO is a leading manufacturer of high quality products, particularly of Modular Load Carrying Systems designed for Armed Forces and Law Enforcement. REDO develops and manufactures equipment and gear for the army, special forces, police, firefighters, and security agencies including rucksacks, ballistic vests and bulletproof helmets, bags, vests, combat wear for special army units and SWAT units, cases and packaging for ammunition, rearms, and various equipment, mobile field beds, etc.

Aktivní karbonový obvaz je sterilní bandáž s aktivním uhlíkem v podobě mikro topenu se zvýšenou absorpcí indukovanou osmotickým gradientem.

Obecně řečeno se jedná o obvaz založený na uhlíku, který díky svým absorpčním vlastnostem dokáže velmi efektivně zastavit krvácení, odstraňuje křečové žíly a zaceluje rány, čímž sekundárně zabraňuje infekci z poškozené tkániny. Obvaz chrání před záněty a zmírňuje bolest. Jedná se do jisté míry o nízkonákladovou léčbu.

The Active Carbon Bandage is a sterile bandage with activated carbon in micro-filament form with increased absorption induced by an osmotic gradient.

Comprehensibly, it is a bandage based on carbon which, due to its absorption properties, effectively stops bleeding, cleans varicose ulcers, closes wounds, and thus prevents secondary infection of the damaged tissue. It prevents inflammation and alleviates pain. It is also a low-cost cure.



Václav Bauer, vynálezce obvazu:

"Není to lék v pravém smyslu slova, obvaz funguje kvůli silnému potenciálu jeho čištění. V podstatě je to jen obvaz, ale jeho účinnost překvapuje lékaře. Všechno se uzdravuje osmkrát rychleji."

It's inventor, Václav Bauer says:

"It is not a medicament in the true sense of the word – my bandage works due to its strong cleaning potential. In essence, it is only a bandage – but its potency astonishes physicians. Everything heals five to eight times more quickly."

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