Review

for Defence and Security Industry

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

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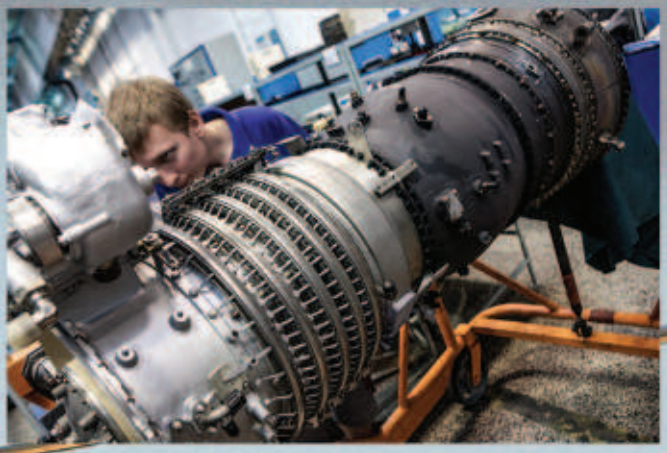

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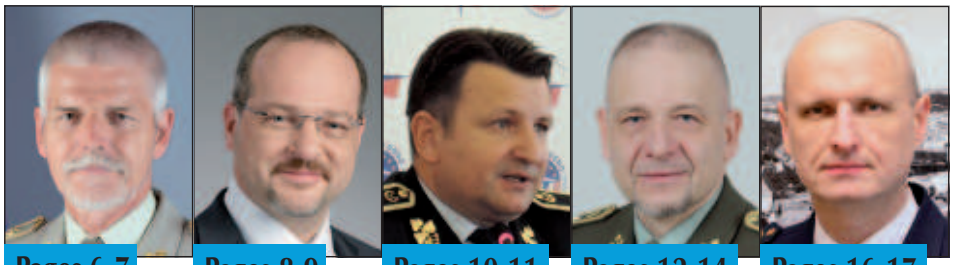

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Review for Defence and Security Industry

4/2016

A quarterly magazine representing the Czech defence and security industry. Its principal mission is to contribute to a better cooperation between the government and its agencies and the Czech defence and security industry.

Publisher
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Distribution
MS Line, s.r.o., A.L.L. production, s.r.o.

Put into print: 30. 12. 2016
Issue published: 10. 1. 2017

Key number: MK ČR E 19352
ISSN 2336-3460

Photo on the cover: GUMOTEX, akciová společnost

Dear readers,

The last issue of the Review in this year contains many interesting interviews with top-ranking representatives of NATO and state administration, domestic organizations, or Czech defence and security industry companies.

The „Exhibitions, Conferences and Seminars" section presents reports and information on major fairs and conferences which took place in the last quarter of this year, particularly the FUTURE FORCES FORUM, where our editorial team organized a Best Product Competition among journalists, or the INDO DEFENCE international exhibition of defence, aerospace and naval technologies and products in Jakarta, Indonesia, where the Czech Republic had an official national stand.

In 2017, we will be, just like at FFF 2016, the principal media partner of the forthcoming IDET 2017 event (held in parallel with PYROS and ISET fairs) for the Czech Republic. This issue presents defence and security innovations, products and activities of, for example, GUMOTEX, AGADOS, RETIA, BAE SYSTEMS, TESLA, GORDIC, ROBODRONE, KÄRCHER, EVPÚ, ROHDE & SCHWARZ, B.O.I.S. - FILTRY, LOM, AURA or VTÚ. Most of the companies listed above are members of the Defence and Security Industry Association of the Czech Republic.

At the moment, we are preparing the "Czech Defence Industry and Security Review" version in English, with an objective to provide media support to the Czech defence and security industry at the IDEX international fair in Abu Dhabi, where the Czech Republic will also be officially present. We will again distribute CDIS Review personally during the event.

Allow me to wish you all the best in 2017 on behalf of our editorial team and thank for your cooperation in 2016. I will look forward to meeting you on the occasion of other major events in 2017.

Šárka Cook, Editor-in-Chief

Since taken up the Post it has been my Job to Direct the day-to-day Business of the Military Committee

On September 2, 2014, out of three candidates, Army General Petr Pavel was elected the Chairman of the NATO Military Committee for a three-year term. He took over the highest military office of the North Atlantic Alliance in June 2015 as the first-ever representative of countries of the former Warsaw Pact, succeeding Danish general Knud Bartels and becoming the senior consultant/advisor of Secretary General Jens Stoltenberg. As a result of being elected to the new office in the Alliance, he resigned to the position of the Chief of Staff of the Army of the Czech Republic. On the occasion of visiting the FUTURE FORCES FORUM exhibition as a member of NATO's official delegation, he complied with our wish and gave us an exclusive interview in spite of his busy schedule.

General, have you managed to fulfil some of the ideas you wanted to implement as Chairman of the NATO Military Committee?

The Chairman of the Military Committee is elected by his fellow NATO Chiefs of Defence or CHoDs to represent them, to be their voice and therefore, it is not imaginable for him to have a personal agenda or a set course for the Committee. Since taken up the post in June 2015, it has been my job to direct the day-to-day business of the Military Committee and act on its behalf. My role is to provide consensus-based military advice from NATO's 28 Chiefs of Defence or Military Representatives to the political decision-making bodies of NATO and to NATO's Secretary General as his senior military advisor on all military matters. It's not always easy but I am glad that we are able to create and maintain an atmosphere in the Military Committee that allows Nations to voice their national views during the meetings but still allows us to provide clear and balanced military advice to the North Atlantic Council or NAC. All Military Representatives see the value and importance of our military advice and work hard to ensure that the Military Committee provides it in a timely and unfettered manner.

What other important tasks will the Alliance have to undertake in the New Year?

As you know, we live in an increasingly complex security environment with threats emanating from the East and from the South. At the Warsaw Summit, the Heads of State and Government took decisions for NATO to face these new challenges. I think the most important tasks that lay ahead of us is the continued implementation of these decisions. We have already achieved quite a lot. We have implemented Assurance Measures in the East and the South. The work of our enhanced Forward Presence is progressing well and the four battalions are on track to be deployed in early 2017. We have increased our cooperation with the EU on countering hybrid threats, maritime cooperation, on cyber security, on the coordination of exercises and fostering the resilience of our partners. We are working on many different fields of activity to make sure all decisions taken at Warsaw are implemented in a timely manner so that NATO continues to have the required capabilities and resources to perform its three core tasks: collective defence, crisis management and cooperative security.

What importance do you attach to the arms/defence industry in individual NATO countries and the importance of the concept that allows for fairs like Future Forces Forum and IDET in the Czech Republic?

Forums like the Future Forces Forum or even the NATO Industry Forum are important because they create a platform for politicians, decision makers and organisations such as NATO to meet with the defence industry and find ways of working more closely and more efficiently together. The reality is that we are dependent on a strong European and North-American defence industry. It has been providing NATO with the best equipment and the most modern capabilities which have allowed us for the past decades to protect close to one billion citizens living in Europe and North America. But we have to make sure that that is also the case in the future. So it is important that we continue to strengthen the cooperation between NATO and the defence industry.

At the same time, what NATO does is important for the industry because NATO plays a key role in deciding how much we spend on defence, on what we spend and how we spend. We have a senior NATO committee, the Conference of National Armaments Directors (CNAD) that is responsible for promoting the cooperation between countries in the armaments field. CNAD is leading initiatives to bring new thinking to the customer/supplier relationship and the possibilities to continue the enhanced NATO-industry relationship. NATO can, also, make a large difference by encouraging greater multi-national collaboration and better coordination of allies' requirements.

But another problem remains, the European defence market is too fragmented. In Europe we have 19 different types of infantry fighting vehicle, in the United States they have 1. In Europe we have 13 different types of air to air missiles, the United States has 3 and European nations have 29 different types of naval frigates, the United States has 4. This fragmentation exists for many types of military equipment: on land, in the air, and at sea. This is a challenge, especially as NATO Allies move to meet the pledge we made in 2014 – to invest 20 % of all defence spending in new equipment. So many different types of equipment training, research and development exist which makes it more expensive and reduces the competitiveness of our industry as well as limits our interoperability. We need competition, we need different industries but we need some greater degree of coordination and standardization when it comes to requirements and investments from the European governments so we can get economical scale and reduce the unit costs of the different kinds of capabilities and equipment. I welcome the EU's initiatives to consolidate the European defence industry. This will mean greater economies of scale, and better capabilities for everyone.

How is the Czech defence industry perceived at NATO?
The Czech Republic has traditionally had a strong defence industry and one that is respected for the high quality of its products. What is important for NATO is that we continue to work closely with defence industries so that we ensure that we get the right kind of equipment and capabilities.

How do you see the EU situation after Brexit? EU leaders and a number of countries suggest that there may be some obstacles to unblock (which blocked EU defence cooperation in the United Kingdom) and to strengthen European defence, for example in the form of permanent structured cooperation.
While it will take time for the consequences of "Brexit" to become clear, the UK's position in NATO will remain unchanged. It will continue to play a leading role in our Alliance as can be seen with it leading an eFP battalion. However this also means cooperation between NATO and the European Union has become even more important in the wake of the UK referendum. Our security is interconnected and we face greater and more complex security challenges than a few years ago. Neither NATO nor the EU are entirely equipped with the tools to tackle these challenges. But, together, we have the full tool-kit and our partnership will continue to grow. But what is important to underline is that there is a need for complementarity rather than duplication. Many NATO Nations are in the EU, both organisations have their own requirements which Nations are trying, within the best of their abilities, to meet, requesting more from Nations will also require that NATO and the EU invest or spend better. The idea is not for each organisation to have one of each but to work better together better in order to do more with common capabilities.

The role of the defence industry is changing from a simple material supplier to an active participant in discussions on future technologies, concepts and technical requirements for defence systems. And not only at NATO, EU attaches to the DEFENSE industry received a dignified place in the DEFENSE system at the Council meetings in 2013 and 2015. (The December 2016 Board will also consider OBP). How do you see this trend?
NATO has always recognised the importance of the defence industry. More so since 2009 when ACT started hosting the NATO Industry Forum, initially called the ACT Industry Days. Reinforced by the Framework for NATO Industry Engagement, NATO is engaged in a smart and open dialogue with the Industry. This year's NATO-Industry Forum brought together top leaders from the Industry, NATO and European institutions, and the discussions ensured that NATO and Industry clearly understand each other's needs and are better positioned to provide the necessary security to NATO citizens and contribute to all significant international military missions for the foreseeable future.
We are fostering our relationship with the defence industry but we also need to look within to figure out what we can do better. We are now in the midst of a new defence planning cycle. In Wales, Heads of State and Governments agreed to increase their defence spending to 2 % and after years of budget cuts most of the NATO Allies have started to increase their defence budgets. We have turned a corner and I think these budgets will continue to rise in the foreseen future. Nations have started doing their parts and now we need to make sure that we do the same as an Alliance. NATO and the 28 allies

need to identify what we need, what kind of capabilities, what kind of equipment, which are priorities and in what timeframes and this is why the defence planning process is extremely important.
It's perhaps one of the most important things NATO does which is to coordinate with allies to really work together and fill the gaps when it comes to different kinds of defence capabilities. This is to make sure that we have enough capabilities but also the right kind of capabilities and some kind of division of responsibilities among the NATO allies. When we have finished this defence planning cycle NATO's task and the task of the governments will be to make sure that we implement and follow up on the guidelines and the defence planning conclusions. For example, the guidance could relate to capabilities such as joint intelligence, surveillance and reconnaissance, precision guided munition and strategic airlift which have been identified as current gaps.
NATO also influences what allies spend on and what NATO spends on by our common funded projects, like AWACS. And we have already started to work on the project which shall succeed the Early Warning Airborne capability. Or the new Alliance Future Surveillance and Control System which will be another big project and investment. But the reality is that the efficiency of procurement is much lower than expected because of the high level of fragmentation of the European defence market. So spending together is a way to spend smarter. We do need to spend more but we have to also make sure that we spend in a better way.

The US presidential elections were held. Do you expect changes in U.S. defence priorities and could they have any impact on NATO?
We have heard a lot of different statements during the American campaign but they belong to the campaign and this phase is over. We have now a President-elect and a new phase is coming. We have to wait for the new administration to be in place and to articulate their policies and only then can we start reacting, if at all. We have also heard a lot of different concerns about NATO's unity and cohesiveness and about the relevance of the Alliance. These concerns are quite natural. We are living in a world with more complex international security environment. However we all acknowledge the value of the Alliance for our collective security. We all acknowledge that NATO provides an unique platform for cooperation, for interoperability and for consultations, not only among the Allies but also with all 40 partner countries. I strongly believe, despite occasional negative view of NATO or some of its activities, NATO has markedly positive merit for its Allies and Partners. In terms of relevance, I also strongly believe that NATO is more relevant today than it has ever been. No one doubts that today we live in an unsafe and unsecure environment, that there is no universal peace and that we need security guarantees, that we need a platform that would offer all of us the ability to defend ourselves when and where we need to. And in that sense, NATO is very much the vehicle for this strategic defence as it is a vehicle for strategic partnerships based on shared values, principles and interests.

General, thank you for the interview.

Šárka Cook

Some Products of the Czech Defence Industry are advanced enough even for Japan's needs

Our editorial office has cooperated with Mr. Tomáš Dub, Dipl. Ing., former Deputy Minister of Foreign Affairs and Deputy Chairman of the editorial board of CDIS Review, since 2010. At the moment, he is the Czech Republic's Ambassador extraordinary and plenipotentiary in Japan, where rather significant changes and reforms have recently been going on, which also open new export opportunities for our companies. We asked His Excellency for an interview, which turned out to be brief, but very interesting.

Your Excellency, how are Czech national interests promoted in Japan?

It is first necessary to identify these interests. Their center is unquestionably in economy. Japanese investors are the second largest group in the Czech Republic, right after German ones. They have coming to our country since the 1990's.

This phenomenon was contributed to by a combination of several factors. On the one hand, the Czech Republic is conveniently located in the middle of Europe, which makes it attractive from a logistic view. It also underwent a speedy and successful transformation into a standard market economy.

On the other hand – and only a few people realize that – the Japanese economy is located not just on the Japanese mainland; as Japan lacks raw materials and energy sources and is relatively far away from some of the major global markets, it has a part of its economy integrated into economies of states in which the Japanese invest. Statistical data alone shows only exports from Japan, but a major part of Japan's production is in fact shown in export statistics of other countries. This means that the Japanese invest in our country, employ our people, and export to European markets. At the moment, there are over 300 Japanese companies operating in the Czech Republic, with more than 42,000 employees, which is an impressive number. They thus make a substantial contribution to our economic well-being. Our principal national interest in relation to Japan is therefore to retain and further expand these investments.

Nevertheless, with the dramatically changing international political situation, Japan is increasingly becoming a subject of another essential national interest of the Czech Republic, namely security. The unstable situation in the Ukraine and other post-Soviet republics on the one hand and the development of Chinese military activities, particularly in the South China Sea, on the other hand make Japan a potential partner in maintaining peace in our regions. And although Japan is several thousand kilometers away, there are just three states between us, Slovakia, the Ukraine and Russia. One may say we are almost neighbours, and some security risks are common for both countries.

What are, in general, the opportunities for cooperation with Japanese businessmen? What could our defence and security industry invest into in Japan?

According to statistical data, Japan is our second most important export destination in Asia, right after China. And although Czech exports to Japan are just a half of those to China, we must realize that Japan has only 127 million inhabitants which means that, in per capita terms, an average Japanese buys much more Czech production than his or her Chinese counterpart.

However, little is known about the length or tradition of our business relations. Only a few people know that we have been exporting Czech hops to Japan for more than a century, that the first automobile of the Emperor was a Laurin & Klement, that uniforms for the Czechoslovak Legions during the Great War were sewn in Japan. We thus have business relations going a long way back. On the other hand, one of the latest projects is a Czech investment into a mincemeat production plant in the city of Tojama, which may seem a bit surprising in the country known for the consumption of fresh raw fish. However, the fact is that Japan is not self-sufficient in food, importing 60 % of food products it needs, and together with them also eating habits of the countries it imports food from.

However, no cooperation of defence and security industries has been possible since the end of WW2. Not just because each of the countries belonged to a different geopolitical group, but chiefly because defeated Japan initially was not supposed to have any army at all and was to be protected by the victorious United States. Nevertheless, the arrangement proved untenable shortly afterwards, and Japan has thus been building its defence forces since the 1950s, taking into account security situation developments. For a long time, the only residue of WW2 was the exclusive orientation toward the United States and a self-imposed restriction of military activities only to defence operations on the Japanese mainland islands. However, Japan has made up for the territorial and numerical restrictions of its defence forces by quality of its defence production. Japan can, for example, manufacture its own supersonic aircraft. Due to export restrictions or bans imposed on defence products, however, Japan was not known as a manufacturer of defence products and remained an isolated country in this respect for long decades. Of course, except for its cooperation with the United States.

However, the situation has dramatically changed due to developments in the region, and Japan adopted new security acts in the autumn of 2015, which have in fact torn down the barriers existing until then. The Japanese Self-Defence Forces are thus allowed, subject to certain conditions, to intervene anywhere in the world, including in defence of Japan's allies. Japan may therefore become a new security partner and ally and a part of various security architectures. At the same time, restrictions of exports and imports of defence products have been lifted, and a new force in the international security environment has been born, seemingly overnight. And a force that is really worth attention. Japan is a country which possesses, for example a latest generation tank manufactured by Mitsubishi, with nano-crystal steel composite armour, which outperforms the Russian Armata MBT, a country manufacturing submarines which has recently commissioned a modern helicopter carrier, a germ of sorts of a future aircraft carrier that proves, inter alia, Japan's capability to build a regular-size aircraft carrier. There is also a lot of speculations about Japan's capability to manufacture nuclear weapons in the event of a crisis, prompted by Japan's own cosmic programme and stocks of tens of tons of plutonium. However, the historical experience of Hiroshima and Nagasaki makes Japan an active opponent of the proliferation of nuclear technologies for military use.

There is definitely a completely new room for action opened for the Czech Republic in Japan. Some products of our defence industry are advanced enough even for Japan's needs. For example, if the Japanese use Czech passive radars for the purpose of air traffic control, there is certainly a possibility that they may be put to defence uses as well. However, the most interesting thing would be, in my opinion, joint research and development of new weapon systems. As a NATO member nation, we rank among potential partners of Japan and we should make use of it.

Is there any joint project – a joint venture?

In exports, definitely. As a matter of fact, any export transaction involves a sort of partnership with a Japanese subject, a fact which is necessitated by the need to cope with the different nature of the Japanese market. However, the time for investments has only begun. The abovementioned Czech mincemeat production plant is an example.

What is the business approval procedure in Japan, what should our businessmen be prepared for?

The first thing I would like to mention is a tremendous, even revolutionary change that Japan is experiencing right now. Today's Japan is different from the one ten years ago, and it will be different ten years from now. Just as an example – ten years ago, Japan was not supporting tourism at all, the reason perhaps being to maintain traditions and the uniqueness of the culture and life on the Japanese mainland which they then believed crowds of tourists

might disturb. I really do not know. The fact is that the almost exclusive use of Japanese language and characters practically rendered any movements of tourists in the country impossible in those days. This was happening although Japan is beautiful, attractive for tourists, and could have earned a substantial profit from tourism. The situation is utterly different today. The traffic system's signs are also in English; all of the sudden, the country has opened up for tourists, and there is even a government agency promoting incoming tourism. The country is being rapidly internationalized and the government is skillfully using the forthcoming 2020 Olympic Games in Tokyo to speed up the process. The government is also implementing economic reforms. To improve the competitive ability of Japanese corporations, it is opening the market much more for foreign companies. Other barriers are falling down as well, not just the language one. However, the mentality remains. We must realize that Japan is a large country, but an island one, and to some degree isolated. Not just geographically, but because of its own choice. It had been ruled by Togukawa shoguns for three hundred years and hermetically sealed. The Japanese did not know the outside world and the world did not know them. They had been living their traditional life for centuries, they had not been communicating with the rest of the world too much, but they also had not known war for three hundred years. Only the Industrial Revolution and geopolitical changes made them make a fundamental change, and they opened up after long centuries. Now we have something like a second round of changes, and the Japanese society and economy are opening as well. Nevertheless, the Japanese still make a distinction between what's their own and what's alien. The "own" category includes the family, firm, friends, or even all Japanese together. The "alien" category includes everything except the family, firm, friends and Japanese islands. They approach the alien in a cautious rather than hostile manner. They need time for a proper examination, for example of a business partner. Only when they have found out they can believe him, they will remain his partners – practically forever. They even do not sign any contracts with him, they simply do business on a handshake basis. Even if the partner is in dire straits, they do not leave him to find a better one, but try to help him and maintain the relation – it is more important for them than the profit. Or, to put it in a different way – their profit is the relation, plus a financial gain which is also important, but not necessarily most important. Understanding this principle is perhaps more important than the knowledge of Japanese, but those who learn the language will understand the principle of the "own" and the "alien".
All of the above is to show that entering the market quickly, make a quick buck, and perhaps leaving quickly are not things that are typical for the Japanese market. To enter the market, one must put up with a verification period, not difficult, but lengthy, during which contacts are checked, which is followed by a stable, long-term and low-risk development phase.

Which of the Czech companies have already established themselves in Japan?
For example Elmarko, Zoner Software, Linet, Moser, Mavel, Plzeňský Prazdroj, Budvar, Tonak or Bohemia Hop, and others.

What are the most frequent problems that you have to cope with in your job?
Perhaps the greatest challenge is understanding the country and in particular the changes that have been going on here. Japan bears comparison with the United States. It is the third largest economy of the world, a democratic country, an ally, also a superpower, but we still are not quite aware of it, and know little about it. This is something we will have to work on to be able to make use of all opportunities which it offers.

Your Excellency, thank you for the interview and let me wish you every success in your work.

Šárka Cook

Czech Security and Defence Industry Companies Rank among the World's Best

The restructuring of the Police of the Czech Republic, in particular the merger of its two elite departments, Organized Crime Unit and Anti-Corruption Police, prompted an unprecedented reaction. The Organized Crime Unit and Anti-Corruption Police have become parts of the National Organized Crime Centre, which started working on August 1, 2016. However, police officers also participate in missions abroad, maintain law and order at home, or carry on with the modernization programme of the police corps. We asked Police President Major General Tomáš Tuhý for an assessment of police activities in the last year.

General, the Police of the Czech Republic has been through another year under your command. What kind of year was it?
From my perspective, it was a year that the members of our corps do not have to be ashamed of. In addition to our work which directly affects the lives of our citizens, i.e. investigation of criminal acts, maintaining law and order, and providing general security, we also made a distinct footprint on the international stage. At the moment, we indeed rank among respected partners, be it in the V4 format or elsewhere in Europe. As a matter of fact, we actively collaborate with other police forces in the exchange of information, investigation of serious crime, and also in ensuring security and safety in connection with the present immigration crisis.

Is the illegal immigration indeed so serious?
Things that are happening along the borders of the most affected countries are no media bubble. The numbers of people who are moving there and try to cross the border illegally are very high, which means that securing and protecting our European territory is a difficult and demanding task. However, a very important one. This is also why we have been very actively involved in these operations, and now we send our officers to missions abroad on a very regular basis. The countries that accept our help are really very grateful for our service and assistance that we provide in the field. The Police of the Czech Republic does not have any special foreign mission unit, but we have established a so-called reserve unit which has been included in the database pursuant to a resolution of the Government of the Czech Republic. This means it is not an organic unit; it contains police officers who meet conditions for being sent abroad. These people are then trained for the different contingents on the basis of an order of the police command. It should be emphasized that it is a nationwide cross-section of police officers, different units, or members of regional directorates, and that they are selected so that their participation in the mission does not cause any organizational or other problems at their regular place of work.

Can you tell us how many police officers have been involved?
Since autumn 2015 until now, almost five hundred police officers have participated in missions in Hungary, Slovenia, FYROM, Serbia, Bulgaria and Greece. As to the format, our policemen operate under bilateral agreements in Hungary, Slovenia and FYROM, and under the FRONTEX agency in Greece and Bulgaria. In Hungary, they also operated under the Visegrád Four group.

What contingents do you plan in 2017?
For the time being, I can say that we will definitely operate in Serbia and also reinforce the border protection in FYROM. So far, the estimated number is less than three hundred policemen. These countries have already announced their interest in further cooperation, which is surely proof positive of the good work of our officers. I personally visited some of them in the field and could see how professional our force is. Unfortunately, the states plagued by the migration crisis and illegal migration often found themselves unable to cope with the situation, having no experience with the negative phenomenon, and our officers were very professional, active, and sometimes even substituted the work of local policemen.

What kind of equipment did they have in the field?
I have repeatedly emphasized that Czech security and defence industry companies rank among the world's best, which is also a positive message for the Police of the Czech Republic. Last year we were again actively implementing our modernization programme, and we naturally field all the equipment as soon as we get it. When abroad, our policemen were using mainly their standard gear, sidearms and vehicles, but we also deployed a few thermal cameras and some special protective equipment. As long as Czech companies keep actively developing modern technologies, safety equipment and in fact everything that the Police of the Czech Republic can make use of to do its demanding and specialized job, we will be happy to use them. And we can, for our part, a good quality feedback that should always be used to improve a given product.

Last year, you mentioned favourably the spending of funds from the European Union and the allocation of funds that Minister Chovanec negotiated for the Ministry of Interior. Are you satisfied with the year 2016 as well?
I think it is appropriate to be satisfied. As to EU funds, we managed to spend them again on new equipment and vehicles. The attitude of Minister Chovanec to the Police of the Czech Republic continues to be positive, because it is, after quite some time, an active and realistic one which understands needs of police officers and the Police as a whole. One can never guarantee good results without adequate means, support and necessary modernization.

You mentioned foreign partners and mutual cooperation. Do we have any feedback from them regarding the Police of the CR?
2016 was a really rare year for us in this respect. We had many important international meetings where we played a major role. I am referring, for example, to the European Regional Conference of Interpol that we hosted in Prague. There were many meetings, discussions and exchanges of information among police chiefs and crime combat professionals. And this was exactly where we got a very positive feedback from Interpol leaders. I am proud of the meticulous organization of such a complex event we managed more or less ourselves, and all who attended it appreciated the unbelievable professionalism of our people. We have a new representative in the organization, a member of the European Committee of Interpol, namely Mgr. Šárka Havránková, Head of the Department of International Police Cooperation of the Police Presidium of the Czech Republic. Our experts also presented the so-called "Relief" project which draws from traditions of the Czech tool marks examination school and uses its practical methods to combat the production and distribution of drugs. Of course, the conference's main topics were border protection, terrorism, and computer crime. Another very important event I would like to mention was the meeting of police chiefs held on the occasion of our presidency of the Salzburg Forum. Here our partners and we agreed that it was necessary to make use of modern communication channels, available tools and above all mutual security cooperation. Without sharing information and cooperating, we will be hardly able to face and cope with security threats of today's world.

What does the leadership of the Police of the Czech Republic plan to accomplish in 2017?
We simply must continue the modernization programme of our corps, which means we are in for, in particular, a replacement of our weapons. These should be used primarily by first-response patrols and our Rapid Reaction Unit and include new assault rifles, submachine guns, accessories, and sniper rifles. We will also modernize our vehicle fleet, with a second tranche of so-called Schengen buses, which contain special equipment for checking documents and are primarily intended for the Alien Police. We also expect to purchase monitoring vehicles with IR cameras, new vehicles for the Protection Service, a special intervention vehicle for the Rapid Reaction Unit, and five special vehicles for CSU experts. We plan to proceed with the replacement of personal gear, especially uniforms. This year will also see purchases of ballistic protection components, such as ballistic vests, helmets and shield, which are one of the essential priorities of our plan. We will have to purchase alcotesters and test sets for narcotic and psychotropic substances. This acquisition is one of the measures taken under the Departmental Action Plan and our supervision over compliance with traffic rules. We are preparing investments into the commissioning, renovations and upgrades of our immovable property or into a modernization of our SCO radio-communication network as well. There are of course many more projects, but I would prefer to "invest" heavily into our people. I hope we will be able to maintain a trend of increasing wages of police officers. We also carry on with our recruitment campaign; I am in a very difficult situation, considering what we can offer to newcomers and the current low unemployment rate and situation in the labour market. We will keep looking and trying to attract not only candidates for jobs of rank-and-file policemen, but also IT specialists and professionals educated in law. We have not yet given up efforts to increase salaries of police officers and civilian employees in 2017.

General, thank you for the interview.

Šárka Cook

Interview with the First Deputy Chief of the General Staff Lt-General Jiří Baloun

The military career of Jiří Baloun started at the Military Secondary School in Opava and subsequently at the Military Technical University in Liptovský Mikuláš. Practically everything he has been doing so far was revolving around signals. He started literally from the scratch, from command of a radio relay platoon and company to being a specialist of the Department of Signal Troops at the General Staff of the Army of the Czech Republic, Chief of Signal Troops, military representative of the Czech Republic at NATO and EU in Brussels, becoming the First Deputy Chief of the General Staff in May 2015 and being promoted to the rank of Lieutenant General on October 28, 2015. Between 2005 and 2009, he gave us altogether four interviews and was also a member of our Editorial Board. With the hundredth anniversary of the Signal Troops of the Army of the Czech Republic getting nearer, we asked Lieutenant General Dipl. Eng. Jiří Baloun, Ph.D., MSc., for another interview.

General, could you briefly characterize your principal years during the last decade, i.e. since the time you were the Chief of Signal Troops?

In 2007, I left the position of the Chief of Signal Troops after four years and in a situation when we had had a number of important achievements at our belt. In 2004, we had re-embarked upon the practice of intensive training and exercises; I can mention the first exercise code-named "Elektron", or a subsequent series of "Network Challenge" exercises. We prepared a new information concept and created a then unique NEC (Network Enabled Capabilities) architecture. An element reacting to cyberspace threats, known as CIRC (Computer Incident Response Cell), was established. In my opinion, a change relating to the anniversary of the Signal Troops was also very important.

After graduating from the US National War College, it was this experience, together with my previous position of the director of AKIS (Communications and Information Systems Agency) with major acquisitions and support of operations, enabled my intensive involvement in the work of the Force Planning Division of MoD as its director. Together with my fellow-workers, we prepared substantial changes in the planning system, laid the foundations for the Catalogue of Capabilities and the Capabilities Achievement Plan at the Ministry of Defence. We also made a major step toward better use of tools supporting the planning process. Unfortunately, the decision to move the entire planning department under the then Economic Division of MoD as of January 1, 2010, had a devastating effect on planning capabilities of the Army of the Czech Republic and we can still feel its consequences.

In 2011, I was offered an opportunity to manage our military representation office at NATO and EU in Brussels for three years. Post on this position, unlike others in the structure of our military elements, allowed me to directly participate in NATO and EU planning and decision-making processes on behalf of the Czech Republic.

After Brussels, I was appointed Deputy Chief of the General Staff – Director of the Joint Operations Centre. In this capacity, I was directly controlling all our task groups, units and individuals participating in foreign missions and operations and was also responsible for the implementation side of the crisis management system. The greatest benefit for me were much more intensive contacts with troops, units and formation, whether during training or during deployment.

You spent several years studying in the United States and later in Brussels, working in NATO and EU structures. What knowledge and experience did you acquire there? Can you make use of them in your current job?

I have to say that studying at the National Defence University, and in particular at its National War College already mentioned above, was not just the ultimate military education opportunity for me as a soldier, but also priceless personal experience. I could see and listen to hundreds of prominent military and civilian personalities. My lecturers included, for example, ex-Secretary of State Kissinger or the Jordanian prince. I had an opportunity to make use of a practically endless number of study documents and materials. Moreover, I was elected the president of foreign students, so for one year, apart from my duties as a student, I had to handle both pleasant and less pleasant aspects stemming from different cultures, religions and human characters. And, believe me, it was quite a challenge.

As to my stint in Brussels, the events in and around Libya, Crimea and Eastern Ukraine, Syria, Somalia, Central African Republic, Mali and other countries gave me countless opportunities of seeing them from a close range and, above all, participating in related plans and operations, as mentioned above. I believe, for example, that our involvement in the mission in Mali was a success, and a visible one at that. However, there are less visible achievements as well, one of them being our involvement in so-called DCMs (Deployable CIS Modules) and EU Deployable Packages. Thanks to it, we have now the latest NATO technologies at our unit in Lipník nad Bečvou, and experts trained thanks to NATO and EU funding who are, moreover, sent to missions and operations where they acquire necessary experience. All this will pay off in the development of our national command and control support systems. I have to admit that I "was pursuing interests of the Signal Troops a bit" while in Brussels, naturally in the interest of the Czech Republic, NATO and EU as well.

What is your key task and goal at the moment, i.e. in the position of the First Deputy Chief of the General Staff?

When assuming this position, I resolved to tackle a few tasks

I wanted to fulfill, naturally in addition to the principal one – to be a responsible statutory deputy of the Chief of the General Staff of the Armed Forces of the Czech Republic. First and foremost, I wanted to develop and elaborate the "Concept of Development of the Army of the Czech Republic" into lower-level sub-concepts and capture them in a methodologically different way. This is something that we are succeeding at, also thank to cooperation with the Center of Security and Military Strategic Studies in Brno and other institutions. Furthermore, I have undertaken to improve the selection of soldiers for positions abroad, where we now have about 200 of them. This has also been going well, and we even now have laid the groundwork for sending people abroad in 2018. I am also trying, as the person responsible for this area, to improve criteria applying to candidates for training courses for high-ranking officers and General Staff courses, including their fulfillment, to that we have all prerequisites in place for improving the standard of our future top-level commanders. And one of the most important tasks is the preparation and implementation of a new order stipulating, to put it simply, career advance rules. It is, in my opinion, qualitatively different from the previous regulation and I hope that its implementation, which starts early next year, will help us select even better people for top slots.

You are a "heart and soul" signalman, a lifelong professional in the Signal Corps. How do you see, from your viewpoint, the standard of the defence and security industry of the Czech Republic in the last four decades? Can you give us any examples?

Signals, i.e. in fact communication and information systems, have been accompanying me since my youth. Like most boys, I was attracted by flying and wanted to become an astronaut, but I could not manage that before 1978, when our first astronaut was launched into space. I studied and graduated in electrical engineering and in the 1980's I was self-teaching myself in programming, using my private, then very imperfect computer. Without looking farther ahead at all consequences, it gave me some groundwork to build on in the years to come. However, I have always perceived this area from an operational viewpoint, as something supporting command and control functions. As the Chief of the Signal Troops, I have had quite a few opportunities to get acquainted with the work of industries, be they domestic or international, and evaluate its achievements. I have always appreciated the work of our companies most of which have been led by educated and experienced people. Without going into details, there are examples of firms developing and manufacturing radars, surveillance and radio communication equipment, data security systems and other products. There are "big" names from the past, tradition, and experience. This is what we should build on.

Literally on the eve of the hundredth anniversary of the Signal Troops, a general partnership agreement between the Czech subsidiary of AFCEA and the Defence and Security Industry Association of the Czech Republic was signed, symbolically in the building of the General Staff of the Army of the Czech Republic and in your presence. How do you personally perceive this event?

This agreement is related to support and promotion of the hundredth anniversary of the Signal Troops in 2017. When preparing for the then traditional celebration of the sixtieth anniversary counted from 1945 in 2004, I asked myself why we were celebrating it like this, but I found no specific answer. I asked historians from the Military Institute of History for help and we together identified, after a few months of joint efforts, documents referring to the establishment of a telegraph company within the structure of an army corps of Czech legion as of October 30, 1917. So we turned the "wheel of history" a bit. As early as in the end of 2004, I issued an order to prepare the next anniversary celebration in 2007, which would be based on a historical event directly related not only to the then yet nonexistent Czechoslovakia, but also the army and, first and foremost, signal troops. When I was studying documents that the working group established for this purpose kept discovering, evaluating and selecting, I was not only proud of being a part of this service, but also very humble; as a matter of fact, I became more aware that whatever you were doing in your life or job was intended primarily for your

descendants. It is therefore important to do your job well so that those who will come after you have something to build on. And as was at the beginning of the event mentioned above, I appreciate even more the support of AFCEA and DSIA toward the hundredth anniversary. I would be very happy if the anniversary did not become just another day in the calendar, but was preferably a reminder of people who contributed to our well-being today.

A new Public Procurement Act which also concerns tenders and was drafted by the Ministry for Regional Development has been enacted. According to information available to us, comments of MoD and ACR have not been reflected in the act. How do you think the General Staff can help speed up such lengthy processes?
I believe the deficiencies in the abovementioned sphere are related to a discrepancy between powers and responsibilities. It goes without saying, at all levels of management and regardless of the professional position one holds, that having a position and some authority is not possible without having an appropriate and clearly defined responsibility. Absence of this principle is reflected in legislation and administration which become chaotic and actually significantly reduced the ability to act. This is not just a Czech problem – it is a problem for example of the whole European Union. The voices calling for a simpler administration must be louder, but it is equally necessary to assign concrete responsibilities and intensify audit activities with clear conclusions. The General Staff of the Army of the Czech Republic as a leading user may contribute to reducing the duration of different stages of the public procurement process by setting clearly defined and well-formulated requirements, close cooperation with other elements of the defence sector (particularly insofar as step-by-step assessments of the acquisition project progress are concerned), and immediate implementation of remedial measures. The implementation of the first stage, which is largely in our hands, is presently on the right track. We have an approved Concept of the Development of the Army of the Czech Republic, we have set requirements and priorities, and we have very good backing documentation for the 2018 – 2022 medium-term plan, which is to be approved by the minister in the end of March 2017. Here I must emphasize that, contrary to information in some media, the army knows what it wants. Other stages of the process are managed by other elements of the defence sector, but the army is prepared to take part in their fulfillment.

What role could be played by Military Technical Institutes or state-owned enterprises in such cases?
I do not see the role of state-owned enterprises as an involvement in a purely administrative part. I would rather welcome their increased role in assessing the armament and technologies that are available or being offered from the viewpoint of how they fulfill requirements of the army, whether they have a potential for further development, or how much they will cost throughout their lifecycle, as well as in a practical evaluation and comparison of parameters of different products. I also expect they will participate in tenders and will be a guarantee of the highest quality. The same applies to situations in which they will be, for various reasons, direct suppliers.

When acquiring highly sophisticated systems for the army, do you also consider the outsourcing option, as is often the case in, for example, the Swedish Army?
Outsourcing and its share in the achievement of capabilities of armed forces is a very sensitive matter. Opinions regarding this option change in time, paradoxically often with some profoundly negative experience. However, this can be, in my opinion, predicted with some probability. The share should not exceed a limit at which the armed forces are still able to sustain, albeit with problems, at least a minimum necessary level of a given capability for a long enough time. These limits are different for different areas. The more "critical" a given capability is for the state's needs, the closer it is to the definition of a "combat" capability or the higher the probability it will be earmarked for deployment outside the territory of state, or the Alliance or EU, the lower the limit. However, it still holds true for the army that people, our soldiers and officers, hard-trained and educated, if possible with some experience in managing various crises, are our most valuable asset.

Developed Western nations make 80 to 95 % of their purchases from their own companies. According to our sources, the Army of the Czech Republic acquires only 30 to 40 % of the goods and services it needs from Czech firms. The Ministry of Defence vehemently speaks about support of the domestic defence industry, but the practice is quite different, save perhaps for so-called economic diplomacy. How do you view this issue?
I believe that our country should have and maintain at least some essential capabilities that would allow it to adapt to different security scenarios, in particular worse or worst-case ones. This does not concern only industry, but other areas as well. An industrially strong Europe should be based on strong national, or regional, industry. However, as we are a small country, it is necessary at the national level to opt, namely cooperation, for example and particularly in the framework and under the umbrella of the Defence and Security Industry Association. I believe there is a potential for it in our country. This is not about making use of domestic companies at all costs, but about providing appropriate conditions and, on the other hand, making use of opportunities.

General, thank you for the interview.

Dipl. Eng. Miloš Soukup
Photo MoD CR and Šárka Cook

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The Intervention Must not Cause More Damage than the Event itself

This year has seen the addition of yet another unit to the Order of Battle of the Fire and Rescue Service of the Czech Republic. Its members are residents of Prague Castle and their principal mission is to protect the castle compound and the adjacent firefighting district. We asked Colonel Radek Stránský, CO of the Prague Castle Fire Department, about details.

Colonel, the Prague Castle Fire Department was established this January. Still, it is not entirely without history. Could you give us a brief overview of the historical presence of firemen at Prague Castle?

The history of professional firemen at Prague Castle dates back to 1994. It was in that year that a unit, then named the Enterprise Firefighting Unit and composed of employees of Prague Castle, became a part of the Fire Rescue Brigade of the Capital City of Prague. In the unit comprising just one section with a ladder was initially earmarked only for the protection of Prague Castle. A second section, which was the first one to move out in the event of an emergency in other parts of the city, was added later. An analysis of intervention times undertaken in 2012 resulted in a logical step – an expansion of the firefighting district to include Dejvice, Suchdol, Sedlec, and Lysolaje.

As of January 1, 2016, Prague Castle has its own firefighting unit. It is a part of the organizational structure of the General Directorate of the Fire and Rescue Service of the Czech Republic and its commanding officer is directly subordinated to the Director General.

When did the last fire in the Prague Castle area take place?

The last truly big fire took place in 1989, when the roof of the Royal Summerhouse caught fire. The firefighting unit of Prague Castle was subsequently professionalized. As a matter of fact, the fire, or, more accurately, the analysis of its consequences resulted, inter alia, in professional firemen ultimately coming to the Castle for the first time ever in 1994.

And there has not been any fire since then?

No, apart from minor incidents. The Castle is protected by a dense network of electronic fire alarms. Using the equipment and our experience, we try to identify the threat soon enough.

Let's go back to the establishment of the unit. Why is it subordinated directly to the Director General?

It is simple. Some of the tasks assigned to the unit are quite specific, one of the reasons being that they are related to the protection of Prague Castle compound, which is the seat of the head of our state and comprises a number of priceless historical monuments. Based on an analysis of the last few years and taking into account the deteriorating international security situation, it became obvious that direct control was the most effective option. Subordinating the Prague Castle Fire Department directly to the General Directorate of the Fire and Rescue Corps of the Czech Republic was a logical step simplifying the command and control structure and, first and foremost, streamlined the control and operations of the unit in emergencies. A similar principle of command and control has been implemented by the army and the police for quite some time; the police unit of the Prague Castle is controlled directly by the Police Presidium, the army by the Military Office of the President. The firemen have just caught up with other security or armed forces.

Do you differ from other firemen in any way?

Our members perform all duties commonly performed by professional firefighters. At the same time, they encounter practically all types of emergencies in their work. Our fireman must be well-versed in the fireman's trade, must be able to handle everything that he can come across in his routine line of work. In this respect, we are very similar. However, we are somewhat different with respect to our other activities. We operate in a specific environment – it is not just Prague Castle, but also its historically and architecturally priceless surroundings. For example, we work on a monument protection programme, contributing a fireman's angle of view to it. Firemen learn how to handle movable and immovable relics and historical monuments, how to evacuate them, or how to approach an intervention which requires paying more attention to preservation of valuable assets. To put it simply, you should not cause more damage than the event itself. Local knowledge, which is needed to handle the situation effectively, is crucial. You must know not only where this or that door is located, but also what is waiting for you behind it. Because of the security situation in Europe, we have also come to a conclusion that we need a specialized chemical team. And the third segment of our activities is represented by training of our guard of honour,

a ceremonial unit appearing during top-ranking events of the Fire and Rescue Corps.

The name of your unit may prompt an impression that you spend all your time inside the walls of Prague Castle. However, you mentioned a firefighting district reaching as far as the boundary of the region of Central Bohemia. So, how far do your firemen travel?
The Prague Castle Fire Department comprises two sections. One of them is always ready to protect Prague Castle, the other is assigned to interventions outside the castle compound. It is the first-choice unit for interventions in the municipal districts of Hradčany, Malá Strana, Dejvice, Suchdol, Sedlec, and Lysolaje.
Our firefighting district comprises a number of important buildings, including the Office of the Government (Straka's Academy), House of Deputies of the Parliament of the Czech Republic, Senate of the Parliament of the Czech Republic, Ministry of Foreign Affairs, Ministry of Finance, Ministry of Defence and General Staff of the Army of the Czech Republic, and several universities, including residence hall – the university campuses in Dejvice and Suchdol.
Furthermore, the unit intervenes if there is a traffic accident or an emergency in nearby sections of the Blanka Tunnel. The firefighting district also includes the Vltava River and its Čertovka Canal, which means the unit also fulfils tasks related to the protection of the area of the capital city of Prague against floods.

How does your routine intervention look like? What is the structure of your interventions?
Outside the Castle compound, we deal with standard cases that one can encounter in an urban environment. Most of our interventions are of a technical nature and comprise just about everything – from rescuing animals and elimination of hazardous situations to rescuing people. Fires represent another large group, from fires in dumpsters or vehicles to fires in apartments or office blocks and manufacturing facilities. We are sited next to a major traffic hub, so we often intervene at traffic accidents of all types. Similarly, we handle leakages of hazardous substances during their transport by road, or various "dangerous envelopes" which we generally apprehend in mail rooms or at the post offices falling into out firefighting district.
As mentioned above, the tasks performed by the Prague Castle Fire Department are to some extent specific. They also include an electronic fire alarm system (EFAS), a dense network of fire sensors and cabling, with its terminal in our ops room. The ops room is also the place to which fires on the premises of Prague Castle are reported. Moreover, the unit closely cooperates with other security elements of Prague Castle – the Prague Castle Police Unit, Personal Protection Detail of the President, Military Office of the President, or Castle Guards. Our firemen thus also fulfil tasks related to security arrangements during some events taking place on the premises of Prague Castle.

Do you also actually intervene in the castle area, or are your activities there just preventive? In other words, do you only try to prevent fires there?
As a matter of fact, we do both. We take a tour of the Prague Castle premises practically every day during a so-called inspection round the purpose of which is to get acquainted with the situation. Our firemen visit attics, cellars, technical room, but also offices and ceremonial areas. They thus get a feel of the environment and also check the condition of fire protection and fire prevention arrangements. If done properly, the inspection round takes about a year, and then we start anew, usually with some changes. We also perform the same procedure in areas surrounding Prague Castle, visiting selected buildings, such as embassies, ministries, or particularly important historical and cultural monuments. In general, we place a great deal of emphasis on knowledge of the local topography, which is crucial for a successful intervention. For example, one of our colleagues is a graduated historian. We do the utmost to make our members know more about a particular historical monument than just where it stands.
As to our intervention on the Castle's premises, there is an almost full assortment of cases that firemen normally handle. Because the compound is so vast, it is quite common for us to deal with traffic accidents, leakages of fluids from vehicles, pumping of water after flash rainstorms, securing damaged trees in the gardens of the Castle against strong winds, catching swarms of bees and wasps in the summertime or removing dangerous snow overhangs and icicles in the wintertime. I think all of this shows that the job of a Prague Castle fireman is far from boring.

Colonel, thank you for the interview.

Šárka Cook
Photos: Archive of the PCFD

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Even after Sixty-Five Years, the Company GUMOTEX is still Providing Protection. The Rescue Systems Products are used by Militaries, Fire Brigades and even Rescuers

In 1950 when the first shipments of protective clothing sewn from rubberized fabric textile left the plant in Břeclav, nobody would probably have dared to predict the future of the company in 2016. Since that time, GUMOTEX has undergone a dramatic development; although, the important values have remained. The emphasis is on modern technologies, innovation, and quality of performance, as well as the idea that the company's products should primarily protect human health and contribute to the comfort and safety of customers.

Inflatable tent GTX - 09A

But let us move on. Since the nineteen-fifties, GUMOTEX, akciová společnost, has gradually expanded its engagement with other products made from rubberized fabric and other materials. Whether they are focused on inflatable boats, air mattresses, or even objects from polyurethane foams, customers have always appreciated their quality and reliability. After more than 65 years of existence, GUMOTEX has successfully established itself in the domestic as well as the global markets of rubber products and technical foams.

Today, the company exports nearly two thirds of its six product groups into more than 30 countries around the world. In the vast majority of cases, it is to the demanding markets of the European Union. Although production is dominated by orders for automotive and furniture industries, GUMOTEX is well known even to boaters or to members of rescue systems. An inherent part of the company's portfolio is the product group called GUMOTEX Rescue Systems.

They will not leave you in the lurch

The philosophy behind the GUMOTEX Rescue Systems could be simply summed up by an old proverb that says "a friend in need is a friend indeed". The products, in this product range, have been employed in various types of crisis situations where you need to work quickly and accurately and when the users require first-class quality from their equipment. There is a lot at stake – human lives, health, or property. GUMOTEX has helped with protection for more than 20 years.

Rescue teams first came into contact with GUMOTEX's products under the foreign partners' brand. Since 2008, the company has operated in this segment under its own brand called GUMOTEX Rescue Systems; and since that time, has managed to stand out at many international conferences and exhibitions. Among the best known, for example, are Interschutz fair held in Germany, military trade fair Eurosatory in France, or fair Intersec in Dubai.

Seasoned, universal professionals

What is more important than the success at the exhibitions is the fact that the equipment by GUMOTEX Rescue Systems has earned its spurs in the practice. Also the breadth and comprehensiveness of the products offered, which enable the use of individual products in situations ranging from floods through to chemical accidents, to humanitarian crises or wars, have been behind the popularity among rescue teams for many years.

Moreover, the potential of GUMOTEX Rescue Systems is perhaps best illustrated by the range of inflatable rescue tents. It includes the very practical smaller, bigger, and in between, combinable with each other shelters as well as large-capacity modular halls. So whether you need to protect against bad weather within a few minutes of leaving the patrol vehicle, or quickly built a field hospital, provide accommodation, or garage your technique, the GUMOTEX products will not leave you in the lurch. GUMOTEX uses in their manufacture the latest technology of glued or high-frequency welded structures which contributes to their flexibility and resistance. The usability of the tents may be further extended through adapting them depending on the requirements of the customer – by means of inner liners, variations in windows, up to accessories. Easy handling is never taken for granted.

For floods and chemical threats

In the cases when flood water is streaming in, you would hardly find a better helper than GUMOTEX Rescue Systems. Also in such a situa-

Modular high-capacity inflatable hall MHHF-1A


Inflatable tent HF - 46A

tion additional equipment to the tents would come in handy, such as flood barriers. During a flash flood, the cylindrical barriers have been proven to be useful for the fight against this turbulent element: they use the same element. Thus, it is water because they are filled with water. Compared with sacks of sand, they are much easier to handle; and two people can manage to build a barrier. If a straight biblical flood is rushing towards you, it is time to use the highly stable barriers with steel structures. They can increase the already existing dikes or river banks; yet they are easy to connect and to disassemble which allows their later use. Rescuers in action can be helped by inflatable boats with the engine hidden under the structure so as not to endanger a drowning person and allow for easy manoeuvrability, even in an urban terrain. When the going gets tough, rescue floating walkways, waterproof bags, or dry suits Northern Diver, which GUMOTEX has imported from Great Britain, are indispensable.

And now imagine that a siren has sounded in your vicinity. The radio has reported an accident at a nearby chemical plant, and hazardous substances are escaping into the environment – nothing pleasant. In such a case, speed is the most important factor; and that is what GUMOTEX Rescue Systems provide to the rescuers. Within a few moments, a team dressed in special protective suits arrives deploying decontamination showers including basins and water containers which can be managed within a few minutes. Spray heads and distributions are already installed in all tents, even in a deflated state. After filling them with air, it is just enough to connect the tent to a water supply; and fighting the chemical threat may start.

They settled not only in the Czech Republic, but also worldwide

Hardly anybody places such uncompromising demands on the equipment like the rescuers. It must be practical, withstand extreme conditions, withstand enormous loads; and under all circumstances, it must be one hundred per cent reliable. Add to this, the requirement that all products have to be handled easily, intuitively, and of course quickly. Maximum flexibility along with deployment in difficult to predictable scenarios brings together a cocktail of challenges which only few companies can meet satisfactorily. And a less than perfect result is not possible on this pitch.

The fact that GUMOTEX Rescue Systems is kicking the Premier League, despite the above-mentioned requirements, is evident by the ever-growing interest shown by rescue teams from abroad as well as by prestigious orders on the domestic front. Rescuers, fire brigades and police forces, military units and members of the Red Cross, have all had experiences with our inflatable tents, decontamination showers and boats from this product line all around the world. They have been used in interventions and responses not only in the Czech Republic or in neighbouring countries, but also on both parts of the American continent, in Southeast Asia, and Africa.

The main objective of Gumotex is that these tools perform their functions perfectly and precisely meeting not only the needs of the consumers, but also the stringent standards of the teams; therefore, we are developing directly with them. A result of a similar cooperation, among others, are the products which the company supplies to the Czech Army.

They do not get scared neither at combat deployment

Orders for the Army are always the most challenging ones both in terms of safety requirements and simple documentation requirements.

A modular high-capacity hall MHHF-1A undoubtedly deserves the flagship marking in this case and not only because of its impressive size with a width of 8.3 meters and a length of 12.5 meters, but it is not a clunky piece despite its huge proportions. Working with the hall is made easier thanks to its division into three separate inflatable modules. Their connection only takes a matter of moments. Thanks to the generous roominess, it can serve many purposes; for example, you can use it as a field hospital or a dining room. Through the 3 meters wide and almost 4 meters high gate. A great technology is even able to enter the hall easily; so it can be used as a service centre. For the suspension of any needed devices, you can use the loops which are integrated into the structure of the hall.

Innovators from GUMOTEX have not forgotten the comfort of the soldiers. Insulating liner and sleeves for the connection of heating, air conditioning, or laying down the necessary cabling allows a pleasant ambient inside even when outside there is Siberian –40 °C or tropical +60 °C.

Transformation depending on the needs

The variability of the hall expands when interconnected with the army tent under the name HF - 46A. Facilities measuring 44 square meters are transformed depending on the needs in the control room, accommodation facility, or field hospital. Just like the modular hall, this tent can be equipped with extensive accessories, such as a sun shield, internal insulating lining, levelling floor, or electricity distribution. It is made from quality flame retardant materials.

A novelty among the products developed specifically for military use – and a "little guy" in comparison with the previous ones – is the inflatable tent GTX - 09A. With a weight of only 65 kg, it is an ideal companion for units using combat vehicles. It can be easily combined with the big ones into one unit by means of a connecting collar. Moreover, these tents can be linked behind each other; and you can create a facility where you can stay overnight or use as a material warehouse.

Both of these products were manufactured to meet the strictest military standards. They are catalogued as a means of military at NATO and have their numbers NSN (NSN 0148340000824 and NSN8340160069496).

www.gumotex-rescue-systems.com

Special wishes? Even an inflatable tank is not a problem

- Did you think that you would never see the words "inflatable" and "tank" together in the same sentence? So we have a surprise for you. GUMOTEX manufactured a dummy tank T-72 on a scale of one to one for the Military Research Institute in 2004; the only non-inflatable part was the gun barrel.
- It may not be a usual order, but it definitely proves that for GUMOTEX the only limit is the customer's wishes. The company's policy mantra is represented by the principle to not be afraid of facing new challenges and to listen to its partners. If they want to develop a new product, we will seek a common path with them. The company also offers its capacity for producing OEM products or semi-finished products that can be part of a comprehensive solution to the customer.

PK 4 (Kaga) – Mobile Field Kitchen

For full-menu catering for up to 350 persons

Evolution in the world of field kitchens

The main motivation for making the mobile field kitchen PK 4 (Kaga) was the fact that the last product of this kind has been in operation for 60 years. The old field kitchen PK 60 has been used up until now by the Czech Army and by the integrated rescue system. Thus, we needed to develop a new field kitchen, which meets all current requirements. PK 4 offers easy handling and enabling for operation. It is mobile, flexible, made of high quality materials and has passed terrain tests successfully.

PK 4 was developed by Czech company Agados, which specializes in development and manufacturing of trailers. The company has experience with deliveries for foreign armies as well (Quatar, Sweden). It has 25 years of experience on the market.

Advantages:

- Chassis allows redeployment of PK4 in difficult terrain
- Fast and simple preparation of PK 4
- Usage of modules on the trailer and also set up separately
- Modular design for flexible application and wide meal preparation versatility

General description

With its modular structure, the PK4 is a trailer cooking system capable of adjustment to the cooking habits of any user group in field operation. The special feature of the PK 4 are four free places on the off-road single-axis trailer can be freely configured to individual requirements. The system can be ready for operation within 30 minutes and depending on the equipment configuration, the PK 4 system is suitable for cooking a complete menu for up to 350 people. For rescue operations, depending on the equipment configuration up to 900 persons can be served a simple meal. All the cooking modules of PK 4 are made of high grade, stainless steel

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and they meet the highest hygienic requirements. The rounded corners of the cooking module and their seamless design permit convenient cleaning using a minimum of time and detergents in compliance with the HACCP- concept (vypsat). The PK 4 can be used with different burners, e.g. pressure, atomization and a gas or solid fuel burner. All of them designed by Karcher Futuretech.

MODULES OVERVIEW

1. Frying – Baking Module 25 L / 78 L

The roasting oven module is transportable and can be used in the PK4 Modular Field Kitchen or as an independent cooking unit. The roasting oven module allows various preparation methods such as cooking/boiling, blanching/poaching, stewing, steaming, braising, frying, baking and keeping food hot.

2. Pressure-Cooking Module 125 L, double walled

The double-walled 125 l pressure-cooking kettle can be operated independently. It is transportable and can be used in the Modular Field Kitchen PK4 or as an independent cooking unit. The cooking module consists of seamless stainless steel boiler and a stainless steel casing, which comply with the highest hygienic standards.

3. Cooking module 125 L, double walled

The double-walled 125 l cooking kettle allows various preparation methods such as cooking/boiling, blanching/poaching, stewing and steaming. All parts coming in contact with food are made of seamless, high-grade stainless steel.

4. Convection oven

Convection oven KCS 15 MF combines the possibility of preparing food in steam and hot-air oven. The Multi-Fuel boiler technology makes it ready for creating heat within the cooking space independently on the energy source (e.g. kerosin, diesel oil, paraffin). KCS 15 MF can be operated independently through convection connection of 220 V, however for the operation a small generator of 1,5kVA is enough.

View to the History – Field Kitchen PK 60

POSSIBILITIES OF MODULES EXTENSION

5. Frying module 70 L

The roasting boiler oven module can be used in the PK4 or as an independent cooking unit. It is particularly suitable for the preparation of large and small pieces of meat, such as steaks.

6. Stowage Module

The stowage module is transportable and can be used in the MFK PK4. It is intended for storage of accessories and has stainless steel work top.

7. Refrigerator module 400 L

This refrigerator module can be used in the Modular Field Kitchen PK 4. It is ready for operation immediately after arrival on site and allows a long-term supply of fresh fruit, vegetables, meat, sausages, cheese, eggs and dairy products. The refrigerator module can be operated at an ambient temperature of up to +49 °C. It operates on electrical energy, i.e. a 230 V 50 Hz.

8. Deep –Freezing Module 400L

The 400 l freezer module is intended for the long-term storage of food, keeping it fresh without the loss of nutrients and vitamins. It can be operated at an ambient temperature of up to +49 °C. The module operates on electrical energy, i.e. a 230 V 50 Hz.

www.agados.cz

CV90 – the Solution for Soldiers and Economic Growth

The most modern IFV in use and production – the $ 750 mil. upgrade and new build of CV90 to Norway marks a new beginning for the already highly-successful CV90 IFV. But the successful story of the CV90 goes back more than 20 years of experience during which BAE Systems Hägglunds determinedly has been working in enhancing and developing the CV90 family.

Initially, the CV90 was created for the Swedish Army, designed to provide maximum availability and cost-efficiency throughout its operational lifespan, focusing on extreme and strategic mobility, high survivability, lethality and survivability and, not the least important, development potential.
The production of the CV90 began in 1993 and now, after twenty years of continuous development with six different customers and over 4 mil. engineering hours, the available payload has gone from 8 metric tonnes to 17 metric tonnes and one can establish that the CV90 MkIII configuration is the world's most modern combat vehicle in active service!
All together BAE Systems Hägglunds has 1,280 contracted vehicles: Sweden 549 CV9040 Mk 0, Norway 104 CV9030 Mk I, Switzerland 186 CV9030 Mk II, Finland 102 CV9030 Mk II, Denmark 45 CV9035 Mk III and the Netherlands 184 CV9035 Mk III – decades ongoing development to meet the requirements from the most challenging customers.

With the Norwegian contract signed in June 2012, BAE Systems Hägglunds can add 41 more vehicles and the upgrade of another 103 Norwegian CV90's to the list.

– The success of the CV90 spells design efficiency, says CV90 Platform Manager, Dan Lindell. The art lies in achieving the best balance of cost, survivability, mobility and firepower. Survivability is the most important factor, though this must not be at the expense of mobility, which is a big part of force protection. Our vehicles are 10 per cent lighter than those of our competitors, while providing the same level of survivability. This balanced solution is our biggest strength.

The CV90 family has been deployed by national forces, the UN and NATO in missions across the globe including in Afghanistan by the Armies in Sweden, Denmark and Norway.

– The user feed-back of the CV90, in operations, has shown that the design and capabilities are as effective as intended. For example, the Danish CV9035 has had 100% mission availability in Afghanistan, tells Dan Lindell.

An important part of the customer contracts is the industrial cooperation and offset set up, using a proven concept to build long-term, mutually beneficial relationships. The technology transfer agreements have provided the customers with economic benefits alongside robust, future-proof combat solutions.

– We offer a complete through-life support commitment to CV90 customers. Our experienced Support Services teams work from the earliest stage of specification all the way through to phase-out, ensuring the systems provide maximum effectiveness throughout operational life.

All seven CV90 customers are now members of the CV90 User Club. Under that umbrella group resigns the CV90 System Development Board, where meetings are held yearly in Örnsköldsvik, hosted by BAE Systems Hägglunds. The SDB feeds back operational experience, which is channeled into modifications and improvements to the vehicle which has proven to be an excellent way of increasing BAE Systems Hägglunds market interaction as well as maximizing the benefits for the customers.

Looking at the future of CV90, there are several business opportunities and a global interest. Nevertheless, the historical CV90 IFV market is small and the competition will increase, so to continue to be the front runner, CV90 needs to level up to a new generation during the coming years – therefore the development never stops. Implementation of new technologies in the flexible architecture is essential.

The CV90 to Norway is the latest development of the CV90. 4,5 years in to the programme the delivery is on time and budget, the 100 per cent contract value of industrial cooperation back to Norwegian industry is years ahead of plan. It will be reached and closed far ahead of the contract closing date for industrial cooperation 2027. The most important for local industrial and economics value creation is to create long term capability and competence growths for the local industry and future business opportunities, where also Norway confirms the commitment from BAE Systems.

www.baesystems.com

ReWET NG – Commanders Terminal for RBS 70 NG

ReWET NG is a new generation C2 commander's terminal for an air defence section commander. It has been developed in order to integrate the RBS 70 NG firing units into the Czech Army air defence system. However, it allows integration RBS 70 NG into air defence systems of other countries as well.

BRIEF DESCRIPTION

ReWET NG is designed to be a firing control unit for section commanders including essential C2 features.
Basic terminal handling is provided by a control block including switches for terminal mode settings and also LEDs for basic terminal diagnostics and status indication. An advanced control is provided by a rugged laptop equipped with capacitive multi touch display, touchpad and backlit keyboard. Power for the terminal is supplied by AC and DC power sources including a pair of accumulators. Communication with a superior unit is provided by a block of interfaces and attached radio. The equipment is integrated into a rolling rack with removable lids. The rack offers protection with the convenience of sturdy built-in wheels and a handle. ReWET NG design enables the operation in personal NBC protection suit or in winter gloves.

CONECTIVITY

Block of interfaces provides a communication with the RBS 70 NG firing unit via a metallic Ethernet line. For communication with a superior unit a radio interface is provided using a VHF F@STNET radio and also link interfaces (V.32 bis modem, SHDSL and optical Ethernet) are present. An interface for the headset (part of the ReWET NG equipment), RS-422 periphery device (e.g. PPS GPS DAGR) and external GPS antenna are also present.

DEPLOYMENT

ReWET NG enables easy deployment within 5 minutes. Deployment is permitted in a harsh environment with temperatures from -30°C to +49°C in conditions complying with IP65. An external DC or AC power can be connected from a power generator or transportation vehicle. Two hot-swappable accumulators enable standalone deployment. Accumulators are charged automatically whenever an external power is connected.

OPERATION

ReWET NG is controlled from the rugged laptop with Linux OS. An air picture taken from a superior unit is displayed on the terminal screen overlaying (if enabled) a map or other supporting graphic layers. On command from a superior unit a section commander selects a target for engagement. Consequently the terminal starts sending the selected target data to the RBS 70 NG firing unit and the weapon operator is cued on the target.

An engagement zone and a 'time window' indicating proper time for firing is calculated based on the armed missile (Mk-2 / Mk-3 BOLIDE), terrain and selected target parameters (position, speed, altitude). This information is used for giving the fire control order at the right time.

The terminal operation is automatically recorded (display and voice communication) and can be replayed when required.

Before section movement a new position can be evaluated in the terminal considering protected objects location, terrain, expected enemy targets heading and altitude. Consequently the route for movement to the new position can be planned as well as other planning (battlefield sketches, etc.) can be made on the terminal screen.

TACTICAL DATA

- Control computer
  - Processor Intel Core i7-3517UE, 1.7 GHz, RAM 8 GB
  - Sunlight readable capacitive multi touch 13.3" (1600 x 900 pixels) display
  - Regular keyboard with backlight
  - Touchpad
  - GPS receiver with internal antenna
- Communication interfaces
  - Data connection with RBS 70 NG weapon adaptor
  - Modem V.32 bis
  - SHDSL Ethernet
  - Optical Ethernet
  - RS-422 interface (option)
  - VHF PR4G F@STNET radio (including antenna and tripod)
- Geo location and navigation
  - 2x GPS receiver (one in control computer)
  - Connection to an external GPS antenna
- Applications
  - Fire control including evaluation of the best time for firing.
  - Map layers based on standard vector or raster data
  - Creation of tactical sketches
  - Firing unit area coverage evaluation
  - Terminal screens and audio recording and replaying
- Power supply
  - Power from power generator (230 V AC) / vehicle (+12 to +24 V DC) / internal accumulators
  - Run time from accumulators min. 8h / 4h (Standby / Operation mode)
  - Power consumption max. 160 W
- Transportability
  - Rugged construction in 19" LLDPE rack
  - Dimensions 626 x 368 x 610 mm
  - Terminal weight 39 kg
  - Total weight (including cable winders) 66,8 kg
  - Built-in wheels and a handle
  - Fast deployment (less than 5 minutes)
- Environment
  - Storage temperature -33 °C to +58 °C
  - Operating temperature -30 °C to +49 °C
  - IP 65

www.retia.cz

From ELEKTRA to TESLA

The beginning of the history of TESLA, akciová společnost (joint stock company), dates back to 18 January 1921. It was on this day that the ELEKTRA joint stock company was established with a capital of CSK 5 million and a light bulb production plant for 300 workers was built and opened in Hloubětín (Prague). An important date in the development of this plant was 1932 when it was bought by the Dutch company Philips which transformed its production to radio receivers. This led to the modernisation of the plant resulting in its high work productivity.

The start of the new era of the Hloubětín plant was marked by nationalisation on 28 October 1945 and the creation on 9 March 1946 of the TESLA national enterprise of weak current and electronic plants.

RR4702 DATEL

The newly established TESLA national enterprise could look forward to a wonderful future. The components base was quickly consolidated, work was redistributed among each plant and production launched of new models of receivers. High quality instruments were exported abroad where there was unprecedented interest in TESLA products. The enterprise managed to improve and introduce the Philips labelling system consisting of a three or four digit code and additional letters which marked the type of power feed. It also managed to keep pace with world development and it was only the arrival of transistors after 1950 that brought the first obstacle. Research institutes still kept pace with foreign development, but production showed no interest as radio tubes were well-established. At the time there the famous statement of the minister of heavy industry who was in charge of the electronics industry: "We will not manufacture semi-conductors, but wait for full-conductors". There is also the statement of another electronics boss that: "Transistors won't be manufactured because nobody needs them".

In spite of this production began in 1958 of transistor radio receivers and further new products were introduced to the production processes such as printed circuit boards, plastics and ferrite materials. However the enterprise was no longer able to catch up with world development. The same obstacle as that of transistors became integrated circuits in the 1960s. Once again production turned its back on them.

In the 1980s production was launched in Tesla Rožnov of licensed Toshiba colour television in-line screens. A CD player and videocassette player appeared in the market in cooperation with Philips. After 1990 the production of consumer electronics ended and each plant was gradually dissolved. Today only a few enterprises remain engaged mostly in special production. It is strange that plants were very quickly wound up with so-called clean rooms in which semi-conductor components were produced and developed.

TESLA, akciová společnost, is the successor of one of the first electronic enterprises in the territory of the then Czechoslovakia, which was established exclusively with Czech capital under the name. As of 1932 it became the property of the Philips business concern and belonged to Philips until 1945. The production programme ranged from the production of light bulbs, radio tubes, radio receivers and military production to radio and television transmitters. The company has been operating under the business name TESLA since 7 March 1946.

The first medium-wave radio transmitter was commissioned in 1923 and the first 59 m short-wave transmitter came several years later. The first 5 kW capacity television transmitter was delivered in 1953 and installed in Prague together with an aerial system. The first radio transmitter measuring instrument was produced in 1948 and for a television transmitter in 1954. The first delivery of a relay link dates back to 1953 for the route between the television studio and the transmitter.

TESLA gradually built up a network of radio and television transmission stations in the territory of the former Czechoslovakia and significantly contributed to the construction of transmission centres in the former COMECON countries. As well as transmitters so customised aerial systems were also delivered and installed. In the territory of the former USSR alone it supplied more than 1500 transmitters for over 60 % of radio and television transmissions. Many radio transmitters were sold to Egypt, Algeria, Yemen and Syria despite competition from other world manufacturers.

TESLINK 27MSW

TESLA, akciová společnost is also a prominent manufacturer of military technology. Military production began as far back as World War Two and it rapidly developed in the second half of the 1960s with the development and deliveries of radio relay links especially for the army of the former Czechoslovak Republic. After a decline in the early 1990s there was a revival of the development of an entirely new generation of radio-relay links. TESLA, akciová společnost became the general supplier of a stationary microwave network for the Army of the Czechoslovak Republic and is currently servicing and maintaining this network.

The mainstay of the development and production of TESLA, akciová společnost is the technology of microwave links for civil and military use. Microwave links are usually highly efficient and an economically affordable alternative to fast data transmission. TESLA, akciová společnost is the producer and supplier of professional high-capacity point-to-point and point-to-multipoint microwave systems for wireless communication and data transmission for licensed and license-free bands, for direct link of local networks in various customer buildings. It makes use of several types of technology for these purposes, above all depending on the demands on reliability and the economic aspect of the technical solution.

TERA anti-radon system

Some of the other most important activities are:

- Installation and service of security and fire alarms, CCTV, ACS
- Mounting of printed circuit boards
- Servicing of the army stationary microwave network
- Comprehensive delivery and servicing of microwave links
- Design and assembly of the structured network
- Servicing of HARRIS tactical communication systems

Currently we offer the following products:

RR4702 DATEL

- RR4702 radio-relay equipment designed to create high-capacity relay links (LOS radio; point to point) in frequency band NATO IV (4400 ÷ 5000 MHz)
- high transmission rate of up to 320 Mbit/s
- standardised GBit Ethernet interface
- possibility of software configurations
- remote surveillance based on the SNMP protocol, web server
- application of ACM technology

TESLINK 27MSW

- designed to create high-capacity point-to-point links in 27 GHz and in further bands
- high transmission rate of up to 320 Mbit/s
- standardised interfaces
- possibility of software configurations
- remote surveillance based on the SNMP protocol, web server
- application of ACM technology

TERA - system for measuring and regulating radon in residential premises

The TERA regulation system enables wireless measurement and regulation of the concentration of radon in residential premises. Measuring radon probes distributed in a building provide wireless transmissions of current readings of radon concentrations to the central unit. If the set readings are exceeded this unit transmits a wireless command to a climatic unit (fan) and ventilates the contaminated premises. The TERA regulation system is a cheap and economically non-destructive solution of a curative anti-radon measure not just for existing houses and buildings. The TERA system is certified by a standard test at the Czech Metrology Institute according to the Act on Metrology No. 505/1990 Coll. as amended, as the set measuring instrument.

www.tesla.cz

Safety and High Quality of unloading Devices

The young and developing company Dependable Solutions s.r.o. deals in the development and manufacture of devices used to safely unload a weapon and to ensure safe handling. The unloading devices are primarily intended for police and army forces which manipulate with their weapons fairly often.

Our unloading units (bullet crushers) can safely stop all calibers from 22LR up to cal. 50 BMG. These properties are internationally certified by an authorized National Test Laboratory and the devices are protected under a registered industrial design. Their low weight and compact size guarantee easy handling and portability. The device can be simply mounted on a tabletop, wall, or stand, as well as on the interior side of police and military vehicles, so that verifying that a gun or another weapon is empty can be accomplished upon embarkation, which means that it is possible to prevent a potential injury caused by handling the weapon carelessly.

Dependable Solutions s.r.o. has always cared about the safety and high quality of its devices. We cooperate with police and military units, trying to modify and further develop our products so that they meet specific needs of their users. Thanks to excellent properties of our Bullet Crusher product line, our products are used to satisfaction of police and military not only in Europe, but also in other regions. They can also be seen at mobile border guard posts, and find their customers in the civilian sector as well (shooting ranges, arms shops, courts, arms repair shops), basically in all places where safe handling of weapons comes first.

We supply our products primarily to European customers (e.g. to police forces of the Czech Republic, Slovakia, Finland, Belgium, Germany or Sweden), but also, for example, to Israel, Česká zbrojovka, Slovak airports, or security personnel of BMW. However, most of our clients are state organizations (special units, customs administration, courts, police academies).

www.2dds.cz

VTÚ, s.p. (The Military Technical Institute) inaugurated unrivalled Testing Service Equipment-3D Seismic Stand

Maintenance of energy self-sufficiency and prevention of dependence on energy supplies (originating frequently in potential risk countries) that is general concern as well as strategic interest of most of the governments (highly or less developed). In order to maintain this independence, various types of power plants are built or modernised (thermal, hydroelectric or nuclear).

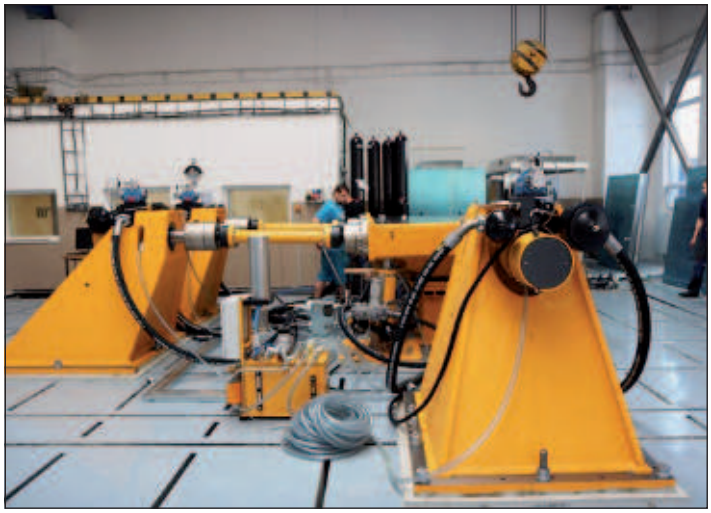
According to the WNA (World Nuclear Association) statistics, there were 440 nuclear reactor operated in 30 countries by May 2016 with total installed capacity of 384 006 MW. That represents approximately 12 % of world electricity generation. There are 71 nuclear reactors under construction worldwide, more than 150 are planned and on top of that 300 are under consideration. Their total installed power capacity should reach 360 000 MW.

Both in case of new constructions and modernisations it is crucial to meet eligibility criteria for faultless operation of most of the technologies (fittings, pipelines, turbines, reactor vessels, control, monitoring and communication systems and others).

Technology eligibility criteria of reliability and faultlessness correspond with type of power plant, they will be used in. The highest criteria level is, obviously, applied in case of nuclear power plants, having in mind that consequences of potential accident might be disastrous (great number of casualties; crucial impact on local infrastructure; environmental burden).

Technology qualification comprises of procedures to verify reliability and faultlessness of nuclear power plants, according to the valid and gradually tightening up legislation. Tests of mechanical resistance (vibrations) and seismic evaluation also take part the qualification. These test are performed by Accredited Test Laboratories, fully equipped with appropriate apparatuses. One of them is operated by VTÚ, s.p. as Accredited Test Laboratory No. 1103 located in Vyškov.

There are several types of exciters, used for technologies evaluation. Differentiated by physical principles, those are either electrodynamic or hydrodynamic. Subsequently we can distinguish monoaxial and multiaxial exciters.



Currently the most demanded tests are those with the highest possible accuracy of simulation calculations. This is achievable with three-axial test stands only. Global trend, in case of mechanical resistance, is testing on monoaxial stands. However, independent three-axial exciter is critical for authentic seismic evaluation. Accredited Test Laboratory No. 1103 commenced trial operation of three-axial seismic stand in June 2016, being the first facility in the Czech Republic. The initial demand from customers exceeded expectations and confirmed that decision to acquire this apparatus was good. Currently bookings have to be done up to few months in advance.

Basic technical specification of hydrodynamic stand:

Frequency range	0.1 – 200 Hz
Maximum load	10,000 kg
Table – dimensions	2000 x 2000 mm
Table – degrees of freedom	3
Maximum axial force X / Y / Z	640 kN / 400 kN / 640 kN

Software for sinusoidal vibration, random vibration, strokes and RRS transformation.

First class facility

Acquisition of three-axial hydrodynamic seismic stand represents accessibility of the unique testing facility equipped with modern technology at the highest European level. This test laboratory is able to provide a wide range of services in the field of mechanical resistance, vibration aging and, above all, significantly improved seismic evaluation. Applications of this apparatus include but are not limited to energy sector (mostly nuclear), automotive, agricultural, construction or defence industry testing. Academia representatives have also shown their interest in test cooperation.

Ceremonial inauguration took place on September 1, 2016 in presence of Minister of Defence of the Czech Republic Mr. Martin Stropnický and Director of VTÚ, s.p. Mr. Jiří Protiva. "It is unique multipurpose device. Important fact is that its applications are not limited to defence industry. I personally consider launch of this service in VTÚ as great success," said Minister Stropnický.

Director of VTÚ, s.p. Mr. Jiří Protiva added: "Start of operation of the seismic stand represents expansion of expertise of VTÚ, s.p. in testing area. State-owned enterprise becomes more attractive for potential customers, offering another prime level service. This unique testing technology is additional upgrade of VTÚ's capabilities."

Author: Pavel Lang
www.vtusp.cz

Do We Know the Arms of Our Enemies?

For a long time, cybernetic crime has been everyday reality affecting absolutely all of us; the reality that we have to efficiently fight. Unfortunately, the general knowledge of enemy and especially of his weapons is more than sad.

Ignorance is the sin

The absolute general ignorance of the reasons for the attacks, their means and ways in which they are carried out, as well as their features, characteristic, and potential impacts are successfully unlocking the gates of the security systems that are otherwise quite fairly protected; and what is perhaps worse, they result in questioning the launch of efficient defence, and they even make it impossible quite often. Let us at least briefly describe why, from where, and how a threat in the form of cybernetic attack can come. It is worth noting already in the beginning that even the reputable specialists do not have a completely identical opinion of the terminology or even definitions; and in the literature, as well as on Internet, we can find a number of different names and various definitions of the identical items. Nevertheless, let us try to introduce a certain system in the issue and create at first a basic classification. We will later return to certain categories and study them in more detail.

Cybernetic attacks

Cybernetic attacks include generally a huge spectrum of activities carried out through the tools of information and communication technologies with the intention to unlawfully dispose of the assets or property of the attacked person or entity. We can divide them roughly into four categories: cybernetic crime, hacktivism, cybernetic espionage, and cybernetic war. Despite the fact that the motivation and targets of the attacks are different for each group, the individual categories are not disjunctive and can overlap sometimes to a great extent.

Cybernetic crime

Cybercrime, cybernetic crime, called often also computer crime, includes a broad spectrum of unlawful activities targeted at a computer or equipment connected to a computer network. Perception of computer crime is different in different countries. The U.S. Department of Justice distinguishes three categories of computer crime: the attacks during which computer is a target, for example, for its content or when getting access to network; the attacks allowing the use of computer or equipment as an arm, for example, for the targeted DDoS attacks; and the attacks targeted at using computer as the tool for additional criminal activities, for example, to store the unlawfully obtained data. The interpretation of cybernetic crime in the old continent, Europe, is much broader. It means a large set of harmful activities, including the unlawful data manipulation, penetrations of the systems, disturbing their integrity, or copyright violation. However, it also includes illegal gambling, sales of prohibited goods, such as arms or drugs, but also production, provision, distribution of, and forcing to children pornography.

Hacktivism

Hacktivism is a neologism created by connecting the words hacking and activism. It stands for the attack or unlawful system penetration motivated by political or social targets. The attackers are called hacktivists. By their attacks, they most frequently seek the activity of the affected system to bring attention to a certain political or social case. They place various statements on the webpages of the affected organizations or institutions, or they try to block the webpages or at least to limit their availability. They show thereby their apparent power and capabilities, and at the same time, they try to bring attention to the case as well as to themselves, especially the media attention.

Cybernetic espionage

Cybernetic espionage is targeted at getting unlawful access to confidential information. It most frequently concerns the information kept by the state, public, or government institutions; however, cybernetic espionage is frequently targeted also at the commercial or technological property of companies or firms, especially at the documentation to new products, technologies, and/or data of strategic nature.

Cybernetic war

The terms cybernetic war, Cyber war, or also Cyberwarfare stand for the virtual conflicts caused by the politically motivated attacks on computers or information systems of the rival. The attacks are usually conducted through the Internet. The intention is to disturb or prevent from the activities of financial, administrative, military, or strategic systems.

In the cybernetic war, in accordance with the slogan "the end justifies the means", a broad spectrum of various types of attacks is used. It also includes sabotage by misusing the system of management, resulting in harm to or putting military, but also important civil, communication, or service infrastructure out of operation.

Global and targeted attacks

The waste majority of cybernetic attacks can be divided into two basic groups: global and targeted ones. Global attacks use the openness of Internet and seek attacking of the highest possible number of targets with no regard to the fact whether or not they represent a potential benefit for the attackers. In the affected system, they are then searching a vulnerable place that could be used for penetration and subsequent unfair activities. The most frequent attacks include scanning, phishing, and fraudulent webpages.

Scanning

Scanning consists of gradual screening of the ports of equipment connected to global network and searching the services assigned to them being insufficiently secured or incorrectly configured, through which it would be possible to penetrate the system or misuse it. Scanning is usually carried out by automated systems and it is targeted especially at the network ports reserved for certain services, for example, the port 25 used by e-mail servers for messages forwarding.

Phishing

Phishing consists in sending messages, most frequently through e-mail, to a high number of users. The e-mails sent out often resemble the messages from various institutions, for example, banks, and request entering of access data or another sensitive personal data or invite the recipients to visit fraudulent or otherwise dishonest webpages.

Fraudulent webpages

Fraudulent webpages, in English called water holes, in Czech "napajedla", mean either specially created or compromised webpages, containing the tools allowing misusing the presence of visitor in a certain way. They can contain various harmful codes, active scripts, but also, for example, links to other fraudulent, fake, or harmful webpages or programs.

On the contrary, targeted attacks focus on a certain object or group of objects. They are frequently prepared for a long time and their creators have thus possibility to find the optimum way how to reach the requested result. The affected person or entity may not even have any suspicion of being the victim of attack. The most frequent attacks include so called DDoS attacks aimed at putting the service or system of the affected person or entity out of operation, and targeted phishing targeted at a certain group of Internet users, for example, customers of a certain bank.

Author: Dag Jeger, KYBEZ

We Build on the Long-Term Business Relations, Says Jaromír Řezáč, General Manager of the Company GORDIC spol. s r.o.

On Friday, November 11, the conference "Readiness of defence industry of the Czech Republic for the current security risks" was held. GORDIC participated in the conference as a partner. The General Manager, Jaromír Řezáč, provided an interview on this topic for LN.

Who you are?

The company GORDIC was founded in 1993 and it has been, already for the quarter of century, the leader in the area of economic and agenda systems. The main company product GINIS has been gradually becoming the recognized, safe, standard integration platform of public administration. The company is currently ensuring more than 6 thousand functioning projects in public administration. GORDIC builds on the correct and long-term commercial relations and it has also its active approach towards corporate accountability; among other things, in the form of its support of cultural or sport events or health care facilities.

What is your importance for the economy of the country?

GORDIC is a transparent and stable Czech IT company with 100 % Czech capital. It has its tax domicile in the Czech Republic (it returns more than 50 % of its receipts to Czech state in the form of taxes and salaries of its employees). The company receipts reach more than 600 million Czech crowns. The company develops its own innovative solutions of a high added value. It employs more than 180 of its own employees; in the related distribution network, more than additional 200 professionals work. GORDIC prefers long-term and stable employment relationships including permanent training; for this reason, the employees are mainly the university graduates in the field of IT or in the economic fields.

How do you define Czech national interest in the defence capacity of the country?

Ensuring safety of its citizens and their assets have to be the Czech national interest in the area of defensibility, also with regard to information technologies. Their rapid development and penetration of all areas of human life result in the situations when the risks of intentional threat are increasing rapidly. Cybernetic attacks are currently not only more frequent but also more accurately focused. The state (and not only the state) has to adequately respond to it. Investments into cybernetic security, especially into education, are worthwhile, not only with regard to security. The Czech Republic has good preconditions for making this field also the important part of economy.

In what way your production responds to current assessment of security risks?

GINIS – a safe integration platform of public administration, KYBEZ – a platform of information safety, and GYBER – a platform for cybernizing applications and processes, including the Internet of Things, are the main pillars of the company production. All platforms can be used in the civil sector as well as in the area of armed forces. The platform KYBEZ was established by the company in connection with the increased threats and adoption of Act on Cybernetic Security. It allows the efficient cooperation of academic institutions and commercial companies dealing with public education, systematic training, management, services, and technologies in the field of information security, including cybernetic security and defence.

How do you rate the level of usage of your products & services from the Ministry of Defence of the Czech Republic?

GORDIC appreciates the trust of the Ministry of Defence as well as the other defence-security institutions. It is the supplier of several key information systems within the Ministry competence. It concerns the Economic Information System, resolving mainly accounting, budget, and other related agendas of the Ministry of Defence, Information System on the Service and Personnel (ISSP), resolving the issues of salaries and personnel, and the Electronic Record Management System for the management of documents within the whole competence of the Ministry of Defence. For all systems, being regularly updated by GORDIC, the company ensures the services of comprehensive support.

www.gordic.cz

Robodrone Hornet: Training/Tactical Drone for a Song, Variable, Repairable

Robodrone Industries - the Czech developer and manufacturer of professional unmanned aerial systems is coming up with a hot new product which departs from its existing portfolio as well as from the global market offer - the small quadcopter Hornet.

Hornet similar to Linux in the world of drones

So far Robodrone has been offering only larger drones carrying few kilograms of cameras and sensors which are operated by companies and institutions focused on agriculture, industry, ecology or security (National Radiation Protection Institute, University of Defence, Mountain Rescue Service, etc.). However, different measuring and electro-optical instruments attached to a drone often cost multiples of the drone itself. No wonder customers demanded a low-cost training and easily repairable aircraft for their pilots.

Widely accessible "toys" cannot meet such a requirement as they are not repairable and they do not offer full communication capability of the copter with all the systems used to control the large copter - which is a necessity for successful training. Be it data transfer, control or the mission programming, those are the reasons why Robodrone had to build a "pocket-size" (approx. 30 cm) device which acts the same way as the large and expensive one. That is where one of the main Hornet's advantages lies in – it is not predetermined for video recording only, but virtually any other equipment in the respective mass category can be mounted. The drone can be configured and rebuild at your will and repaired by means of self-help in a few minutes.

Four standardized variants

The assignment for the Hornet was co-defined by the Mountain Rescue Service. Their year-long experience with the large Kingfisher hexacopter showed that during the first-time responses they cannot rely only on the ATV/snowmobile-carried large drone but that a small, yet agile back-pack-sized copter is needed.

It is based on a carbon-fiber composite frame, which is similar to the racing quadcopters used in the so called drone racing. Compared to the racing copters, the Hornet additionally features a cross bracing which makes it more stiff and resistant to ill-treatment. This basic construction element is then mounted with electronics and plastic parts in a sandwich-like method. Robodrone offers four standardized versions for the beginning, which can be further adapted by customers:

The first one called "Basic Trainer" can be turned into almost everything by a skillful aero-modeller. This basic set includes the carbon frame and plastic fairing while all the other parts can be ordered in any shop. The user also has the opportunity to buy in addition the package containing the recommended control unit, engines, speed-controllers and an analog FPV (first-person-view) video, which upgrades it to the variant "FPV Trainer". Alternatively, the "FPV Trainer" may be purchased already assembled.

The third and fourth versions represent solutions for a customer who prefers the fully assembled aircraft. Specifically, the "Mission Trainer Analogue" version or the top-line "Mission Pro Digital" version, the price of which does not exceed 1,500 €. The Analogue set includes an RC transmitter and in addition to the FPV camera another camera with Full HD and recording. The "Mission Pro Digital" version features not only the full HD image recording but also the on-line streaming and back-up. Access is granted to the plastic parts library and to the community of developers and users. The cloud space storage will become available in 2017.

Not just the drone - application and community as well

Robodrone is one of the first drone manufacturer in the world enabling data transmission by means of the LTE mobile network – you simply insert a SIM card into the drone. Everybody proper access rights can watch the video stream or other acquired data (both the data transmission as well as the drone control are encrypted). In early 2017 the Robodrone Cloud service will be launched which means no intermediate landing will be necessary in order to remove the memory card and send the data via a laptop. Not to mention the situation of the drone "loss" – your data will survive.

With a Hornet purchase, every customer will get access to the parts library. There newly created parts can be shared with others. The spare parts can be printed on a 3D printer within hours or they can be ordered at Robodrone or partner. The drone upgrade ideas and instructions can be consulted with the community of users who had bought a Hornet for the fun of further developing this open platform.

SuperHornet – the grown-up brother

The Hornet platform may start to live on its own soon and it is likely that other manufacturers will follow a similar approach. Robodrone will revert to its traditional set of products where the larger drone is the SuperHornet. It had the same original assignment as the Hornet kit described above while it was delivered by another team of designers.

The SuperHornet is characterized by an extremely low profile of 5 cm which in combination with folding arms and propellers allows it to be carried in a 35-litre backpack. Its body is all made of carbone composite which makes it extremely lightweight and sturdy. When unfolded the arms span is more than 80 cm so it can carry 15-inch propellers. This solution makes it possible to reach up to one hour flight endurance.

Another advantage is the camera gimbal mounted in front of the aircraft, which allows for an upward view. That is still quite unique in the world of multirotors. Other sensors and devices can be mounted on the flat fuselage. The SuperHornet again features the cloud based services as they become available in 2017 and community. Its price is about double of the Hornet "Mission Pro Digital" version which makes it very affordable for professional users.

www.robodrone.com

POLICIE ČESKÉ REPUBLIKY

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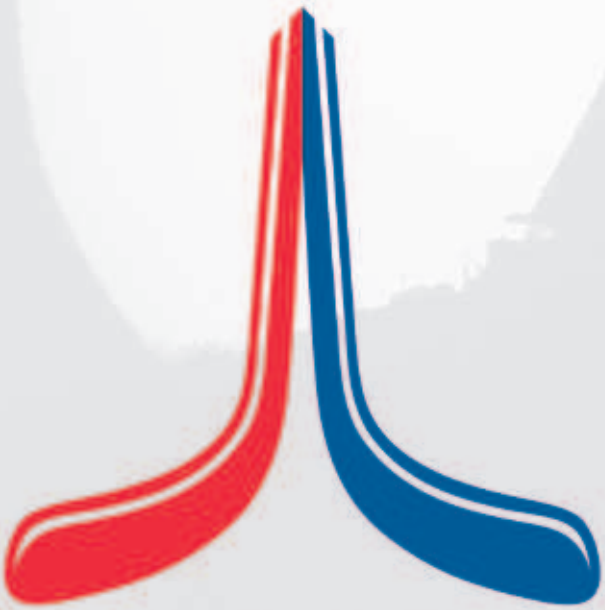
UNIE TĚLOVÝCHOVNÝCH ORGANIZACÍ
POLICIE ČESKÉ REPUBLIKY



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SWORDFISH s.r.o. – Company of Many Faces

One of the members of the Defence and Security Industry Association of the Czech Republic is SWORDFISH s.r.o., a service and marketing company the primary business of which is logistic support and transport of goods for both Czech and foreign firms dealing mainly in military equipment and materiel. We therefore asked both partners in the company, Dušan Jamný (an ex-officer of Czechoslovak Ocean Shipping) and Jaroslav Pecháček (Vice President of the Defence and Security Industry Association) to give us a more detailed account of their business.

Gentlemen, could you introduce your company to our readers?

SWORDFISH s.r.o. is a part of a larger group of interlinked companies called CZECHOSLOVAK OCEAN SHIPPING GROUP (COSG). The group deals in sea, railway, container, combined and air transport services which it provides practically all over the world. COSG has branch offices in Prague, Poděbrady, Ostrava and Strážnice, and also in Bratislava, Senec and Košice in Slovakia. In addition, it has many other cooperating parties – agents in all major trading centers of the world and also in European seaports. The latest addition to their list is a new South American office of COSG in Santiago de Chile. COSG also has a department training new Czech and Slovak seamen according to requirements of foreign shipowners.

The annual turnover of the whole COSG group is about three quarters of a billion. To give you a better idea, it represents taking care and handling of about a thousand TU units, i.e. 20-foot containers. The group arranges transport of both standard and oversized cargoes, export and import, and chartering of ships and aircraft as necessary. It must be emphasized that special goods, i.e. military equipment and materiel exported under a Czech export license and transiting across a foreign territory, may be very problematic and substantially increase transport costs.

As you mentioned, you encounter difficulties with transit licenses, which are an issue that has been repeatedly discussed for a long time by the Defence and Security Industry Association, so it is probably Mr. Jaroslav Pecháček who is in the best position to comment.

The European Union has transit legislation in place, namely Directive 43/2009/EC, according to which all of us in the European Union are expected to be united, with the EU purporting to be a single economic entity allowing free movement of goods and services, including the problematic commodities mentioned above.

This is, of course, not the case, and national legislations of EU member states impose significant regulations and restrictions on such transits. Our companies, being from a landlocked country with no free access to seaports, must apply for a transit permission according to the type of goods. For us, this means that we have to choose either a northern route, via Poland or Germany, or a southern route, via Hungary and Croatia. If none is available for our special cargo, the only option left is air transport, which is of course very expensive.

In spite of the above difficulties, we manage to arrange combined and sea transports of military equipment and materiel to third countries. However, it must be noted that Czech companies are seriously handicapped in this respect, having to spend extra time and costs and losing their competitive ability in comparison with EU member states that have their own seaports and shipping.

Thanks to an active approach of the Defence and Security Industry Association of the Czech Republic, the EU Commission has recognized, to some extent, the discriminatory transit problem of Czech companies. More specifically, EU authorities have analyzed the problem and promised to resolve the issue of "transit inequality" among EU member states.

Mr. Jamný, what gave you the impetus to found the company, or the whole COSG group?

There were two moments of the foundation of CZECHOSLOVAK OCEAN SHIPPING s.r.o. and of the whole COSG group. First, I had previously worked for the international forwarding corporation MAERSK in Bratislava, Slovakia, where I opened the first-ever shipping company office in Eastern Europe. I became MAERSK's agent for Slovakia and I always claimed there were a lot of business opportunities there. I built a terminal, arranged trains for combined transport, we connected Bratislava with Rotterdam and later also with Bremerhaven.

In 1999, we, meaning myself and Honza Poláček, founded our first companies, CZECHOSLOVAK OCEAN SHIPPING s.r.o., a shipping and forwarding company continuing in the activities of Československá námořní plavba/Czechoslovak Ocean Shipping, the mission of which was to make use of and further develop seamanship traditions in the Czech Republic and Slovakia, and VELA YACHTING, s.r.o., which was expected to provide and develop professional training for seamen and yachtsmen.

In 2000, we established a new company, C.O.S. CREW Management s.r.o., which employs and trains seamen for shipowners abroad. Since 2007, the company has been a member of BIMCO (Baltic and International Maritime Council), and now also possesses an ISO 9001:2009 certificate (Quality Control System) for the services referred to above.

Gentlemen, what do you see as your greatest success?

The founding of the fundamental logistic and forwarding companies, CZECHOSLOVAK OCEAN SHIPPING s.r.o. and SWORDFISH s.r.o. was vital for us.

Now we are trying to build a trading, consulting and brokerage firm, CZECHOSLOVAK OCEAN SHIPPING LIMITADA, in Chile. When a new company such as ours is being established in Chile, there must be at least two foreign entities involved, and they can subsequently use a so-called "magic name" when presenting themselves in the market – ours uses the name COS Brokers Ltda., and its seat is in Santiago de Chile. The objective of business and social activities of the company is general support and transport of top Czech products and technologies to the Chilean market and Latin American markets in general.

COS Brokers Ltda. is also in a position to act as a go-between for Czech exporters and Chilean importers and offer logistic support to both. For example, we are now trying to find a way how to successfully sell Czech products in South American markets in accordance with the local rule – a deal clinched is a deal done. The office in South America fulfils our common ambition – to expand activities of our companies far beyond our borders. As we speak, we have already been commissioned to represent TATRA TRUCKS a.s. in Chile and open the way for Tatra vehicles to the local market.

Why Chile? The question is addressed specifically to Mr. Dušan Jamný.

I have been visiting Chile fairly regularly, one of the reasons being our long-term activities in Antarctica. The roots are in our being hired back in 2005 to transport material for the construction of a Czech polar base, a scientific station in Antarctica named Johann Gregor Mendel, by the Masaryk University in Brno.

As a matter of fact, the whole of Antarctica – be it living there, supply or safety – is about logistics, and this why Antarctica has become a life story both for me and my colleagues. It is out hobby intertwined with our work and business. We thus represent our country in Chile through trading in well-known products bearing a Czech brand. Chile is a stable and good country and we are now looking for ways of effective cooperation with Chilean partners, but I don't want to jump ahead too much, it is still a long-distance race.

Mr. Jamný, you were a member of an expedition the goal of which was to reach the southernmost place of the Earth by sea. Can you tell our readers something more about it?

The Polish-Czech SELMA - ANTARCTICA – ENDURANCE expedition which I was a member of sailed aboard a 20-m yacht SELMA Expedition from Hobart, Tasmania, on January 5, 2015. We were heading to the Bay of Whales in the Ross Sea, from where globetrotters Amundsen and Scott had set out for the South Pole more than a century ago. However, the place where they had started their journey was now a few miles farther inland because the sea ends at an ice wall rather than at dry land. The southernmost ice area is called the Ross Ice Shelf and it limits the movement of surface vessels toward the South Pole. We fought our way for about 200 miles through the ice and finally reached the southernmost place of the planet by sea on February 12, 2015, establishing a new world record with a Czech participation.

You cannot sail farther to the south than that, and unless the ice conditions in the area change, it will not be possible to set a new world record. From Hobart via the Ross Sea to Mar del Plata, Argentina, we covered 9,152 nautical miles, i.e. about 17,000 kilometers. In 73 days, I washed once in three liters of sweet water and spent three hours ashore. The lowest actual temperature was –20 °C, the subjective one –40 °C, due to cruel winds blowing at approximately 120 km/hour.

It is a fact that nothing like the above could have been accomplished without thorough preparations of the SELMA – ANTARCTICA – ENDURANCE expedition and without a courageous, friendly and committed team. I would like to thank the entire crew of the SELMA Expedition yacht for their professional performance. It was an honour for me to participate.

Now all that is left is a marvelous feeling, and I can now invest my energy as boldly in our business in favour of mainly Czech trading companies.

Gentlemen, I wish you a lot of luck and successes, and thank you for the interview.

Šárka Cook

The NATO Days 2016 Confirmed their Membership in the European Elite Club

The 15th NATO Days and Czech Air Force Days in Ostrava confirmed they were the largest security show in Europe as well as members of the European elite airshow club.

Thanks to the participation of a hundred aircraft from 20 countries and the North Atlantic Alliance, the programme set a new record. "This year's NATO Days and Czech Air Force Days were a really unforgettable experience for our visitors, with a number of exclusive first appearances and records. The event has once again proved that it offers new things every year, and this year's list of first appearances and records is very long indeed," said Zbyněk Pavlačík, Chairman of Jagello 2000.

The long list includes, for example, the first appearances of the US B-1B Lancer supersonic strategic bomber with "stealth" elements or the Italian "Frecce Tricolori" aerobatic team, the Central European premiere of the A-400M Atlas transport aircraft, the first-ever meeting of all five European Typhoon display teams at one event, the first appearances of the Swiss Hornet or French Rafale, and also the return of the female unit of the Jordanian Special Forces. The event was also the last appearance of the German Bo 105 helicopter or a "hat trick" represented by three uninterrupted participations of the unique US Bell Boeing CV-22B Osprey tilt-rotor aircraft. An Aero L-39NG aircraft demonstrator also arrived to Ostrava, and the spectators could also enjoy a demonstration of the ŠKODA Superb SportLine car or an off-road circuit where they could test properties of 4x4 Škoda models. According to police estimates, there were altogether 130,000 visitors, bad weather notwithstanding – 45,000 on rain-soaked Saturday and 85,000 on Sunday, for which the weather forecast kept changing all the time until the very last moment. "Given the bad weather and even worse weather forecasts which visitors tend to listen to, we regard this as a very good result, the more so in the light of the fact that our surveys show that the visitors were satisfied and the weather had almost no effect on the presence of VIP guests which was very good this year – we were honored, for example, by the presence of Prime Minister Bohuslav Sobotka, Speaker of the House of Deputies Jan Hamáček, Minister of Defence Martin Stropnický and his deputies, Mrs. Ivana Zemanová, top representatives of all participating elements, Mayor of Ostrava Tomáš Macura, Governor of the Moravo-Silesian Region Miroslav Novák, and many others," commented Zbyněk Pavlačík.

Being the third country enjoying the status of a "special partner nation", Germany showed the visitors the greatest number of attractive exhibits. Fifty ground vehicles and fifteen aircraft is indeed a lot. "It is symbolical that this year's special partner nation displayed more equipment and personnel at the 15th NATO Days than visitors of the first NATO Days in 2001 could see altogether," said Zbyněk Pavlačík of Jagello 2000.

The German "stand" included both all services of armed forces and non-military elements, for example the Police of Saxony, a special unit of the German customs administration, German Red Cross or Federal Technical Aid Agency. A German Leopard 2 MBT and a Büffel *Bergepanzer* (armored recovery vehicle) were the first-ever vehicles of a foreign army participating in a combined-arms demonstration of the Army of the Czech Republic. The German Air Force showed its A400M Atlas transport aircraft for the first time in Central and Eastern Europe. Air demonstrations included a Eurofighter Typhoon or the last public appearance of the Bo 105 helicopter. "Germany has definitely redefined the concept of special partnership. However, it is obvious that a presence as extensive as Germany's cannot be repeated by future special partner nations, mainly for logistic reasons. We appreciate that visitors had a unique opportunity to get thoroughly acquainted with security forces and other elements of our key partner this year," added Zbyněk Pavlačík.

Jagello 2000
Foto Jagello 2000 and Šárka Cook

Note of the editor:
Our MS Line Publishing House, a media partner of the event, provided its "Review pro obranný a bezpečnostní průmysl" and "CDIS Review" for this occasion, which were available at the VIP Gate and in Gripen Chalet.

FUTURE FORCES FORUM

International Platform for Trends & Technologies in Defence & Security

WE WOULD LIKE TO DEEPLY THANK TO ALL PARTNERS, EXHIBITORS, OFFICIAL GUESTS, VISITORS AND SUPPORTERS OF FUTURE FORCES FORUM

FFF 2016 at the glance:

7,652 Participants from over **59** countries

1,200+ Official delegates and VIP guests representing armed, security, and emergency domain (**5** Ministers of Defence, **3** CHODs, **6** Air Force Commanders, **13** Ambassadors, **20+** Defence/Military/Air Attachés)

Official delegates from **59** countries, **35+** international organisations, and **24** universities

40+ Generals representing **22** countries and international organisations

15 NATO working groups and expert teams, **300+** members

240+ Speakers from **24** countries, **11** international organizations, and **21** universities

20 Specialized events at one place (exhibition, congress, **3** conferences, **13** workshops, **2** round tables)

169 Exhibitors from **25** countries

210+ Represented companies and brands

15 National Expositions/International Organisation Expositions

57 Accredited journalists

65 Official Media Partners

8M+ Hits of worldwide media campaign

General Partner

LOM PRAHA

General R&D Partner

CZECH TECHNICAL UNIVERSITY IN PRAGUE

Partner

VOP CZ

www.future-forces-forum.org

Future Forces Forum – Major Domestic Defence and Security Events in 2016

The Future Forces Forum 2016 provided a meeting venue for manufacturers, experts and army tops from the whole world. The three-day event was attended by more than 200 Czech and foreign companies and almost 1,200 official delegates and military experts from sixty countries. A particularly pleasant surprise was the participation of foreign companies whose number exceeded that of local ones, which is not quite common on occasions like this.

The Future Forces Forum took place between October 19 and 21, 2016, on the PVA EXPO PRAHA exhibition grounds, and was attended by representatives of the government, state administration authorities, international organizations, domestic and foreign industry, science and research. In addition to an exhibition segment, this year's Future Forces Forum concept also included an unprecedentedly broad accompanying, or supplementary programme, if one accepts that the term can be used for something like this. As a matter of fact, the event's promoter and organizer, Progres Partners Advertising, approached the event from a somewhat different angle, emphasizing the professional and know-how part represented by a congress, conferences, workshops, round tables etc. The Future Forces Forum thus hosted a congress, three conferences, thirteen workshops and two round tables attended by experts of NATO and other organizations from the whole world. The professional community included ministers of defence, ambassadors, deputy ministers, chiefs of defence, or air force commanders.

Many exhibiting companies made use of this opportunity to present new products and technologies. Our attention was drawn mainly by the unique UL-39 MILITARY ultralight two-seater airplane, a joint development project of Jihlavan Airplanes and the Czech Technical University in Prague. The event marked the first public appearance of the T-Kat special ops vehicle manufactured by Tatra Defence Industrial. The current global focus on unmanned aerial vehicles was confirmed by the presence of the latest generation of drones at the Future Forces Forum. Firearms of leading Czech manufacturers were enjoying a lot of attention of the broad professional community. The largest exhibit at the event was a Mi-171Š helicopter upgraded by the state-owned enterprise LOM PRAHA. Other Czech companies taking part in the event included AERO Vodochody AEROSPACE, AUDIOPRO, EXPLOSIA, GORDIC, INTERLINK CS, LUVO Praha, NIDES, PRAMACOM HT, PRAMACOM PRAGUE, VOP CZ, Rohde & Schwarz, LOM Praha, Glomex MS, or TTC TELEKOMUNIKACE.

The event witnessed a number of bilateral meetings and industrial cooperation negotiations. Some companies presented tangible outcomes of their discussions as early as during the event. For example, LOM PRAHA and its subsidiary VR Group announced that they would continue their negotiations with Rheinmetall, which concern mutual cooperation in the field of interactive laser live simulation system. The purpose of the cooperation is to offer the Army of the Czech Republic a training system which fully meets its needs and is fully compatible with other training systems of ACR and other NATO armies. More specifically, the subject of the discussions is LEGATUS, one of today's most advanced live simulation systems in the market, which offers some unique advantages that its competitors do not possess.

Dynamic demonstrations of capabilities of army units, police, Fire Rescue Corps, paramedics and prison guards taking place in the open-air part of the exhibition site through the duration of the event were intended both for the professional community and for the general public.

For more information, visit: www.future-forces-forum.org

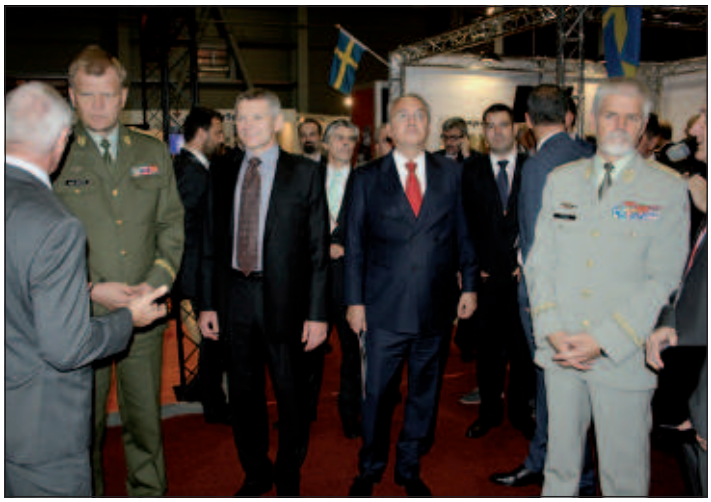
Renowned Foreign Journalists Presented Their Awards

For the first time ever, the "Review pro obranný a bezpečnostní průmysl" and "CDIS Review" (in English) magazines were the principal media partner of the Future Forces Forum for the Czech Republic. Their publisher, MS Line, s.r.o., which celebrated twenty years of its existence this year, and editorial boards of the two abovementioned magazines, also organized an international competition Future Forces Forum Best Product Award among journalists.

International Jury

The chairman of the jury and also the person handing over the FFF golden awards was Stephen Barnard, Managing Director of the media agency MCT; Editor-in-Chief of the "Review .." line of magazines Šárka Cook was his deputy, with editors-in-chief Hartmut Bühl, Walter Haland, Paolo Valpolini and Joerg Aschenbrenner as members.

The announcement of the results, which took place in front of the stands

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POLICIE


VOP
17 - 21 October 2016
Prague, Czech Republic


PRAMACOM - HT, spol. s.r.o.


FUTURE FORCES FORUM

of the Defence and Security Industry Association of the Czech Republic and MS Line, was attended by leading political and state administration representatives, defence and security industry exhibitors and members of the professional community.

The first place in the Future Forces Forum Best Product Awards and the gold medal was awarded to the new RF-7850S SPR radio transceiver by Interlink CS; the silver medal went to the Kerberos Mobile vehicle underside scanner by VOP CZ; and the bronze medal was assigned to a new type of plastic explosive, Semtex 90, developed by Explosia.

Details of the winning products:

RF-7850S SPR™ – Advanced Wideband Secure Personal Radio

The RF-7850S SPR™ is the most advanced secure personal radio system available on the market, providing full communications capabilities for the modern soldier at the team, squad, and platoon levels. Based on the widely fielded RF-7800S SPR Team and Vehicle Radios, the RF-7850S SPR includes several new and improved features.

The RF-7850S SPR is equipped with the advanced Harris next-generation platoon soldier waveform. It provides team-based voice, fully networked platoon-wide communication and reliable position reports to ensure every soldier is always connected and accounted for. The RF-7850S SPR has a higher performance and a more flexible and adaptable soldier waveform. Additional high-speed data capabilities are available through a mobile ad-hoc network that allows commanders to receive in-depth sensory information and gives every soldier access to the battlefield tactical internet.

Even in challenging environments, the RF-7850S SPR's narrowband mode provides ad-hoc networking and position reporting capabilities in addition to core voice communications. Its flexible modes, embedded applications and networking services are optimized to support operation in any tactical or urban location. With the best available frequency range available in a soldier platform radio, the RF-7850S SPR extends secure and reliable voice, situational awareness and data networking down to the individual soldier level. The RF-7850S SPR is also interoperable with other Harris Falcon® radios, enabling flexible radio networking for any mission.

FEATURES

- **Next generation networking waveform desig-ned specifically for the soldier**
- **Wideband and narrowband modes for universal operation**
- **Interoperability for easy integration into communication expansion programs**
- **Advanced Soldier Features improve soldier effectiveness**

KERBEROS MOBILE

Key characteristics

The Kerberos Mobile device was specially developed for fast and reliable inspection of a vehicle's undercarriage. It reliably reveals all changes made to the vehicle's undercarriage or devices andobjects, which have been subsequently attached to it. A function for automatic scanning of registration plates can be added to the system.

System advantages

- full-colour images of the undercarriage can be taken;
- the option of visual comparison with a previous scan or an image of another vehicle;
- automatic lighting of the inspected vehicle;
- option of archiving images;
- quick and easy installation;
- simple operation;
- mechanically resilient and compact design;
- own power supply system;
- option of connecting the device to the vehicle's 12V/24V/230V power supply.

System components

- scanning unit;
- lap top computer with operating SW;
- heavy-duty case containing the electronics and power supply;
- cross-over rails;
- connecting cables.

Operating SW

The software shows the operator the image of the undercarriage of the vehicle being inspected. The image can be enlarged multiple times for detailed inspection of selected areas. The software allows visual comparison of the image with an earlier scan of the inspected vehicle or with any other image and automatic archiving according to vehicle registration plate or other identifier.

SEMTEX 90

Semtex 90 is a completely new kind of plastic explosive. Since currently manufactured Semtex plastic explosives differ mainly ing the new binder system, which Semtex 90 provides soma unique features. It is particularly small dependence of the rigidity of plastic explosive on temperature. The explosive is plastic from –40 °C and it is no problem to use up to temperatures of +60 °C. Another advantage is the very good durability and low rate of change in properties during storage. It is very easy to shape and also applicable to more sophisticated uses. Unlike conventional plastic explosives Semtex is also characterized by 10 to 20 % higher working ability. It's mechanical properties also allow the use of this new method processing explosives and delivering it in a new package with a significantly higher desing and user levels. The explosive is offered in three versions, which differ from each other mainly by using crystalline A High explosive PETN or RDX or mixtures thereof.

Miloš Soukup
Photo: S. Cook, M. Soukup a A. Svěrák

Explosia Success at the Future Forces

Military equipment, police cars and the latest technology in the field of military and security arrived in October this year to Prague. Explosia a.s. could not miss at this defence and security fair. It didn't get lost, it glared among the exhibitors.

Cumulative charges Razor, bi-modular combustible systems, boosters, rocket engines for ejection, etc. were transported to Prague from Pardubice. One of the exhibits was also Semtex 90 which itself has attracted attention both in the hilarious with practical and modern design and participation in the competition the best products at Future Forces fair. Explosia gained third place with Semtex 90. Among the ten competitors, bronze is a great reward for innovation of established product.

The international jury, headed by Stephane Barnard, former chief editor of Military technology, valued a new binder system of Semtex 90. It provides this product with unique properties, especially little dependence of stiffness on temperature. Jury appreciated that the new explosive is applicable without problems from –40 °C to +60 °C, and a very good durability and little change in properties during storage. Good moldability was also evaluated positively and therefore applicable to more sophisticated uses. The explosive is offered in three versions, which differ from each other mainly by using crystalline High explosive PETN or RDX or mixtures thereof.

The Explosia stand was visited by hundreds of people, including representatives of the Sri Lanka Ministry of Defence. On Friday afternoon the Pardubice's delegation could leave the capital town with the feeling that the previous years were richer in terms of the total number of visitors, but this year presentation was a big success of Explosia a.s.

www.explosia.cz

INDO DEFENCE 2016

Almost 20 Czech companies presented themselves at the INDO DEFENCE 2016 international fair of defence and security industries in Jakarta.

Altogether 15 Czech companies presented themselves at the official national stand of the Czech Republic at the INDO DEFENCE 2016 international fair of defence and security industries, which took place in Jakarta from November 2 to November 5, 2016. A few other Czech enterprises preferred to participate on their own rather being a part of the stand of the Ministry of Industry and Trade of the Czech Republic.

The INDO DEFENCE international fair is one of the most prestigious events in the field of defence industry, airspace surveillance and protection and general aviation, security, and naval technologies and defence.

This year's fair offered 844 exhibitors from 55 countries an opportunity to present their products to potential customers and to demonstrate their properties in the air, on land or at sea. There were altogether 23 national stands and the event was attended by official delegations from 55 countries, 25,500 visitors and 120 accredited journalists.

Just like on previous occasions, leading defence and security industry companies from Australia, Malaysia, the Philippines, France, United States, United Kingdom, Federal Republic of Germany, Canada, Italy, Russia, Byelorussia, Spain, Turkey and other countries presented themselves at the fair this year. As to V4 member nations, only Poland and the Czech Republic chose to have their national stands at the event.

The Czech stand was visited by Indonesia's Vice President Muhammad Jusuf Kalla and his entourage. As to Czech guests, we could welcome members of the Senate's Committee for Foreign Affairs, Defence and Security, namely Messrs. Hassan Mezian, Patrik Kunčar and Václav Láska, who were accompanied by Czech Ambassador to Jakarta Ivan Hotěk and Deputy Minister of Defence Tomáš Kuchta.

The list of exhibitors displaying their products at the official Czech national stand of the Ministry of Industry and Trade of the Czech Republic this year included the following companies: AVEC CHEM, ORITEST, Česká zbrojovka, Zbrojovka Brno, 4M SYSTEMS, ERA, OMNIPOL, ZENIT, SELLIER & BELLOT, OPTOKON, LANEX a.s./TENDON, Holík International, Česká letecká servisní, European Air Services and CS Solutions. The Czech stand occupied an area of 120 m^2, 110 m^2 of which was paid for by the Ministry of Industry and Trade. Representatives of the Czech companies had more than 120 business meetings at the fair. The estimated aggregate sum of potential future contracts may be as high as CZK 200 million. In addition to official social events for exhibitors organized by the fair's management, which were also attended by Czech representatives, the Ministry of Industry and Trade of the Czech Republic in cooperation with the Czech Embassy in Jakarta, the Defence and Security Industry Association of the Czech Republic, and the CzechTrade Office in Jakarta set up a joint meeting of Czech and foreign guests in the Mandarin Oriental Jakarta during the fair.

Regarding the official Czech participation at the INDO DEFENCE international fair in Jakarta, some of the Czech exhibitors offered the following comments:

Jiří Gazda, Product Manager, TENDON/LANEX: "LANEX a.s. has already participated in the INDO DEFENCE fair twice in a row and we can conclude once again that the event has been a success for us. Thanks to the support of the Ministry of Industry and Trade, we could present our products here in Indonesia, and we established a contact with a local business partner in Jakarta already during our first participation and have already delivered our products here. This year's event is tremendously important for us because of an ongoing certification of products for regular deliveries to Indonesia's armed forces. During the fair and the official reception hosted by the Ministry of Industry and Trade of the Czech Republic, Czech Embassy in Jakarta, and CzechTrade, we had an opportunity to meet high-positioned and relevant representatives of the army and police and thus support our local business partner at this stage of the cataloging process. We highly appreciate the professional approach of the CzechTrade Office in Jakarta during the personal meeting with and support of our Indonesian partner."

Marek Štefan, Business Manager, Holík – International: "This is our first time at the INDO DEFENCE fair. We are pleased with the interest in our products and are aware of a major role of the fair in being able to identify and make use of new business opportunities. Asia is a brand new territory for our defence business, which is why we have decided to pay more attention to it and we plan to actively participate in fairs here in the years to come as well. We appreciate and acknowledge the government has provided us through the Ministry of Industry and Trade of the Czech Republic; we had facilities at our disposal that helped us to present our company in a decent manner and we look forward to further cooperation."

Aleš Havlík, Business Manager, Sellier & Bellot: "The INDO DEFENCE 2016 was the third participation of Sellier & Bellot in the Jakarta event. We appreciate, in particular, the improving standard of stand-fitting services. At the same time, I would like to thank for the support which we and other Czech exhibitors are getting from the Ministry of Industry and Trade."

Ministry of Industry and Trade, photos by Šárka Cook

NCS College 2016 – Again with the Support of AURA

The University of Defence together with the NATO Group of National Directors on Codification AC/135 organized the third edition of the international codification courses NCS College 2016 in Brno between the 29th August and 23rd September 2016. The Course for managers and logisticians and the following Course for codifiers were attended by students from 15 countries from 4 continents, including the Czech Republic. The academy participants learned about the management practices of codification processes, the establishment of national codification bureaus and acquired specific knowledge and habits of codifying material of the NATO Codification System.

The codification, which is also called the DNA of logistics, provides the unmistakable description of weapons, military equipment and other military materiel, and other manufacturers and suppliers in an international dimension, allowing the unambiguous characterization of military commodities. The codification provides, for example, the necessary interoperability in the acquisition process of the armed forces, prevents duplication of procurement of material and enables replenishment of armaments and equipment in foreign missions. At present, the NATO Codification System (NCS) is used in more than 60 countries in total.

The main lecturers of this year's NCS College were Jeffrey Merrell from the USA (DLA LIS), Thierry Vanden Dries, the chairman of AC/135 and other representatives of the NSPA, University of Defence and National Codification Bureaus from Canada, Spain and Czech.

The informational, organizational also lecturing support was provided by the Brno based company AURA, which is engaged in the development and implementation of the codification software MC CATALOGUE. This software was just recently supplied to the armed forces of Australia, the total number of countries from around the world using this codification software is 17.

The NCS College in 2016 was also significantly supported by the Defence and Security Industry Association of the Czech Republic.

During the learning and training in both codification courses, the students visited also the Security Center of Material Technical Services in Štěpánov, the Material Security Center of Logistics Services in Brno and the National Codification Bureau of the Czech Republic (at the Defence Standardization, Codification and Government Quality Assurance Authority) in Prague.

The attendants of the NCS College did not only appreciate the high-quality of teaching but also the academy accompanying programs, where they learnt about remarkable monuments and the current state of the Moravian city of Brno and South Moravian region, Prague and other cities of the Czech Republic. Many of them have already booked a seat for themselves or their colleagues from the National Codification Bureaus for the next NCS College 2018.

* * *

The Dean of the Faculty of Military Leadership colonel Vladan Holcner along with other representatives of the faculty handed over the certificates of attendance of the NCS College to 24 students, reaching the number of more than 70 people for all three years. This fact, as well as the irreplaceable role of the University of Defence and the company AURA in the academy organization at the start of this year's NCS College, it was very positively appreciated by the current Chairman of AC/135 Thierry Vanden Dries.

Text: Antonín Svěrák

Photos: Viktor Sliva, Antonín Svěrák

International Exhibition of Military, Security, Aviation and Airport Technology in 2017

Exhibition with Official Participation of the Czech Republic (MIT CR)

February 19 – 23	**IDEX** – *International defence exhibition and conference* www.idexuae.com	UAE Abu Dhabi
September 12 – 15	**DSEI** – *The world leading defence & security event* www.dsei.co.uk	United Kingdom London – ExCeL

Exhibition in the Program JHA – OPEI (CzechTrade)

March 3 – 6	**IWA** – *International exhibition of hunting and sporting weapons* www.iwa.info	Germany Nuremberg
April 4 – 7	**LAAD** – *International exhibition of equipment for civil protection and internal security* www.laadexpo.com	Brazil Rio de Janeiro
April 5 – 8	**AERO** – *International exhibition of general aviation* www.aero-expo.com	Germany Friedrichshafen

Trade Fairs and Exhibitions in the Czech Republic

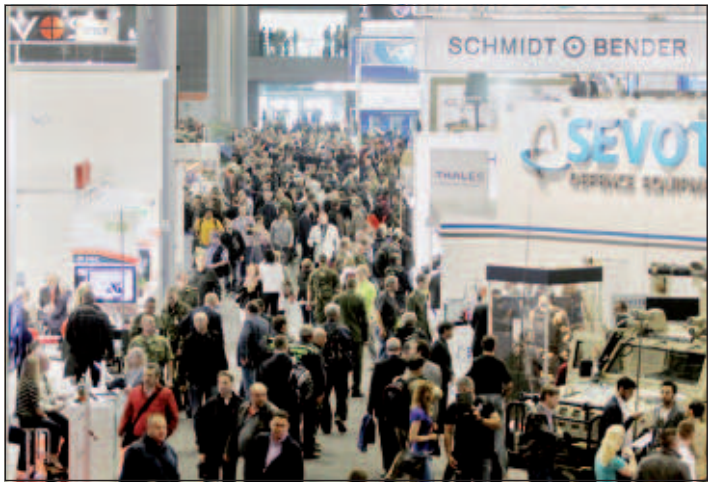
May 31 – June 2	**IDET** – *International defence and security technologies fair* www.idet.cz, www.bvv.cz/idet	Brno Exhibition Centre
May 31 – June 3	**PYROS** – *International fire fighting equipment, technology and services fair* www.idet.cz, www.bvv.cz/idet	Brno Exhibition Centre
May 31 – June 3	**ISET** – *International security technology and services fair* www.idet.cz, www.bvv.cz/idet	Brno Exhibition Centre
June 12 – 13	**HELICOPTER SHOW** – *International show of helicopter equipment and related services* www.helicoptershow.cz	Hradec Králové Airport
September 2 – 3	**CIAF** – *International airshow* www.airshow.cz	Hradec Králové Airport
September 16 – 17	**NATO DAYS** – *International parade ground and air military equipment* www.natodays.cz	Mošnov Airport Ostrava

Other Fairs and Exhibitions Abroad

January 22 – 24	**INTERSEC MIDDLE EAST** – *International exhibition of security technology* www.intersecexpo.com	UAE Dubai
January 23 – 26	**INTERNATIONAL ARMOURED VEHICLES** *International exhibition and conference on armoured vehicles* www.armoured-vehicles.co.uk	United Kingdom London - Twickenham
February 6 – 9	**AERO INDIA** – *International exhibition of aviation technology* www.aeroindia.in	India Bangaluru
February 5 – 8	**ASIAN AEROSPACE** – *International exhibition of aviation technology* www.asianaerospace.com	China Hong Kong
February 28 – March 5	**AVALON** *International exhibition of aerospace and military equipment* www.airshow.com.au	Australia Geelong, Victoria
March 1 – 2	**ENFORCE TAC –** *International exhibition of security technology and equipment* www.enforcetac.com/en	Germany Nuremberg
March 2 – 3	**U.T.SEC** – *Unmanned automatic equipment and safety (exhibition and conference)* www.utsec.de/en	Germany Nuremberg
March 4 – 6	**GLOBAL SECURITY ASIA** *International exhibition of technology and national security & conference* www.globalsecasia.com	Singapore
March 7 – 9	**WORLD ATM CONGRESS** – *International exhibition and Conference on air traffic control systems* www.atcglobalhub.com	Spain Madrid

March 14 – 16	**HOMSEC 2017** – *International exhibition of security & defense technologies* www.homsec.es/en/	Spain Madrid
March 21 – 25	**LIMA** – *International maritime & aerospace exhibition* www.lima.com.my	Malaysia Langkawi
March 21 – 23	**DIHAD** – *International exhibition of resources for humanitarian assistance* www.dihad.org	UAE Dubai
April 4 – 6	**MILIPOL ASIA PACIFIC** – *International exhibition of internal security* www.milipolasiapacific.com	Singapore
April 26 – 28	**ASDA (Adriatic Sea, Defence and Aerospace Exhibition)** *International exhibition of maritime, land and aeronautical techniques* www.adriaticseadefence.com	Croatia Split
April 26 – 28	**EUROPOLTECH –** *International fair of technology and equipment for the police and the state security forces* www.europoltech.pl	Poland Gdansk
May 3 – 4	**COUNTER TERROR EXPO** – *International exhibition of counter-terrorism equipment* www.counterterrorexpo.com	United Kingdom London – Olympia
May 4 – 5	**FIRECO** – *International exhibition of fire-fighting, safety and rescue techniques* www.expocenter.sk	Slovakia Trenčín
May 9 – 12	**IDEF** – *International exhibition of military, aerospace and marine technology* www.idef.com.tr/en/index.php	Turkey Istanbul
May 16 – 18	**ITEC** – *International exhibition of military and air systems for training* www.itec.co.uk	Netherlands Rotterdam
May 18 – 19	**POLICE EXPO** – *International exhibition of police and security equipment* www.internationalpoliceexpo.com	India New Delhi
June 6 – 8	**ISDEF** – *International exhibition of military equipment* www.isdefexpo.com	Israel Tel Aviv
June 23 – 25	**PARIS AIR SHOW** – *The biggest international exhibition of aviation* www.paris-air-show.com	France Paris – Le Burget
July 4 – 7	**ASIA PACIFIC HOMELAND SECURITY** *International exhibition of technology for national security and border protection* www.aphs.sg	Singapore
August 17 – 19	**TADTE** – *International exhibition of aerospace* www.tadte.com.tw	Taiwan Taipei
August 15 – 20	**MAKS** – *International aviation and space salon* www.aviasalon.com	Russia Moscow
September 5 – 8	**MSPO** – *International exhibition of military equipment* www.mspo.pl	Poland Kielce
September 19 – 22	**AVIATION EXPO / CHINAAIRPORT & AIR TRAFFIC EXPO / CHINA** *International exhibition of aviation and airport equipment and air traffic* www.beijingaviation.com	China Beijing
September 25 – 27	**ATC GLOBAL** – *International exhibition of ATM systems and conference* www.atcglobalhub.com	UAE Dubai
October 10 – 13	**ARMS AND SECURITY 2017** – *International exhibition of defence and security technology* www.iec-expo.com.ua/en/as-2017.html	Kiev Ukraine
October 16 – 18	**BIDEC** – *International exhibition of defence and security technology* www.bahraindefence.com	Bahrain
October 17 – 20	**INTERPOLITEX** – *International exhibition of police and security equipment* www.interpolitex.ru	Russia Moscow
November 6 – 9	**DEFENSE AND SECURITY** *Asian international exhibition of military and security equipment* www.asiandefense.com	Thailand Bangkok
November 12 – 16	**DUBAI AIRSHOW** – *International exhibition of aviation technology* www.dubaiairshow.org	UAE Dubai
November 21 – 24	**MILIPOL** – *International exhibition for national security and civil protection* www.milipol.com	France Paris – Versailles
December 4 – 6	**EXPODEFENSA** – *International exhibition of defence and security* www.expodefensa.com	Colombia Bogota
December 12 – 14	**GULF DEFENCE AND AEROSPACE** *International exhibition of military, aviation and security techniques* www.gulfdefense.com	Kuwait Mishref

IDET, PYROS and ISET 2017: the Most Important Security Trade Fairs in the Region



Security has become a clear priority nowadays. At a time of increased risks of new outbreaks of war and terrorist as well as other threats, governments do not hesitate to invest in defence and security technology. Importance of the defence industry thus grows along with it, while in the Czech Republic it always had a strong position. Companies introduce their novelties for security forces at specialised trade fairs, which also include IDET in Brno since 1993. This year on 31 May, its fourteenth edition begins, again in partnership with PYROS and ISET, trade fairs which present fire and safety equipment and services. Participation in the fair is already subject to considerable interest since the Ministry of Defence and the Czech Police and Fire Rescue Brigade increase their budgets for medium-term purchase plans.

IDET is an essential platform for the presentation of the Czech defence and security industry. As in previous years, it will offer exhibiting firms direct contact with both domestic and foreign customers. As an exhibition of defence technology in Central and Eastern Europe, it regularly enjoys the participation of the Ministries of Defence of Poland, Hungary, Slovakia and other countries, direct NATO representation through an exhibition stand, while delegations of ministries of defence from dozens of countries around the world arrive to attend the fair.

The attractiveness of the International Defence and Security Technologies Fair is enhanced by the connection with the International Fire Fighting Equipment, Technology and Services Fair PYROS and the International Security Technology and Services Fair ISET. "It is a well-proven combination of three exhibition themes, which are very close. Therefore we talk about trade fairs of the Integrated Rescue System. Many companies currently supply to several sectors – the army, police and firefighters – and here they can reach them all in one place. The important news is that now all these sectors are planning major acquisitions after many years. They announced an extensive renewal and upgrading of technology and other equipment, while there are already earmarked reserves from the state budget. The Czech Army and the Czech Police will also exhibit at the fair, a representative participation of the Fire Brigade and a number of associations of volunteer firemen are also expected. Thus it will be an ideal opportunity for all supply companies to present their offer," said the project director Jiří Rousek.

Czech Army modernization projects

Generally we can say that the main armament projects in the period 2017-2025 will include the rearmament of the 7th Mechanized Brigade, the acquisition of light armoured vehicle for the needs of radiological, chemical and biological reconnaissance and observation, modernisation of a self-propelled howitzer DANA 77 cannon, wheeled armoured vehicles for the Command staff and communications and an ongoing implementation of the '21st century soldier' project. Within the Air Force, the crucial project focuses on the continuation of renting the JAS-39 Gripen, the acquisition of new multi-purpose helicopters, the MADR 3D radar and supplementing RBS-70 NG anti-

aircraft resources. In 2017, the first delivery of the first new airport radar is expected. In logistics, there is a need to purchase tank vehicles, workshop and rescue vehicles and a replenishment of ballistic protection. Specifically, this concerns purchases of precision shooting rifles, sniper rifles, compensation for RPG 7, portable PTRK, C4ISTAR chassis, KOVVŠ and KOVS on a Pandur chassis, KOVVŠ and KOVS on a Titus 6x6 chassis, replacement of Kajman vehicles, PNV night vision, individual ballistic protection, self-propelled mortars and fire control systems, artillery radars, bridge sets and pontoon bridges, demining resources and more.

The Fire Brigade also prepares an extensive modernization of individual sections, in virtually all secured areas. Replacement of a variation of fire fighting rescue vehicles is expected, together with equipment and material, as well as investments in information technology and control centres. The announced acquisitions also concern property and material protection equipment against floods and engineering and other technology to eliminate the consequences of explosions and other disasters, technology for detecting and removing the effects of chemical and industrial accidents, and last but not least, equipment for humanitarian and rescue operations.

The Czech police in the medium term will buy multi-purpose helicopters, all-terrain vehicles, information technology and communication resources. Modifications of weapons and investment in optical equipment are also planned, together with police vehicle replacement and policemen's basic equipment and purchases of new personal protection - helmets and flak jackets. The ISET fair 2017 will be an opportunity for a comprehensive presentation of technologies for the protection and safety of life and property, with a highlighted theme of cyber security. There will be for example a special pavilion dedicated to communication which will demonstrate cyber attacks and how to defend against them.

The Brno Exhibition Centre allows to present technology in action in a unique outdoor field polygon named **IDET ARENA**, which will feature dynamic demonstrations of military, fire and police technology in action for all visitors during the fair. The polygon can be used by all exhibitors. Detailed conditions can be found on our website soon.

The trade fair will include a traditionally high quality and extensive **supporting programme**, which is being prepared at the moment and a prestigious competition for the best innovative exhibits, the **Golden IDET**.

Jiří Erlebach
Photo BVV

ERA's Subsidiary R-SYS has Won a Tender and will deliver the Net Briefing System to HungaroControl

ERA is proud to announce that its subsidiary R-SYS Ltd. based in Slovakia (part of ERA's software development portfolio), has won a tender for development, delivery, installation and implementation of the Net Briefing System for Hungarian Air Navigation Services HungaroControl.

The Net Briefing System will provide web based flight planning and pilot briefing services including NOTAM and meteorological services with additional services for general aviation pilots. The system will support visual chart features based on geographical data, aeronautical information management and services for general aviation with an emphasis on support for drone operations and management. Installation will begin this December with a transition into service at the end of March 2017.

R-SYS Ltd. is a middle-sized private company engaged in the development and production of innovative IT solutions for the aerospace, defence and security industry. R-SYS product line consists of SW solutions in various domains such as ATM, Surveillance Data Processing, Aeronautical Information Management, Command and Control (C2/C3I), Geographical Information Systems (GIS) or Digital Audio, Video & Data Recording Systems.

Israeli Company to Deliver MADR Radars to the CR

On 14th December, the Czech government approved a recommendation from the 33-membered assessment commission of the Ministry of Defence, and agreed that eight ELM 2084 MMR radars will be supplied by the Israeli company, IAI Elta.

„Our military will obtain one of the most advanced radar systems in the world, not only in use by the Israeli army, but also by Canada and other countries. It is, moreover, great news for the Czech defence industry, because a substantial part of the radar will be produced by a Czech company based in the Czech Republic," said Minister of Defence Martin Stropnicky.

„Replacement of the radars is absolutely necessary for us since the lifespan of the current Soviet-made equipment has been surpassed. The new mobile 3D radars will greatly contribute in extending the forces' capabilities," added Chief of the General Staff, General Josef Bečvář.

Due to the strategic nature of the tender for the Medium Air Defence Radars (MADR), the Ministry had decided to procure them in a government-to-government deal. In May this year, the Czech Ministry called on the governments of France, Israel, Sweden and the United Kingdom to submit an offer which would meet with Czech requirements. As the U.K. had withdrawn from the tender, the Ministerial Commission evaluated offers from the three remaining countries. The Government's recent decision therefore facilitated the immediate opening of negotiations with the Israeli party.

The Commission recommended procuring eight Israeli ELM 2084 MMR radars, produced by the state company, IAI Elta, at a cost of 2,9 billion Czech Crowns. This offer includes a 20-year-long logistic and maintenance support agreement.

The MADR radars will provide air surveillance from 100 to 3,000 metres. Five radars will be placed at stationary posts and three will be available to safeguard potential strategic targets (e.g. nuclear plants, etc.), and cities, or used in emergencies and for training. **- MoD -**

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Mediální partner Asociace obranného a bezpečnostního průmyslu České republiky
The Media Partner of the Defence and Security Industry Association of the Czech Republic

AOBP

- Review for Defence and Security Industry
- CDIS Review
- IDET NEWS
- Security and Defence Technologies Catalogue

www.msline.cz

Publishing Plan for CDIS Magazines in 2017

REVIEW for DSI (czech and english online edition on www.msline.cz)

Review for Defence and Security Industry 1/2017		
Deadline: 3. 3. 2017	Put into print: 17. 3. 2017	Expedition: 24. 3. 2017
Available at the annual general meeting of DSIA CR.		

Review for Defence and Security Industry 2/2017		
Deadline: 5. 5. 2017	Put into print: 19. 5. 2017	Expedition: 26. 5. 2017
Available at IDET, PYROS, ISET 2017.		

Review for Defence and Security Industry 3/2017		
Deadline: 25. 8. 2017	Put into print: 8. 9. 2017	Expedition: 15. 9. 2017
Available at NATO Days.		

Review for Defence and Security Industry 4/2017		
Deadline: 1. 12. 2017	Put into print: 15. 12. 2017	Expedition: 22. 12. 2017
Available at the annual editorial board meeting in Ministry of Defence resort in January 2018.		

CDIS REVIEW (english copy and english on-line edition on www.msline.cz)

Czech Defence Industry & Security Review 1/2017		
Deadline: 13. 1. 2017	Put into print: 27. 1. 2017	Expedition: 3. 2. 2017
IDEX (Abu Dhabi) – 19.–23. 2. 2017.		

Czech Defence Industry & Security Review 2/2017		
Deadline: 11. 8. 2017	Put into print: 25. 8. 2017	Expedition: 1. 9. 2017
DSEI (London) – 12.–15. 9. 2017, and NATO Days (Ostrava).		

Czech Defence Industry & Security Review 3/2017		
Deadline: 27. 10. 2017	Put into print: 9. 11. 2017	Expedition: 16. 11. 2017
MILIPOL (Paris) – 21.–24. 11. 2017.		

Publishing plan will be in the course of the year 2017 updated of any other shows.

15th edition czech-english Magazine IDET NEWS

IDET, PYROS and ISET

Deadline: April 24, 2017

Contact: scook@msline.cz

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31. 5.–2. 6. 2017

BRNO, CZECH REPUBLIC

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31. 5.–3. 6. 2017

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