

MILMAG

INTERNATIONAL

MSP0 2019

RISES TO THE CHALLENGE

ORLIK

REACHES TO THE SKY

USA

ENTERS A NEW
STAR WARS ERA

PROCURES
NEW
TACITAC
VEHICLES

LATVIA

SAAB

PRIORITIZES
BALTIC SEA
REGION





Modular Small Arms System GROT

**MADE IN
POLAND**



GROT. READY FOR ACTION.

www.fabrykabroni.pl



- 006 News
- 018 MSP0 2019 Rises to the Challenge
- 042 Orlik Reaches to the Sky
- 048 SAAB Prioritizes Baltic Sea Region
- 056 USA Enters a New Star Wars Era
- 066 Latvia Procures New Tactical Vehicles

GENERAL EDITOR: Remigiusz Wilk
rw@milmag.pl/+48 536 249 703

EDITOR-IN-CHIEF: Michał Jaroński
mj@milmag.pl/+48 697 667 947

ADVERTISING: Jakub Link Lenczowski
marketing@milmag.pl/+ 48 662 936 595

EDITORIAL TEAM: Marta Błaszowska/Rafał Janicki/Michał Jaroński/Jakub Link-Lenczowski/Jarosław Lis/Paweł Ścibiorek

DESIGN: Marta Błaszowska

ASSOCIATES: Dariusz Borkowski/Bogusław Dawiec/Grzegorz Franczyk/Marcin Gałązka/Miłosz Grabski/Axel Jach/Michał Jaroński/Richard Jones/Krzysztof Kluza/Adam Koper/Bartosz Łuczak/Anna Mielczarek/Celina Pawlik/Marcin Sigmund/Michał Szafran/Karol Szczeński/Bartosz Szymonik/Artur Wagner/Krzysztof Winiecki/Marcin Wrześniowski

PUBLISHER: MILMAG Sp z oo, ul. Sikorskiego 22/2, 32-400 Myślenice, NIP: PL6812066653, KRS: 0000674230

ISSN: 2544-917

www.antiterrorism.eu

PIAP GRYF®

EOD MOBILE ROBOT



PIAP GRYF® is a robot used for reconnaissance of terrain and hard to reach places. The manipulator with 5 degrees of freedom allows to lift loads weighing up to 15 kg.

Robot's wheels can easily be removed, which reduces the dimensions of the robot and thus facilitates missions in tight spaces.

Owing to the applied drives, the robot smoothly overcomes uneven terrain and obstacles up to an angle of 45°. The robot is characterised by excellent manoeuvrability. Low weight makes it easy to transport and carry the robot, and its modular design allows for quick and easy change of additional equipment.



**Industrial Research Institute for Automation
and Measurements PIAP**

Defence and Security Systems Sales and Marketing Department
Aleje Jerozolimskie 202, 02-486 Warsaw, POLAND

Tel. +48 22 874 03 31
Fax. +48 22 874 03 40
e-mail: mds@piap.pl

NATO RECOGNIZES SPACE AS A NEW OPERATIONAL DOMAIN

NATO Foreign Ministers met in Brussels on 20 November 2019 to address a wide range of security challenges in preparation for the meeting of NATO leaders in London. 'We all agree that NATO remains indispensable for our security, and that despite our differences, we are stronger as we face the future together', said NATO Secretary General Jens Stoltenberg.

Ministers took important decisions for NATO's continuing adaptation. They agreed to recognize space as a new operational domain for NATO, alongside air, land, sea and cyber. 'This can allow NATO planners to make requests for Allies to provide capabilities and services, such as hours of satellite communications', said the Secretary General. He added that NATO has no intention to put weapons into space, and the Alliance's approach to space will remain fully in line with international law.

Addressing energy security, ministers agreed recommendations to consolidate

NATO's role. 'The recommendations aim to improve situational awareness and understand the risks; protect critical infrastructure and enhance Alliance resilience; and enable NATO forces to have the necessary energy resources at all times', said the Secretary General.

Ministers also discussed NATO's role in the fight against terrorism, and reviewed progress in strengthening Black Sea security. Addressing fairer burden-sharing in the Alliance, Mr. Stoltenberg noted that 'the trend is up and it is unprecedented'.

Ministers also adopted a policy that sets standards in the prevention and response to sexual exploitation and abuse.

Later, ministers are set to discuss NATO's coordinated approach to three strategic issues: relations with Russia, the rise of China, and arms control. 'NATO is the only platform where Europe and North America engage every day on such strategic issues, which matter to our shared security', said the Secretary General. He added that Europe and North America are doing more together than for many years.



BLACK HAWKS FOR LITHUANIA



On 18 October the Lithuanian Ministry of National Defense announced the plan to start negotiations on the purchase of six UH-60M Black Hawk multi-purpose helicopters, which will

replace three Soviet-made Mil Mi-8s. Vilnius expects the intergovernmental agreement to be signed by the end of 2020 and that helicopter deliveries in the US Army configuration will be

completed by 2024. As a result, Lithuania will become the third UH-60M user in the region next to Slovakia and Latvia. Earlier, the Czech Republic gave up the purchase of UH-60M.

The Ministry of Defense has decided to withdraw three Mi-8 helicopters and start negotiations on the purchase of new helicopters. UH-60M will be used to conduct search and rescue operations and to support the Lithuanian's Armed Forces and the international Enhanced Forward Presence battalion

MORE GROT RIFLES FOR POLAND



On 14 November soldiers of the radio company from the Training Center for Communications and Information Technology (CSłil, Centrum Szkolenia Łączności i Informatyki) in Zegrze received the first training on firing from 5.56mm Grot assault rifles at the shooting range in Kąty Węgierski. There are already nearly half a thousand of the latest assault rifles in CSłil.

The introduction of the new rifle to soldiers was preceded by courses for instructors and a series of theoretical and practical classes. Before the soldiers were allowed to shoot, they had to learn about the safety, principles of operation of the weapon and have to pass the exam.

The first Grot C16 FB-M1 rifles came into the Territorial Defence Forces (WOT, Wojska Obrony Terytorialnej) exactly two years ago. Since then, Fabryka Broni delivered over 28,000 rifles to the Armed Forces. Over 24,000 were sent to units of Territorial Defense Forces, and nearly 4,000 were equipped military academies, training centers and a few of the Land Forces units.

On 30 September annexes were signed to existing orders for standard Grot assault rifles and Vis 100 semi-automatic pistols. In the years 2019-22 an additional 18,000 Grots will be delivered to the Polish Armed Forces. It means an increase in supplies this year by 4,000 rifles, compared to previous plans.

The Communications and Information Technology Training Center has been subject to the command of Territorial Defense Forces since October 2019. Currently, the SONDA Non-commissioned Officer School is being formed here. From 2020, a new training model for military specialists will be introduced on the basis of CSłil. The facility's training activities will be expanded to include cyber defense operations.

FIRST LEOPARD 2A7V DELIVERED

On October 29 Krauss-Maffei Wegmann (KMW) had handed over the first modernized Leopard 2A7V Main Battle Tank to German Armed Forces. The ceremony took place in Munich, at the headquarters of the KMW.

As part of the agreement signed in September 2017 with a total value of EUR760 million, Krauss-Maffei Wegmann will upgrade 104 older vehicles to the Leopard 2A7V standard by 2023. This includes 68 Leopard 2A4s, 16 Leopard 2A6s and 20 Leopard 2A7s. Thanks to the contract, KMW will maintain 1,500 jobs in Munich's Allach district.

At the end of 2018 two Leopard 2A7V prototypes for trials were delivered to Bundeswehr. The letter V in Leopard 2A7V name is short for Verbessert (Improved), but the name is also reference to the first German tracked armored vehicle A7V from World War I.

In March 2019, the Bundestag's budget committee decided to bring another 101 Leopard 2A6 and Leopard 2A6MA2 tanks to the 2A7V standard for over EUR300 million. In total, by 2026 there will be 205 modernized cars of this type in service.



FINLAND AND USSPACECOM COOPERATION



Rear Adm. Marcus A. Hitchcock, U.S. Space Command plans and policy director, and Maj. Gen. Pasi Jokinen, commander of the Finnish Air Force, signed a Memorandum of Understanding between Finland and the United States on space situational awareness cooperation today in Helsinki, Finland.

These agreements foster openness, predictability of space operations, and transparency for space domain awareness. The Memorandum of Understanding sets out the intention to exchange public space situational information between Finland and the U.S. to protect against space debris and to reduce various collision risks.

Finland joins a long list of nations, agencies and commercial entities that recognize unfettered access to and freedom to operate in space advances the security, economic prosperity and scientific knowledge of the nations who share the commitment. Australia, Japan, Italy,

Canada, Finland, France, South Korea, the United Kingdom, Germany, Israel, Spain, the United Arab Emirates, Belgium, Norway, Denmark, Brazil, the Netherlands, Thailand, New Zealand, Poland and Romania; two intergovernmental organizations, the European Space Agency and the European Organization for the Exploitation of Meteorological Satellites; and 80 commercial satellite owner/operator/launchers now participate in SSA data-sharing agreements.

'Space Situational Awareness requires extensive collaboration, and agreements such as this allow us to partner more effectively', Hitchcock said. 'As more countries field space capabilities and benefit from the use of space systems, it is in our collective interest to act responsibly, promote transparency and enhance the long-term sustainability, stability, safety and security of the domain' he added.

'The way we defend and protect our way of life is to build alliances and partnerships with countries

who also embrace the shared goal of continued peaceful use of space', Hitchcock continued. 'Our international partners have contributed to SSA and have aided our ability to communicate across the globe for years. These strong international alliances and partnerships create opportunity to demonstrate the peaceful use of space while sharing and disaggregating the U.S. space capability' he added.

'The continuous growth of both governmental and commercial spaceflight emphasizes the significance of accurate and up-to-date situational awareness', Jokinen said. 'As the United States is a global leader in Space Situational Awareness, this Memorandum of Understanding will help us to enhance our capabilities' he added. In Finland, the Air Force cooperates with civilian agencies such as the Finnish Meteorological Institute and the Finnish Geospatial Research Institute in order to create and develop national space situational capabilities.

ESTONIA SENDS SOLDIERS ON INTERNATIONAL OPERATIONS

Riigikogu, the Parliament of Estonia, approved mandates submitted by the Ministry of Defence, which will allow Estonia to contribute up to 160 troops to international military operations and 234 service members to readiness units next year. Estonia is increasing its participation in the France-led anti-terrorism operation Barkhane, in Mali.

‘The French-led operation is engaged directly in the fight against armed terrorism in Mali. Mali is definitely dangerous, but it should not be forgotten that this is one of the reasons we are in the region and the end goal of the operation is to stabilize the situation in the region to a level which allows the national authorities of countries in the region to independently ensure security,’ Defence Minister Luik said. ‘The operation enables us to work with our closest Allies, such as France,’ Luik stressed. France is committed to contribute to NATO enhanced Forward Presence in Estonia in 2021.

In addition to France, the UN and the EU Mission are also operating in Mali and the Sahel region, with number of

European countries participating within the framework thereof. ‘If we look at all of those international organizations and countries active in Mali and the region, we can say that the international community understands well that the potential terrorism and migration threat must be dealt seriously on-site,’ Luik added.

Estonia will also be deploying special operations forces to Mali, in total 95 Estonian troops participating in Operation Barkhane, with Estonia also contributing staff officers to the UN peacekeeping mission and the EU Training Mission there.

In U.S.-led anti-Daesh coalition Operation Inherent Resolve, in Iraq, the Riigikogu increased the mandate from 10 to 20 service members which allows Estonia, in the event of a change to the security situation in Iraq and the surrounding area, to react flexibly and, if necessary, be ready to increase its contribution in support of the coalition and the United States.

In addition, Estonia will participate with a total of up to 210 service

members in the NATO Response Force (NRF) with the armoured infantry company (within Baltic Battalion), special operations forces, staff officers and a MCM vessel crew, and up to 24 service members within the composition of the UK-led Joint Expeditionary Force (JEF). As the above are readiness units, the troops will be stationed in Estonia during the period of readiness.

Estonia is contributing to UN (UNIFIL Lebanon, UNTSO in the Middle East, MINUSMA in Mali), NATO (Resolute Support in Afghanistan, NMI in Iraq), and EU (EUTM in Mali, EUNAVFOR in the Mediterranean) operations, as well as the US-led military operation Inherent Resolve, in Iraq, and the France-led anti-terrorism operation Barkhane, in Mali.

Similar to previous years, the Ministry of Defence applied for a mandate for the possible first time and rapid response contribution of up to 50 troops to international military operations led by NATO or its Member Countries, the EU or the UN.



BALTIC STATES STRENGTHEN COOPERATION

As soon as next year security in the Baltic airspace will be ensured by three control and reporting centres, triple the amount of the current capability. It has been laid out in an agreement of the three Baltic Defence Ministers signed in Brussels on the new configuration of the Baltic Air Surveillance Network and Control System, BALTNET.

BALTNET is fully integrated into the NATO Integrated Air and Missile Defence System (NATINAMDS) and ensures security of the Lithuanian, Latvian and Estonian airspace. It currently comprises the Combined Control and Reporting Centre in Karmėlava, national airspace control and reporting posts, radar posts in Lithuania, Latvia and Estonia, and assigned equipment. The new configuration of BALTNET, on the basis of the new agreement, will comprise three separate Control and Reporting Centers in each of the Baltic states, radiolocation posts, radars, radio

equipment and communication lines. All the three Control and Reporting Centers will conduct air surveillance in their respective territories and near them, exchange data, and control the NATO Air Policing Mission aircraft on a rotational basis.

'BALTNET is ensuring sovereignty of the national airspace of Lithuania, Latvia and Estonia and is that way contributing to the preservation of integrity of NATO airspace. The agreement on the future configuration of the Baltic Air Surveillance Network and Control System will strengthen successful NATO's ability to ensure air surveillance and control in peace time or crisis', Lithuanian Minister of National Defence, Raimundas Karoblis, said. As part of NATINAMDS, BALTNET has to meet the needs of the current NATO Baltic air Policing Mission and have the capability to control all types of air operations in the Baltic airspace.

The Combined Control and Reporting Centre in Karmėlava of BALTNET receives air surveillance data from radars in the three Baltic States and Poland and sends the Recognised Air Picture of the three Baltic States to the NATO Combined Air Operations Centre in Ramstein (Germany), and jointly provides control of the NATO Air Policing mission fighter aircraft in the Baltic States: if a violator is spotted in the airspace of any of the Baltic states, NATO aircraft are scrambled to intercept it.

The present BALTNET is based on the agreements signed in 2007, but NATO agreed to an Air Command and Control System (ACCS) capability development package when the security situation changed, which includes recommendations to enhance the NATO air surveillance and control system in order to ensure that NATO and NATO allies can generate the Recognized Air Picture and provide control of all types of air operations in NATO territory and beyond.





Zakłady **Mechaniczne** Tarnów



ul. Kochanowskiego 30, 33-100 Tarnów, tel. (48-14) 630 62 00, fax (48-14) 630 62 04
www.zmt.tarnow.pl

POLAND IS RETURNING TO LEBANON



On 20-21 October at the Port of Szczecin 13 Rosomak wheeled infantry fighting vehicles, 7 Tumak/HMMWV light vehicles and 15 specialized vehicles were loaded onto the Dutch transport ship Tревille. They will form a core of Polish Military Contingent (PKW) in Lebanon operate under the UNIFIL (United Nations Interim Force in Lebanon) mission.

First the vehicles will reach

the Middle East, then on 10 November 200 soldiers from 12th Mechanized Brigade are to be transferred to Lebanon from Goleniów Airport. The Polish contingent will join the Irish battalion. Poles will work together with Irish and Hungarian soldiers. On 6 November in the barracks of the 12th Mechanized Brigade, a farewell departure ceremony is planned.

The Polish Army was stationed in Lebanon as part of the UNIFIL mission from 13 April 1992 to 1 December 2009. These were the engineering (1994-2002), logistics (1994-2009), medical (1992-2005) and operational (2007-2009) contingents. They numbered from less than 100 to a maximum of 630 soldiers and were deployed in the garrisons of Jwayya, Mardž Ujun, An-Nakura and Tibnin.

GROT RIFLES FOR BORDER GUARDS

On 22 October at the Fabryka Broni Łucznik-Radom a contract with Poland's Border Service was signed for delivery of 228 Grot C16 assault rifles. The contract value has not been disclosed, it can be estimated that it will be around PLN2.3 million.

This is the third Border Service order for Grot assault rifles manufactured by Fabryka Broni. The contract is unusual, because of the 228 rifles only 93 are to be equipped with standard 406 mm/16 inch barrels. The remaining 135 Grots will be completed in two sets of barrels: 16-inch and short 10.5-inch/267 mm.

Users will be able to take advantage of the 5.56 mm Modular Small Arms Weapons System (MSBS-5,56). The Grot rifle is characterized by exchangeable barrel, apart from the common upper receiver for the classic and bullpup version. With the included key the user can change it in less than a minute.

So far the Border Guard has ordered 350 Grot C16 assault rifles and 54 Grot R20 bolt-action ceremonial rifles. The latter are only adapted to shoot 5.56x45 mm blank ammunition, although after replacing the barrel assembly they can fire standard cartridges.

The weapon was bought as part of the Police, Border Guard, State Fire Service and State Protection Service modernization program in 2017-2020. According to its provisions Border Guard is to receive 4,420 new 5.56x45 mm rifles by 2020.



ROTATIONAL DEPLOYMENT OF US SOLDIERS TO LITHUANIA



The unit is part of the US Army Europe Operation 'Atlantic Resolve' and will be deployed in Lithuania through spring next year. 'We have sought for a larger long-term U.S. military involvement in Lithuania and the region consistently and patiently. Therefore the deployment of the U.S. Army battalion for a longer period of time is good and awaited news and a result of our efforts and investment. The US forces is a vital factor of deterrence so it will contribute to NATO efforts in the Baltic region', said Minister of National Defence of Lithuania, Raimundas Karoblis.

Mr. Karoblis also underscored that Lithuania has already hosted many US battalions, however, that used to be in the framework of concrete

exercises. This time the US forces are arriving for a long-term deployment, not for an international exercise.

According to R. Karoblis, this deployment has been enabled by Lithuania's investments into the training infrastructure in Pabradė and other places and the efforts of the logistical support personnel of the Lithuanian Armed Forces in solving all the practical issues related to the deployment and presence of US troops in Lithuania.

The US unit about to deploy in Lithuania is the 1st Armoured Battalion of the 9th Regiment, 1st Division, US Army. The troops will bring heavy equipment, including 30 Abrams tanks, 25 Bradley Infantry Fighting Vehicles, 70 wheeled vehicles, and will deploy at Gen S.Žukauskas Training Area in Pabradė.

The US battalion is planned to stay in Lithuania until spring 2020. US troops will cooperate and train with Lithuanian colleagues and other allies, exchange experience while implementing mechanisation of the Lithuanian Land Force. Lithuania will ensure full Host Nation Support (lodging, logistical support, etc.) and access to infrastructure of Lithuania's military training areas to the deploying US troops.

US armed forces have been rotating to the Baltic States and Eastern Europe since spring 2014 as part of the US Army Operation 'Atlantic Resolve' in the eastern part of the Alliance. It is a demonstration of the US collective defence commitment to NATO allies in ensuring security after the Russian aggression in Ukraine.

BRITISH ARMY ORDERS BOXERS



The Defence Secretary has announced that the army will receive more than 500 Boxer 8x8 high mobility, network-enabled armoured vehicles to transport troops onto the frontline. 'Our men and women of the Armed Forces deserve to have the best equipment to do their job. The Boxer vehicle is a leader in its field and I look forward to it arriving in units from 2023', Defence Secretary, Ben Wallace, said.

The vehicles will form part of the Army's Strike brigades, new units set up to deploy rapidly over long distances across varied terrains. Boxer is modular by design to meet these requirements - the same vehicle

base can be rapidly reconfigured to fill different roles on the battlefield, from carrying troops across deserts to treating severely injured service personnel on the journey to hospital. Initially the Army will buy a mixture of the troop-carrying variant, ambulances, command vehicles, and specialist designs to carry military equipment. 'This is excellent news for the Army and I'm delighted that we can now move forward with a contract for the Mechanised Infantry Vehicle. We are looking forward to continuing to work closely with the Army and our partners across industry to deliver the best equipment and support for our troops', Sir Simon Bollom, Chief Executive of Defence, Equipment and Support (DE&S), said.

The UK announced in 2018 that it would re-join the Boxer programme within the Organisation for Joint Armament Cooperation (OCCAR) and explore options to modernise its vehicle fleet and meet the Army's Mechanised Infantry Vehicle requirement. The UK played a central role in the original design, development and testing of the Boxer. In re-joining the programme last year, the UK reassumed the rights it had as a project partner.

'I am delighted that we have committed to delivering the Mechanised Infantry capability through the purchase of around 500 battle-winning Boxer vehicles for the British Army. Boxer completes the suite of platforms to equip our new state-of-the-art STRIKE brigade where, alongside Ajax, Boxer's low logistic need, extended reach, high-mobility, and advanced digitisation will ensure STRIKE is ready for any global scenario', Major General Simon Hamilton, Mechanised Infantry Vehicle Programme lead for the British Army, said.

FINAL LEOPARD 2A6S FOR FINLAND



2A6NL put up for sale in 2011. The vehicles costed EUR199.9 million and deliveries for the Finnish land forces started in 2015.

Finland's Land Forces recognized that the selected Leopard 2A6 tanks were in good technical condition. Under the contract they were refurbished and also the ammunition, spare parts and training equipment, interior and driving simulators, tool kits and diagnostic devices were delivered.

The first batch of 20 tanks arrived in Finland in May 2015. In 2016 the training began for crews of tank companies from the Mechanized Brigade (Panssariprikaati), stationed in Parolannummi.

On 25 October the ferry with the last batch of Leopard 2A6NL main battle tanks ordered in 2014 entered the port of Vuosaari in Helsinki. The vehicles came from the surplus of the

Royal Land Forces of the Netherlands (Koninklijke Landmacht).

The tanks were delivered in accordance with the contract signed on 16 January 2014. Finland bought 100 Leopards

www.antiterrorism.eu

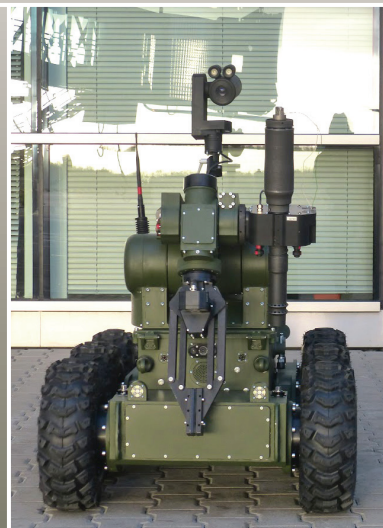
IBIS®

ROBOT FOR PYROTECHNIC OPERATIONS
AND RECONNAISSANCE



IBIS® is a robot for pyrotechnic operations and reconnaissance. Upon installation of additional devices, it can be used, among others, for disposal of dangerous objects, chemical detection and rescue operations. Six-wheeled chassis with independent drive of each wheel allows to operate in challenging and varied terrain (bedrock, wetlands, muddy terrain and debris).

IBIS® is a fast robot (10 km/h). Special design of mobile base suspension ensures optimum wheel contact with the ground. Precision drive system ensures fluidity of the movement of every part of the robot, at any speed. Manipulator with extendable arm ensures a large reach (over three meters) and a high range of motion in each plane. The manipulator lifts loads weighing up to 50 kg.



**Industrial Research Institute for Automation
and Measurements PIAP**

Defence and Security Systems Sales and Marketing Department
Aleje Jerozolimskie 202, 02-486 Warsaw, POLAND

Tel. +48 22 874 03 31
Fax. +48 22 874 03 40
e-mail: mds@piap.pl

WB GROUP ON ARMS AND SECURITY 2019



During the Arms and Security 2019 exhibition in Kiev, which was held 8-11 October, WB Group presented a wide range of its innovative and battle proven products. Systems, which were on display, included PIK, a communications integration platform for services, which according to the manufacturer, is a mixed hardware and software solution designed to provide seamless, safe, user- and supervisor-friendly voice and data communication.

The WB Group presented also an upgrade kit for 23mm anti-aircraft twin-barreled autocannon ZU-23-2, which gives it the new innovative features. Thanks to controlled digitally electric drives (with emergency manual drive) it is possible to achieve both, precise guidance and high-speed gun movement.

Among weapon and reconnaissance systems on display were also the Flyeye mini UAS, a close-range unmanned aerial platform designed for observation and data collection, as well as the Warmate loitering munition system, which is characterized by automatic strike on selected targets, statistically confirmed the accuracy of targeting, fully autonomous control during a strike and interchangeable warheads.

NEW ORDER FOR KC-46 TANKERS

During the Arms and Security 2019 exhibition in Kiev, which was held 8-11 October, WB Group presented a wide range of its innovative and battle proven products. Systems, which were on display, included PIK, a communications

integration platform for services, which according to the manufacturer, is a mixed hardware and software solution designed to provide seamless, safe, user- and supervisor-friendly voice and data communication.

The WB Group presented also an upgrade kit for 23mm anti-aircraft twin-barreled autocannon ZU-23-2, which gives it the new innovative features. Thanks to controlled digitally electric drives (with emergency manual drive) it is possible to achieve both, precise guidance and high-speed gun movement.

Among weapon and reconnaissance systems on display were also the Flyeye mini UAS, a close-range unmanned aerial platform designed for observation and data collection, as well as the Warmate loitering munition system, which is characterized by automatic strike on selected targets, statistically confirmed the accuracy of targeting, fully autonomous control during a strike and interchangeable warheads.





GRUPA WB 

Our reality
is your future

www.wbgroup.pl



MSPC 2019

rises
to the challenge

The 27th edition of the International Defence Industry Exhibition (MSP0) in Kielce drew attention of a wide group of professionals. 610 manufacturers from 31 countries participated in the show, presenting their products and services to 30 500 guests. In overall, the event was dominated by the upcoming general elections, as well as ongoing modifications of the Technical Modernization Plan of the Polish Armed Force, which were eventually presented a few weeks later, and outlined the main procurement goals of the Polish Ministry of Defence (MoD) for the period 2021-2035.



On 3rd September, during the 1st day of MSPO 2019, the Minister of Defence of Poland, Mariusz Blaszczak, signed a letter of offer regarding the planned acquisition of a number of 2nd hand C-130H Hercules transport aircraft and FGM-148 Javelin anti-tank missile systems.





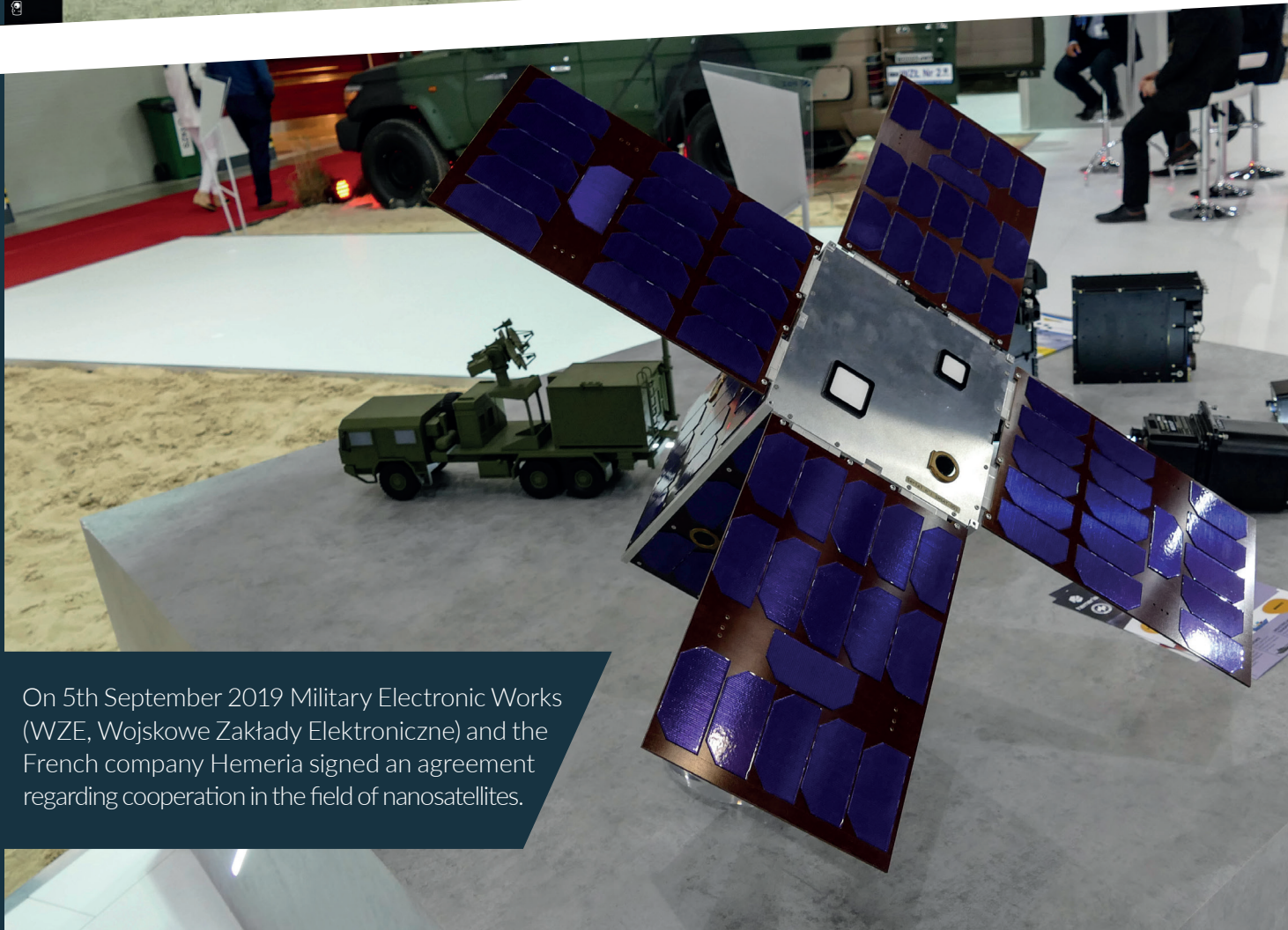
PGZ and MBDA

Porozumienie o współpracy dotyczące Programu Niszczyciel Czołg



During the 2nd day of MSPO 2019 the Polish Armaments Group (PGZ, Polska Grupa Zbrojeniowa), and MBDA UK signed an agreement, which will allow for setting up a local production of Brimstone guided, anti-tank missile systems. The agreement is related to the Polish Ottokar-Brzoza modernization programme, which calls for the procurement of a series of tracked tank-destroyers.

Nanosatellites



On 5th September 2019 Military Electronic Works (WZE, Wojskowe Zakłady Elektroniczne) and the French company Hemeria signed an agreement regarding cooperation in the field of nanosatellites.

A consortium of PGZ subsidiaries, along with the Air Force Institute of Technology (Instytut Techniczny Wojsk Lotniczych, ITWL) and Israeli Rafael Advanced Defense Systems presented an offer for modernisation of Polish Mi-24D/W attack helicopters.

Modernisation of Mi-24D/W



Bystra radar station

During the 1st day of MSPO 2019 the Polish company PIT-RADWAR (a member of the PGZ holding), signed an agreement with the Armaments Inspectorate, worth 634,8 million Zloty, for delivery of 16 Bystra radar stations with logistical and training packages. Deliveries are expected to start in 2019 and run through to 2025.



Borsuk IFV matures

HSW presented in Kielce a prototype of the next generation Borsuk IFV fitted with a remote-controlled turret system ZSSW 30 from WB Electronics (a member of the WB Group), which in the future will also be integrated with the currently operated Rosomak/Patria AMV wheeled armored vehicles. The prototype of Borsuk already went through a series of static and dynamic trials. The platform will be offered in a number of variants, depending on the selected level of armour protection.



Modernised version of the W-3

F/G



An Italian Leonardo company and PGZ showcased a concept for modernisation of the W-3 multipurpose helicopter, called W-3 Next Generation.

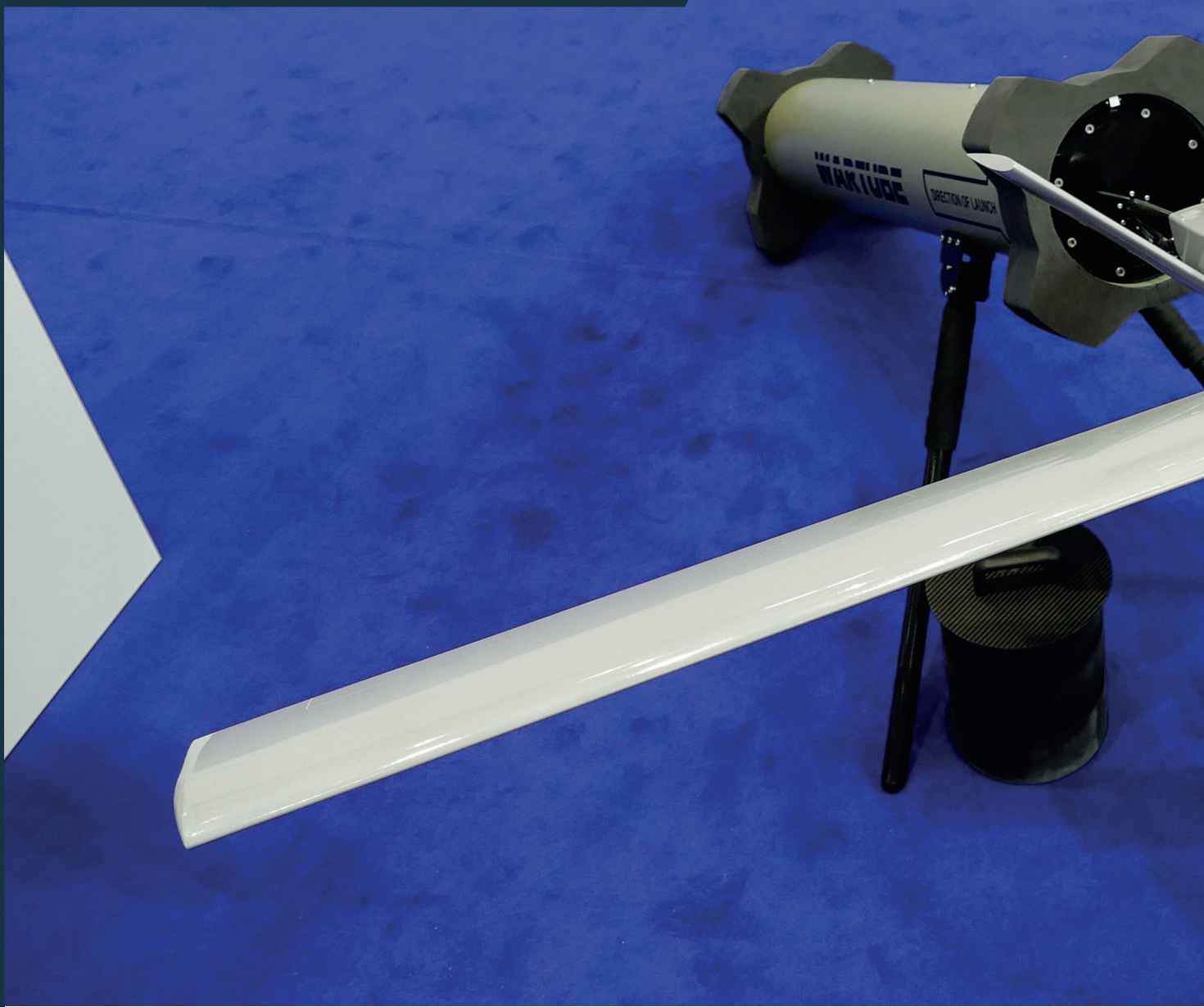


According to the WSK PZL-Świdnik, a subsidiary of Leonardo, this variant will be a part of an offer presented for the Polish Army.

Debut of new Warmate variants



The local WB group presented a number of new variants of the renowned and battle proven Warmate loitering munition systems, including Warmate R reconnaissance UAV, Warmate TL tube-launched variant and Warmate V rotary wing UAV system.





Options for the new tank destroyer



During MSPO 2019 a number of PGZ subsidiaries presented their offers for the new tank-destroyer platform, which will be procured under the Ottokar-Brzoza programme.



Technology demonstrators, which were presented in Kielce, were based on the chassis of the: BWP-1 vehicle, Universal Modular Tracked Platform (Uniwersalna Modułowa Platforma Gąsienicowa, UMPG) developed by the OBRUM company (Ośrodek Badawczo-Rozwojowy Urządzeń Mechanicznych) and the South Korean K9 chassis which was already implemented in the Krab 155mm self-propelled howitzer system designed by the HSW (Huta Stalowa Wola).

BWP-1 modifications



The proposed options for modernisation of Polish Army's BWP-1 infantry fighting vehicles, which should enhance operational capabilities of Army's mechanized units, are described as an interim solution, before the introduction into service of the new, swimming, tracked IFV platform, expected to take place in the 2020'.

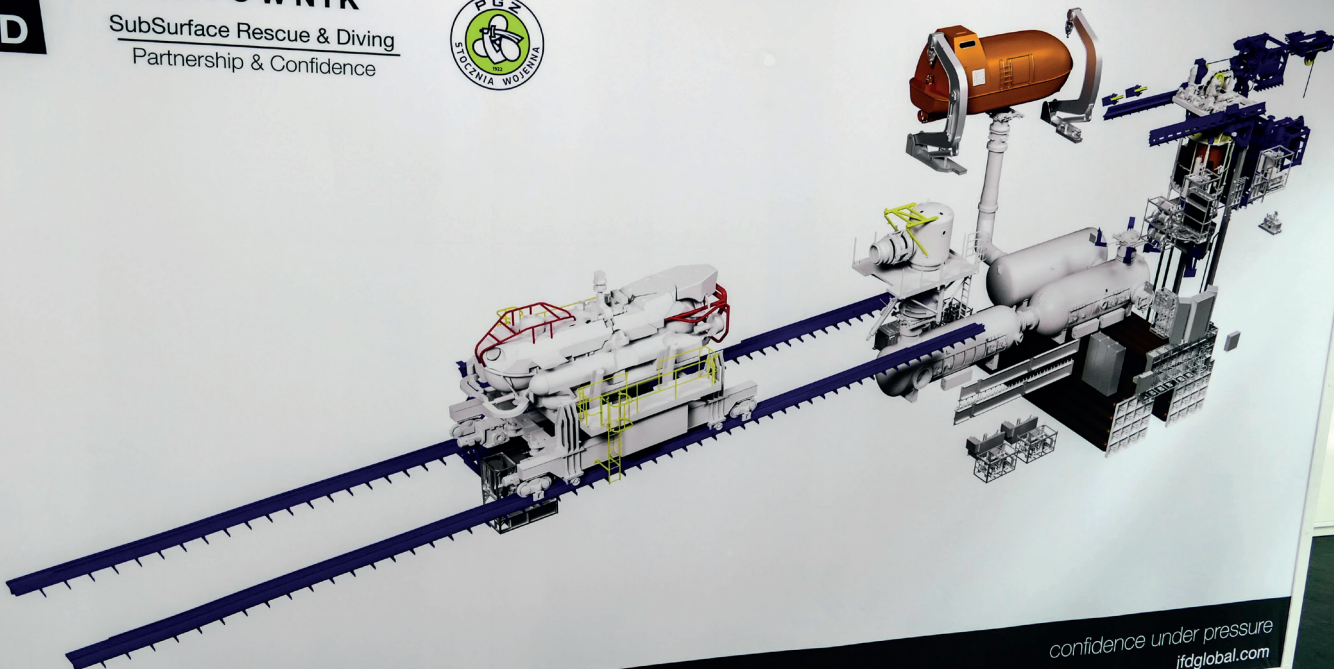


Griffin Group Defence shows its offer

JFD

RATOWNIK

SubSurface Rescue & Diving
Partnership & Confidence



confidence under pressure
jfdglobal.com

Griffin Group Defence showcased a wide range of weapon systems and auxiliary equipment from a group of its industry partners, such as General Dynamics European Land Systems (GDELS), with its 100 meters long Improved Ribbon Bridge (IRB) system and Eagle V 4x4 armoured tactical vehicle, Dynamit Nobel Defence (DND) showing a family of RGW 90 long range multi-purpose weapon systems, as well as the British James Fisher and Sons, which presented its NATO Submarine Rescue System.

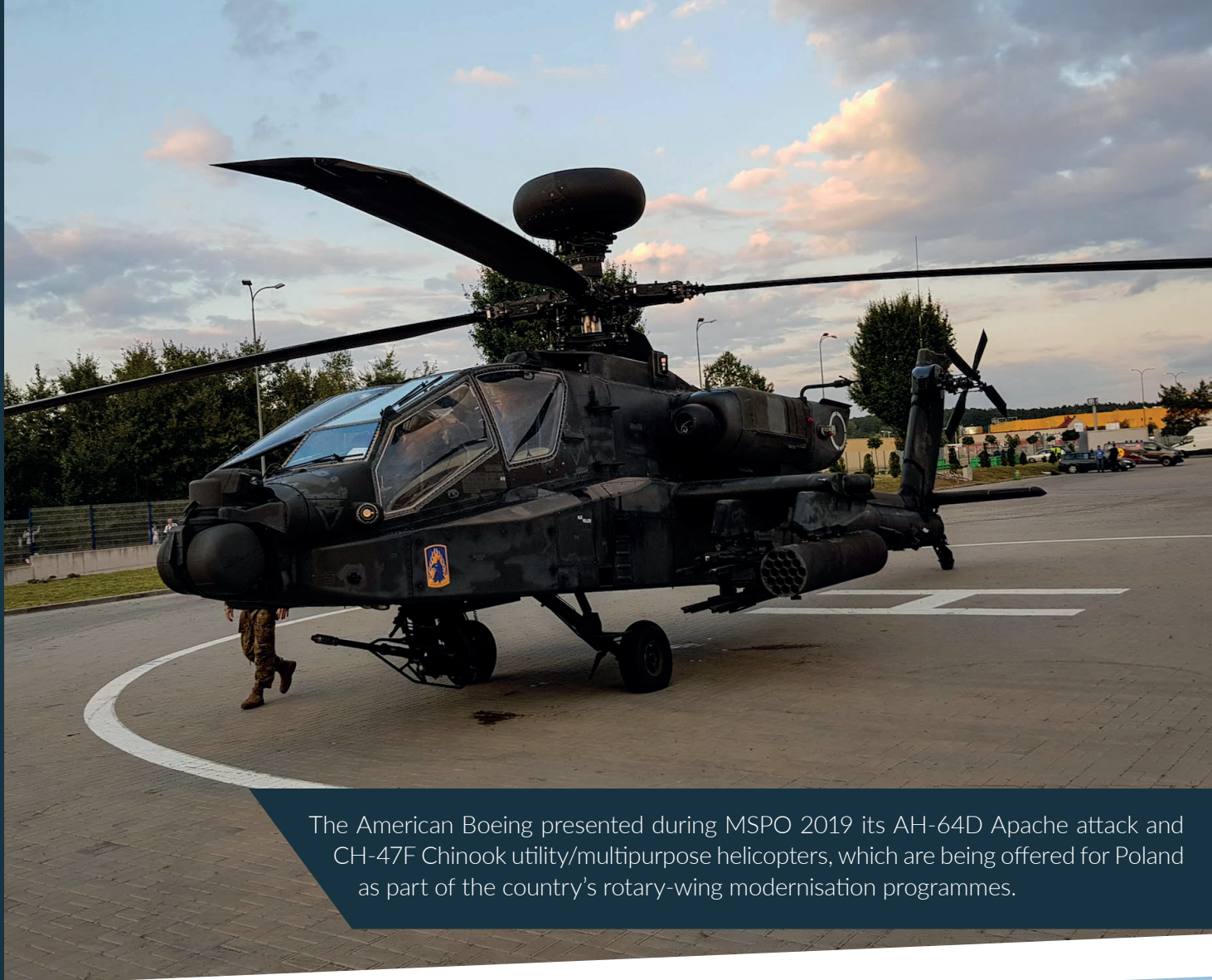




The Military Automotive Works (Wojskowe Zakłady Motoryzacyjne, WZM) presented an offer for modernization of the Leopard 2A5 main battle tank (MBT) as well as the upgrade of the BWP-1 infantry fighting vehicle and BWR-1D reconnaissance vehicle.







The American Boeing presented during MSPO 2019 its AH-64D Apache attack and CH-47F Chinook utility/multipurpose helicopters, which are being offered for Poland as part of the country's rotary-wing modernisation programmes.



The Lukaszewicz – PIAP Institute presented at MSPO 2019 a technology demonstrator of the ASBOP-PERKUN mobile air defense combat system developed in partnership with the Telesystem-Mesko company.



The system is composed of the six-wheeled chassis of the Lukaszewicz – PIAP Institute's IBIS robot fitted with a launcher for two Grom/Piorun air defence missiles designed by Mesko.

Fort PIAP

The PCO company presented at its stand a number of components of the Titan future soldier system. Most of them were showcased for the first time.





Qualification trials of the entire Titan system are expected to conclude by 30th June 2020.



Subsequently, its results should be accepted by the head of the Armaments Inspectorate, which will allow for the signing of a procurement contract. Some components of the system, like the MSBS/Grot assault rifles, are already in operational service with the Polish Armed Forces.

Radiostacja osobista
Digital personal radio

Radmor S.A.

Nawigacja inercyjna systemu C4I
Inertial navigation for C4I system

WB Electronics S.A.

Concept does not lose hope on the Mustang

The Concept company from Bielsko-Biała presented its LMPV II light, multipurpose vehicle, designed as a successor of the widely operated, but highly criticised Honker 4x4 tactical vehicle. LMPV II is capable to transport of up to 7 light infantry soldiers and additional equipment.





© MICHAŁ JAROCKI, JAKUB LINK-LENCZOWSKI,
Rafał Muczyński
WSPÓŁPRACA: PAWEŁ ŚCIBIÓREK, JOACHIM RAŻNY,
REMIGIUSZ WILK
© JAKUB LINK-LENCZOWSKI, PAWEŁ ŚCIBIÓREK,
REMIGIUSZ WILK

ORLIK

REACHES TO THE SKY

ORLIK

INST. HYDRAULICZNA
HAMULCOWY ZASADNICZY
|
POJOWO - AWARYJNY





Manuel Heredia Ortiz, CEO, Airbus Poland S.A., outlines the progress in the modernization of the PZL-130 Orlik trainer aircraft for the Polish Air Force and presents vision of future export contracts.

What is the current state of the Orlik programme for the Polish Air Force?

The upgrade of the Orlik is basically structured in three different contracts. A few years ago, what the Polish Air Force had was sixteen aircraft in the TC-II configuration. Between 2016-2017 what we signed was three contracts. First, to upgrade the fleet that was already in operation to a new version, which we call TC-II Advanced. It is basically an upgrade of the avionics to make it compatible with Western aircraft.

In the second step the Polish Air Force ordered a full flight simulator in this configuration. They had some quite unique requirements, e.g. this simulator has the possibility to do formation flights. So, there is a station for a student and a second one for the flight instructor, who flies a second aircraft. They can fly together in the simulation and you can also generate additional, artificial aircraft, so you can several aircraft in formation. This is going quite well. The installation of the simulator has already started.

The third contract was related to the twelve aircraft that were in storage and they were in a very old version, the TC-I. They've not been used for some time. The contract called to take those twelve aircraft and make a full retrofit from TC-I to TC-II Advanced. This means



assembling new wings, engines, propellers and of course all the new avionics that come with the TC-II Advanced.

All this is going quite well. For the sixteen aircraft, we've already delivered eleven. At the end of the year there will be only one aircraft remaining.

We have a good, positive feedback from the Polish Air Force. They are very happy with the new version.

In regards to the dozen of more legacy Orlik, the first of them is already in the final stage of the

modernization and we plan to commence deliveries in the Q4 2019. The goal is to provide this strong training capability to the Polish Air Force as soon as possible. At the end of the process, they will have 28 aircraft, which will constitute a quite significant fleet as well as the full flight simulator.

What are the major improvements in the TC-II Advanced version in comparison to the standard TC-II configuration?

The difference between the TC-II Advanced and the TC-II is mainly the cockpit, which is compatible with Western aircraft. The second thing is that until now the Orlik had a fully analogical cockpit and now we have a mix of analogical and digital indicators. I think that now we have the right balance, because you can always have a number of more fancy systems, but this increases the cost [of the platform]. We can say that we developed this version together



What was the scope of work in the upgrade of the TC-I version to the TC-II Advanced standard?

TC-II has completely new wings. So, the old wing is scrapped and we manufacture a new one. There is a new, turboprop engine. Everything that goes around the powerplant is updated as well. These are the main elements.

What was the reason for the simulator to be delivered to the Polish Air Force only after a number of upgraded aircraft have been already handed over?

It was logistics. The original contract called for the delivery in 2019. However, in the meantime the customer decided to change the location, of where the simulator will be installed. Originally it was supposed to be installed in Radom, but then the Air Force decided to install it in Deblin instead. The Air Force needed some time to prepare the infrastructure, and asked us to postpone the delivery until 2020.

Actually, we were ready in advanced and delivered a part of the system in 2018, and we've been ready for some months to deliver the second part.

Did the feedback from the Polish Air Force, aside from their positive experience of using the upgraded version, include any suggestions, of what still needs to be modified or improved?

It is very important that we've started to have a very close collaboration with the Polish Air Force to take care not only of the present of this programme but also of its future. There's always something, that you can do. The challenge here is to make sure that we're

not on our own thinking of what the customer wants, because we may not interpret correctly what he needs. We have a very regular contact with the Polish Air Force and we're constantly working on improvements or different packages. What we're trying to do is to make sure that we're working in line with the needs.

Another direction, in which we're working as well, is to anticipate the path of evolution of this project for the next 20 years. We need to take care of the obsolescence [of the equipment].

What was the reason for the Polish Air Force to decide to modernize both variants of the Orlik trainer?

I assume that the Polish Air Force needed to have a bigger fleet [of trainer aircraft]. I think that this is not unusual. If you look at fleets other Air Forces comparable in terms of size, this is nothing unusual to have around 30 of such aircraft. Poland has big ambitions in terms of growing its fleet and replacing the older aircraft, and it needs to have pilots to do that.

What is the scope of involvement of the Polish industry in the upgrade of the Orlik platform?

I don't think that we do anything outside of Poland. Of course, some of the equipment we do buy outside, but this is normal in this industry. However, anything, that is manufactured [for the project], is manufactured in Poland. Significant part of the work is done in house, here in our facility in Warsaw. But then we're also working with local suppliers, like the Polish Armaments Group [PGZ, Polska Grupa Zbrojeniowa].

with the Polish Air Force to make sure, that this is what they needed for the initial phase of training of the pilots.

We ended up with a very robust and proven platform, which is also very cost effective in terms of maintenance and has the right level of technological complication. That was a challenge to have this balance and to include everything that was necessary, nothing more, and I think that we've done it.

It still is totally a Polish product.

Who is, according to the contracts, responsible for maintenance, overhaul and repair of the upgraded aircraft?

At the beginning of 2019 we signed a frame contract for the next four years, under which we provide spare parts, technical support, when the customer alone does not have the capability to support the aircraft. But also, there's an expectation that for longer maintenance stops, like the ones, which happen every 10 years, we will be supporting the customer. However, each time it will be the Polish Air Force to make the decision, depending on their own capabilities and how they will organize the logistics.

What is the expected service life of the aircraft?

This is 12 thousand hours.

What are the export opportunities for the Orlik trainer?

The export market is very important for us, as the manufacturer, but also, as we believe, for the current operator. When you're the single customer, you have to finance all of the developments to the programme. On the one hand, this is good, because you can steer the programme in the way you want, but you have no one to share the cost with. I think this is very well understood by the Polish Air Force.

It is a very good moment, because this upgrade programme has been a perfect excuse to re-establish the final assembly line. Basically, 80% of the final assembly line had to be put back into operation. For the last 5-6 years, all this tooling was in storage, and now it's back in use.

All this, the will of the customer to invest for the next 10-20 years in a big fleet of trainer aircraft and simulator systems, as well as the fact that we have an active final assembly line, are important signals to the market. The message which we received from our prospective customers is that this [Orlik] is a European product, it's not a paper aircraft and it provides a lot of certainty and a lot of confidence to prospective customers.






We have plans to go with the Orlik to the market and at the same time we are contacted by the customers, who approach us. For the next 5 years we see some prospects in Europe as well as in South Asia.



What are the numbers of aircraft, which you expect to sale on export markets?

When we're making our projections for the next 5 years, we see that the market has potential for big numbers [of aircraft], but at the moment we're a bit conservative. We need to understand that there is a significant effort needed on our side to move from a local programme to an export contract.

Will signing of the first few export contracts lead to any modification, or even build-up of your assembly line or even the whole manufacturing facility?

I think this will depend on the volume and the ramp up. It depends if the customer is requesting big volumes in the short period of time. We're too early in the process to know that. At least one of the prospective customers has already signalled that if this opportunity matures, they would like us to accelerate, so if this goes forward, we will have to do it. However, my preference is to use the systems as it is today, because it's already tested and proven. 



 MICHAŁ JAROŃSKI
 AIRBUS

SAAB PRIORITIZES BALTIC SEA REGION





Jyrki Kujansuu, President SAAB Technologies Poland, VP and Manager Country Unit Poland&Baltic States talks with the MILMAG International magazine about the company's plans for growing its footprint in the Baltic Sea region and enhancing sales opportunities.

What role does the Baltic Sea region play in Saab's marketing and sales strategy in regional and global terms?

It's very important, and the main reason for that is that Saab originates from Sweden, we have more than 12,000 employees here, and that's an important starting point. But also, Saab has an installed product base in all Baltic Sea countries, excluding Russia for obvious reasons, and we have operations in several of those countries. And we see that all the countries in the region are investing more in defence and security due to the change in the security environment. I think also that if we would calculate the numbers of how big our yearly sales are, it would be significant for Saab, in the global comparison, from this region.

It also is important for the reason that we have research and development activities ongoing in several countries around the Baltic Sea, which is very important for us. Industrial cooperation works well. There are functioning R&D models so, it's a mature market in general terms.

But, I also would like to say, that Saab has plans and ambitions to grow globally beyond the Baltic Sea and Northern Europe region. Saab is globally present and we're



looking closely at what's happening in the UK, North America and the United States, South America, Asia-Pacific and the Middle East as well as Africa. We have a global strategy also covering all continents.

Does the fact that, as you already mentioned, Saab originated from Sweden, affect in any way your perception of the Baltic Sea region in terms of sales and industrial co-operation priorities?

Yes, absolutely. This is a really straightforward answer. Firstly, I would say that, if we look when Saab originally started, the purpose was for manufacturing fighter aircraft for Sweden. So, it was then a domestic oriented company. That approach has dramatically changed to include a regional and global approach from the end of the 1980s.

On a good note we have learned

from cooperating with our Baltic Sea neighbours, specifically those who are NATO countries, which most of them are. The NATO interoperability capability has been a very important factor since the early 1990s. As you know Sweden joined NATO's Partnership for Peace programme in 1994, and has been a very active member since. At that time Saab started to focus on making sure that whatever we manufacture must be exportable. That was a positive change for us. Interoperability is very important in defence structures today. Not only when operating domestically, even more when someone operates and conducts exercises with other countries. And Saab sees an increase in combined and joint operations. We have a strong global footprint for example in our interoperable training and simulation equipment offer.

One key prerequisite for Saab sales in the region is of course that we follow the valid export regulations from the Swedish Government. All countries around the Baltic Sea, except Russia, are on the 'green' side for export sales, hence it's rather easy for Saab to work with them in this perspective. There's also another point to that. If you want to contribute to your neighbours' security, it matters for Saab and the wider Swedish society. And as you know, there was strong political support, including large donations from Sweden to the Baltic countries, in the 1990s, when the Warsaw Pact collapsed. There were large donations of defence equipment from Sweden to the Baltic States. That was a very strong political gesture, showing that Sweden wanted to contribute to the build-up of their defence structures and capabilities. It was

not only equipment, it also included training packages and staff officers embedded in that programme, which lasted for many years.

Why do I bring this up? It's because much of the equipment provided by the Swedish Defence Forces as a donation were originally manufactured by Saab. Hence, Saab took part in that activity at the same time, because we have the original equipment manufacturer responsibility for the products, even if they were provided in a political donation. That's also why we started to learn more about these three countries: Estonia, Latvia and Lithuania. So, we've been present in the Baltic States since those days. Now, we're growing also into interesting relationships with the local defence industry and defence structures, and now they have developed their own defence procurement structures and activities.

The perception is that we really would like to take care of our neighbours and support them, both from the governmental side and from the industrial side. Mostly we do it together and sometimes we

do it separately, but in accordance with a joint strategy.

What is your plan for marketing and promotion of your products among the Baltic Sea region countries?

First of all, we have several tools. Then the question is, what is our strategy to either enter a country or continue in one where our activities are already ongoing. It's a huge difference, if we compare which tools we use in a country like Finland, Denmark or Germany, because we have already ongoing operations in those countries. There we are like a local part of the industrial and defence ecosystem as a company. Then you use different tools and take different actions or strategies depending on the ambition we have in the individual country.

When it comes to Estonia, Latvia and Lithuania, we have been there more than 20 years thanks to the installed product base, but as a market we can still see that they are a little bit too small to make a big footprint of putting in our operations. So there we have other strategies

and tools we're using for how to become an even more attractive industrial partner. The latest development there was in fact at the end of September 2019 when Saab opened a new office in Lithuania.

When we come to Poland, we have two offices with Polish staff that work in business development and marketing and sales. We have good relations to all key stakeholders on the defence market. I think that we are in some kind of pivot status in the coming years, depending a little bit on how the Polish market will evolve. I can tell that I am preparing for entering into a bigger footprint here. For Poland we see significant interest in many of Saab's business units. Saab uses several tools in promoting our products. We take part in think-tank activities. There are bilateral talks between our governments. We do innovation seminars. We're taking part in other different activities as good as we can. Of course, there are procurement talks ongoing constantly. We are in frequent contact with the Armaments Inspectorate and the end-users. On the industrial side, I would like to mention that



we already have contracted Polish companies for the ongoing Swedish A26 submarine programme.

As I indicated above, we are at the stage of preparing our next step in Poland. I cannot say in detail when we'll move from just being a local sales office with an installed product base and where we see the next developed scenario for Saab in Poland. However, that could be a technology transfer project and some kind of operational activities in the near years to come.

To continue with the topic, what role does the cooperation with local industry, whereas in Poland, Baltic States, Germany, Norway or Finland play in your marketing, sales and RnD strategy?

If we start in the area of R&D, which is rather important for Saab to discuss. Firstly, Saab invested in 2018 23% of our yearly sales in R&D. It is a very large percentage in any comparison. There's a reason for that. Saab would like to be a company at the forefront of the selected technologies we choose. Technologies which are and will be important for us in the future. We have defined our five key strategic technology areas and then we have an opening for some of the new interesting technology areas, like cyber, space, or AI etc. The purpose for this large investment is that we see that this is the only way for Saab to survive in the competitive global market. It is an investment in our future.

We are open to find cooperation partners in R&D. For example, Saab is active on the European level in the EDA R&D programme, OCEAN 2020. Several Baltic Sea countries, including Poland, participate in the programme.

On innovation, we are engaging in a model, which we call the triple helix. We engage with other industries and with academia. Sometime we do things only with academia or only with industry. And then there's the third body into the triple helix model, which is the governmental structures. We have just stepped up an R&D centre in Finland, which is a part of our bigger growth scenario.

We invest also in Denmark, in the area of advanced communication





systems. In Germany we're also investing heavily in different areas. One is the area of electronic warfare. For Poland I would say that we have not yet started to do any significant R&D activity. However, in the innovation area, in which Saab is also very good, we have an ongoing cooperation with the Naval Academy in Gdynia.

In terms of industrial cooperation in Poland, we are talking to many companies and ask them if we can find some joint activities and solutions for open programmes. We discuss with

government-owned as well as private industry. The other thing is that we are constantly looking for partnerships for challenging our existing global supply chain. Even if we have a supply chain for our products, every year we find new companies, which do even better quality, better performance and to a lower price. Then we challenge our supply chain. And I would like to mention the Famor company from Poland. They are contracted by Saab and are doing really good in the A26 programme.

Does Saab perceive the change in the security system in the Baltic Sea region as a chance to enhance and improve its sales opportunities?

Looking at how we're growing in our staffing and yearly sales growth in the region, it goes without saying. We notice that defence investments [among particular states in the region – MILMAG Int.] are growing. Saab tries to make sure that it optimises our already installed product base and looks at



how can we grow in those areas. And then the key importance is how do we grow and broaden our footprint. It's a lot about having a close dialogue with the customer and being present locally. We have a rather comprehensive approach to strategic industrial partnerships.

What Saab is currently noting is that all the Baltic countries have a rather small industrial base for defence. But what we also see is that it's not just about the possibility to manufacture some less complex systems and maintenance, but they also have an appetite for some high performance components. Lithuania, for example, is extremely strong in laser technology.

For Poland, we are already engaging with the shipyards. We have installed product base in the Polish Navy, so we're trying to take care of that as good as we can, with the RBS-15 missile system, surface radars and other sensors. We also notice that to a larger extent in Poland there is a political appreciation that if we include industrial cooperation in projects it's seen as an added value. However, we don't only look at that from the political perspective. For

us it has to make business sense in the marketplace. I think there is a good situation in Poland, as you have a very skilled workforce in general, which we believe that we could integrate into different layers of future joint delivery programmes.

What investment and modernization priorities do you recognize in each of the regional countries?

If we look at Finland for example, it has a very interesting model of how it prioritizes particular services over a 20-year period. They are extremely strategic with what they're doing. Now they work in the time window, where the Navy is in



focus. One clear proof of this is the recently contracted Squadron 2020 programme, where Saab signed a contract with Finland with a value of more than 400 million euro.

The priorities in the Baltic States are in a way rather similar to each other. They all focus on Land forces, including mechanization, artillery, anti-tank, air defence and air surveillance etc. They have started to look into Navy development for the future. Today they have the MCM capability. In the Air side, the countries focus mostly on air basing and the host nation support for the Baltic Air Policing mission. Special Forces and the local territorial forces are also very important.

For Poland land forces are of great importance, including the air defence, along with the Air Force and Special Forces and build-up of the Territorial Defence Force. The Navy seems to be less prioritized currently. However, the new 2021-2035 Technical Modernization Plan from MoD has high ambitions for all services.

Germany is investing in all of its armed forces rather evenly as far I know. Saab has operations in Germany. It is a very good country for Saab sales. Denmark is a little bit on the lower scale of absolute sales numbers for Saab, but it makes defence investments and we have sales in all the services and we have operations in Denmark.

What about Sweden and its investment and modernization priorities?

Sweden is for Saab the single biggest market. In Sweden there is a joint political commitment to increase the defence budget. The Gripen E programme is of course one priority for Sweden. As well as the different submarine programmes. Both those programmes are in the hands of Saab. Air defence investments will continue. The new surface vessels programme will also be looked at. There will be significant investments in sensor projects and all branches of the Land forces.

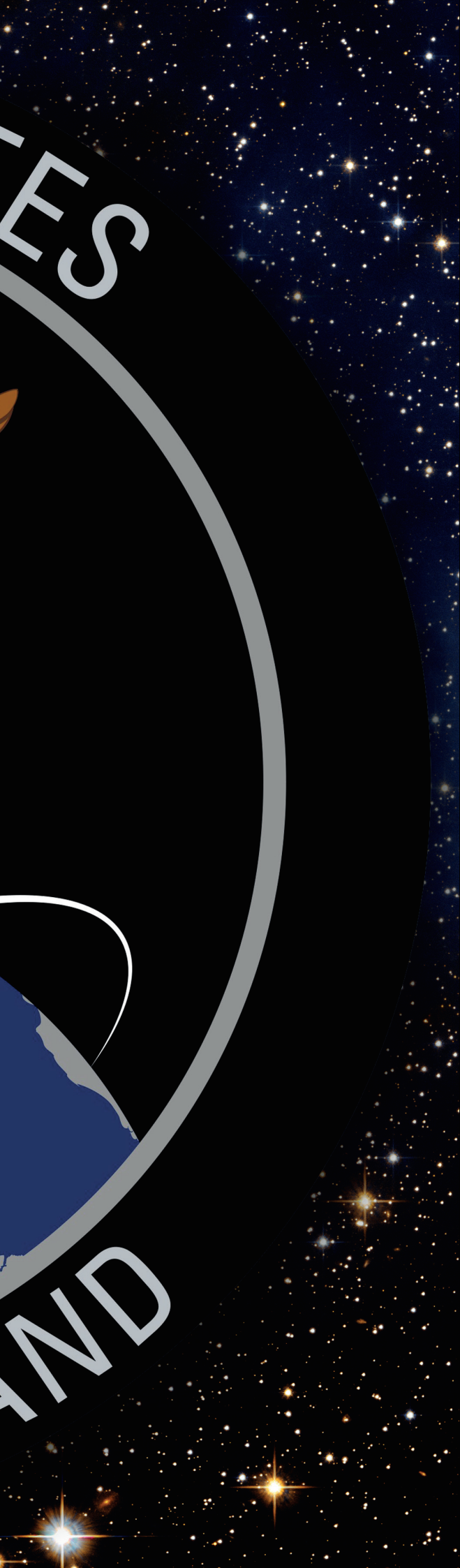


✉ MICHAŁ JAROCKI
📷 SAAB

UNITED STATES



SPACE COMMAND



US ENTERS A NEW STAR WARS ERA

The US government has officially taken a new approach to the way in which it perceives the Space domain and what role will it play in American strategy for providing country's defense and allowing it to prosper in the modern World. Establishment of the US Space Command is a major shift in country's vision of Space and noticing the wide range of opportunities and threats that come along with it. The new Combatant Command will allow the US to gradually converse its posture from a global player which rests its dominance on a set of conventional hard power tools to a modern, innovative force envisioning the future of global political and military rivalry in Space.

As the world of geopolitics constantly changes its nature, the system in which great powers compete on the global stage also evolves. The balance of power, which constitutes the posture of the World, is not given once for all, but rather undergoes consistent modification. The same applies to a wide range of tools, thanks to which nations can and try to protect their core interests.

Today conventional assets of the hard power politics, such as army, navy and air force are no longer self-sufficient, but rather interconnected and rely on a number of factors and high tech solutions,

USSPACECOM was formally established as the eleventh Unified Combatant Command on 29th August 2019 at the direction of the President of the United States, Donald J. Trump and Secretary of Defense, Mark T. Esper, during a ceremony at the White House. Gen. John W. Raymond, the former Deputy Chief of Staff for Operations, Headquarters U.S. Air Force, was confirmed as its commander

many of which, like GPS, ISR or communications, emerge from our exploration of Space and the use of the opportunities which come along with it. Therefore, Space has become a domain which has a significant impact on how and to what extent many nations will be able to protect their strategic interests and sustain a top position on the political World map. This also requires taking a

new approach to how particular players perceive and secure their posture of new powers in Space.

BACK TO THE FUTURE...
FOR GOOD

The US Space Command (USSPACECOM) was formally established as the eleventh Unified Combatant Command on 29th August 2019 at the



direction of the President of the United States, Donald J. Trump and Secretary of Defense, Mark T. Esper, during a ceremony at the White House. 'To ensure the protection of America's interests in space we must apply the necessary focus, energy, and resources to the task – and that is exactly what Space Command will do', said Secretary Esper.

Gen. John W. Raymond, the

former Deputy Chief of Staff for Operations, Headquarters U.S. Air Force, was confirmed as USSPACECOM commander. 'Gen. Raymond is acutely aware of the vital role that space plays in US national security and our way of life and is an ideal choice to lead this new command. Establishing the United States Space Command as a unified combatant command is the next

critical step towards the creation of an independent Space Force as the sixth branch of the armed forces', Esper added.

Establishment of the USSPACECOM is described as a critical step, which underscores the meaning of Space in the American security strategy and as an important contribution to country's defence capabilities. The move is expected to accelerate US capabilities to address a range of rapidly evolving threats to country's space assets and will allow to deter potential adversaries, who might put US interests and assets in Space at risk.

'The scope, scale and complexity of today's threat is real and it is concerning', said Gen. John W. Raymond. The establishment of a combatant command solely focused on the space domain demonstrates the United States' commitment to protecting and defending its space assets against that threat' he added.

USSPACECOM's establishment is a logical consequence of goals set in Donald Trump's National Security Strategy and the National Strategy for Space, which highlight Space as one of country's strategic domains and call for the US to maintain its superiority in it. The new Unified Combatant Command is expected to modernize and enhance US approach to space, which in the future will be recognized as a warfighting domain rather than a domain of an unchallenged environment.

The US Air Force describes the main functions and missions of the new Command as to 'deter aggression and conflict, defend US and allied freedom of action, deliver space combat power for the joint/combined force and develop joint warfighters to advance US and allied interests in, from and through the space domain'.





USSPACECOM

Gen. John W. Raymond is Commander, US Space Command and Commander, Air Force Space Command, Peterson Air Force Base, Colorado. He was commissioned through the ROTC program at Clemson University in 1984. He has commanded the 5th Space Surveillance Squadron at RAF Feltwell, England, the 30th Operations Group at Vandenberg AFB, California, the 21st Space Wing at Peterson AFB, Colorado, the 14th Air Force, and Joint Force Space Component Command. He deployed to Southwest Asia as Director of Space Forces in support of operations Enduring Freedom and Iraqi Freedom. The general's staff assignments include Headquarters AFSPC, USSTRATCOM, the Air Staff and the Office of Secretary of Defense

Furthermore, the USSPACECOM is described as a 'geographic combatant command with a global area of responsibility defined as the area surrounding the earth at altitudes equal to or greater than 100 kilometers above mean sea level'. The new command will be integrated on a global scale with other geographic combatant commands.

PAST LESSONS, NEW CHALLENGES

Although the establishment of the USSPACECOM is being described as a crucial step in the shift of paradigms of US security policy from conventional, Earth-oriented to a more modern one, which is aware of the evolution of new threats and

challenges in the Space domain, it is not the first attempt of the US Government to achieve its dominance in new fields of geopolitical rivalry.

The first Space Command was stood up by the US in 1985. It served as a command and control centre for various space assets scattered among the Air Force, Army, and Navy. However, in the aftermath of the 9/11 terrorist attacks and a clear shift in US security priorities, which at that time put more focus on terrorism and the need to provide safety and protection for civilians in the homeland, the decision was taken to merge it with the US Strategic Command, what eventually happened in 2002.

In this regard, the 29th August ceremony at the White House could be described more as a re-activation of the Space Command. However, in reality the new USSPACECOM has very little in common with its predecessor, as the a number of major differences in the security environment can be identified in comparison to the challenges, which the US Armed Forces faced in the space domain in the past.

For instance, in the past 17 years, literally every aspect of military operations launched by the US Armed Forces has grown more dependent on satellite-provided systems, with special regard to various communication, observation and localization assets.

THE FIRST STEP TO SPACE DOMINATION

USSPACECOM, as another unified command in the structure of the Department of Defense (DoD), will increase the ability of US Armed Forces to: project power and influence all across the globe (and beyond), speed up decision making processes, as well as to



more effectively defend of US interests in Space. The command will be temporarily headquartered at Peterson Air Force Base, Colorado. Additional personnel and functions will be dispatched at Schriever AFB, Colorado, Offutt AFB, Nebraska, and Vandenberg AFB, California. Its final size in terms of manpower, will be defined at the later date and depend on future, projected tasks and requirements. It is expected that it will take at least a year for the Command to reach an Initial Operational Capability status and even longer to achieve the Full Operational Capability.

The mission package set for the USSPACECOM in its initial phase involves four distinct domains:

- strengthening US national

deterrence through the provision of space warfighting options that preserve US and allied competitive advantage, promote security and stability;

- leading the protection and defence of combined interests in Space in coordination with allied and joint force commanders and inter-agency partners, if and when deterrence fails;

- preserving and expanding space combat power to enable joint and combined force success;

- improving the development of joint space operations forces and capabilities to enhance space warfighting readiness and lethality while accelerating the integration of space capabilities into other warfighting forces'.

The US Air Force describes the main functions and missions of the new Command as to 'deter aggression and conflict, defend US and allied freedom of action, deliver space combat power for the joint/combined force and develop joint warfighters to advance US and allied interests in, from and through the space domain'

STRUCTURED COMMAND

According to the US DoD the USSPACECOM is currently composed of two subordinate commands, which role is to support the warfighting efforts of the command: Combined Force Space Component Command (CFSCC) at Vandenberg Air Force Base and Joint Task Force



US Navy

Nation'. The subordinate command is expected to execute and coordinate operations in the space domain through four operation centers: Combined Space Operations Center (CSpOC) at Vandenberg AFB, Missile Warning Center (MWC) at Cheyenne Mountain Air Force Station, Joint Overhead Persistent Infrared Center (JOPC) at Buckley AFB and Joint Navigation Warfare Center (JNWC) located at Kirtland AFB.



USAF

US Space Command will protect US Space-related assets, such as satellites, from a wide range of threats, including terrestrial and space-based, like the Standard Missile-3 Block 1B interceptor shown in the picture, allowing for their identification, characterization and selection of defensive means

Space Defense (JTF-SD) Schriever Air Force Base.

According to the US Air Force, CFSCC has been tasked to 'plan, integrate, conduct, and assess global space operations in order to deliver combat relevant space capabilities to Combatant Commanders, Coalition partners, the Joint Force, and the

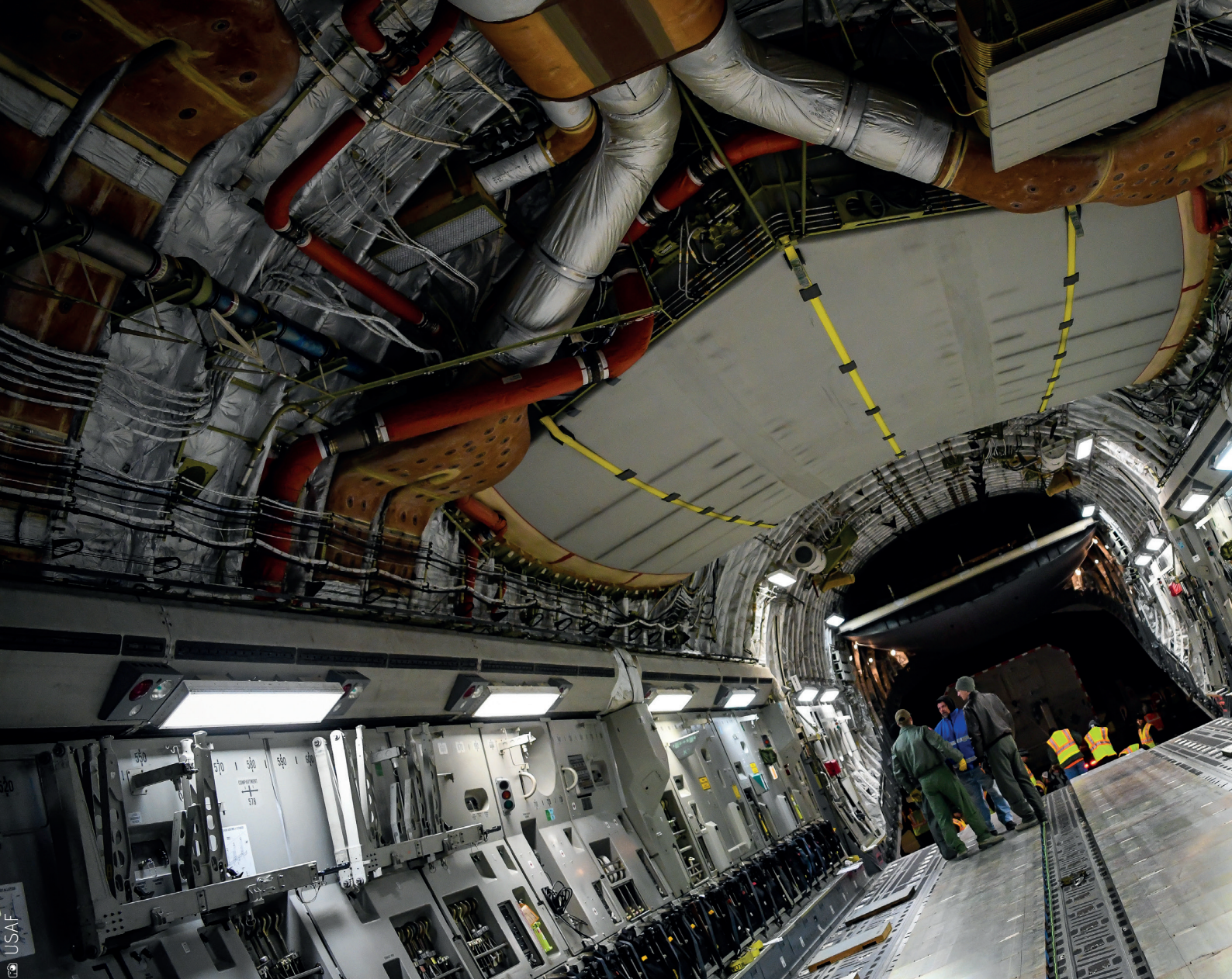
CFSCC is entrusted with planning, tasking, directing, monitoring and assessing of the execution of combined and joint space operations on behalf of the Commander of USSPACECOM, directly integrating with ongoing operations in other Combatant Commands. The subordinate command also supports or receives support from partner commands, such as the Australian Space Operations Center

(AUSpOC), the Canadian Space Operations Center (CANSpOC), and United Kingdom Space Operations Center (UKSpOC).

USAF envisions that the Command will also provide 'Space Domain Awareness (SDA), space electronic warfare, satellite communications, missile warning, nuclear detonation detection, environmental monitoring, military Intelligence, Surveillance and Reconnaissance (ISR), navigation

In today's World conventional assets of the hard power politics rely on a number of factors and hightech solutions, many of which, like GPS, ISR or communications, are directly or at least partially related to Space. Therefore, the ability of a country to actively and effectively protect its core interests in the space domain will become as essential to securing its prosperity, as it is today in case of its activity on the Earth





The US government identifies the need to accelerate space technology and development initiatives as well as the importance of fielding new next-generation capabilities for national security space development, as essential to securing the position of the US as the main power in the Space

space superiority operations to deter aggression, defend capability, and defeat adversaries throughout the continuum of conflict'. It will be responsible for protecting and defending strategic assets in space from a number of threats, such as terrestrial and space-based, identifying them, characterizing and selecting defensive means.

It is envisioned that JTF-SD will execute its missions of protecting and defending space assets, through a handful of operation centers, such as the National Space Defense Center at Schriever AFB, as well as space situational awareness and defense units. 'All joint task forces, from anti-piracy to

space, operate in complex strategic environments', said Gen. Raymond. 'That is exactly what the space domain is. Complex. New risks have emerged. But, we have very clear marching orders. This first-of-its-kind operational command will protect and defend US, allied, partner and commercial assets and interests in space' he added.

SPACE FORCE WILL PROTECT US INTERESTS

Establishment of the USSPACECOM alone will be insufficient to fully change the posture of the US as a dominant power in Space. Therefore,


warfare, command and control, and Positioning, Navigation and Timing (PNT)', which will support the USSPACECOM and the other Combatant Commands.

JTF-SD, the second subordinate command under the USSPACECOM, has a mission to 'conduct, in unified action with mission partners,



creation of the Space Force is the need to reorganize, train and equip various assets in control of the US government, which might allow it to defeat or overcome major space-related threats to its core interests here on Earth. Currently, most of these assets are scattered among a number of military and civilian institutions

Division of Space-related tasks, which are currently assigned to various institutions differing in the way they are organized, controlled and funded, limits the possibility of fulfilling the main missions and goals aligned with the US government's space policy and ambitions. Furthermore, insufficient staffing among these agencies, hinders the timing and quality of actions, which need to be taken in order to defend US strategic interests in Space and therefore affect the country's ability to protect its assets on Earth.

At this time it's yet too early to predict what structure, size and capabilities will the future Space Force possess, as these aspects still require significant conceptual works and discussions among various levels of government institutions, and also the final acceptance of the legislative power. However, it is presumed that the Space Force might generally or at least partially fall under the command and overview of the USAF, playing a similar role in its structure and being comparably interconnected with as the US Marines Corps and the US Navy. 



 MICHAŁ JAROŃSKI

it will have to be accompanied by the creation of the Space Force, which will be the sixth branch of the United States military. The plan for its formation was announced by president Trump at a National Space Council meeting on June 18, 2018. 'I'm hereby directing the Department of Defense and Pentagon to immediately begin the process necessary to establish a space force as the sixth branch of the armed forces', the President said.

Subsequently, the DoD outlined five actions that should be taken in order to speed up the formation of the Space Force, such as:

- accelerating space technology and development initiatives;

- establishing a Space Development Agency charged with developing and fielding new next-generation capabilities for national security space development;

- establishing a Space Operations Force of professionals, who will form a new community of experts working to lead America's national security space efforts into the future;

- establishing an operating structure and accountable civilian oversight for Space Force;

- creating a United States Space Command, a unified combatant command, to improve, evolve, and plan space warfighting.

One of the reasons for the

LATVIA



procures new tactical vehicles

A close-up, front-quarter view of a tan-colored tactical vehicle. The vehicle features a large, multi-slatted grille on the left side of the front end. Below the grille, a heavy-duty winch is mounted, with a steel cable and a hook visible. The vehicle has a rugged, angular design. The background shows a dirt path and a line of green trees under bright daylight.

The Latvian Ministry of Defence (MoD) has made a determination to procure a number of wheeled, tactical vehicles, as it identifies an urgent requirement to modernize the vehicle fleet operated by its armed forces. This will be the second attempt of the Baltic country's to conclude such an acquisition programme, as the previous one failed due to irregularities in the evaluation and selection process.

The intention to launch a new procurement programme was announced by the Latvian MoD at the beginning of October. The tender for the acquisition of a series of 4x4/6x6 tactical vehicles was preceded by a profound evaluation of the country's requirements and market availabilities. Procurement of new vehicles will most probably be concluded through a government to government agreement.

According to the Latvian MoD, more than 10 countries have shown their interest in the future tender and submitted offers for delivery of new 4x4/6x6 tactical vehicles. Although the list of participants is confidential, it is expected that the tender has brought attention from a number of EU- and NATO related countries and companies, as well as states, which Latvia has a close cooperation with in the field of defence.



Latvian MoD

The Turkish Otokar, offering its Cobra 4x4 tactical vehicle, was one of a handful manufacturers invited to take part in the 2nd stage of the initial tender procedure, launched in 2017

The Latvian MoD was said to have already started the evaluation of submitted bids, including assessment if proposed tactical vehicles and associated services comply with a long list of technical requirements pre-defined by the department. The selection process should also include a long and profound programme of field tests, which will evaluate vehicles performance and operational capabilities.

BROAD INTEREST FROM THE INDUSTRY

At the moment it is not clear, which countries and companies in particular have shown interest in the Latvian procurement programme. However, it is expected that the acquisition plan has drawn wide attention from mostly Western, NATO-related companies originating from Europe and USA.

The Czech Excalibur Army has officially confirmed its intention to participate in the Latvian tender. However, the company declines to comment on the platform, which

will make up for its bid, emphasizing that it will first have to get acquainted with technical and tactical requirements set by the Latvian MoD.

Nevertheless, it is expected that the Excalibur Army will most likely offer the lightest version of its renowned Patriot vehicle, which the company promotes intensively on the local and International markets. The platform is said to have a large potential to adjust the superstructure to the specific requirements of a particular client, in this case the Latvian armed forces. Furthermore, the vehicle is designed in a way that



allows its future modification, in response to changing requirements of the battlefield, enhancing its operational and combat capabilities, as well as performance.

SECOND PROCUREMENT ATTEMPT

The newly launched tender is Latvia's second attempt to procure a fleet of tactical, wheeled vehicles. The first acquisition programme was terminated shortly after selection of the winning platform, due to a number of irregularities in the evaluation process.

The first, two-stage tender brought together at its initial stage no less than a dozen manufacturers, such as the Paramount Group from South Africa, Israel Aerospace Industries Ltd. suppliers consortium, AS UPB from Latvia, Otokar from Turkey, Oy Sisu Auto from Finland, as well as American AM General and Oshkosh Defence USA.

The 1st stage of the previous programme was conducted under the negotiated procedure. In result, six of the bidders were found by the MoD eligible to continue to the 2nd phase of the process, during which selected companies had to submit their detailed bids and presented the proposed vehicles for testing. A special procurement committee verified, if the bids complied with operational requirements of National Armed Forces.

Eventually, only four companies took part in the final stage of the tender, including Oy Sisu Auto (GTP 4x4), AM General (HMMWV), Paramount Group (Marauder LAV) and Otokar (Cobra).

FAILED PROCUREMENT

In late 2018 the Latvian MoD announced that in result of the profound evaluation process it selected the Finnish Oy Sisu Auto, which offered the GTP 4x4 tactical vehicle, as the preferred bidder, allowing for the start of final contract negotiations.

The Finnish manufacturer and Latvian MoD were expected to reach the final agreement on the size of the future fleet of tactical vehicles, as well as contract's value in due time. Both partners were also to discuss possibilities of further cooperation, including involvement of the Latvian industry in the manufacturing process, as well as working out a plan

for the overhaul and upgrade of the vehicles during their whole service-life.

However, before contract negotiations could conclude, the procurement process was hindered by the by the country's Procurement Monitoring Bureau, which launched the profound investigation of the whole programme on the basis of complaints submitted by other bidders, who failed to secure the contract. In result, a number of irregularities in the evaluation and selection processes were identified, which led to the decision to terminate the whole project.

The direct reason for termination of contract negotiations was the inability to eliminate the discovered irregularities in the scope of the current, at that time, selection and procurement procedure, in order to make it compatible with country's legal regulations. Therefore, the procurement committee at the MoD decided that it would be more efficient to cancel the ongoing procedure and launch another project after implementing required legal changes.

NECESSARY MODERNIZATION

According to the Latvian MoD the planned procurement of a series of tactical vehicles is a necessary investment in country's defence capabilities, which complies with the strategic goals of Latvian security policy. 'Adequate military mobility is vital for enhancing National Armed Force combat capabilities. Responsible staff has been tasked with review of the technical requirements to make sure the procurement is successful', said the Defence Minister of Latvia Artis Pabriks.

‘An intergovernmental agreement would resolve any concerns about this procurement. We must find and decide which partner country government can provide our National Armed Forces the necessary operational mobility platforms as soon as possible’, he added.

The Latvian MoD stresses that the procurement of new vehicles will enhance the tactical mobility of the country’s armed forces.

This is a particularly important prerequisite in the process of strengthening of troop’s combat capability. Therefore, the procurement procedure is planned to be implemented as soon as possible.

The Baltic country also expects that the local defence industry will benefit from planned procurement of new tactical vehicles, which is being described as on of the biggest military acquisition programmes in Latvia’s history. Therefore, it is expected that the long list of requirements set for the bidding manufacturers, includes also the wish to set up a

local production of either whole platforms – which would depend on the size of the contract – or at least of selected subsystems and onboard equipment. Furthermore, Latvian companies could also play a hand in the future overhaul, repair and upgrade projects.

WIDER MODERNIZATION EFFORT

The planned procurement of new tactical vehicles is not the only investment in the mobility and operational capability of Latvia’s armed forces, as the Baltic state

The American AM General was said to be among a group of manufacturers, which contested the results of the first tender for new tactical vehicles, and required a profound evaluation of the selection process





Michał Jarocki



intends also to acquire a fleet of new tactical trucks.

Jānis Garisons, the Secretary of State at the Latvian MoD, announced at the beginning of 2019 that the country intends to procure a yet unspecified number of new utility vehicles. The new procurement programme could take as long as ten years to conclude. Its value has been said to be at least several million Euro.

It is expected that a number of European manufacturers will show their interest in the planned procurement and eventually submit their bids. It is not yet known, however, what technical and tactical requirements will be set by the MoD. It's probable that the future evaluation process will include such aspects, as the operational capability, performance and

The Excalibur Army from the Czech Republic is one of the manufactures, which have shown interest in the repeated tender for new Latvian tactical vehicles. The company will most likely offer a version of its Patriot 4x4 vehicle

efficiency of exploitation of the vehicles, as well as procurement and sustainment costs throughout their for life-cycle. New utility trucks will complement the fleet of tactical vehicles, which are currently operated by the Latvian armed forces, which includes almost 200 trucks received from Norway as a donation made over the past several years. **M**



✉ MICHAŁ JAROCKI



LOOKING FOR RETAILERS!

ACROSS THE EUROPE & USA!



STRIDER-ADVENTURE.COM

**SMART
OUTDOOR
EQUIPMENT**

**COOPERATE
WITH US!**

CONTACT US:
strider@strider-adventure.com
www.strider-adventure.com