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Part I: Azerbaijan

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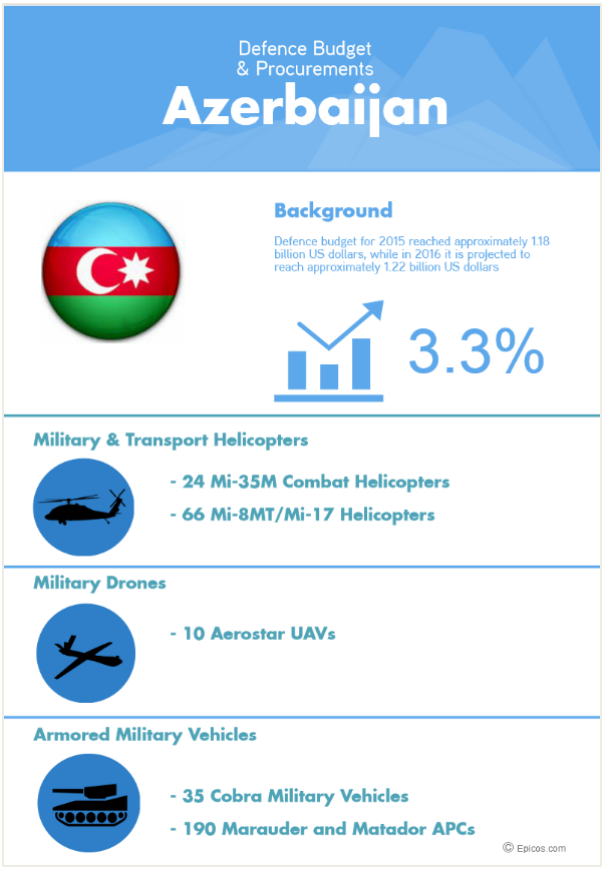
Azerbaijan: Defence Spending and Procurements

In recent years, Azerbaijan's military expenditure has developed rapidly. It is indicative that over the last 10 years, military spending has increased more than 20-fold. Baku has also succeeded to modernize and strengthen its armed forces. Currently, Azerbaijani navy is considered to be the second, after Russia, strongest fleet in the Caspian Sea, while its army and air force is considered to be one of the best equipped and trained in the area. According to budgetary documentation published by Azerbaijan's Ministry of Finance, defence budget for 2015 reached 1.77 billion new manat (AZN) (approximately 1.18 billion US dollars), while in 2016 it is projected to reach 1.83 billion (approximately 1.22 billion US dollars) slightly increased (3.3%) when compared to 2015. Nevertheless, it should be noticed that the separate annual allocation for defence-related "special projects and activities" has not been included in the 2016 budget. It is believed that Baku's military procurements were founded through this resources since 2011.

Nevertheless, the actual level of defence spending has been a matter of controversy, mainly because official defence budget figures include funds allocated to not only the Azerbaijani defence forces but also law-enforcement bodies. It is indicative that in 2015 a total of 4.82 billion new manat (AZN) (approximately 1.18 billion US dollars) was allocated to defence and law-enforcement bodies. In 2016 defence, security costs and costs related with maintenance of the judicial authority, law-enforcement and prosecution bodies accounted for 18.3% of state budget while from this amount only a portion where allocated to defence.



Regardless of what Azerbaijan's defence budget includes, it is obvious that it was decreased in 2016. The main reasons were the collapse of international oil prices and the depreciation of the Azerbaijani national currency.

Azerbaijan went through a 'spending frenzy' over the past years, buying Igla-S/SA-24 Portable SAMs, 24 Mi-35M combat helicopters, 66 Mi-8MT/Mi-17 transport helicopters, and 100 BMP-3 Infantry Fighting Vehicles (IFVs) from Russia; 10 Aerostar UAVs from Israel, 35

Cobra military vehicles from Turkey and 190 Marauder and Matador Armoured Personnel Carriers (APCs) from South Africa.

Kyriazis Vasileios,
Epicos Newsletter Head Editor

Azerbaijan: Defence industry

Azerbaijani authorities are putting efforts into reviving the country's arms manufacturing sector. According to a report published by the country's Cabinet of Ministers, local defence companies' production reached 121.2 million new manat (AZN) (approximately 80.5 million US dollars) in 2014, while total production volume increased by 26.3% compared with 2013. The declared objective of Azerbaijan, when it comes to defence production, is to reduce the imports' dependency of the nation and to boost future exports' potential.

The core competencies of the Azerbaijani defence industry are concentrated under the Ministry of Defence Industry of Azerbaijan Republic, which was established by the Order of the President of the Republic of Azerbaijan on December 16, 2005. Currently more than 900 defence products are being produced in the institutions of Azerbaijan's Ministry of Defence Industry, while the main companies/sections of the Ministry of Defence Industry are the following:

- RPE "İglim", "Avia-Agregat" plant, RPE "Sanayejihaz" ("Prompribor"), RPE "Dalga" and "Alov" plant, which mainly supply products to the aviation and shipbuilding industries.
- "Radiogurashdirma" ("Radio engineering"), "Azon", "Peyk" and "Computer" plants which mainly manufacture products for the communication and radio-electronic industry.

For further information about the Ministry of Defence Industry please visit the following website: http://www.mdi.gov.az/?/en/

Azerbaijan is trying to further enhance local defence capabilities through collaboration with foreign companies. Under this context, Israel's defence industry has increasingly cooperated in the sphere of arms sales with Azerbaijan, through transfer of technology. Towards this direction, the Marauder and Matador armoured personnel carriers (APCs) were procured from South Africa and assembled in Azerbaijan, providing to the local defence industry much needed know-how and tacit knowledge.

One of the problems, Azerbaijani defence industry is facing is the lack of experienced personnel. In order to avert this the 'Special Equipment and Technology' faculty and relevant departments were established at the Azerbaijan Technical University in line with a Cabinet of Ministers' decision.

Kyriazis Vasileios,
Epicos Newsletter Head Editor

Epicos "Industrial Cooperation and Offset Projects"

Epicos "Industrial Cooperation and Offset Projects" provides a unique set of online tools enabling the structure, identification and implementation of comprehensive Offsets programs, through a searchable database. By introducing different offset projects and ideas proposed by local A&D industry it ensures the optimum cost for Prime Contractors and reassures that the priorities of local industry are fully met…

For Further Information Press Here

Vectronics integrated NBC reconnaissance system

An NBC equipment manufacturer seeks collaboration for the integration of digital NBC detectors with modern intercoms and vehicle Battle Management Systems. Based on the fact that modern military and peace keeping forces operate in areas and countries where protection against NBC warfare is necessary, the integration of a low cost, digital, smart NBC detector to the vehicle's intercom, is a promising solution. The integrated NBC reconnaissance system will be able to detect radiation levels, blister and nerve gases, as well as meteorological parameters. The measured data will be sent via an intercom data bus and the BMS system to higher level Echelons. In parallel, an alarm will inform all crew members of the presence of gases, or any other type of environmental pollution. Through this system, different NBC reports will be rapidly transmitted to upper Echelons, providing enhanced situational awareness.

For Further Information Contact our ICO Department
Mail at: a-kintis@epicos.com

Development of an advanced UAV simulation for both Test bed and Operational Training

A leading company active in Military Simulation, offering technologically advanced solutions and services in the development and integration of turnkey projects for the military simulation market, is proposing the development of an advanced UAV simulation solution for both Test bed and Operational Training.

For Further Information Contact our ICO Department

Mail at: a-kintis@epicos.com

Safran selected as engine supplier for South-Korean LCH and LAH helicopters

Korean Aerospace Industries (KAI) has selected Safran Helicopter Engines as engine supplier for its Light Civil Helicopter (LCH). It will be powered with the existing Arriel 2C2 engine. On the Light Armed Helicopter (LAH), Safran has been selected by Defense Acquisition Program Administration (DAPA), KAI and Hanwha Techwin. The LAH will feature a new engine designated Arriel 2L2.

Safran Helicopter Engines and Hanwha Techwin have signed an agreement for the joint-development and the manufacturing of the Arriel 2L2 in South-Korea. This new engine is the latest member of the Arriel family. Hanwha Techwin will perform license-production of the engine: it will manufacture major parts and will perform the final assembly and tests in its plant in Changwon before delivery to KAI. Hanwha Techwin will also be responsible of the MRO of the Arriel 2L2 for the LAH.

Derived from the Arriel 2N, the Arriel 2L2 features a combination of new and proven technologies. Compared to the previous Arriel 2 generation, it has a new axial compressor, new high-pressure compressor diffuser, new high-pressure turbine material and new-generation dual-channel Fadec. Arriel 2L2 will be the most powerful Arriel variant and will provide better safety, reliability, power and performance during demanding missions.

Maxime Faribault, Safran Helicopter Engines Executive Vice President OEM Sales, said "This partnership is a new step in the Arriel program history. We are proud in the confidence placed in us by Hanwha Techwin. Together, we are committed to offer a cutting-edge engine solution with world-class services to the Republic Of Korea Army".

Certified in 2002, the Arriel 2C2 already powers Airbus Helicopters H155.

Arriel is the best-selling helicopter engine solution in its class. During the past 40 years, over 12,000 Arriel units have been produced, together logging more than 45 million flight hours. With power outputs ranging from 650 to 1024 shp, the Arriel family now powers over 40 different helicopter types. Arriel engine is equally as reliable as the CFM56 engine is in its category.

An Arriel-powered helicopter takes off every 15 seconds – all day, every day.

For Further Information Click Here

Raytheon, Aerojet Rocketdyne sign new strategic sourcing agreement

Raytheon Company and Aerojet Rocketdyne, a subsidiary of Aerojet Rocketdyne Holdings, Inc. have entered into a new Strategic Sourcing Agreement. Under the SSA, Aerojet Rocketdyne will act as a principal and long-term supplier of its legacy portfolio of propulsion systems and energetics products for key weapons programs.

"This landmark agreement is an important step forward in collaboration between industry partners and the U.S. Government to achieve the objectives of Better Buying Power 3.0," said Raytheon Missile Systems President Dr. Taylor W. Lawrence. "To realize the benefits of this agreement, industry and the U.S. Government must alter their historic way of doing business - that will result in significant taxpayer savings."

As part of the agreement, the two companies will jointly pursue affordability initiatives through 2019.

"We are Raytheon's partner on some of the most important propulsion systems for our nation's warfighters and national defense programs," said Aerojet Rocketdyne CEO and President Eileen Drake. "This agreement expands our long-term relationship with Raytheon and is a direct result of our commitment to deliver quality products on schedule, while remaining firmly focused on affordability."

In 2015, Raytheon presented Aerojet Rocketdyne with an Award for Excellence in Affordability during a supplier conference in Boston, Massachusetts.

About Aerojet Rocketdyne

Aerojet Rocketdyne is an innovative company delivering solutions that create value for its customers in the aerospace and defense markets. The company is a world-recognized aerospace and defense leader that provides propulsion and energetics to the space, missile defense and strategic systems, tactical systems and armaments areas, in support of domestic and international markets. Additional information about Aerojet Rocketdyne can be obtained by visiting our websites at www.Rocket.com and www.AerojetRocketdyne.com.

About Raytheon

Raytheon Company, with 2015 sales of $23 billion and 61,000 employees, is a technology and innovation leader specializing in defense, civil government and cybersecurity solutions. With a history of innovation spanning 94 years, Raytheon provides state-of-the-art electronics, mission systems integration, C5I™ products and services, sensing, effects, and mission support for customers in more than 80 countries. Raytheon is headquartered in Waltham, Mass.

For further information visit: www.raytheon.com and follow on Twitter @Raytheon.

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Epicos NewsRoom

Northrop Grumman, US Navy Complete Critical Design Review for Bomb Disposal Robot Program

The U.S. Navy and Northrop Grumman Corporation (NYSE:NOC) have successfully completed the Critical Design Review (CDR) for increment one of the Advanced Explosive Ordnance Disposal Robotic System (AEODRS) program.

AEODRS increment one is the dismounted operations system designed for EOD reconnaissance and threat assessment. The CDR provided an in-depth assessment, by a government team of experts, managers and Navy and Marine Corps users, that the final design for the AEODRS dismounted operations variant is programmatically and technically realistic and achievable. The successful review determined the detailed design satisfies cost, schedule and mission performance requirements and demonstrates the maturity for proceeding with system fabrication, assembly, integration and test.

"The successful CDR so soon after contract award clearly shows the commitment of the Navy and Northrop Grumman team to fill this key gap for EOD robotic operations," said Dan Verwiel, vice president and general manager, missile defense and protective systems division, Northrop Grumman Mission Systems. "We will continue our close collaboration with the Navy and user communities to ensure the delivery of a quality system that meets Navy requirements."

The AEODRS program will create a family of unmanned ground vehicle systems with a high degree of interoperability for rapid integration of new technologies. The "back-packable" increment one system weighs less than 35 pounds and comprises the handheld operator control unit, communications link, mobility capability module, master capability module, power capability module, manipulator capability module, end effector capability module, visual sensors capability module, autonomous behaviors capability module and other minor components.

Naval Sea Systems Command awarded AEODRS increment one on Aug. 31, 2015 to the Northrop Grumman team that includes Bokam Engineering, Carnegie Robotics, Harris Corporation, Hunter Defense Technologies, Neya Systems, QinetiQ North America, and Telefactor Robotics. Northrop Grumman's offering uses a modular, open systems approach that allows the robot to be quickly adapted for a variety of mission scenarios.

Northrop Grumman is a leading global security company providing innovative systems, products and solutions in autonomous systems, cyber, C4ISR, strike, and logistics and modernization to government and commercial customers worldwide. Please visit www.northropgrumman.com for more information.

Source: Epicos, Northrop Grumman

First of Eight Aermacchi M-346 Aircraft for the Polish Air Force Unveiled by Polish Deputy Defence Minister Bartosz Kownacki

The roll-out ceremony for the first of eight Polish Air Force M-346 aircraft took place today at Leonardo-Finmeccanica's facility in Venegono-Superiore (near Varese). The event was attended by the Polish Deputy Defense Minister, Bartosz Kownacki, the State Under Secretary to the Ministry of Defence, Gioacchino Alfano, and by the Managing Director of Leonardo-Finmeccanica Aircraft, Filippo Bagnato.

Mauro Moretti, Chief Executive Officer and General Manager of Leonardo-Finmeccanica said: "Leonardo-Finmeccanica is the only company in the world able to offer a complete technological solution that reduces pilot training times and prepares them to fly sophisticated, new-generation military aircraft. Today, many countries are turning their attention to integrated training systems that include both aircraft and ground-based simulation systems. These capabilities already have a proven track record at the Italian Air Force's training centre in Galatina (near Lecce) where 11 NATO and Allied Air Forces are trained; pilots obtain their licences via systems and aircraft built by Leonardo-Finmeccanica."

The first of 8 Aermacchi M-346 advanced trainers ordered by Poland in 2014 will now undergo a flight test programme to certify bespoke systems chosen by the Polish Air Force such as the brake parachute. It will then be delivered to the customer by the end of the year along with a second aircraft. Deliveries will be completed by November 2017.

The M-346s will enter into service with the 4th Training Wing Squadron at Poland's Deblin base. With the M-346, the base aims to become an international hub for the training of military pilots.

The M-346 has been ordered by the Air Forces of Italy (18), Singapore (12), Israel (30) and Poland (8) for a total of 68 orders.

For Further Information Click Here

Source: Epicos, Leonardo-Finmeccanica

Vector Aerospace receives ADS-B solution for AS332, AW139 and S-76 series helicopters

Vector Aerospace a global independent provider of aviation maintenance, repair and overhaul (MRO) services, is pleased to announce that it has received FAA supplemental type certificate approval for a new ADS-B solution which is applicable for installation on the Airbus Helicopters AS332, Leonardo-Finmeccanica AW139 and Sikorsky S-76 series of helicopters.

The new ADB-S In/Out retrofit upgrade (FAA STC # SR02473AK) features an intuitive, panel-mounted touchscreen transponder which replaces the aircraft's existing transponder. Should console or cockpit space be a challenge, Vector also offers a remotely mounted transceiver with a compact cockpit control head. With 1090 MHz and extended squitter, the L-3 Lynx Multilink Surveillance System (MSS) units provide ADS-B traffic and weather data, as well as airport database, NOTAMS and TFRS. Other capabilities include a MFD/PFD interface and optional Wi-Fi for personal electronic device interface.

"We are thrilled to add this new STC capability to our long list of FAA, TCCA and EASA certified STCs for Airbus Helicopters, Bell, Leonardo-Finmeccanica and Sikorsky aircraft," said Elvis Moniz, VP, Business Development - Airframe & Avionics Solutions. "Our experience with this type of retrofit solution dates back to the FAA Alaska Capstone program, which saw Vector work directly with the FAA to successfully perform 450 capstone installations – including ADS-B – on a variety of fixed-wing and rotary-wing aircraft during 2002 – 2005."

Vector Aerospace offers over 35 modern STCs for the Airbus Helicopters AS332 L/L1 and H125/AS350, Bell Helicopter 206, 212, 412, UH-1H, 427 and 430, Leonardo-Finmeccanica AW139, and Sikorsky S-76 and S-61 series helicopters. Vector is currently in the process of finalizing FAA STC approval for a retrofittable AS350/EC130 series crash resistant fuel system developed in cooperation with Robertson Fuel Systems. Please visit www.vectoraerospace/airframeservices/STCs for more details.

About Vector Aerospace

Vector Aerospace is a global provider of aviation maintenance, repair and overhaul (MRO) services. Through facilities in Canada, the United States, the United Kingdom, France, Australia, South Africa, Kenya and Singapore, Vector Aerospace provides services to commercial and military customers for gas turbine engines, components and helicopter airframes. Vector's customer-focused team of over 2,300 motivated employees act with integrity in setting the standard of customer service.

Vector Aerospace holds approvals from some of the world's leading turbine engine, airframe and avionics OEMs. Powerplants supported include a wide range of turboshafts, turboprops and turbofans from General Electric, Honeywell, Pratt & Whitney Canada, Rolls-Royce and Safran. Vector Aerospace also provides support for a wide range of airframes from Airbus Helicopters, Bell, Boeing and Sikorsky, its capabilities including major inspections and

dynamic component overhaul, and offers full-service avionics capability, including aircraft rewiring, mission equipment installation and glass cockpit upgrades.

Source: Epicos, Vector Aerospace

ManTech Awarded $32 Million Contract to Provide Missile Defense Agency with Counterintelligence Advisory and Assistance Services

The Missile Defense Agency (MDA) has awarded ManTech International Corporation a contract to provide technical, engineering, advisory, and management support and counterintelligence advisory and assistance services. This cost-plus-fixed-fee contract has two base years and three 1-year options with a value of approximately $32 million.

ManTech will provide the MDA with advisory and assistance services support to counter or neutralize intelligence-collection efforts directed against the MDA, its personnel, information, material, facilities, and activities worldwide.

"We are pleased to provide critical support to the MDA at a time when insider threats, as well as external threat actors, are becoming increasingly sophisticated," said L. William Varner, president of ManTech's Mission, Cyber & Intelligence Solutions (MCIS) Group. "Our cyber security capabilities, in addition to a longstanding history of protecting our nation's most critical programs, will provide a unique advantage to our customers against emerging threats."

About ManTech International Corporation

ManTech provides innovative technologies and solutions for mission-critical national security programs for the Intelligence Community; the Departments of Defense, State, Homeland Security, Health and Human Services, Veterans Affairs and Justice, including the Federal Bureau of Investigation (FBI); the space community; and other U.S. government customers. We support important national missions by providing services to approximately 50 federal government agencies under approximately 1,000 current contracts. ManTech's expertise includes cyber security; software and systems development; enterprise information technology; multi-discipline intelligence; program protection and mission assurance; systems engineering; test and evaluation (T&E); command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR); training; supply chain management and logistics; and management consulting. Additional information on ManTech can be found at www.mantech.com.

Source: Epicos, ManTech International Corporation

Russia challenges Airbus, Boeing with new jet

Russia unveiled its first MC-21 medium-haul passenger plane on Wednesday as it aims to revive its beleaguered civil aviation industry and challenge giants Airbus and Boeing.

The prototype of the MC-21 plane that can carry up to 211 passengers, was presented in the hangar of the Irkut aircraft manufacturer in the Siberian city of Irkutsk in a glitzy ceremony broadcast on Russian state television.

Prime Minister Dmitry Medvedev said the unveiling of MC-21 was a "long-awaited event for our civil aviation, for aeronautic construction and for our whole country".

"This confirms that we are able to create such aircraft that not only make our civil aviation progress but that will compete with other countries," Medvedev said, adding that the plane will become the "pride of Russian civil aviation".

The MC-21 passenger jets are expected to replace the ageing, Soviet-era Tupolev Tu-204 and make their first test flights by the end of the year or in early 2017.

The aircraft is scheduled to come into service in late 2018.

Russian has its hopes set on competing with the Airbus A320 and Boeing 737, which dominate the international civil aviation market.

The unveiling of the MC-21 comes five years after Russia's short-haul Sukhoi Superjet aircraft came into service and has since had serious technical issues.

Russia's aviation agency in 2013 grounded the Superjets -- which have had technical issues with landing gear and leak detection systems since they came into service in 2011 -- over a series of technical issues before being allowed to resume flights.

A Superjet performing at an Indonesian air show in 2012 slammed into a volcano, killing all 45 on board, in a crash Indonesia blamed on pilot error.

Source: 2016 AFP, Agence France-Presse (AFP)