

Click here or visit www.epicos.com

Volume 7 Number 41 - Wednesday, 14 October 2015

Part I: Croatia

- 1. Croatia: Defence Budget and Future Acquisitions
- 2. Croatia: Defence Industry
- 3. Epicos "Industrial Cooperation and Offset Projects"
- 4. Provision of engineering services for the optimization of the structural design of a new Unmanned Aerial Vehicle (UAV)
- 5. Testing, Modeling and Simulation Engineering Services provision for aerospace applications
- 6. News from our A&D Business Network

Part II: Epicos Newsroom

- 1. U.S. Army Acquires APKWS Laser-Guided Rockets for Immediate Deployment
- 2. AM General Awarded \$42 Million in Additional Funding for Domestic and International HMMWV Sales
- 3. Orbital ATK Awarded MJU-73/B Aircraft Countermeasures Contract
- 4. U.S. Army, Rockwell Collins sign Strategic Alliance Agreement
- 5. German military halts Eurofighter deliveries over flaw

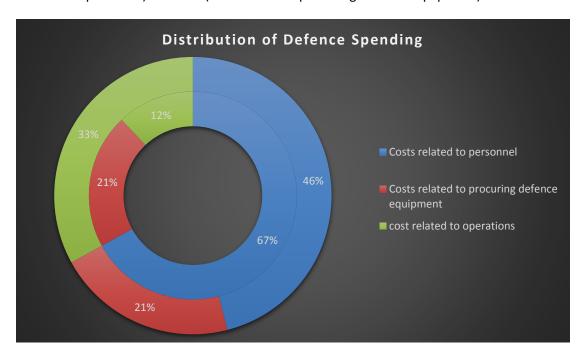
Croatia: Defence Budget and Future Acquisitions





Due to the economic crisis, Croatian defence budget has been reduced. Nevertheless, there is a concrete political commitment for a gradual increase of the defence budget with a long term goal to reach 2% of the country's GDP. In 2014 the budget reached 4.3 billion Croatian Kuna (approx. \$642 million US dollars) and is expected for the next ten years to remain at the same level.

Additionally, it is worth mentioning that the structure of defence spending will try to focus on achieving a more favourable ratio between personnel costs, operational costs and the costs of procuring major equipment allowing for a more balanced development of the Croatian Armed Forces. In 2014 this ratio was 67% (costs related to personnel), 21% (costs related to procuring defence equipment) and 12% (cost related to operations), while it is anticipated that for 2024 it will be shaped as following: 46% (costs related to personnel), 33% (costs related to operations) and 21% (cost related to procuring defence equipment).



In the following years, CAF has planned a series of armament modernization. Regarding infantry weapons for the period 2015-2024 the following projects/programs will be carried out:

➤ A total of 48 tanks will be retained in operational use in the Armed Forces and they will further modernized;

- ➤ End of equipping and phasing into operational use of the APC Patria with other weapon and military systems (anti-armor system, remote weapon station of 30 mm, communication equipment);
- ➤ Maintenance and modernization of the infantry combat vehicle BVP M-80, including modernization with new anti-armor systems;
- Equipping with new mobile anti-armor system.
- > Equipping with Man Portable Short Range Air Defense System (MANPADS).

Regarding the Navy, for the period 2015-2024 the following projects/programs will be carried out:

- Equipping with Coastal Patrol Boat;
- Equipping with Offshore Patrol Vessel (OPV);
- > Equipping with Anti-Ship Missile System.

Regarding the Air Force and Air Defense, for the period 2015-2024 the following projects/programs will be carried out:

- ➤ By the end of 2016 the expected decision will be made regarding retaining or abandoning Autonomous Protection of the Air Space;
- > Equipping with Air Defense system of mid-range.

Kyriazis Vasileios, Epicos Newsletter Head Editor

Croatia: Defence Industry





Croatian defence industry developed during the war of 1991-1995. At that time, the aim of the newly established industry was to manufacture weapons, ammunition and equipment in order to

support the Croatian armed forces. Currently, Croatian defence industry has developed. It is indicative that according to the Government Agency "Alan" the total worth of the Croatian export of weaponry and military equipment was 1.5 billion Kuna (approximately 220 million dollars) in 2014, increased by 20% compared to last year. The exported weapons and equipment, manufactured by some twenty Croatian companies, were exported to Argentina, Austria, Australia, Spain, Sweden, Switzerland, USA, UAE, Kuwait, Poland, Bulgaria, Italy, Saudi Arabia and Ukraine.

Croatian defence industry manufactures a wide variety of equipment among which are the following:

- Small arms
- Mortars and Mortar Bombs
- Multiple Rocket Launchers and Rockets
- Optical sights
- Electronics and electro optics equipment
- Personal Protection equipment

- Demining robots
- Fire fighting equipment
- APC Vehicles & Tanks
- Naval vessels and related equipment
- Tents and related equipment
- Training & Education equipment
- Geo-information Systems

There are several Croatian companies that excel in their domain. For example HS Produkt handguns were voted handguns of the year in the US for 2003, 2006, 2009 and 2013. HS Produkt exports 95% of its products to the US market.

DOK-ING, develops and manufactures remote-controlled vehicles designed to clear all types of mines. A number of governmental institutions and companies from several countries use DOK-ING demining vehicles. Some of them are the following:

- Anglo Platinum, South Africa
- Australian Army
- Austrian Army
- Colombian Navy Marine
- Croatian Army
- De Beers, Canada
- DIZ-EKO, Croatia
- DOK-ING Demining, Croatia
- ENIGMA, Croatia
- Greek MoD
- Iraqi National Mine Action Authority (NMAA)
- Irish Army
- Istraživač, Croatia
- Italian Army
- ITC Russia

- Lebanese Army
- Libyan Army
- Lithuanian Army
- Mechem Consultants, South Africa
- Miniveyor, Chile
- Mungos Razminiranje, Croatia
- Nicaraguan Army
- Norwegian People's Aid (NPA)
- REASeuro Worldwide, Holland, Croatia, South Africa
- RG Comercial S.A., Colombia
- RONCO Consulting Corporation, USA
- Russian MČS
- SEDITA S.A.R.L., Angola
- SAIC
- Sri Lanka Army

- Swedish Army
- Swiss Foundation for Mine Action (FSD)
- TITAN, Croatia
- United Nations World Food Program
- US Army
- YPTK 766, Russia
- ZeleniKvadrat, Croatia

Expert knowledge, experience and skilled labour of the Croatian industry guarantee the high quality applied in Croatian defence industry and the continuation of its success.

Kyriazis Vasileios, Epicos Newsletter Head Editor

Epicos "Industrial Cooperation and Offset Projects"

epicos.com 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

Provision of engineering services for the optimization of the structural design of a new **Unmanned Aerial Vehicle (UAV)**



A company providing Engineering Design Services, as well as Project Management (turn-key projects) for the aerospace and automotive market is proposing, in the frame of an offset program, cooperation with aerospace prime contractors for the provision of engineering services for a new Unmanned Aerial Vehicle's (UAV) structural design optimization.

For Further Information Contact our ICO Department

Mail at: g-menexis@epicos.com

Testing, Modeling and Simulation Engineering Services provision for aerospace applications



An institute with significant experience in providing Research and Development services, is proposing, in the frame of an offset project, collaboration with an Aerospace and Defense (A&D) prime contractor, to undertake engineering services tasks in the areas of testing, modeling and simulation, for specific aerospace programs and/or applications.

For Further Information Contact our ICO Department

Mail at: g-menexis@epicos.com

News from our A&D Business Network

DCNS Will Deliver Two Mistral-Class Projection and Command Ships (Bpcs) to the Egyptian Navy





On 10 October, DCNS signed a contract with the Ministry of Defence of the Arab Republic of Egypt for the supply of two MISTRAL-class projection and command ships (BPCs). After the delivery of a FREMM frigate and the construction of four GOWIND 2500 corvettes, currently on-going, this agreement strengthens the strategic relations with the

Egyptian Navy, initiated by the Group in 2014. By 2020, the Egyptian Navy will deploy a fleet of at least seven combat ships designed and built by DCNS.

Hervé Guillou, Chairman and CEO of DCNS announced that: "After the contracts for the supply of four GOWIND® corvettes and a FREMM frigate, we are proud that the Egyptian Navy continues to place its trust in us today by signing a contract for the delivery of two MISTRAL-class BPCs.

With 7 combat ships already ordered to date and a latest-generation frigate already in operation in the Egyptian Navy, DCNS is thus participating in the modernization of the defence infrastructure of this strategic French ally."

The two projection and command ships (BPCs) ordered by the Egyptian Navy from DCNS will join their home port in the summer of 2016, after the training of the future crews. This training will be given mainly over the 1st half of 2016 in Saint-Nazaire.

With regard to associated BPC support ships, DCNS will supply in particular four new-generation landing crafts (CTM NG), designed by the Group as an integrated system to an amphibious force organized around MISTRAL ships, and two fast landing crafts (EDAR), designed and built by CNIM.

A long-term partnership with the Egyptian Navy

Considering that the first of the four future GOWIND® corvettes for the Egyptian Navy is already being built, that the other three will be assembled in Egypt in Alexandria and that the FREMM Tahya Misr frigate was already delivered to the Egyptian Navy on 23 June 2015, the signature of this new contract further strengthens the strategic partnership developed between DCNS and the Egyptian Navy.

By 2020, the Group will have supplied at least seven ships to Egypt contributing to the modernization of its defence mechanisms.

This strong partnership between the Arab Republic of Egypt and the French Republic is reinforced by DCNS' commitment to accompany the Egyptian Navy in the long term, especially with the unfailing support of dedicated service teams for the maintenance of main warships.

The Group also states its presence in a wider project of industrial cooperation with the Egyptian party in the field of construction and maintenance of major program units.

Once again, due to this historical agreement, DCNS expects to build a partnership with the Egyptian Navy but also with Egyptian shipyards with which the Group intends to build a long-term cooperation. That is how DCNS has decided to invest in the Egyptian Industry to mutually develop the essential knowledge and means to support a leading Navy.

Press Contact

Emmanuel Gaudez

- + 33 (0)1 40 59 55 69
- + 33 (0)6 61 97 36 63

emmanuel.gaudez@dcnsgroup.com

Harris Corporation Receives \$66 Million in Orders to Supply Tactical Radios to Countries in Eastern Europe, the Middle East and Africa



Harris Corporation has received \$66 million in orders to provide wideband tactical radios and support services to nations in Eastern Europe, the Middle East and Africa. Harris received the orders during the first quarter of the

company's fiscal 2016. Harris will provide a wide range of Falcon multiband handheld, manpack, vehicular and airborne radios, as well as related equipment, training and maintenance services. The radios will provide users with increased situational awareness and support high-bandwidth voice, video and data communications.

"Harris radios systems enable our customers to deploy robust, secure tactical communication networks," said Chris Young, president, Harris Communication Systems. "This contract reflects the continued confidence in Harris technology to provide superior situational awareness on battlefields around the world."

About Harris Corporation

Harris provides advanced, technology-based solutions that solve government and commercial customers' mission-critical challenges. The company has approximately \$8 billion in annualized revenue and more than 22,000 employees — including 9,000 engineers and scientists — supporting customers in more than 125 countries. Learn more at harris.com.

Contact Information:

Tim White
Harris Communication Systems
tim.white@harris.com
260-451-7145

Jim Burke Harris Corporation jim.burke@harris.com 321-727-9131

Epicos NewsRoom



U.S. Army Acquires APKWS Laser-Guided Rockets for Immediate Deployment

The U.S. Army has procured an initial quantity of BAE Systems' Advanced Precision Kill Weapon System (APKWSTM) laser-guided rockets for use in ongoing operations in Iraq and Afghanistan. This deployment marks the first time U.S. Army personnel will be able to benefit from the laser-guided rocket, which has proven highly successful for the U.S. Navy and Marine Corps.

"With a long track record of success with the U.S. Navy and Marine Corps, we are confident that the U.S. Army will greatly benefit from this highly accurate, low-collateral-damage system," said David Harrold, director of precision guidance solutions at BAE Systems. "The cooperation between military branches has been tremendous. Providing these weapons to our soldiers by leveraging a current program of record should be used as an example for other services and allied countries looking for this precision strike capability."

The Army is acquiring its initial supply of APKWS rockets out of the current Navy inventory while also working with BAE Systems and the Navy to secure additional rockets to meet ongoing demands. It is expected that the Army will immediately deploy the APKWS rocket, which is a mid-body guidance kit that transforms a standard unguided munition into a precision laser-guided rocket, on its AH-64 Apache while additional platform priorities are determined.

While initially designed to the meet U.S. Army requirements, the APKWS system is a U.S. Navy program of record and has been deployed in combat by the Marines since 2012. The system's 'plug and play' design makes it highly tailorable and scalable for future needs and allows streamlined deployment on a variety of platforms using existing equipment and infrastructure. In fact, the APKWS laser-guided rocket has already been qualified or demonstrated on more than a dozen rotary and fixed-wing platforms.

Currently in its third year of full rate production and with 5,000 units built to date, the APKWS rocket is the only U.S. Department of Defense fully qualified, guided 2.75-inch rocket that uses semi-active laser guidance technology. More information on the APKWS rocket, which is currently available to international customers through the U.S. Foreign Military Sales program, can be found at www.baesystems.com/apkws.

Source: BAE Systems, Epicos

AM General Awarded \$42 Million in Additional Funding for Domestic and International HMMWV Sales

AM General has been awarded new HMMWV contracts and modifications to existing domestic and international contracts for vehicles and parts for Iraq, Afghanistan, Tunisia, Israel, Turkey, Kenya, Lebanon and the United States totaling \$42,165,170. The recently announced contracts noted above cover items to include new production vehicles, international ambulance vehicles, automotive kits, spare parts and training.

There are approximately 230,000 HMMWVs currently in vehicle fleets around the world. Of those 230,000, approximately 160,000 HMMWV's are currently in service as part of U.S. Army, Marine Corps, Reserves and National Guard fleets with the remaining 70,000 vehicles belonging to international fleets.

"AM General continues to grow our backlog of new production HMMWVs while developing comprehensive modernization and maintenance programs for domestic and international customers," said Chris Vanslager, Executive Vice President, Defense Programs.

"The HMMWV continues to be the vehicle of choice around the globe for more than 60 partner nations, evolving over the years with significantly increased mobility, protection, reliability and durability in order to meet changing military missions and threats ...all at an affordable price."

AM General was also recently awarded \$428,295,155 for new M997A3 HMMWV Ambulance Chassis Vehicles to support domestic disaster relief efforts by the Army National Guard, Army Reserve, and Army.

These contract awards demonstrate the ongoing critical operational need for the HMMWV and that AM General remains the unmatched leader in modernizing and maintaining the light tactical fleet for the United States and around the world.

About AM General

AM General designs, engineers, manufactures, supplies and supports specialized vehicles for military and commercial customers worldwide. Through its military business, the company is widely recognized as the world leader in design, engineer, manufacture and support of Light Tactical Vehicles, having produced and sustained more than 300,000 vehicles in over 60 countries. Its growing Commercial business includes its wholly owned subsidiary, Mobility Ventures, designer and manufacturer of the acclaimed MV-1, the only American made vehicle specifically engineered from the ground up in support of wheelchair users and people with disabilities. AM General is also proud to have been selected by Mercedes-Benz to be its only contract manufacturer in the United States, producing the R-Class vehicle in Mishawaka, Indiana. AM General has more than five decades of experience meeting the changing needs of the defense and automotive industries, supported by its employees at major facilities in

Indiana, Michigan, and Ohio, and a strong supplier base that stretches across 43 states. Please see more information about AM General at www.amgeneral.com.

Media Contact: Jeff Adams

Global Communications & Marketing / AM General

Phone: 703-347-2276

E-mail: jeff.adams@amgeneral.com

Source: BAE Systems, Epicos

Orbital ATK Awarded MJU-73/B Aircraft Countermeasures Contract

Orbital ATK, Inc. (NYSE: OA), a global leader in aerospace and defense technologies, announced today the United States Air Force has awarded the company an initial production contract for the MJU-73/B, a new spectrally matched aircraft countermeasure.

"Leveraging Orbital ATK's expertise in solid rocket propulsion has enabled us to develop highly reliable and advanced countermeasures such as the MJU-73/B," said Charlie Precourt, Vice President and General Manager of Orbital ATK's Propulsion Systems Division. "These sophisticated pyrotechnic devices protect the warfighter by mimicking the 'heat' signature of an aircraft to lure infrared missiles away."

Orbital ATK's latest innovation in aircraft survivability, or the increase in an aircraft's odds of not being hit by a missile, will be an integral component of a suite of protective measures used by USAF Special Operations aircraft. The MJU-73/B was specifically chosen for its significant technological enhancements and outstanding performance against an array of infrared missile threats.

Internally funded and developed, the MJU-73/B also serves as the technology baseline for several other countermeasure efforts underway at Orbital ATK. These efforts are currently undergoing test and evaluation.

"Today the MJU-73/B is the best infrared countermeasure available, but every day we try to push beyond what is possible," said Orbital ATK Program Manager Jared Olson. "Our research and manufacturing capabilities will lead to even greater evolutions and effectiveness to protect our nation's warfighters and their aircraft."

About Orbital ATK

Orbital ATK is a global leader in aerospace and defense technologies. The company designs, builds and delivers space, defense and aviation systems for customers around the world, both as a prime contractor and merchant supplier. Its main products include launch vehicles and related propulsion systems; missile products, subsystems and defense electronics; precision

weapons, armament systems and ammunition; satellites and associated space components and services; and advanced aerospace structures. Headquartered in Dulles, Virginia, Orbital ATK employs more than 12,000 people in 18 states across the U.S. and in several international locations. For more information, visit www.orbitalatk.com.

Contact
Hillary Searle
(801) 657-9627
hillary.searle@orbitalatk.com

Source: Orbital ATK, Epicos

U.S. Army, Rockwell Collins sign Strategic Alliance Agreement

The U.S. Army Material Command and Rockwell Collins have signed a Strategic Alliance Agreement aimed at implementing strategies and initiatives to optimize efforts needed to supply advanced products and services to warfighters in the most efficient way.

"This agreement represents a commitment by the Army and Rockwell Collins to work together in sharing our products services roadmaps," said Thierry Tosi, vice president and general manager of Service Solutions for Rockwell Collins. "The shared goal of this agreement is to achieve quicker contracting, by leveraging and expanding existing contract vehicles and increasing the speed of business. This will result in cost savings, increased communications and sharing of technologies, and opening the door to have direct dialogue with the Army."

For supply and repair activities where Rockwell Collins is the only approved source, the parties agree to work on "smoothing" of commerciality determinations, develop reportable metrics, improved software update distribution and sharing, and optimized lead times.

About Rockwell Collins

Rockwell Collins is a pioneer in the development and deployment of innovative communication and aviation electronic solutions for both commercial and government applications. Our expertise in flight deck avionics, cabin electronics, mission communications, simulation and training, and information management is delivered by a global workforce, and a service and support network that crosses more than 150 countries. To find out more, please visit www.rockwellcollins.com.

Source: Rockwell Collins, Epicos

Special Focus: Croatia

Epicos 2015

German military halts Eurofighter deliveries over flaw

Germany's defence ministry has identified a new technical problem with Eurofighter combat

aircraft and frozen deliveries until further notice, a spokesman said Tuesday.

The problem was similar to a defect identified last year and also related to the deburring of

holes drilled into the fuselage, but at "another location," he told AFP.

The manufacturer has stressed that the flaw does not affect the aircraft's safety, ease of use

or lifespan, national news agency DPA reported.

The Eurofighter consortium could not immediately be reached for comment by AFP.

Germany's Bundeswehr had previously halted but then resumed deliveries of the jet over a

similar problem. It now has 110 Eurofighters, with 33 more to be delivered.

The new problem would not force a further reduction in flying hours, which were already

reduced last year from 3,000 to 1,500 hours per plane, the ministry spokesman said.

The Eurofighter Typhoon is Europe's largest collaborative defence programme -- a partnership

between Italy's Finmeccanica, Britain's BAE Systems and European aerospace group Airbus.

It competes with Boeing's Super Hornet F18 and France's Dassault Rafale.

Since it entered into service in 2003, a total of 599 Eurofighters have been sold and 444

delivered to six nations -- Germany, Britain, Italy, Spain, Austria and Saudi Arabia.

Britain's Defence Ministry was aware of the issue but said its Typhoon aircraft were "flying as

normal and deliveries are continuing".

Source: 2015 AFP, Agence France-Presse (AFP)