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Qatar: Defence Budget Past & Future Procurements



Historically, the military has not been a priority for Qatar. Nevertheless, throughout the last decade the country experienced an unprecedented increase in investment in the defence sector, which initiated a procurement cycle which included the purchase of ballistic anti-missile systems, Main Battle Tanks (MBTs) fighting aircraft, military electronics and cyber systems, helicopters, light tactical armoured vehicles with weapons systems, GBU-35 bunker-buster ammunition, guided air-to-air and air-to-ground missiles, Apache attack helicopters, Patriot as well as Javelin air-defence systems. It is expected that Qatar will continue to invest heavily on defence. The main reasons are the country's need to build up its defence against Iranian ballistic missiles and long-range rockets, as well as its given priority to acquire the appropriate operational capabilities that will enable the deployment of more troops in regional security efforts. Finally, it is worth noticing that Qatar will host the World Cup 2022 football championship, something that will increase the country's need in security systems and platforms.



Finding information about Qatar's defence budget is rather difficult as the country does not officially publish it. Nevertheless, several organisations and/or companies are trying to make some estimations about the country's defence spending. In a report provided by PricewaterhouseCoopers (PwC), the Qatari military expenditure stood at 3.5 billion US dollars in 2014, recording a growth rate of 50.9% for the period 2010-14. This budget is expected to grow at an estimated CAGR of 2.4% over the period 2015-2020.

Due to the lack of an indigenous industrial base, Qatar is almost certain that will seek to procure advanced defence equipment from foreign OEMs as it did in the past. In 2008 Qatar signed a deal for the procurement of 4 C-130J Hercules-2 Transport aircrafts from USA. The deal cost 394 million dollars. In 2007 Oman, among others, procured three Khareef Frigates from United Kingdom for a total amount of 700 million dollars. In 2009 Kuwait bought 3 KC-130J Hercules for 245 million dollars but contracts for support rose the total amount up to 1.1 billion dollars.

More on that, in 2014 Qatar procured more than \$10 billion in advanced military equipment (Apache helicopters, Patriot missile defense, and Javelin missiles) from the USA. Qatar also purchased eight C-17s and four C-130Js via direct commercial sales. Additionally, in December 2015, the contract for the purchase of 24 Rafale aircraft came into force. Thales will equip the Rafale combat aircraft with multi-sensor capability systems, such as the RBE2 AESA, the Spectra electronic warfare suite, optronics, communication, navigation & identification system, avionics and power generation & conversion systems. In 2014, Thales signed a major agreement to supply Qatar Armed Forces with a long-range satellite communications system, complementing the pre-existing military radio communications system.

Regarding the naval sector, Qatar has signed a contract with the Italian shipbuilder Fincantieri amounting to approximately 4 billion euros, for the supply of seven surface vessels, of which four corvettes of over 100 meters in length, one amphibious vessel (LPD - Landing Platform Dock), and two patrol vessels (OPV - Offshore Patrol Vessel) as well as

support services in Qatar for further 15 years after the delivery of the vessels. All the units will be entirely built in Fincantieri Italian shipyards starting from 2018.

Additionally, in April 2016, Qatari shipbuilder Nakilat Damen Shipyards Qatar has signed a Memorandum of Understanding (MoU) worth 42 million Euros with the Qatar Emiri Naval Forces, to build a Diving Support Vessel (DSV).

Kyriazis Vasileios
Epicos Newsletter Head Editor

Qatar: Defence Industry, International Cooperative Schemes and Technological Capabilities



Currently, indigenous defence industrial capabilities in Qatar are rather limited. Nevertheless, national defence industrial structures are slowly emerging, as the country has promoted the creation of cooperative schemes with foreign partners and or countries, in order to further enhance the technological level of the local defence industry. Qatar has signed government-to-government partnerships with other emerging and/or established defence producers, in order to further enhance the technological level of the local defence industry. Under this context, Russian Defence Minister Sergey Shoigu and Qatar's State Minister for Defence Khalid bin Mohammad Al Attiyah signed a military cooperation agreement on Tuesday.

Qatar has also joined forces with Turkey for upgrading its national industrial base, as the country's Armed Forces Industry Committee took a 49% stake in the Turkish vehicle producer BMC. More on that, Qatari government signed an MoU with the Polish firm WKK to manufacture and produce drone parts for the national armed forces.

The core competencies of Qatar's shipbuilding industry are concentrated under the company Nakilat Damen Shipyards Qatar (NDSQ), which was established in 2010 and is part of the Erhama Bin Jaber Al Jalahma Shipyard facility. NDSQ is based in the port of Ras Laffan in the North Eastern corner of Qatar and is a joint venture between Qatar Gas Transport Company Ltd. (Nakilat) and Damen Shipyards Qatar Holding BV, a wholly owned subsidiary of the Damen Shipyards Group. NDSQ is certified under the current standards: ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007. In April 2016, NDSQ has signed a Memorandum of Understanding (MoU) worth 42 million Euros with the Qatar Emiri Naval Forces, to build a Diving Support Vessel (DSV).

Currently, the Qatari defence and security industry has the capacity to provide solutions for the information and communication domains. More specifically, the company ITQAN is a well-known provider for CCTV, Radars and Biometrics Solutions. More on that direction, ALZOMAR partners with the most advanced technology suppliers, in order to deliver tailor-made integrated solutions for surveillance, safe communication, access controls, border control and X-Ray systems, which can be used in different sectors.

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](#)

Agricultural aircraft to fire extinguishing aircraft modification

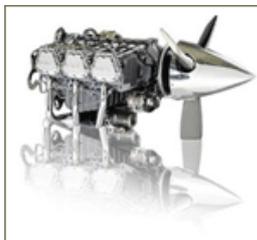


A company operating in the area of agricultural aviation, is proposing the modification of its agricultural aircraft to meet the requirements and operational needs of medium-extent fire extinguishing operations.

[For Further Information Contact our ICO Department](#)

Mail at: a-kintis@epicos.com

Design and development of advanced light weight engine for Unmanned Aerial Vehicle (UAV) systems, based on alcohol fuel technology



A company with extensive experience in providing state of the art technological services and products for the aeronautical sector, is proposing collaboration with an Aerospace and Defense (A&D) company for the design and development of an advanced light weight engine, based on alcohol fuel technology. This new advanced engine will be used on Medium Altitude Long Endurance (MALE)

Unmanned Aerial Vehicles (UAV) systems.

[For Further Information Contact our ICO Department](#)

Mail at: a-kintis@epicos.com

News from our A&D Business Network**BAE Systems to Modernize Mk 45 Naval Guns under \$50 Million Award**

The U.S. Navy has awarded BAE Systems a \$50 million contract option to upgrade four additional Mk 45 Naval Guns on guided missile destroyers (DDG 51s), converting the guns to a fully-digital Mod 4 configuration. The option, exercised under an initial 2015 award, brings the full value of the contract to \$130 million for a total of 10 modernized gun systems.

Key updates to the Mod 4 configuration include a mechanically strengthened gun mount and a completely digitized control system. The stronger mount allows the gun to achieve 50 percent higher firing energy, and the new digital control system provides significantly more computing power while utilizing a user interface similar to that of a smartphone. These major enhancements enable the seamless integration of targeting and fire control data, such as GPS, positioning the Mk 45 to fire precision guided munitions at unprecedented ranges.

“The proliferation of high-volume, low-cost threats is driving the need for multi-mission, cost-effective precision fire from naval guns like the Mk 45,” said Joseph Senftle, vice president and general manager of Weapon Systems at BAE Systems. “As a leader in large-caliber naval guns and precision guided munitions, our team is committed to developing reliable and affordable technology that adapts faster and reaches farther than ever before.”

The updated Mk 45 guns are expected to remain in service for decades to come, making the cost-effective Mod 4 conversion and the continued development of advanced munitions — such as the Hyper Velocity Projectile and Standard Guided Projectile — essential components of future surface warfare.

Work on the Mk 45 Mod 4 conversions will be performed at the BAE Systems’ facility in Louisville, Kentucky, with support from its facility in Minneapolis, Minnesota. Delivery of the first upgraded gun will take place in late 2017 with the last delivery scheduled for 2020.

BAE Systems has designed, produced, and supported Mk 45 Mods 0-4 for more than 40 years. The Mk 45 is the lightest, most compact 5-inch fully-automatic naval gun in the world and also the most widely deployed, with more than 260 deliveries to the U.S. Navy and 10 international fleets. The company’s Louisville facility houses its Naval Guns Center of Excellence for manufacturing, providing component and spares fabrication, as well as final system assembly and testing of new and modernized gun systems.

For Further Information [Click Here](#)

Lockheed Martin to Deliver New Simulation-Based F-16 Training Environment to Royal Jordanian Air Force



Lockheed Martin will deliver a new simulation-based F-16 training environment for the Royal Jordanian Air Force (RJAF) under a contract valued at nearly \$40 million. The family of training

systems includes a comprehensive suite of full mission trainers and combat tactics trainers that can be networked together, aligning technologies to deliver advanced training while meeting affordability goals.

“Our solution builds on our proven fifth-generation training system with hardware and software tailored for the F-16,” said Sandy Samuel, vice president of Lockheed Martin’s Training and Simulation Solutions. “By fielding a family of training systems, we can help the Royal Jordanian Air Force reserve higher fidelity devices for more advanced training scenarios and optimize their pilot throughput in training.”

Under this contract, Lockheed Martin will deliver the suite of simulators in 2018, also providing contractor logistics support services. The technology can be networked together to enable multiple pilots to train together on advanced scenarios.

RJAF’s F-16 training environment includes the Lockheed Martin-developed Scalable Advanced Graphics Engine (SAGE) image generator. SAGE blends the company’s expertise in military simulation with advanced gaming technology to provide richly detailed images and motion for increased realism in flight simulation.

Since 2001, Lockheed Martin has delivered F-16 training solutions and services to airmen from 15 allied nations. The simulation-based training environment replicates all systems, sensors and weapons for a total training solution for F-16 pilots.

For additional information, visit: www.lockheedmartin.com/training.

About Lockheed Martin

Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 98,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.



MTU Maintenance signs exclusive contract with Sky Regional Airlines

MTU Maintenance, the world's largest independent provider for aero engine solutions, has signed an exclusive 10-year agreement with Canadian carrier Sky Regional Airlines for the maintenance, repair and overhaul (MRO) of the airline's CF34-8E engines for its Embraer E175 fleet.

The agreement between MTU Maintenance and Sky Regional Airlines covers all shop visits, on-site repairs and lease support as part of its Total Engine Care (TEC®) program. The activities will be coordinated or carried out by MTU Maintenance Berlin-Brandenburg, the MTU Maintenance group's specialists for the CF34 family. The contract is valued at approximately USD\$250M over a 10-year time frame.

"With over 13 years experience on this engine and our comprehensive TEC® program, we are looking forward to partnering with Sky Regional Airlines and proud to be giving them all-around service," said Michael Schreyögg, Chief Program Officer and Member of the Executive Board at MTU Aero Engines.

On-site services include work on high-pressure turbine modules and can also be carried out at MTU Maintenance's locations in Dallas, Texas (US), and Vancouver, British Columbia (Canada). Since 2003, MTU Maintenance has carried out nearly 900 shop visits for this engine family (CF34-1/-3, -8C/E, -10E). In 2015 the company was the second-largest provider of CF34 services worldwide.

Sky Regional Airlines is one of Canada's leading airlines and operates domestic and transborder flights on behalf of Air Canada under the Air Canada Express banner. It operates a mixed fleet of Embraer E175 and Bombardier Q400 aircraft.

About MTU Aero Engines

MTU Aero Engines AG is Germany's leading engine manufacturer. The company is a technological leader in low-pressure turbines, high-pressure compressors, turbine center frames as well as manufacturing processes and repair techniques. In the commercial OEM business, the company plays a key role in the development, manufacturing and marketing of high-tech components together with international partners. In the commercial maintenance sector the company ranks among the top five service providers for commercial aircraft engines and industrial gas turbines. The activities are combined under the umbrella of MTU Maintenance. In the military field, MTU Aero Engines is Germany's industrial lead company for practically all engines operated by the country's military. MTU operates a network of locations around the globe; Munich is home to its corporate headquarters. In the 2015 fiscal year, the company had a workforce of some 9,000 employees and posted consolidated sales of approximately 4.4 billion euros.

For Further Information Click Here

Source: Epicos, MTU Aero Engines

Diehl Aerospace establishes Singaporean subsidiary in cooperation with its partner Thales

Diehl Aerospace, a unit of the first tier supplier Diehl Aerosystems, is establishing a fully owned subsidiary in Singapore, Diehl Aerospace Pte. Ltd., in a bid to support growing demand in the aerospace industry in the Asia Pacific (APAC) region. The Singaporean company will be set up in joint cooperation of both shareholders of its parent organizations, Diehl and Thales.

Diehl Aerosystems is a corporate division of Diehl Stiftung & Co. KG and covers all aerospace activities of the Diehl Group. With its business units Diehl Aerospace (a joint venture with Thales), Diehl Aircabin, Diehl Comfort Modules, Diehl Service Modules and AOA, Diehl Aerosystems is a leading systems supplier for avionics and cabin solutions. Diehl Aerosystems currently employs more than 4,800 staff. Amongst its customers are leading aircraft manufacturers (OEMs), such as Airbus (both fixed-wing aircraft and helicopters), Boeing, Bombardier and Embraer, as well as airlines and other operators of commercial and business aircraft.

This new company in Singapore will also be the base for a revamped Customer Support Center (CSC) for all Diehl Aerosystems requirements in the APAC region. The new CSC will further transfer Diehl expertise from Germany to Singapore, fuelling growth in APAC. By being closer to customers in the region, Diehl will be able to offer the best possible assistance in terms of technical support, spares, repairs, and related services.

Prior to this, Diehl Aerosystems had its existing customer support facility for the region sub-contracted to Satair Group. While this had always been a smooth running partnership, Diehl has chosen to secure a front-end presence in its own right by creating the new entity. The CSC, where Diehl's long-standing partner Thales will also play a major operational role, will be up and running by the end of the year. Thales and Diehl are generally looking back at a close and successful partnership that is spanning several decades already, with the new CSC in Singapore adding a new chapter in the future.

For Further Information [Click Here](#)

Source: Epicos, Diehl Aerosystems

Serco Awarded Contract to Continue Delivering Base Support Services to the Canadian Department of National Defence

Serco has been awarded a contract by Public Services and Procurement Canada to continue providing site support services at the 5 Wing Canadian Forces Base in Goose Bay, Canada. The contract has two base years valued in total at approximately Can\$115m, and two additional one-year option periods.

Under the contract, Serco will continue to perform the majority of the non-military operation and maintenance functions at this base, which is located in Central Labrador. The services include: Aviation Services, including Air Traffic Control and Nav aids; Logistics Services, including Warehouse Operations, Snow and Ice Removal, Environmental Protection, Hazardous Waste Management and Material Control; and Facilities Management Services, including Engineering, Telecomm/IT, Electrical and Airfield Distribution Systems, Water Treatment, Central Heating Plant Operations, Grounds Maintenance, Security, Food Services and Janitorial Services.

“Serco is proud of the services we have been delivering at the 5 Wing Canadian Forces base for the past 18 years, said Dan Allen, Chairman and CEO of Serco Inc. “Our work supports 5 Wing’s priorities to assist NORAD operations and to be a Joint/Combined Forces Training Centre of Excellence for the Department of National Defence and other allied forces at the base.”

Serco has been providing services to the Canadian Department of National Defense at 5 Wing Goose Bay since 1998 and is one of the largest private sector employers in the Upper Lake Melville area. The base is comprised of two runways, over 200 buildings totaling almost 275,000 sq. meters, and extensive civil infrastructure. The base has a training area that covers 130,000 sq. km. Serco is very active in the community and has received numerous awards for its performance.

For Further Information [Click Here](#)

Source: Epicos, Serco

AAR Named Exclusive Supply Chain Partner for Exechon Enterprises to Support XMini Worldwide

AAR, an industry-leading provider of aviation services and integrated supply chain solutions, has been awarded a 10-year global exclusive supply chain agreement with Exechon Enterprises, LLC, an Abu Dhabi-based joint venture between Lockheed Martin, Tecgrant AB, and Injaz National, to supply all material for the patented Parallel Kinematic Machine known as the XMini. Under the agreement, AAR is responsible for all strategic production sourcing, procurement, kitting, and aftermarket component distribution in support of global XMini sales, for which initial orders have already been placed by aviation OEMs.

“We are truly excited about this opportunity to support Exechon as it produces a machine that fills an unmet need in manufacturing today,” said Jay Pereira, Vice President and General Manager of Government Programs. “This long-term partnership is a result of AAR’s capability and agility to deliver custom solutions outside of traditional aftermarket distribution channels anywhere in the world.”

“We chose AAR for their trade-compliance expertise and ability to develop and manage our supply chain and inventory investment relative to production volume,” said Karl Erik Neumann, CEO of Exechon Enterprises. “This partnership lets us focus on manufacturing and production of our game-changing product, without worrying about the supply chain.”

About Exechon

Exechon is a joint venture between Tecgrant AB, a Swedish company; Injaz National General Transport an Abu Dhabi based company; and Lockheed Martin, mainly specializing in manufacturing of robotic machines. The Abu Dhabi-based joint venture, Exechon Enterprises, L.L.C., is an engineering and manufacturing center of excellence for Parallel Kinematics Machining (PKM) in the aerospace, defense and automotive sectors, as well as other industrial sectors, and will export locally manufactured machines. More information can be found at www.exechon.com.

About AAR

AAR is a global aftermarket solutions company that employs more than 4,500 people in over 20 countries. Based in Wood Dale, Illinois, AAR supports commercial aviation and government customers through two operating segments: Aviation Services and Expeditionary Services. AAR’s Aviation Services include inventory management; parts supply; OEM parts distribution; aircraft maintenance, repair and overhaul; and component repair. AAR’s Expeditionary Services include airlift operations; mobility systems; and command and control centers in support of military and humanitarian missions. More information can be found at www.aarcorp.com.

Source: Epicos, AAR

Air Tanzania Receives Two Bombardier Q400 Aircraft

Bombardier Commercial Aircraft announced today the delivery of the Tanzanian Government Flight Agency's two Q400 turboprops. The aircraft, which were newly delivered with a 76-seat, dual-lavatory configuration, will be operated by Air Tanzania, the national airline of the United Republic of Tanzania. The delivery of the two aircraft increases the fleet of Q Series turboprops in Africa to approximately 125 aircraft including 40 Q400 aircraft.

"As we look to expand operations and increase our route network across Tanzania and the African continent, the technologically advanced Q400 aircraft is a key component in our growth strategy," said Dr. Leonard Chamuriho, Permanent Secretary, Ministry of Transport, Works and Communication, Tanzania. "Its ability to operate at challenging airfields, combined with its fuel efficiency, excellent reliability and comfortable passenger amenities, make it a valuable addition to our fleet."

"The Q400 aircraft is showcased very well in Africa where it has proven itself to be extremely efficient and continues to maintain strong market share in its class," said Jean-Paul Boutibou, Vice President, Sales - Middle East and Africa, Bombardier Commercial Aircraft. "We are delighted to welcome Air Tanzania to the Q400 aircraft family and proud to support the airline as it joins our vast network of Q Series operators in Africa."

Bombardier's commercial aircraft presence in Africa includes a Regional Support Office (RSO) and spare parts depot, co-located in Johannesburg, South Africa as well as Authorized Service Facilities in South Africa and Ethiopia. Operating from the company's regional office located in the United Arab Emirates, Bombardier Commercial Aircraft's sales and marketing team is well positioned to provide industry-leading solutions to its current and prospective customers.

About the Q400 Aircraft

Designed as a modern, 21st-century turboprop, the Q400 aircraft is the most recent development in the Q Series family of aircraft. It provides unmatched performance, operational flexibility and passenger comfort. In addition to the standard single-class configuration, Q400 aircraft are available with an optional dual-class interior for enhanced passenger comfort; in an optional extra-capacity configuration offering up to 90 seats for higher-density markets; and in a cargo-passenger combi configuration.

Thanks to its combination of turboprop attributes, jet-like features, industry-leading passenger experience and environmental footprint, the Q400 aircraft is exceptionally versatile and can be adapted to a variety of business models. By offering a 30 per cent reduction in fuel burn over the jets it often replaces, the Q400 aircraft radically reduces carbon emissions and increases cost efficiency. Its high-speed cruise -- 160 km/h faster than conventional turboprops -- places the aircraft's flight time within minutes of jet schedules, at the same seat cost as larger single-aisle jets. Its large propellers operate at a lower RPM, generating more power with less noise and making it a friendly option for city centres.

The Q400 aircraft family includes over 60 owners and operators in almost 40 countries. The worldwide fleet has logged more than 7 million flight hours and has transported more than 429 million passengers. Long recognized as a high-value asset by operators, the Q400 aircraft is now also attracting growing interest from the leasing community.

Bombardier has recorded firm orders for a total of 565 Q400 aircraft.

For Further Information [Click Here](#)

Source: Epicos, Bombardier